



**REVIEW OF INTERNATIONAL CONVENTIONS
HAVING IMPLICATIONS FOR THE STORAGE
OF CO₂ IN THE OCEAN AND
BENEATH THE SEABED**

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To reduce the risk of climate change, CO₂ could be captured at large point sources, such as power stations, and stored for long periods of time either in the ocean hydrosphere or underground in depleted oil and gas reservoirs, saline aquifers or unminable coal seams, many of which may be below the seabed. There are several global and regional international conventions and agreements that may have implications for storage of CO₂ in the ocean and beneath the seabed. A review of these conventions and agreements has been carried out by Dr J. Michael Bewers, who is an independent consultant with many years experience of international maritime conventions.

Descriptions and analyses of each of the conventions and agreements are included in the study report and an overall summary of the most significant ones is included, starting on page 80 of the report. The main international conventions that would significantly restrict CO₂ storage are the London Convention, which is global, and OSPAR, which covers the North East Atlantic. The scope of the study did not include national regulations.

The study did not involve obtaining legal opinion or making policy judgements. Nevertheless, any uncertainties over the interpretation of the conventions in relation to CO₂ storage were identified. Recommendations that could be followed by members of IEA GHG or others that are interested in implementation of CO₂ storage in the ocean and/or beneath the seabed are included on page 85 of the report.

Following IEA GHG's normal procedure, a draft version of the report was sent to expert reviewers worldwide, including some members of IEA GHG's Executive Committee who had expressed interest in reviewing the report. Changes were made to the final version of the report to take into account the reviewers' comments.

Details of each of the conventions and agreements are included in a series of appendices, listed on page 88 of the report. Most of the appendices are available on this CD but a few of them are only available as hardcopies. Anyone who wishes to see these appendices should contact the IEA Greenhouse Gas R&D Programme office.

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**Prepared for the IEA Greenhouse Gas Research and
Development Programme**

by

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March 2003

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REVIEW OF INTERNATIONAL CONVENTIONS HAVING IMPLICATIONS FOR THE STORAGE OF CARBON DIOXIDE IN THE OCEAN AND BENEATH THE SEABED

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1. INTRODUCTION

This review of international conventions and agreements to determine their provisions bearing on the issue of marine emplacement or storage of carbon dioxide derived from energy production was carried out at the request and commission of the International Energy Agency (IEA) Greenhouse Gas Research and Development Programme.

2. OBJECTIVES AND PURPOSE OF THE REVIEW

To reduce the risk of anthropogenically-induced climate change in the medium term, CO₂ derived from fossil fuel combustion could be captured from power station stack gases and stored for long periods of time in the ocean (in deep water or sub-sea geological reservoirs such as saline aquifers, depleted oil and gas fields and unminable coal seams).

There are several international conventions that potentially affect the legal acceptability of the implementation of this concept. Some conventions, such as the London Convention 1972 and the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) are being interpreted by some as already encompassing CO₂ storage; others, such as the International Law of the Sea, might be revised in the future to cover ocean and seabed storage of CO₂. Such conventions comprise global and regional agreements primarily addressing the protection of the marine environment.

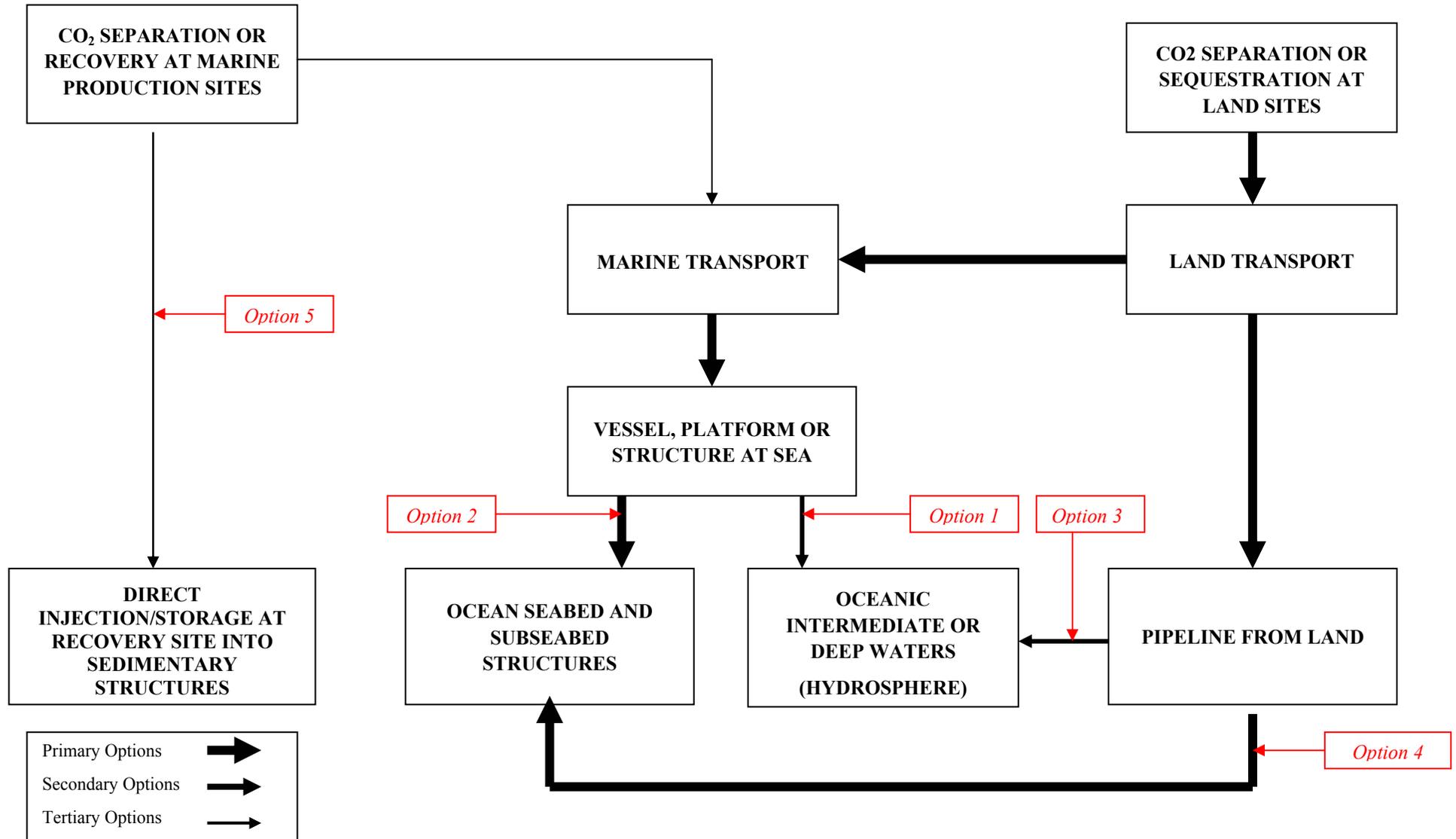
The options for ocean and seabed storage of CO₂ derived from fossil fuel combustion comprise injection into the hydrosphere or seabed from either ships or offshore platforms or via a pipeline from land. There are thus four main options (see Figure 1) of interest in this review:

1. Injection into the hydrosphere from ships or offshore platforms;
2. Injection into the seabed (*i.e.*, into subseabed strata) from ships or offshore platforms;
3. Injection into the hydrosphere via pipeline from land; and
4. Injection into the seabed via pipeline from land.

One other option for seabed storage of CO₂ is also referred to in this review – that is the stripping of CO₂ from natural gas streams at an offshore hydrocarbon exploitation platform and its injection from the same platform into subseabed strata. This option is also included in the schematic of Figure 1 as Option 5. While this option does not offer the greatest benefits from the perspective of reducing CO₂ releases into the atmosphere on a global scale, it is of interest to the energy sector and has therefore been referred to in several instances in this review.

The topic of Enhanced Oil Recovery (EOR) from subseabed reservoirs has not specifically been addressed in this review although brief reference to its legitimacy is made in the conclusions of this review (see Section 8). This is because such a practice, while it involves injection of CO₂ into an existing geological reservoir to enhance the recovery of hydrocarbons from that reservoir, is essentially an operational activity associated with the exploitation of hydrocarbon reserves from beneath the seabed. In most cases, as will be evident from the specific provisions of international conventions referred to in Sections 5 and 7 of this review,

Figure 1
Options for Ocean and Seabed storage of CO₂



such operational activities are specifically excluded from the jurisdiction of conventions concerned with the protection of the marine environment.

The purpose of this review is to identify, at an early stage in the development of technical procedures for CO₂ sequestration and storage, constraints on the options for ocean and seabed storage of carbon dioxide imposed by global and regional conventions. This document comprises an evaluation of the implications for ocean and seabed CO₂ storage of existing international conventions, similar instruments that have not yet come into force and European Union Directives. It does not include legal opinion or policy judgement. Nevertheless, where uncertainty exists regarding the interpretation of the provisions of a particular convention in relation to CO₂ storage, such uncertainty is identified. Primary emphasis in this review is given to subseabed storage options for CO₂ sequestered from fossil fuel combustion streams such as those from electricity generating stations.

3. SELECTION OF CONVENTIONS FOR ANALYSIS

The primary international agreements relevant to the issue of marine storage of CO₂ are those relating to the protection of the marine environment. Accordingly, the texts of all **global conventions** dealing with marine environmental protection have been obtained and, in cases of direct relevance to ocean and seabed storage of CO₂, developments within these conventions following their entry into force have been described and evaluated in the following section. For completeness, one international agreement, which is not a binding convention but a set of internationally accepted guidelines for the protection of the marine environment from land-based activities, was included in the analysis. This is the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities signed in Washington, D.C., in 1995.

Similarly, the texts of all available **regional conventions** dealing with the protection of specific marine areas, particularly those covering marginal seas, were also obtained. In some instances, these regional conventions have subordinate, but binding, protocols addressing specific source categories or the protection of components of regional marine environments. These have also been included in this review. Regional conventions and protocols not yet in force have been included where texts are available. In addition, any regional conventions being prepared but not yet signed have been included where draft texts are available.

The envisaged scenarios for marine storage of CO₂ derived from fossil fuel combustion include transport from the point of sequestration to the point of marine injection. The transport of CO₂ therefore becomes an important factor bearing on the acceptability of the CO₂ sequestration and storage options for reducing CO₂ releases into the atmosphere. International agreements bearing on the issue of CO₂ transport from land or marine sources to marine sites for emplacement have therefore also been considered in this review.

Finally, **European Union (EU) Directives** potentially bearing on the topic of CO₂ transport and ocean and seabed storage were also specifically included for analysis in this review at the request of the IEA Greenhouse Gas R&D Programme.

4. OCEAN AND SEABED STORAGE OF CO₂ IN THE CONTEXT OF THE FRAMEWORK CONVENTION ON CLIMATE CHANGE

Although not a marine convention relevant to ocean and seabed storage of CO₂, initial attention is given to the Framework Convention on Climate Change (FCCC) (Appendix GCA) because this provides legitimacy to the concept of ocean and seabed storage of carbon dioxide.

Article 3 (Principles) of the FCCC specifies: *“In their actions to achieve the objective of the Convention and to implement its provisions, the Parties shall be guided, inter alia, by the following:*

3. *The Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost. To achieve this, such policies and measures should take into account different socio-economic contexts, be comprehensive, cover all relevant sources, sinks and reservoirs of greenhouse gases and adaptation, and comprise all economic sectors. Efforts to address climate change may be carried out cooperatively by interested Parties.*”

Under Article 4 (Commitments) of the FCCC, it states:

“1. *All Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, shall:*

*(d) Promote sustainable management, and **promote** and cooperate in the **conservation and enhancement**, as appropriate, **of sinks and reservoirs** of all greenhouse gases not controlled by the Montreal Protocol, including biomass, forests and **oceans** as well as other terrestrial, coastal and marine ecosystems;” [Boldface added]*

Article 4 (Commitments) further states:

“2. *The developed country Parties and other Parties included in Annex I commit themselves specifically as provided for in the following:*

*(a) Each of these Parties shall adopt national¹ policies and **take corresponding measures** on the mitigation of climate change, **by limiting its anthropogenic emissions of greenhouse gases and **protecting and enhancing its greenhouse gas sinks and reservoirs****.” [Boldface added]*

Accordingly, Article 4 imposes, among other things, a responsibility for Parties to the Convention to protect and **enhance** sinks and reservoirs for greenhouse gases, including (Art. 4.1 (d)) **ocean sinks and reservoirs**. In this context, the FCCC defines “reservoir” as “a component or components of the climate system where a greenhouse gas or a precursor of a greenhouse gas is stored” and “sink” as “any process, activity or mechanisms which removes a greenhouse gas, an aerosol or a precursor of a greenhouse gas from the atmosphere.”

This provides legitimacy to the consideration of the storage of CO₂ in the ocean, both in the oceanic hydrosphere and in subseabed strata. The only outstanding question in this context is whether the deferment of potential climate change by several centuries through the storage of CO₂ in the ocean hydrosphere would be compatible with the FCCC provisions. From technical perspectives, it can be argued that storage in subseabed strata is likely to remove CO₂ from the carbon cycle for geological periods but such claims are clearly untenable from the perspective of storage in the ocean hydrosphere. Thus, the legitimacy of enhancing ocean sediments as a medium of CO₂ storage appears the more sound subject to confirmation from legal perspectives.

5. GLOBAL CONVENTIONS

The following subsections outline the scope and relevant provisions of individual global conventions that have been identified as potentially relevant to ocean and seabed storage of CO₂. The United Nations Law of the Sea Treaty (UNCLOS) is dealt with first because it is the single most important international convention dealing with the marine environment.

¹ This includes policies and measures adopted by regional economic integration organizations.

Placing UNCLOS in context unfortunately requires copious quotations from the text of the convention itself and makes the section dealing with UNCLOS the longest of those in the entire document. Quotations from other conventions are also required in the subsequent sections. All substantive quotations are provided in italics and are primarily in indented text blocks without quotation marks, except where quotation marks are included in the original texts. Only in instances where such quotations are made within normal text are quotation marks used.

One international agreement that is not a legally binding convention has also been included in this review because of its significance as an indicator of contemporary policy regarding the use and protection of the marine environment. This is Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities, concluded in Washington, D.C., in 1995.

5.1. United Nations Law of the Sea Treaty 1982 (UNCLOS)

UNCLOS (Appendix GCB) constitutes an overall framework for national activities and international agreements pertaining to the marine environment, particularly the exploitation of marine resources. The following presents a brief summary of component parts of UNCLOS with direct references to Articles of direct relevance to this study.

Part I, entitled “*Introduction*” contains Article 1 of the Convention entitled “*Use of terms and scope*”. It defines the following terms:

- (1) *"Area" means the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction;*
- (2) *"Authority" means the International Seabed Authority;*
- (3) *"activities in the Area" means all activities of exploration for, and exploitation of, the resources of the Area;*
- (4) *"pollution of the marine environment" means the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities;*
- 5) (a) *"dumping" means:*
 - (i) *any deliberate disposal of wastes or other matter from vessels, aircraft, platforms or other man-made structures at sea;*
 - (ii) *any deliberate disposal of vessels, aircraft, platforms or other man-made structures at sea;*
- (b) *"dumping" does not include:*
 - (i) *the disposal of wastes or other matter incidental to, or derived from the normal operations of vessels, aircraft, platforms or other man-made structures at sea and their equipment, other than wastes or other matter transported by or to vessels, aircraft, platforms or other man-made structures at sea, operating for the purpose of disposal of such matter or derived from the treatment of such wastes or other matter on such vessels, aircraft, platforms or structures;*
 - (ii) *placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of this Convention.*

Part II of UNCLOS entitled “*Territorial Sea and Contiguous Zone*” contains in its first section, “*General provisions*”, specifications of the “*Legal status of the territorial sea, of the air space over the territorial sea and of its bed and subsoil*”. This states:

1. *The sovereignty of a coastal State extends, beyond its land territory and internal waters and, in the case of an archipelagic State, its archipelagic waters, to an adjacent belt of sea, described as the territorial sea.*
2. *This sovereignty extends to the air space over the territorial sea as well as to its bed and subsoil.*
3. *The sovereignty over the territorial sea is exercised subject to this Convention and to other rules of international law.*

Article 3 of Section 2 of Part II of UNCLOS specifies that “Every State has the right to establish the breadth of its **territorial sea** up to a limit not exceeding 12 nautical miles, measured from baselines determined in accordance with this Convention.” **[Boldface added]**

Later Articles in Section 2 specify the meaning of the outer limit of the territorial sea, define the normal baseline from which the territorial sea is measured and codify special geographical features affecting the establishment of baselines. It defines “*internal waters*” as those landward of the baseline.

Section 3 deals with innocent passage through the territorial sea, the rules applicable to merchant ships and government ships operated for commercial purposes and the rules applicable to warships and other government ships operated for non-commercial purposes. These topics are generally not directly relevant to this study. However, it is worth noting that Article 23 specifies:

Foreign nuclear-powered ships and ships carrying nuclear or other inherently dangerous or noxious substances shall, when exercising the right of innocent passage through the territorial sea, carry documents and observe special precautionary measures established for such ships by international agreements.

Section 4 specifies:

*In a zone contiguous to its territorial sea, described as the **contiguous zone**, the coastal State may exercise the control necessary to:*

- (a) *prevent infringement of its customs, fiscal, immigration or sanitary laws and regulations within its territory or territorial sea;*
- (b) *punish infringement of the above laws and regulations committed within its territory or territorial sea.”*

Section 4 further specifies “*The contiguous zone may not extend beyond 24 nautical miles from the baselines from which the breadth of the territorial sea is measured.*”

Part III of UNCLOS deals with *Straits used for International Navigation*. Part IV deals with *Archipelagic States* largely in relation to establishing baselines and rights of maritime passage. Neither of these Parts is immediately relevant to this study.

Part V addresses with the Exclusive Economic Zone (EEZ). Articles 55 and 57 state respectively:

The exclusive economic zone is an area beyond and adjacent to the territorial sea, subject to the specific legal regime established in this Part, under which the rights and jurisdiction of the coastal State and the rights and freedoms of other States are governed by the relevant provisions of this Convention.

The exclusive economic zone shall not extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured.

Article 56 states:

1. *In the exclusive economic zone, the coastal State has:*

- (a) *sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil, and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds;*
 - (b) *jurisdiction as provided for in the relevant provisions of this Convention with regard to:*
 - (i) *the establishment and use of artificial islands, installations and structures;*
 - (ii) *marine scientific research;*
 - (iii) *the protection and preservation of the marine environment;*
 - (c) *other rights and duties provided for in this Convention.*
2. *In exercising its rights and performing its duties under this Convention in the exclusive economic zone, the coastal State shall have due regard to the rights and duties of other States and shall act in a manner compatible with the provisions of this Convention.*
3. *The rights set out in this article with respect to the seabed and subsoil shall be exercised in accordance with Part VI.*” **[Boldface added]**

Article 58 states:

In the exclusive economic zone, all States, whether coastal or land-locked, enjoy, subject to the relevant provisions of this Convention, the freedoms referred to in article 87 of navigation and overflight and of the laying of submarine cables and pipelines, and other internationally lawful uses of the sea related to these freedoms, such as those associated with the operation of ships, aircraft and submarine cables and pipelines, and compatible with the other provisions of this Convention. **[Boldface added]**

Article 60 states:

In the exclusive economic zone, the coastal State shall have the exclusive right to construct and to authorize and regulate the construction, operation and use of:

- (a) *artificial islands;*
- (b) *installations and structures for the purposes provided for in article 56 and other economic purposes;*
- (c) *installations and structures which may interfere with the exercise of the rights of the coastal State in the zone.* **[Boldface added]**

Article 60 also contains the rider that “*Artificial islands, installations and structures and the safety zones around them may not be established where interference may be caused to the use of recognized sea lanes essential to international navigation.*”

The remainder of Part V of UNCLOS deals with the exploitation of living marine resources and the rights of geographically disadvantaged states. These are topics not directly relevant to this study.

Part VI of UNCLOS addresses the Continental Shelf. It deals with cases in which the continental shelf extends beyond the 200 nautical mile limit of the EEZ and specifies the responsibilities and rights of states on the continental shelf. Parts of Article 76 and Articles 80 and 85 of Part IV are however worth quoting here:

The continental margin comprises the submerged prolongation of the land mass of the coastal State, and consists of the seabed and subsoil of the shelf, the slope and the rise.

It does not include the deep ocean floor with its oceanic ridges or the subsoil thereof.
(Article 76)

The coastal State shall have the exclusive right to authorize and regulate drilling on the continental shelf for all purposes. (Article 80) [Boldface added]

This Part does not prejudice the right of the coastal State to exploit the subsoil by means of tunneling, irrespective of the depth of water above the subsoil. (Article 85)

Part VII of UNCLOS deals with the high seas defined as “*The Area*” in UNCLOS parlance. It defines the rights of maritime and aerial passage, the laying of cables and pipelines, exploitation and protection of marine living resources in the Area.

Part VIII is a very small text dealing with the regime of islands. It contains nothing of relevance to the subject of this study.

Part IX deals with enclosed and semi-enclosed seas and is not of direct relevance to this study.

Part X deals with the right of access of land-locked states to and from the sea and freedom of transit. It largely addresses the rights and responsibilities of land-locked and transit states in respect to access to the sea and contains nothing of immediate relevance to this study.

Part XI deals with the Area. Section 1 contains the “General provisions” and includes the following:

Article 133 states:

For the purposes of this Part:

- (a) *"resources" means all solid, liquid or gaseous mineral resources in situ in the Area at or beneath the seabed, including polymetallic nodules;*
- (b) *resources, when recovered from the Area, are referred to as "minerals".*

Article 135 further states:

Neither this Part nor any rights granted or exercised pursuant thereto shall affect the legal status of the waters superjacent to the Area or that of the air space above those waters. [Boldface added]

Section 2 contains the principles governing the Area and contains the following text in Article 137.

- 2. *All rights in the resources of the Area are vested in mankind as a whole, on whose behalf the Authority shall act. These resources are not subject to alienation. The minerals recovered from the Area, however, may only be alienated in accordance with this Part and the rules, regulations and procedures of the Authority.*

It also contains the following text in Article 145 under the heading “*Protection of the marine environment*”:

*Necessary measures shall be taken in accordance with this Convention with respect to activities in the Area **to ensure effective protection for the marine environment from harmful effects which may arise from such activities.** To this end the Authority shall adopt appropriate rules, regulations and procedures for inter alia:*

- (a) *the prevention, reduction and control of pollution and other hazards to the marine environment, including the coastline, and of interference with the ecological balance of the marine environment, **particular attention being paid to the need for protection from harmful effects of such activities as drilling, dredging, excavation, disposal of waste, construction and operation or***

maintenance of installations, pipelines and other devices related to such activities;

(b) the protection and conservation of the natural resources of the Area and the prevention of damage to the flora and fauna of the marine environment.”
[**Boldface added**]

Section 3 deals with the development of the resources of the area. While the definition of ‘resources’ under UNCLOS (see Article 133 quoted above) does not include the use of the seabed for purposes other than mineral exploitation, it is worth noting that Article 153 specifies:

Activities in the Area shall be organized, carried out and controlled by the Authority on behalf of mankind as a whole in accordance with this article as well as other relevant provisions of this Part and the relevant Annexes, and the rules, regulations and procedures of the Authority.

Section 4 of Part XI deals with the Authority (*i.e.*, the International Seabed Authority based in Jamaica). It is largely procedural but states that the Seabed Authority has the duty and responsibility to consider and approve rules, regulations and procedures relating to prospecting, exploration and exploitation in the Area. It is not immediately clear whether such functions extend beyond mineral exploitation activities at present but they could be extended to CO₂ storage in the seabed beyond the continental shelf should this be considered advisable in the future.

Section 5 of Part XI deals with settlement of disputes and advisory opinions. Again this is of no direct relevance to this study because such disputes relate to the Area.

Part XII deals with the protection and preservation of the marine environment. It contains the following:

States have the obligation to protect and preserve the marine environment. (Article 192);

and

States have the sovereign right to exploit their natural resources pursuant to their environmental policies and in accordance with their duty to protect and preserve the marine environment. (Article 193)

Article 194 states:

1. *States shall take, individually or jointly as appropriate, all measures consistent with this Convention that are necessary to prevent, reduce and control pollution of the marine environment from any source, using for this purpose the best practicable means at their disposal and in accordance with their capabilities, and they shall endeavour to harmonize their policies in this connection.*
2. *States shall take all measures necessary to ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution to other States and their environment, and that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights in accordance with this Convention.*
3. *The measures taken pursuant to this Part shall deal with all sources of pollution of the marine environment. These measures shall include, inter alia, those designed to minimize to the fullest possible extent:*
 - (a) *the release of toxic, harmful or noxious substances, especially those which are persistent, from land-based sources, from or through the atmosphere or by dumping;*

- (b) *pollution from vessels, in particular measures for preventing accidents and dealing with emergencies, ensuring the safety of operations at sea, preventing intentional and unintentional discharges, and regulating the design, construction, equipment, operation and manning of vessels;*
 - (c) *pollution from installations and devices used in exploration or exploitation of the natural resources of the seabed and subsoil, in particular measures for preventing accidents and dealing with emergencies, ensuring the safety of operations at sea, and regulating the design, construction, equipment, operation and manning of such installations or devices;*
 - (d) *pollution from other installations and devices operating in the marine environment, in particular measures for preventing accidents and dealing with emergencies, ensuring the safety of operations at sea, and regulating the design, construction, equipment, operation and manning of such installations or devices.*
4. *In taking measures to prevent, reduce or control pollution of the marine environment, States shall refrain from unjustifiable interference with activities carried out by other States in the exercise of their rights and in pursuance of their duties in conformity with this Convention.*

Article 195 borrows terminology from the United Nations Conference on the Human Environment held in 1972 in Stockholm stipulating:

In taking measures to prevent, reduce and control pollution of the marine environment, States shall act so as not to transfer, directly or indirectly, damage or hazards from one area to another or transform one type of pollution into another.

The remainder of Part XII addresses: alien species transfer; global and regional cooperation, technical assistance, monitoring and environmental assessment; international rules and national legislation to prevent, reduce and control pollution of the marine environment; enforcement; safeguards; ice covered areas; responsibility and liability; sovereign immunity; and obligations under other conventions for the protection and preservation of the marine environment

Under “*international rules and national legislation to prevent, reduce and control pollution of the marine environment*”, in relation to land-based sources of pollution, Article 207 states:

1. *States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment from land-based sources, including rivers, estuaries, pipelines and outfall structures, taking into account internationally agreed rules, standards and recommended practices and procedures.*
2. *States shall take other measures as may be necessary to prevent, reduce and control such pollution.*
3. *States shall endeavour to harmonize their policies in this connection at the appropriate regional level.*
4. *States, acting especially through competent international organizations or diplomatic conference, shall endeavour to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control pollution of the marine environment from land-based sources, taking into account characteristic regional features, the economic capacity of developing States and their need for economic development. Such rules, standards and recommended practices and procedures shall be re-examined from time to time as necessary.*

5. *Laws, regulations, measures, rules, standards and recommended practices and procedures referred to in paragraphs 1, 2 and 4 shall include those designed to minimize, to the fullest extent possible, the release of toxic, harmful or noxious substances, especially those which are persistent, into the marine environment.*

In the same section under the heading of “*pollution from seabed activities subject to national jurisdiction*”, Article 208 states:

1. ***Coastal States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment arising from or in connection with seabed activities subject to their jurisdiction and from artificial islands, installations and structures under their jurisdiction, pursuant to articles 60 and 80.***
2. *States shall take other measures as may be necessary to prevent, reduce and control such pollution.*
3. ***Such laws, regulations and measures shall be no less effective than international rules, standards and recommended practices and procedures.***
4. *States shall endeavour to harmonize their policies in this connection at the appropriate regional level.*
5. *States, acting especially through competent international organizations or diplomatic conference, shall establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control pollution of the marine environment referred to in paragraph 1. Such rules, standards and recommended practices and procedures shall be re-examined from time to time as necessary.” [Boldface added]*

Article 210 deals with “*Pollution by dumping*”. It states:

1. *States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment by dumping.*
2. *States shall take other measures as may be necessary to prevent, reduce and control such pollution.*
3. *Such laws, regulations and measures shall ensure that dumping is not carried out without the permission of the competent authorities of States.*
4. *States, acting especially through competent international organizations or diplomatic conference, shall endeavour to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control such pollution. Such rules, standards and recommended practices and procedures shall be re-examined from time to time as necessary.*
5. *Dumping within the territorial sea and the exclusive economic zone or onto the continental shelf shall not be carried out without the express prior approval of the coastal State, which has the right to permit, regulate and control such dumping after due consideration of the matter with other States which by reason of their geographical situation may be adversely affected thereby.*
6. ***National laws, regulations and measures shall be no less effective in preventing, reducing and controlling such pollution than the global rules and standards.*** [Boldface added]

Interestingly, Article 212 deals with “*Pollution from or through the atmosphere*” and contains the following clause:

1. *States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment from or through the atmosphere, applicable to the air space under their sovereignty and to vessels flying their flag or vessels or aircraft of their registry, taking into account internationally agreed rules, standards and recommended practices and procedures and the safety of air navigation.*

Thus, on the one hand, it can be argued that marine pollution derived from the atmosphere is covered by the convention although the subsequent conditions appear to restrict it to substances derived from aircraft and vessels.

Finally, Article 237 dealing with “*obligations under other conventions on the protection and preservation of the marine environment*” states:

1. *The provisions of this Part are without prejudice to the specific obligations assumed by States under special conventions and agreements concluded previously which relate to the protection and preservation of the marine environment and to agreements which may be concluded in furtherance of the general principles set forth in this Convention.*
2. *Specific obligations assumed by States under special conventions, with respect to the protection and preservation of the marine environment, should be carried out in a manner consistent with the general principles and objectives of this Convention.*

Part XIII of UNCLOS deals with marine scientific research. Article 240 reads as follows:

In the conduct of marine scientific research the following principles shall apply:

- (a) *marine scientific research shall be conducted exclusively for peaceful purposes;*
- (b) *marine scientific research shall be conducted with appropriate scientific methods and means compatible with this Convention;*
- (c) *marine scientific research shall not unjustifiably interfere with other legitimate uses of the sea compatible with this Convention and shall be duly respected in the course of such uses;*
- (d) *marine scientific research shall be conducted in compliance with all relevant regulations adopted in conformity with this Convention including those for the protection and preservation of the marine environment.*

It should also be noted that according Articles 246 and 247 respectively:

Coastal States may in their discretion withhold their consent to the conduct of a marine scientific research project of another State or competent international organization in the exclusive economic zone or on the continental shelf of the coastal State if that project:

- (a) *is of direct significance for the exploration and exploitation of natural resources, whether living or non-living;*
- (b) *involves drilling into the continental shelf, the use of explosives or the introduction of harmful substances into the marine environment;*
- (c) *involves the construction, operation or use of artificial islands, installations and structures referred to in articles 60 and 80;*
- (d) *contains information communicated pursuant to article 248 regarding the nature and objectives of the project which is inaccurate or if the researching State or*

competent international organization has outstanding obligations to the coastal State from a prior research project.

A coastal State which is a member of or has a bilateral agreement with an international organization, and in whose exclusive economic zone or on whose continental shelf that organization wants to carry out a marine scientific research project, directly or under its auspices, shall be deemed to have authorized the project to be carried out in conformity with the agreed specifications if that State approved the detailed project when the decision was made by the organization for the undertaking of the project, or is willing to participate in it, and has not expressed any objection within four months of notification of the project by the organization to the coastal State.

Finally, under Article 256:

All States, irrespective of their geographical location, and competent international organizations have the right, in conformity with the provisions of Part XI, to conduct marine scientific research in the Area.

In other respects, Part XIII of UNCLOS contains little else of direct relevance to this study.

The remaining Parts of UNCLOS are:

Part XIV on “*development and transfer of marine technology*”;

Part XV on “*Settlement of disputes*”;

Part XVI on “*General Provisions*” (e.g., obligations and responsibilities); and

Part XVII on “*Final Provisions*” (e.g., ratifications procedures).

None of these parts are immediately relevant to this review.

UNCLOS also contains nine annexes dealing respectively with:

Annex I. Highly Migratory Species;

Annex II. Commission on the Limits of the Continental Shelf;

Annex III. Basic Conditions of Prospecting, Exploration and Exploitation;

Annex IV. Statute of the Enterprise;

Annex V. Conciliation;

Annex VI. Statute of the International Tribunal for the Law Of The Sea;

Annex VII. Arbitration;

Annex VIII. Special Arbitration; and

Annex IX. Participation by International Organizations.

5.1.1. Summary Analysis of the Provisions of UNCLOS

UNCLOS defines the jurisdictional regimes, responsibilities and rights of States in respect to the use of the sea and its resources. Coastal States have jurisdiction over their Territorial Sea and Exclusive Economic Zone. These rights extend to the authorization and regulation of drilling on the continental shelf for any purpose. Special rights are also accorded to States in cases where the continental shelf extends beyond the 200 nautical mile limit to the Exclusive Economic Zone.

In areas of the high seas beyond national jurisdiction, defined in UNCLOS as ‘*the Area*’, international jurisdiction applies to the exploitation of resources although the scope of such resources defined in the convention are limited to “*all solid, liquid or gaseous mineral resources at or beneath the seabed, including polymetallic nodules*” and are to be referred to

as “*minerals*” in the Area. Furthermore, nothing in UNCLOS prejudices activities in the overlying water and atmosphere of ‘the Area’.

In relation to ocean storage of CO₂, the injection of CO₂ into water is not proscribed under the convention but the practice would be subject to prior demonstration of the acceptability of effects on the marine environment and its resources. Neither is the injection of CO₂ into the seabed either in areas within national jurisdiction (*i.e.*, within Territorial Waters and the Exclusive Economic Zone) or in ‘the Area’ proscribed under the convention. However, such a practice would be subject to the provisions relating to “*dumping*” if the CO₂ was defined as a “*waste material*”. The definition of dumping does not specify whether subseabed emplacement is “*dumping*” under the convention. This is probably because the definition mirrors the language and intent of the London Convention 1972 at the time UNCLOS was drafted. At that time, the London Convention would have been close to its original form and the amendment regarding the extension of jurisdiction to the seabed was adopted later.

UNCLOS contains an exclusion from “*dumping*” in respect to the placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of the convention. Thus, if CO₂ were to be emplaced in the seabed for the purposes of storage with intent to retrieve it at some future time, this exclusion would appear to apply. The case of CO₂ emplacement with no intention of subsequent recovery is a somewhat grey area but, as CO₂ derived from fossil fuel combustion sources is clearly a “*waste material*”, it would seem unlikely that the exclusion could be invoked to permit such emplacement. Inevitably, it would appear that the provisions of the London Convention 1972 would be applicable to all such options. Thus, the restrictions imposed by the London Convention 1972 in its current form would apply and would constitute a surrogate for those under UNCLOS in this context. One other provision of UNCLOS that is not included in the London Convention is the requirement “*not to transfer, directly or indirectly, damage or hazards from one area to another or transform one type of pollution into another*”. It is not clear how a practice of reducing atmospheric CO₂ emissions through enhancing marine storage would be interpreted in this context.

5.2. London Convention 1972

The *Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972* (commonly referred to as ‘*the London Convention 1972*’) (Appendix GCC) defines the rules and procedures regarding the dumping of material at sea by Contracting Parties to the convention. Originally, the London Convention (then referred to as the “*London Dumping Convention*”) contained an annex (Annex I) listing substances that were prohibited from dumping except in trace amounts and an additional annex (Annex II) specifying substances warranting the application of ‘special care procedures’ and the issuance of ‘special permits’ for dumping at sea. Annex III specifies the elements to be addressed in assessing the suitability of an application for dumping at sea and remains a basic component of the convention. The original convention embodied a largely management-based approach allowing flexibility and discretion subject to restrictions on certain classes of hazardous substance (as defined in the original Annexes I and II to the convention) and the requirement for a prior impact assessment (see Appendix GCD).

The provisions of the convention have changed substantially since it came into force in 1975. In addition, a new form of the convention (the 1996 Protocol under the London Convention) was also adopted in 1996 that codifies all the amendments the convention made since 1975 and incorporates additional changes (see section 5.2.5. below). The 1996 Protocol, which is intended to constitute a new convention, has not yet come into force because it has not yet attained the required number of Contracting Parties. The following discussion of the London Convention is based on its current provisions taking account of amendments to date.

For the purposes of the London Convention 1972 (IMO, 1997), “*dumping*” means:

- (i) *any deliberate disposal at sea of wastes or other matter from vessels, aircraft, platforms or other man-made structures at sea; and*
- (ii) *any deliberate disposal at sea of vessels, aircraft, platforms or other man-made structures at sea.*

The approach embodied in the convention as currently amended is one that limits the options available to management by proscribing the dumping of “*industrial waste*” and defining specific categories of material that constitute the only legitimate candidates for dumping at sea (those in the so-called ‘*reverse list*’ of allowable materials under the convention). Materials other than those falling into the permitted categories cannot now be considered for dumping at sea.

The only categories of candidate materials that can be considered for dumping at sea are:

- *dredged material;*
- *sewage sludge;*
- *fish waste or material resulting from industrial fish processing operations;*
- *vessels, platforms or other man-made structures at sea;*
- *inert, inorganic geological material,*
- *organic material of natural origin; and*
- *bulky items (defined as “bulky items primarily comprising iron, steel concrete and similarly unarmful materials for which concern is physical impact, and limited to those circumstances where such wastes are generated at locations, such as small islands with isolated communities, having no practicable access to disposal options other than dumping”).*

The convention lays down procedures for assessing the suitability for dumping at sea of candidate materials falling within these categories. These procedures are more specific than those required through the application of Annex III to the convention and are embodied in a so-called ‘*Waste Assessment Framework*’ that includes specific provisions for each class of allowable wastes. There have been repeated debates within the London Convention Scientific Group and Consultative Meetings regarding what specific materials might be legitimately covered by these various categories of candidate materials but without much in the way of concrete conclusions being reached. Nevertheless, carbon dioxide would undoubtedly be regarded by a majority of Contracting Parties as an industrial waste and, thus, not an allowable candidate material for disposal at sea under the convention in its current form.

5.2.1. Applicability and Jurisdiction of the London Convention

‘*Dumping*’ for the purposes of the convention does not include:

- (i) *the disposal at sea of wastes and other matter incidental to, or derived from the normal operations of vessels, aircraft, platforms, or other man-made structures at sea and their equipment, other than wastes or other matter transported by or to vessels, aircraft, platforms or other man-made structures at sea, operating for the purpose of disposal of such matter or derived from the treatment of such wastes or other matter on such vessels, aircraft, platforms or structures; or*
- (ii) *placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of this Convention.*

The definition of dumping stipulates that dumping means any deliberate disposal at sea of material and substances of any kind, form or description from vessels, aircraft, platforms or other man-made structures, as well as the disposal of vessels, aircraft, platforms or other man-made structures themselves.

In its second part, the definition expresses what is **not** meant by dumping, namely the disposal of wastes or other matter derived from the **normal operation of vessels, aircraft, platforms or other man-made structures** (*i.e.*, operational discharges that are the subject of the MARPOL 73/78 Convention). It further excludes the placement of matter for the purpose other than mere disposal (*e.g.*, scientific research equipment, aquaculture, etc.) and the disposal of wastes or other matter derived from seabed activities (*e.g.*, exploration and exploitation of mineral resources).

Emplacement for the purposes of scientific research are therefore permitted under the convention but subject to a prior assessment of the consequences to human health and the environment, in a manner consistent with the provisions of Annex III of the convention, to ensure the environmental acceptability of such activities.

5.2.2. Other Relevant Issues

In the ‘*IMO Manual on the London Convention*’ (IMO, 1991) explanations are provided for some of the articles and terms used in the convention. They are relevant to the issue of carbon dioxide emplacement at sea or in the seabed and relevant sections are reproduced in the following paragraphs.

Definitions and areas of application

The Convention is universal and applies to both the territorial sea and the high sea. The definition of “*sea*” contained in Article III includes all marine waters other than internal waters of States. This means in effect that the Convention applies to all sea areas beyond baseline defining the outer limits of the internal waters of States.

The Eleventh Consultative Meeting further concluded that a Party could apply the Convention to dumping not only in its territorial waters but also within the Exclusive Economic Zone and onto its continental shelf.

Disposal of wastes into the seabed

With regard to the **use of the seabed for the deposition of certain hazardous wastes**, in particular high-level radioactive wastes, the Seventh Consultative Meeting convened a special meeting of legal experts to study the applicability of the Convention to this form of disposal. The Eighth Consultative Meeting agreed (subsequently confirmed by the Tenth Consultative Meeting) that no such disposal should be undertaken by Contracting Parties unless and until the disposal (burial) into the sea-bed is proven to be technically feasible and environmentally acceptable and an adequate control mechanism has been established by the Consultative Meeting.

The Thirteenth Consultative Meeting considered at length whether this method of disposal would constitute “*dumping*” under the terms of the London Dumping Convention, recalling that in 1986 at the Tenth Consultative Meeting had agreed that the Consultative Meeting was the appropriate forum to address this question, notwithstanding the divided opinions at that time as to whether such practice would be considered “*dumping*” as defined in the Convention. The Thirteenth Consultative Meeting decided that the disposal of wastes into the sea-bed addressed from the sea, *i.e.*, from ships, platforms, artificial islands, aircraft, should indeed be considered as “*dumping*” under the terms of the London Dumping Convention. A resolution was adopted by vote in which 29 Contracting Parties supported the resolution, four voted against the proposal and four abstained.

5.2.3. Recent Developments Regarding Emplacement at Sea

Because the London Convention, as amended, prohibits the dumping at sea of industrial wastes (other than the exceptions in the so-called reverse list cited above which are currently open to some ambiguity of interpretation), it appears that there are two options for approaching the issue of determining the legitimacy of CO₂ storage at sea under the terms of this convention. The first is for proponents of CO₂ storage in the ocean or seabed to endeavour to have CO₂ defined as *inert, inorganic geological material*. This would, however, be fraught with difficulty because of the general prohibition on industrial waste. The question of whether CO₂ derived from renewable energy developments would still be regarded as ‘*industrial waste*’ has never been posed to the convention but a lengthy and inconclusive debate on the issue could be anticipated. This would appear to be a less contentious issue in respect to the 1996 Protocol because it contains no prohibition on industrial waste, merely a similar reverse list of allowable candidate materials for dumping at sea.

The second option would be to attempt to get CO₂ storage allowed under the terms of the exclusions to the definition of dumping, namely: “*placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of this Convention.*” The issue of placement was recently discussed at the 24th Consultative Meeting in November 2002.

The report of the 24th Consultative Meeting (IMO, 2002a) contains the following text:

Guidance on placement of matter for a purpose other than the mere disposal thereof

It was recalled that the Twenty-second Consultative Meeting considered the development of guidance concerning “placement of matter for a purpose other than the mere disposal thereof”, which is excluded from the definition of “dumping” under Article III of the Convention. Agreement could not be reached on guidance concerning “placement” or on the issue as to whether “placement” was covered by the Convention.

At the Twenty-second and Twenty-third Consultative Meetings elements of guidance were developed as follows:

- 1. placement should not be used as an excuse for disposal at sea of waste materials;*
- 2. placement should not be contrary to the aims of the Convention;*
- 3. information of the placement activities should be provided to the Secretariat, as available; and*
- 4. materials used for “placement” activities should be assessed in accordance with the relevant waste-specific guidelines.*

The first paragraph states that there exists disagreement as to whether placement for purposes other than disposal is even within the jurisdiction of the convention. Indeed, the convention text, even as amended up to 2002, would appear to exclude such placement from its jurisdiction.

Paradoxically, the subsequent paragraph then provides a number of conditions that would apply to placement presumably based on an assumption that it *is* within the purview of the convention. These conditions include (sub-paragraphs 1 and 2) restatements of the terms of the convention and then the requirement (sub-paragraphs 3 and 4) that such activities be reported to the Convention Secretariat and that the waste assessment procedures developed under the London Convention be applied.

The real issue is whether placement is within or without the jurisdiction of the convention. If storage of CO₂ was to involve injection into the seabed with the intention of its future recovery, it would stand a better chance of being labelled ‘*emplacement*’. If no recovery from the seabed were intended, the argument would be considerably weaker. It would then rest

on the apparent conflict between one convention (*i.e.*, the FCCC, which has a larger number of Contracting Parties than the London Convention and therefore a wider constituency) and the London Convention. This is largely a legal issue and would have to be examined by legal experts in the context of the Vienna Convention 1969 on the Law of Treaties (United Nations, 1969) (see Appendix GCE) that deals with the interpretation of conventions and conflicts among them. Nevertheless, the most likely possibility of getting ocean or seabed storage of CO₂ accepted as a legitimate concept would be to claim that it constitutes emplacement for the purposes of enhancing storage sinks and reservoirs as advocated in the FCCC. It should again be stressed that this would only have likelihood of success in respect to storage in subseabed strata. It would be unlikely to succeed in respect to ‘*storage*’ within the hydrosphere because of concerns regarding the effects on the marine environment and the impracticality of recovering the ‘stored’ CO₂.

5.2.4. Recent Developments on the Future of the London Convention 1972 and the 1996 Protocol Thereto

At the 24th Consultative Meeting of the London Convention, a paper was submitted by the Netherlands entitled “*Future objectives for the London Convention 1972 and the 1996 Protocol thereto*” (IMO, 2002b) (Appendix GCF). This presents a number of options for the future development of the convention. Among them are the further development of the LC within the existing framework to, among other things, *seabed activities, sub-seabed activities, and offshore platforms (discharges, removal and disposal)*. This proposal was not discussed in any great detail. It was, however, noted by some delegations that inclusion of such activities and other proposals made by the Netherlands would create potential overlaps with other UN agencies and would require amendments to both the London Convention and the 1996 Protocol. It is not clear to what extent the Netherlands understood the degree of overlap with other existing conventions that some of its proposals would entail; however this document may represent a sign of things to come. There is little among the current activities and concerns within the London Convention that addresses either seabed or subseabed disposal despite the earlier claim to jurisdiction. Nevertheless, it can be expected that attention will increasingly focus on such activities in the future.

5.2.5. The 1996 Protocol to the London Convention 1972

Some aspects of the 1996 Protocol have been referred to previously, largely because intergovernmental negotiations regarding the London Convention inevitably involve concomitant reference to, and consideration of, the Protocol. However, there are some additional changes in the text of the protocol to those adopted through amendment to the London Convention that deserve specific mention here. It should be stressed at the outset that the 1996 Protocol is not yet in force. To date, 16 States have ratified or acceded to the protocol including several developed countries (*e.g.*, Australia, Canada, Denmark, Germany, Norway, Sweden and the United Kingdom). A total of 26 ratifications or accessions are required for the protocol to enter into force. Projections inside the London Convention are that the protocol might receive the required number of ratifications during the 2004-2005 Biennium. My personal view is that this is somewhat optimistic but, nonetheless, I would expect it to be in force by the end of the present decade.

The major change in the text of the protocol compared with the amended London Convention is that it does **not** contain a prohibition on “*industrial wastes*”. Nevertheless, the inclusion of a so-called reverse listing of allowable candidate materials, which is virtually identical to that in the amended convention, means that **the same restrictions apply to judging the status of CO₂ under the 1996 Protocol as under the London Convention.**

Other relevant differences in the protocol text to that in the convention are the definitions of “*dumping*” and the exclusions specified in Article 1 of the protocol. These are presented verbatim here with the most relevant changes indicated in boldface.

4.1 “Dumping” means:

- .1 any deliberate disposal into the sea of wastes or other matter from vessels, aircraft, platforms or other man-made structures at sea;
 - .2 any deliberate disposal into the sea of vessels, aircraft, platforms or other man-made structures at sea;
 - .3 **any storage of wastes or other matter in the seabed and the subsoil thereof from vessels, aircraft, platforms or other man-made structures at sea; and**
 - .4 any abandonment or toppling at site of platforms or other man-made structures at sea, for the sole purpose of deliberate disposal.
- .2 “Dumping” does not include:
- .1 the disposal into the sea of wastes or other matter incidental to, or derived from the normal operations of vessels, aircraft, platforms or other man-made structures at sea and their equipment, other than wastes or other matter transported by or to vessels, aircraft, platforms or other man-made structures at sea, operating for the purpose of disposal of such matter or derived from the treatment of such wastes or other matter on such vessels, aircraft, platforms or other man-made structures;
 - .2 placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of the Protocol; and
 - .3 notwithstanding paragraph 4.1.4, abandonment in the sea of matter (e.g., cables, pipelines and marine research devices) placed for a purpose other than the mere disposal thereof.
- .3 **The disposal or storage of wastes or other matter directly arising from, or related to the exploration, exploitation and associated off-shore processing of seabed mineral resources is not covered by the provisions of this Protocol.**

Thus, on the one hand, when the protocol comes into force, **storage** of wastes introduced into the seabed from vessels and offshore platforms will fall within the definition of dumping. On the other hand, wastes arising from the exploration, exploitation and **associated offshore processing** of seabed mineral resources will **not** be subject to the provisions of the protocol. In a generic sense, this means that the protocol would apply to the storage of waste CO₂ derived from all non-marine sources but that CO₂ stripped at site from hydrocarbon streams derived from subseabed deposits would **not** be subject to the protocol. Obviously, my interpretation on this topic should be subjected to legal scrutiny.

5.2.6. Summary Analysis of the London Convention 1972 and the 1996 Protocol Thereto

The London Convention in its current, amended, form presents severe restrictions on the options for ocean and seabed storage of CO₂. It prohibits the dumping at sea of ‘*industrial waste*’ although the term has not been precisely defined. The only guidance is provided by the reverse list of materials that may be considered for dumping at sea. The amended London Convention extends to disposal on and into the seabed and therefore it essentially prohibits the storage of CO₂ in both the water column and the seabed. A claim that CO₂ derived from fossil-fueled electrical generating stations does not constitute “*industrial waste*” would be unlikely to be successful.

Ocean or seabed storage of CO₂ extracted *in situ* from an offshore natural gas stream would only be permissible under the convention if it could be defined as the disposal of “*wastes or other matter derived from the normal operation of vessels, aircraft, platforms or other man-made structures*”.

There is some possibility that the exclusion from the definition of “*dumping*” of “*placement of matter for a purpose other than the mere disposal thereof*” might enable it to be used as a vehicle for evaluating the suitability of ocean and seabed storage of fossil fuel combustion derived CO₂ under the convention. Realistically, this would only likely to be successful in the context of subseabed emplacement simply because of the prevailing attitude among Contracting Parties regarding the perceived effects of CO₂ injection into the hydrosphere.

The 1996 Protocol to the London Convention, which is not yet in force, contains no prohibition on industrial waste. However, it contains a virtually identical reverse list of allowable candidate materials as the London Convention itself. These do not appear to encompass carbon dioxide, the nearest entry being “*inert, inorganic material of geological origin*”. Similar to the convention, its provisions extend to disposal into the seabed. The protocol also defines “*dumping*” as including “*any storage of wastes or other matter in the seabed and the subsoil thereof from vessels, aircraft, platforms or other man-made structures at sea*”. This would thus extend the provisions of the protocol to the storage of CO₂ in the seabed accessed from the sea (e.g., from vessels and platforms).

Under the terms of the 1996 Protocol, the subseabed storage of CO₂ extracted from a natural gas stream at an offshore hydrocarbon recovery platform might be successfully argued to constitute “*disposal or storage of wastes or other matter directly arising from the exploration, exploitation and associated offshore processing of seabed mineral resources*” thereby enabling such a practice to be permissible once the protocol comes into force and supersedes the London Convention 1972.

As in the case of the Convention, the exclusion from the definition of dumping of “*placement at sea for purposes other than the mere disposal thereof*” might be interpreted to cover CO₂ storage in the seabed but it would be difficult to get such a practice accepted by Contracting Parties, especially in view of the inclusion of the term ‘*storage in the seabed*’ in the definition of dumping in the Protocol.

5.3. MARPOL 73/78 Convention

The *International Convention for the Prevention of Pollution from Ships* was adopted at an International Conference on Marine Pollution convened by International Maritime Organization (IMO) (formerly the International Maritime Consultative Organization, IMCO) in 1973. The convention was subsequently modified by the 1978 Protocol adopted by an International Conference on Tanker Safety and Pollution Prevention convened by IMO in that year. The convention, as modified by the 1978 Protocol is known as the “*International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto*”, or, in short, MARPOL 73/78 (IMO, 2002c) (Appendix GCG).

Article 2 of MARPOL 73/78 contains definitions. Of these, three are relevant to this study. These are:

- (2) *Harmful substance* means any substance which, if introduced into the sea, is liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea, and includes any substance subject to control by the present Convention.
- (3) (a) *Discharge*, in relation to harmful substances or effluents containing such substances, means any release howsoever caused from a ship and includes any escape, disposal, spilling, leaking, pumping, emitting or emptying;,
 - (b) *Discharge* does not include:
 - (i) *dumping within the meaning of the Convention on the Prevention of Marine Pollution by Dumping of wastes and Other Matter, done at London on 13 November 1972; or*

(ii) *release of harmful substances directly arising from the exploration, exploitation and associated offshore processing of sea-bed mineral resources; or*

(iii) *release of harmful substances for purposes of legitimate scientific research into pollution abatement or control.*

(4) *Ship means a vessel of any type whatsoever operating in the marine environment and includes hydrofoil boats, air-cushion vehicles, submersibles, floating craft and fixed or floating platforms.*

For the purposes of offshore platforms, current practice is that MARPOL 73/78 covers machinery space drainage and sewage but does not cover open and closed drainage from oil and gas processing activities, production water discharges, drill cuttings discharges or displacement water discharges (as specified in Appendix 6 of Annex I to the MARPOL 73/78 Convention). It therefore does not apply to the disposal of CO₂ extracted from natural gas streams on a platform into subseabed repositories directly from the same or adjacent platform (e.g., at the Sleipner field).

Although not strictly relevant to the issue of CO₂ sequestration and ocean and seabed storage, it is pleasing to see the consistency of exemptions to regulated discharges of platforms to those for emissions to the atmosphere under Annex VI to the convention. These exemptions include emissions directly arising from the exploration, exploitation and associated offshore processing of sea-bed mineral resources such as: flaring of hydrocarbons; burning of cuttings, muds and stimulation fluids during well completion and testing operations; the release of gases and volatile compounds entrained in drilling fluids and cuttings; emissions associated with the treatment, handling and storage of sea-bed minerals; and emissions from diesel engines used for sea-bed mineral exploration and exploitation.

5.3.1. Summary Analysis of the Provisions of the MARPOL 73/78 Convention

Overall, the relevance of MARPOL 73/78 to CO₂ sequestration and ocean and seabed storage is very limited. It only deals with operational discharges and accidental releases of noxious substances from ships and platforms and specifically excludes practices covered by the London Convention 1972. **It thus confirms the view that the most restrictive global marine convention pertaining to the marine emplacement option for the storage of CO₂ is the London Convention.** It should be noted that the MARPOL Convention also excludes the “*release of harmful substances directly arising from the exploration, exploitation and associated offshore processing of sea-bed mineral resources*”. Thus, should CO₂ extracted *in situ* from a natural gas stream on an offshore recovery platform be designated in this manner, it would not face any obstruction from the MARPOL Convention.

It should be noted that MARPOL 73/78 does, of course, apply to operational discharges from ships and the construction of ships engaged in maritime transport of hazardous substances, primarily oil but other commodities as well, and would have to be complied with in any maritime shipping of CO₂ between platforms and between offshore sites and ports. This constitutes a normal restriction on maritime traffic but is not directly relevant to this study.

5.4. Global Programme of Action on the Protection of the Marine Environment from Land-based Activities 1995 (GPA-LBA)

The *Global Programme of Action on the Protection of the Marine Environment from Land-based Activities* was adopted (signed) in Washington, D.C., in late 1995 (UNEP, 1995) (Appendix GCH). It is frequently referred to under the acronyms GPA, LBA or GPA-LBA and has a United Nations Environment Programme (UNEP) Secretariat in Den Hague, the Netherlands. It is not a convention, merely an international agreement of a non-binding nature. In some senses it is the non-binding global analogy of the original (binding) Paris Convention covering the Northeast Atlantic area that was subsumed by the OSPAR Convention. Despite

the non-binding nature of the GPA, it has broad acceptance as guidance on the prevention of marine pollution from land-based activities, particularly the release of substances to freshwater courses and the atmosphere. This agreement deserves analysis both because of its policy implications and the fact that it addresses discharges to the sea through pipelines that constitutes one of the options for CO₂ injection into the ocean or the offshore seabed.

The GPA takes its mandate from UNCLOS, particularly Articles 207 and 213. In its preamble, it notes that UNCLOS sets forth rights and obligations of States and provides the international basis upon which to pursue the protection and sustainable development of the marine and coastal environment and its resources. It should be noted that the term ‘resources’ under the LBA has far wider interpretation than the definition of resources under UNCLOS. The aim of the LBA is the prevention of degradation of the marine environment from land-based activities. It is designed to assist States in taking actions individually and jointly within their respective policies, priorities and resources that will lead to the prevention, reduction, control and/or elimination of degradation of the marine environment as well as its recovery from existing adverse effects of (previous and current) land-based activities. It constitutes a proponent of integrated coastal area management and recommends that States develop National Programmes of Action in six categories:

- a) *Identification and assessment of problems;*
- b) *Establishment of priorities;*
- c) *Setting management objectives for priority problems;*
- d) *Identification, evaluation and selection of strategies and measures, including management approaches;*
- e) *Criteria for evaluating the effectiveness of strategies and programmes; and*
- f) *Programme support elements.*

The detail of the first two of these actions can serve to illustrate the scope of the GPA and therefore they are described in greater detail below.

Under (a), ‘*identification and assessment of problems*’, the GPA specifies the following (It should be noted that several grammatical errors in the original text (UNEP, 1995) have been corrected):

The identification and assessment of problems is a process of combining five elements:

- (a) *Identification of the nature and severity of problems in relation to:*
 - (i) *Food security and poverty alleviation;*
 - (ii) *Public health;*
 - (iii) *Coastal and marine resources and ecosystem health, including biological diversity;*
 - (iv) *Economic and social benefits and uses, including cultural values;*
- (b) *Contaminants (not listed in order of priority)*
 - (i) *Sewage;*
 - (ii) *Persistent organic pollutants;*
 - (iii) *Radioactive substances;*
 - (iv) *Heavy metals;*
 - (v) *Oils (hydrocarbons);*
 - (vi) *Nutrients;*
 - (vii) *Sediment mobilization;*
 - (viii) *Litter;*

- (c) *Physical alteration, including habitat modification and destruction in areas of concern;*
- (d) *Sources of degradation:*
- (i) *Point sources (coastal and upstream), such as:*
- a) *Waste-water treatment facilities;*
 - b) *Industrial facilities;*
 - c) *Power plants;*
 - d) *Military installations;*
 - e) *Recreational/tourism facilities;*
 - f) *Construction works (e.g., dams, coastal structures, harbour works and urban expansion);*
 - g) *Coastal mining (e.g., sand and gravel);*
 - h) *Research centres;*
 - i) *Aquaculture;*
 - j) *Habitat modification (e.g., dredging, filling of wetlands or clearing of mangrove areas);*
 - k) *Introduction of invasive species;*
- (ii) *Non-point (diffuse) sources (coastal and upstream), such as:*
- a) *Urban run-off;*
 - b) *Agricultural and horticultural run-off;*
 - c) *Forestry run-off;*
 - d) *Mining waste run-off;*
 - e) *Construction run-off;*
 - f) *Landfills and hazardous waste sites;*
 - g) *Erosion as a result of physical modification of coastal features;*
- (iii) *Atmospheric deposition caused by:*
- a) *Transportation (e.g., vehicle emissions);*
 - b) *Power plants and industrial facilities;*
 - c) *Incinerators;*
 - d) *Agricultural operations;*
- (e) *Areas of concern (what areas are affected or vulnerable):*
- (i) *Critical habitats, including coral reefs, wetlands, seagrass beds, coastal lagoons and mangrove forests;*
 - (ii) *Habitats of endangered species;*
 - (iii) *Ecosystem components, including spawning areas, nursery areas, feeding grounds and adult areas;*
 - (iv) *Shorelines;*
 - (v) *Coastal watersheds;*
 - (vi) *Estuaries and their drainage basins;*
 - (vii) *Specially protected marine and coastal areas; and*
 - (viii) *Small islands.*

Under (b), ‘*establishment of priorities*’, the GPA specifies the following:

Priorities for action should be established by assessing the five factors described above and should specifically reflect:

- (a) The relative importance of impacts upon food security, public health, coastal and marine resources, ecosystem health, and socio-economic benefits, including cultural values, in relation to:*
 - (i) Source categories (contaminants, physical alteration, and other forms of degradation and the source or practice from which they emanate);*
 - (ii) The area affected (including its uses and the importance of its ecological characteristics);*
- (b) The costs, benefits and feasibility of options for action, including the long-term cost of no action.*

The GPA then specifies that, “*in the process of establishing priorities for action and throughout all stages of developing and implementing national programmes of action, States should*”:

There follows a list of nine considerations dealing mostly with integrated coastal area management, watershed management, impact assessment procedures, protection of critical habitats, establishment of focal points for regional and international cooperation, and the application of the precautionary approach and the principle of intergenerational equity. However, among them is one entry that can be interpreted in the context of ocean and seabed storage of CO₂. This is:

- (g) Integrate national action with any relevant regional and global priorities, programmes and strategies.*

This would imply that priorities, objectives and activities sanctioned by another convention, such as the FCCC, would require to be considered in assessing priorities and therefore national actions to address them.

5.4.1. Summary Analysis of the Provisions of the GPA-LBA Agreement

The text of the GPA agreement is rather lengthy, running to 60 pages of A4 text. It is only incidentally relevant to the issue of ocean and seabed storage of CO₂, which, with the exception of the sequestration of CO₂ from land sources and its transport to the coast, is likely to be primarily a maritime activity. Nothing in the GPA precludes storage of CO₂ in either the hydrosphere or the seabed. Nevertheless, options for storage of CO₂ by injection through a pipeline from land might be evaluated by many countries in the context of this agreement despite its non-binding nature. The major concerns would relate to changes in the hydrosphere resulting from the practice and this would make CO₂ injection into the marine hydrosphere of predominant concern. Long-term storage of CO₂ in the seabed via a pipeline from shore might reasonably be expected to be considered largely in the context of any ancillary effects on the marine hydrosphere and surficial sediments rather than on subseabed strata.

5.5. Basel Convention 1989

The *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal* was adopted by the Conference of Plenipotentiaries on March 22nd 1989 and came into force on May 5th 1992 (UNEP, 1992) (Appendices GCJ and GCK). It was conceived partly on the basis that enhanced control of the transboundary movement of hazardous wastes and other wastes will act as an incentive for their environmentally sound management and for the reduction of the volume of such transboundary movement.

Article 1 defines the “*Scope of the Convention*” and states:

- 1. The following wastes that are subject to transboundary movement shall be "hazardous wastes" for the purposes of this Convention:*

- (a) *Wastes that belong to any category contained in Annex I, unless they do not possess any of the characteristics contained in Annex III; and*
 - (b) *Wastes that are not covered under paragraph (a) but are defined as, or are considered to be, hazardous wastes by the domestic legislation of the Party of export, import or transit.*
2. *Wastes that belong to any category contained in Annex II that are subject to transboundary movement shall be "other wastes" for the purposes of this Convention.*
 3. *Wastes which, as a result of being radioactive, are subject to other international control systems, including international instruments, applying specifically to radioactive materials, are excluded from the scope of this Convention.*
 4. *Wastes which derive from the normal operations of a ship, the discharge of which is covered by another international instrument, are excluded from the scope of this Convention.*

Article 2 contains definitions of terms. It includes the following definitions of relevance to this study.

1. *"Wastes" are substances or objects which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law;*
2. *"Management" means the collection, transport and disposal of hazardous wastes or other wastes, including after-care of disposal sites;*
3. *"Transboundary movement" means any movement of hazardous wastes or other wastes from an area under the national jurisdiction of one State to or through an area under the national jurisdiction of another State or to or through an area not under the national jurisdiction of any State, provided at least two States are involved in the movement;*
4. *"Disposal" means any operation specified in Annex IV to this Convention;*
8. *"Environmentally sound management of hazardous wastes or other wastes" means taking all practicable steps to ensure that hazardous wastes or other wastes are managed in a manner which will protect human health and the environment against the adverse effects which may result from such wastes;*
9. *"Area under the national jurisdiction of a State" means any land, marine area or air space within which a State exercises administrative and regulatory responsibility in accordance with international law in regard to the protection of human health or the environment;*

Article 3 deals with national definitions of hazardous wastes. It states, *inter alia*:

1. *Each Party shall, within six months of becoming a Party to this Convention, inform the Secretariat of the Convention of the wastes, other than those listed in Annexes I and II, considered or defined as hazardous under its national legislation and of any requirements concerning transboundary movement procedures applicable to such wastes.*
2. *Each Party shall subsequently inform the Secretariat of any significant changes to the information it has provided pursuant to paragraph 1.*
3. *The Secretariat shall forthwith inform all Parties of the information it has received pursuant to paragraphs 1 and 2.*
4. *Parties shall be responsible for making the information transmitted to them by the Secretariat under paragraph 3 available to their exporters.*

Article 4 contains general obligations under the convention. These include:

1. (a) *Parties exercising their right to prohibit the import of hazardous wastes or other wastes for disposal shall inform the other Parties of their decision pursuant to Article 13.*
- (b) *Parties shall prohibit or shall not permit the export of hazardous wastes and other wastes to the Parties which have prohibited the import of such wastes, when notified pursuant to subparagraph (a) above.*
- (c) *Parties shall prohibit or shall not permit the export of hazardous wastes and other wastes if the State of import does not consent in writing to the specific import, in the case where that State of import has not prohibited the import of such wastes.*
2. *Each Party shall take the appropriate measures to:*
 - (a) *Ensure that the generation of hazardous wastes and other wastes within it is reduced to a minimum, taking into account social, technological and economic aspects;*
 - (b) *Ensure the availability of adequate disposal facilities, for the environmentally sound management of hazardous wastes and other wastes, that shall be located, to the extent possible, within it, whatever the place of their disposal;*
 - (c) *Ensure that persons involved in the management of hazardous wastes or other wastes within it take such steps as are necessary to prevent pollution due to hazardous wastes and other wastes arising from such management and, if such pollution occurs, to minimize the consequences thereof for human health and the environment;*
 - (d) *Ensure that the transboundary movement of hazardous wastes and other wastes is reduced to the minimum consistent with the environmentally sound and efficient management of such wastes, and is conducted in a manner which will protect human health and the environment against the adverse effects which may result from such movement;*
 - (e) *Not allow the export of hazardous wastes or other wastes to a State or group of States belonging to an economic and/or political integration organization that are Parties, particularly developing countries, which have prohibited by their legislation all imports, or if it has reason to believe that the wastes in question will not be managed in an environmentally sound manner, according to criteria to be decided on by the Parties at their first meeting.*
 - (f) *Require that information about a proposed transboundary movement of hazardous wastes and other wastes be provided to the States concerned, according to Annex V A, to state clearly the effects of the proposed movement on human health and the environment;*
 - (g) *Prevent the import of hazardous wastes and other wastes if it has reason to believe that the wastes in question will not be managed in an environmentally sound manner;*
6. *The Parties agree not to allow the export of hazardous wastes or other wastes for disposal within the area south of 60° South latitude, whether or not such wastes are subject to transboundary movement.*
9. *Parties shall take the appropriate measures to ensure that the transboundary movement of hazardous wastes and other wastes only be allowed if:*

- (a) *The State of export does not have the technical capacity and the necessary facilities, capacity or suitable disposal sites in order to dispose of the wastes in question in an environmentally sound and efficient manner; or*
 - (b) *The wastes in question are required as a raw material for recycling or recovery industries in the State of import; or*
 - (c) *The transboundary movement in question is in accordance with other criteria to be decided by the Parties, provided those criteria do not differ from the objectives of this Convention.*
10. *The obligation under this Convention of States in which hazardous wastes and other wastes are generated to require that those wastes are managed in an environmentally sound manner may not under any circumstances be transferred to the States of import or transit.*
11. *Nothing in this Convention shall prevent a Party from imposing additional requirements that are consistent with the provisions of this Convention, and are in accordance with the rules of international law, in order better to protect human health and the environment.*
12. *Nothing in this Convention shall affect in any way the sovereignty of States over their territorial sea established in accordance with international law, and the sovereign rights and the jurisdiction which States have in their exclusive economic zones and their continental shelves in accordance with international law, and the exercise by ships and aircraft of all States of navigational rights and freedoms as provided for in international law and as reflected in relevant international instruments.*
13. *Parties shall undertake to review periodically the possibilities for the reduction of the amount and/or the pollution potential of hazardous wastes and other wastes which are exported to other States, in particular to developing countries.*

Articles 5-10 of the convention deal with: *Competent Authorities and Focal Points; Transboundary Movement between [sic] Parties; Transboundary Movement through States that are not Contracting Parties; the Duty to Re-import; Illegal traffic; and International Cooperation.*

Article 11 on “*Bilateral, Multilateral and Regional Arrangements*” does raise an issue of relevance to this study. The relevant text is as follows:

- 1. *Notwithstanding the provisions of Article 4 paragraph 5, Parties may enter into bilateral, multilateral, or regional agreements or arrangements regarding transboundary movement of hazardous wastes or other wastes with Parties or non-Parties provided that such agreements or arrangements do not derogate from the environmentally sound management of hazardous wastes and other wastes as required by this Convention. These agreements or arrangements shall stipulate provisions which are not less environmentally sound than those provided for by this Convention in particular taking into account the interests of developing countries.*

Articles 12 - 29 deal with: *Consultations on Liability; Transmission of Information; Financial Aspects; Conference of the Parties; Secretariat; Amendment of the Convention; Adoption and Amendment of Annexes; Verification; Settlement of Disputes; Signature; Ratification, Acceptance, and Formal Confirmation or Approval; Accession; Right to Vote; Entry into Force; Reservations and Declarations; Withdrawal; Depositary; and Authentic texts.* None of these are immediately relevant to this study.

Thus, in order to judge the bearing of the convention on the issue of CO₂ transport for ultimate storage in the ocean or the seabed, it is necessary to examine and analyze the content of the annexes to the convention that specify the nature of waste falling within its purview.

Annex I defines the categories of wastes to be controlled. These comprise:

Under “*Waste Streams*”

- Y1 Clinical wastes from medical care in hospitals, medical centers and clinics*
- Y2 Wastes from the production and preparation of pharmaceutical products*
- Y3 Waste pharmaceuticals, drugs and medicines*
- Y4 Wastes from the production, formulation and use of biocides and phytopharmaceuticals*
- Y5 Wastes from the manufacture, formulation and use of wood preserving chemicals*
- Y6 Wastes from the production, formulation and use of organic solvents*
- Y7 Wastes from heat treatment and tempering operations containing cyanides*
- Y8 Waste mineral oils unfit for their originally intended use*
- Y9 Waste oils/water, hydrocarbons/water mixtures, emulsions*
- Y10 Waste substances and articles containing or contaminated with polychlorinated biphenyls (PCBs) and/or polychlorinated terphenyls (PCTs) and/or polybrominated biphenyls (PBBs)*
- Y11 Waste tarry residues arising from refining, distillation and any pyrolytic treatment*
- Y12 Wastes from production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish*
- Y13 Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives*
- Y14 Waste chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on man and/or the environment are not known*
- Y15 Wastes of an explosive nature not subject to other legislation*
- Y16 Wastes from production, formulation and use of photographic chemicals and processing materials*
- Y17 Wastes resulting from surface treatment of metals and plastics*
- Y18 Residues arising from industrial waste disposal operations*

None of these include either gaseous wastes from the combustion of fossil fuels or CO₂ specifically.

Under “*Wastes having as constituents*”:

- Y19 Metal carbonyls*
- Y20 Beryllium; beryllium compounds*
- Y21 Hexavalent chromium compounds*
- Y22 Copper compounds*
- Y23 Zinc compounds*
- Y24 Arsenic; arsenic compounds*
- Y25 Selenium; selenium compounds*
- Y26 Cadmium; cadmium compounds*

- Y27 Antimony; antimony compounds*
- Y28 Tellurium; tellurium compounds*
- Y29 Mercury; mercury compounds*
- Y30 Thallium; thallium compounds*
- Y31 Lead; lead compounds*
- Y32 Inorganic fluorine compounds excluding calcium fluoride*
- Y33 Inorganic cyanides*
- Y34 Acidic solutions or acids in solid form*
- Y35 Basic solutions or bases in solid form*
- Y36 Asbestos (dust and fibres)*
- Y37 Organic phosphorus compounds*
- Y38 Organic cyanides*
- Y39 Phenols; phenol compounds including chlorophenols*
- Y40 Ethers*
- Y41 Halogenated organic solvents*
- Y42 Organic solvents excluding halogenated solvents*
- Y43 Any congener of polychlorinated dibenzo-furan*
- Y44 Any congener of polychlorinated dibenzo-p-dioxin*
- Y45 Organohalogen compounds other than substances referred to in this Annex (e.g. Y39, Y41, Y42, Y43, Y44)*

None of the above entries would apply to pure CO₂ derived from fossil fuel combustion. However, CO₂ recovered from fossil fuel combustion may well contain several of the above constituents as impurities, such as metals, metallic compounds, asbestos and some, but probably few, of the organic compounds listed.

Annex II contains specification of wastes requiring special consideration. These comprise wastes collected from households and residues arising from the incineration of household wastes, neither of which is relevant to fossil fuel derived CO₂.

Annex III contains a list of hazardous characteristics in relation to assessing materials as hazardous under the convention. None of these would appear to apply to CO₂.

Annex IV specifies disposal operations that “do not lead to the possibility of resource recovery, recycling, reclamation, direct re-use or alternative uses.”

The two entries here that are relevant to ocean and seabed storage of CO₂ are (D7) “**release into seas/oceans including sea-bed insertion**” and (D12) “**permanent storage (e.g., emplacement of containers in a mine, etc.)**”.

Two further annexes, Annexes VIII and IX, to the Basel Convention adopted in 1995 (Decision III/1) are relevant to this review although the amendment that introduced them to the convention has yet to come into force (UNEP, 2000).

Annex VIII contains a list (List A) of wastes characterized as hazardous under Article 1, paragraph 1 (a), of the convention. Their assignment to this annex, however, does not preclude the use of Annex III to demonstrate that a specific waste is not hazardous. The only entries on this list of some relevance to CO₂ recovery are section A1030 referring to “wastes having constituents or contaminants such as arsenic, mercury and thallium compounds” and section A2060 on “Coal-fired power plant fly-ash containing Annex I substances in concentrations sufficient to exhibit Annex III characteristics.” However, it seems safe to assume that fossil fuel derived CO₂ recovery would avoid the entrainment of any fly-ash constituents thereby obviating the applicability of this latter entry. Annex IX contains List B,

which is a list of wastes defined as non-hazardous. There appear to be no entries on List B in Annex IX that would directly pertain to CO₂ derived from fossil fuel combustion.

5.5.1. Summary Analysis of the Provisions of the Basel Convention

The Basel Convention covers the transshipment of wastes across national borders. It therefore, in principle, would apply to the movement across national boundaries of CO₂ destined for ocean or seabed storage. However, there is no indication that CO₂ will be defined as a hazardous waste under the convention except in relation to the presence of impurities entrained during the sequestration of CO₂ at its site of origin. It should be noted that individual Contracting Parties are required to notify the Basel Convention Secretariat of additional substances designated as hazardous under national policies and regulations. From discussions with the Basel Convention Secretariat, very few national submissions have been made regarding additional materials that would be classified as hazardous wastes by individual Contracting Parties and none of these are relevant to CO₂. Accordingly, the Basel Convention does not directly impose any restriction on the options for ocean or seabed storage of CO₂ derived from fossil fuel combustion sources. The Basel Convention would also not apply to any *in situ* injection into the seabed of CO₂ stripped from a natural gas stream at an offshore platform.

5.6. Rotterdam (PIC) Convention 1988

The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (PIC) (Appendix GCL) was adopted on 11 November 1998 but is not yet in force. It has the objective “*to promote shared responsibility and cooperative efforts among Parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm and to contribute to their environmentally sound use, by facilitating information exchange about their characteristics, by providing for a national decision-making process on their import and export and by disseminating these decisions to Parties.*”

Article 3 defines the “*Scope of the Convention*” as follows:

1. *This Convention applies to:*
 - (a) *Banned or severely restricted chemicals; and*
 - (b) *Severely hazardous pesticide formulations.*
2. *This Convention does not apply to:*
 - (a) *Narcotic drugs and psychotropic substances;*
 - (b) *Radioactive materials;*
 - (c) *Wastes;*
 - (d) *Chemical weapons;*
 - (e) *Pharmaceuticals, including human and veterinary drugs;*
 - (f) *Chemicals used as food additives;*
 - (g) *Food;*
 - (h) *Chemicals in quantities not likely to affect human health or the environment provided they are imported:*
 - (i) *For the purpose of research or analysis; or*
 - (ii) *By an individual for his or her own personal use in quantities reasonable for such use.*

5.6.1. Summary Analysis of the Provisions of the Rotterdam Convention

Carbon dioxide does not fall within the terms of Article 3.1 of the Rotterdam Convention. Furthermore, the list of substances included in Annex III of the convention that are designated as subject to the prior informed consent procedure include only one inorganic chemical, mercury and its inorganic and organic compounds. In addition, the exclusion of “wastes” from the terms of the convention (Article 3.2), should CO₂ intended for storage be defined as “waste”, would also exclude CO₂ from the convention. A clause of Article 2 is also relevant. This reads: “(f) 'Export' and 'import' mean, in their respective connotations, the movement of a chemical from one Party to another Party, but exclude mere transit operations.” As prior informed consent deals with communication and consent among exporting and importing parties, mere export from a country to a point of ocean or seabed storage would not appear to constitute import and export in the conventional sense. The fact that “transit operations” are excluded is significant because transboundary transport of CO₂, however designated in chemical or hazard terms, would not come under the terms of this convention.

5.7. International Transport Regulations

One other area of international agreement that is relevant to the concept of CO₂ capture and storage in the ocean or seabed is that pertaining to transport of CO₂. In addition to the provisions of the Basel Convention discussed in Section 4.6 above, any transport of CO₂ would have to comply with international transport regulations. There are numerous specific agreements, some of which are conventions and others are protocols of other conventions, that apply depending upon the mode of transport (*i.e.*, road, rail or ship). These include the International Gas Code (IGC) that is under the Safety of Life at Sea (SOLAS) Convention, the International Maritime Dangerous Goods Code, the European Agreement Concerning the International Carriage of Dangerous Goods by Road and the Convention Concerning International Carriage by Rail (COTIF Convention). There are also a variety of regional agreements dealing with the transport of goods too numerous to cite here.

The salient point to be made in respect to such international transport codes and agreements is that they all adhere to the “*Recommendations on the Transport of Dangerous Goods: Model Regulations*” published by the United Nations (United Nations, 2001). These recommendations include specification of the packaging and manner of transport of materials and include specific classification of CO₂ in gaseous, liquid and solid forms. Carbon dioxide in gaseous and refrigerated liquid forms is classified as a non-flammable, non-toxic gas while solid CO₂ (dry ice) is classified under the heading of “*Miscellaneous dangerous substances and articles*”.

In summary, any shipments of CO₂ adhering to the “*Recommendations on the Transport of Dangerous Goods: Model Regulations*” can be expected to meet all relevant agreements and conventions covering transport by whatever means. Implementation of the ocean or seabed storage concept would merely require that these recommendations were complied with. Nothing in these recommendations would imply that the transport component of an operation to sequester and store CO₂ in the ocean would be confounded by existing international transport agreements and conventions.

5.8. Summary Analysis of Global Conventions and Agreements

Table 1 summarizes the provisions of relevant global conventions and agreements in relation to the concept of ocean and seabed storage of CO₂.

While many of the provisions of relevant global conventions and agreements will have an influence on the manner in which the concept of ocean and seabed storage of CO₂ might be applied in practice, only one convention imposes a major constraint on such implementation. This is the London Convention 1972 that, in its current form, prohibits the injection of fossil

fuel combustion CO₂ into the marine environment, both water and sediments, from ships and platforms. This is because the dumping of industrial waste is prohibited by this convention.

The situation is likely to be maintained when the 1996 Protocol to the London Convention enters into force. This will probably occur between 2005 and 2010. While the protocol does not contain a specific ban on the dumping of industrial waste, it will be similarly difficult to circumvent its other provisions, particularly the reverse list of allowable candidate materials for dumping at sea. The protocol specifically covers storage in the seabed and this will present a further barrier to the acceptance and authorization of the practice of CO₂ injection into subseabed strata.

International conventions pose no direct impediments to the injection of CO₂ into the marine environment via pipelines from land. Neither are there barriers to the transport of CO₂ from a land sequestration site to the point of ocean injection. There are, however, a range of transport and marine protection provisions of existing global conventions that will require to be fulfilled in any practical implementation of such a practice.

There is, however, an important codicil to this conclusion that relates to the terms of the London Convention and especially to the terms of the 1996 Protocol. The London Convention includes in its definition of dumping “*any deliberate disposal at sea of wastes or other matter from vessels, aircraft, platforms or other man-made structures at sea.*” This could be interpreted to include within the jurisdiction of the convention waste introduction through pipelines and pipeline head structures created for the injection of CO₂ derived from terrigenous sources. Whether such interpretation is correct would, however, rest on a legal interpretation of the provisions of the convention. It should be noted, however, that the fact that the definition of dumping under the convention excludes “*placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of this Convention*” would exclude enhanced oil recovery (EOR) using CO₂ injection from its jurisdiction simply because its purpose is not *disposal*.

The 1996 Protocol has some more stringent provisions. Particularly important is the inclusion in the definition of dumping of “*any storage of wastes or other matter in the seabed and the subsoil thereof from vessels, aircraft, platforms or other man-made structures at sea.*” This would imply that injection of CO₂ from structures created at sea for such purpose would fall within the jurisdiction of the protocol when it comes into force. Accordingly, it might be expected to apply to injections of CO₂ into the seabed from structures associated with a pipeline constructed from land. An examination of this issue from legal perspectives would be needed to clarify the position regarding pipeline injection of CO₂ into the seabed when the protocol comes into force. The statement in the protocol that “[t]he disposal or storage of wastes or other matter directly arising from, or related to the exploration, exploitation and associated off-shore processing of seabed mineral resources is not covered by the provisions of this Protocol” would imply that the injection into the seabed of CO₂ stripped from hydrocarbon streams at offshore oil platforms or introduced for the purposes of EOR would not lie within its jurisdiction.

Oceanic injection of CO₂ derived from fossil fuel combustion sources on land carried out from ships and platforms at sea could only be a tenable option if the London Convention is revised or the Contracting Parties to this convention are persuaded to accept the practice as legitimate and consistent with the aims of the convention. Proponents of CO₂ storage would need to bring information and influence to bear on the Contracting Parties to the London Convention and its 1996 Protocol through the medium of Consultative Meetings with a view towards reconsideration of the provisions of the convention. Such initiatives would be more likely to be successful in relation to CO₂ emplacement in seabed strata. There is little likelihood that current policy attitudes and trends would permit serious consideration of any proposal to inject CO₂ into the hydrosphere simply because of concerns about the effects of certain anthropogenic activities on the marine environment.

Table 1
Summary of Provisions of Global Conventions and Agreements

Convention	Subject (Date of Entry into Force)	Subject Coverage				Prohibition of CO ₂ Dumping at Sea?	Prohibition of Ocean Injection of CO ₂ via Pipeline?
		Sea Dumping from Ships and Platforms (Mechanism) ¹	Land-Based Sources	Seabed Included?	Hazardous Waste Transport		
United Nations Convention on the Law of the Sea 1982 (UNCLOS)	Maritime Law (1994)	Mineral Exploitation Only (Delegates Dumping to LC72)	No	Yes	No	No	No
London Convention 1972	Marine Environmental Protection (1975)	Yes (Reverse List)	No	Yes	No	Yes	No (subject to legal interpretation see Page 82)
1996 Protocol to London Convention 1972	Marine Environmental Protection (NIF)	Yes (Reverse List)	No	Yes incl. storage	No	Yes	No (subject to legal interpretation see Page 82)
MARPOL 73/78 Convention	Marine Environmental Protection (1983)	No	No	No	Yes	No	No
Convention on the Transboundary Movement of Hazardous Wastes (Basel Convention 1989)	Transboundary Movement of Hazardous Wastes (1992)	No	No	No	Yes	No	No
Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (PIC) (Rotterdam Convention 1998)	Authorization and Control of Transboundary Transport of Hazardous Chemicals (NIF)	No	No	No	Yes	No	No
Global Programme of Action on the Protection of the Marine Environment from Land-Based Activities 1995 (Agreement Only)	Marine Environmental Protection (s. 1995 - NC)	No	Yes	No	No	No	No
International Transport Regulations	Various Codes and Conventions For Ensuring Safety in the Transport of Dangerous Goods	No	No	No	Yes	No	No

Key: ¹ 'Mechanism' denotes the approach to restricting sea dumping activities; NIF = Not in Force; 's.' = signed; NC = Not a Convention.

6. EU DIRECTIVES AND RELATED DEVELOPMENTS

There exists a bewildering array of existing European Union (EU) Directives on a wide range of topics. A listing of EU Directives pertaining to the environment, waste management and hazardous materials transport is shown in Table 2 below with an initial judgement as to their relevance to this study. Those indicated as “potentially relevant” in this list have been subjected to more detailed analysis for the purposes of this review.

Table 2

EU Directives on the Environment, Waste and Hazardous Material Transport

Directives	Relevance
Directive on packaging/labelling dangerous substances (67/548/EEC)	Not Relevant
Waste Framework Directive (75/442/EEC)	Potentially Relevant
Bathing Water Directive (76/160/EEC)	Not Relevant
Council Directive on pollution caused by certain dangerous substances discharged into the aquatic environment (76/464/EEC)	Potentially Relevant
Birds Directive (79/409/EEC)	Not Relevant
Environmental Impact Assessment (EIA) Directive (85/337/EEC)	Potentially Relevant
Shellfish Directive (91/492/EEC)	Not Relevant
Nitrates Directive (91/676/EEC)	Not Relevant
Hazardous Waste Framework Directive (91/689/EEC)	Potentially Relevant
Habitats Directive (92/43/EEC)	Not Relevant
Regulation on the supervision and control of shipments of waste within, into and out of the European Community (259/93/EEC)	Potentially Relevant
Recreational Craft Directive (94/25/EEC)	Not Relevant
Directive Port State Control (95/21/EEC)	Not Relevant
Food Residues Directive (96/23/EEC)	Not Relevant
Directive on Integrated Pollution Prevention and Control (IPPC) (96/61/EEC)	Potentially Relevant
Council Regulation amending Regulation 259/93/EEC on the supervision and control of shipments of waste within, into and out of the European Community (120/97/EEC)	Potentially Relevant
Amendment to the EIA Directive (97/11/EEC)	Potentially Relevant
Port Reception Directive (2000/59/EEC)	Not Relevant
Water Framework Directive (2000/60/EEC)	Potentially Relevant
Directive on the Effects of Plans and Programmes on the Environment (2001/42/EC)	Potentially Relevant
Policy Papers	
New Chemicals Policy: White Paper COM(2001) 88	Potentially Relevant
Development of an EU Strategy to Protect and Conserve the Marine Environment COM(2002) 359	Potentially Relevant

6.1. Water Framework Directive

The most obvious EU Directive of relevance is 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (the EU Water Framework Directive) (Appendix EUA). The purpose of this Directive is “*to establish a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater [that]”*:

- (a) *prevents further deterioration and protects and enhances the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystems;*
- (b) *promotes sustainable water use based on a long-term protection of available water resources;*

- (c) aims at enhanced protection and improvement of the aquatic environment, *inter alia*, through specific measures for the progressive reduction of discharges, emissions and losses of priority substances and the cessation or phasing-out of discharges, emissions and losses of the priority hazardous substances;
- (d) ensures the progressive reduction of pollution of groundwater and prevents its further pollution, and
- (e) contributes to mitigating the effects of floods and droughts and thereby contributes to:
 - the provision of the sufficient supply of good quality surface water and groundwater as needed for sustainable, balanced and equitable water use,
 - a significant reduction in pollution of groundwater,
 - the protection of territorial and marine waters, and
 - achieving the objectives of relevant international agreements, including those which aim to prevent and eliminate pollution of the marine environment, by Community action under Article 16(3) to cease or phase out discharges, emissions and losses of priority hazardous substances, with the ultimate aim of achieving concentrations in the marine environment near background values for naturally occurring substances and close to zero for man-made synthetic substances.

Paragraph 7 of Article 2 of the Directive defines "Coastal water" as meaning "surface water on the landward side of a line, every point of which is at a distance of one nautical mile on the seaward side from the nearest point of the baseline from which the breadth of territorial waters is measured, extending where appropriate up to the outer limit of transitional waters."

This Directive only applies to freshwater areas and coastal waters extending offshore to 1 nautical mile seaward of the baseline. Accordingly, it contains little of relevance to ocean or seabed storage of CO₂. One noteworthy provision in the text of this Directive is the statement "with the ultimate aim of achieving concentrations in the marine environment near background values for naturally occurring substances and close to zero for man-made synthetic substances." This phrase, derived from the Ministerial Meeting of the OSPAR Commission, Sintra, 22-23 July 1998, could confound cogent and scientifically-based arguments for practices offering net benefit to society that may ultimately be made in favour of ocean or seabed storage of CO₂.

6.2. Waste Directive

According to its preamble, the EU Waste Directive (Council Directive 75/442/EEC of 15 July 1975 on waste) is partly designed "to provide effective and consistent regulations on waste disposal which neither obstruct intra-Community trade nor affect conditions of competition applied to movable property which the owner disposes of or is required to dispose of under the provisions of national law in force, with the exception of radioactive, mining and agricultural waste, animal carcasses, waste waters, **gaseous effluents** and waste covered by specific Community rules." **[Boldface added]**

Article 1 of the Waste Directive defines "waste" as "any substance or object which the holder disposes of or is required to dispose of pursuant to the provisions of national law in force. It defines "disposal" as the collection, sorting, transport and treatment of waste as well as its storage and tipping above or under ground, and the transformation operations necessary for its re-use, recovery or recycling."

Article 2 first states: "... without prejudice to this Directive, Member States may adopt specific rules for particular categories of waste." It then defines exclusions to its scope and provisions. These are: "(a) radioactive waste; (b) waste resulting from prospecting, extraction, treatment

and storage of mineral resources and the working of quarries; (c) animal carcasses and the following agricultural wastes: faecal matter and other substances used in farming; (d) waste waters, with the exception of waste in liquid form; (e) gaseous effluents emitted into the atmosphere; (f) waste covered by specific Community rules.” [Boldface added]

There is a consequent discrepancy between the exclusions of the preamble and those specified in Article 2. The former excludes all gaseous effluents while the latter excludes gaseous effluents emitted into the atmosphere. It is therefore unclear what the status of CO₂ sequestered from fossil fuel combustion activities might be under this Directive. Nevertheless, this Directive has no obvious bearing on the issue of ocean and seabed storage of CO₂.

6.3. Hazardous Waste Directive

The EU Council Directive on Hazardous Waste (Council Directive 91/689/EEC of 12th December 1991) (Appendix EUB) replaces Directive 78/319/EEC and deals with the designation of hazardous waste under Directive 75/442/EEC. Annex I defines “*Categories or Generic Types of Hazardous Waste Listed According to their Nature or the Activity which Generated Them (Waste may be Liquid, Sludge or Solid in Form).*”

The Hazardous Waste Directive defines the following as hazardous materials in Annex I.A:

Wastes displaying any of the properties listed in Annex III and which consist of:

- 1. anatomical substances; hospital and other clinical wastes;*
- 2. pharmaceuticals, medicines and veterinary compounds;*
- 3. wood preservatives;*
- 4. biocides and phyto-pharmaceutical substances;*
- 5. residue from substances employed as solvents;*
- 6. halogenated organic substances not employed as solvents excluding inert polymerized materials;*
- 7. tempering salts containing cyanides;*
- 8. mineral oils and oily substances (e.g. cutting sludges, etc.);*
- 9. oil/water, hydrocarbon/water mixtures, emulsions;*
- 10. substances containing PCBs and/or PCTs (e.g. dielectrics etc.);*
- 11. tarry materials arising from refining, distillation and any pyrolytic treatment (e.g. still bottoms, etc.);*
- 12. inks, dyes, pigments, paints, lacquers, varnishes;*
- 13. resins, latex, plasticizers, glues/adhesives;*
- 14. chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on man and/or the environment are not known (e.g. laboratory residues, etc.);*
- 15. pyrotechnics and other explosive materials;*
- 16. photographic chemicals and processing materials;*
- 17. any material contaminated with any congener of polychlorinated dibenzofuran;*
- 18. any material contaminated with any congener of polychlorinated dibenzo-p-dioxin.*

Annex II.B defines:

Wastes which contain any of the constituents listed in Annex II and having any of the properties listed in Annex III and consisting of:

- 19. animal or vegetable soaps, fats, waxes;*

20. *non-halogenated organic substances not employed as solvents;*
21. *inorganic substances without metals or metal compounds;*
22. *ashes and/or cinders;*
23. *soil, sand, clay including dredging spoils;*
24. *non-cyanidic tempering salts;*
25. *metallic dust, powder;*
26. *spent catalyst materials;*
27. *liquids or sludges containing metals or metal compounds;*
28. *residue from pollution control operations (e.g. baghouse dusts, etc.) except (29), (30) and (33);*
29. *scrubber sludges;*
30. *sludges from water purification plants;*
31. *decarbonization residue;*
32. *ion-exchange column residue;*
33. *sewage sludges , untreated or unsuitable for use in agriculture;*
34. *residue from cleaning of tanks and/or equipment;*
35. *contaminated equipment;*
36. *contaminated containers (e.g. packaging, gas cylinders, etc.) whose contents included one or more of the constituents listed in Annex II;*
37. *batteries and other electrical cells;*
38. *vegetable oils;*
39. *materials resulting from selective waste collections from households and which exhibit any of the characteristics listed in Annex III;*
40. *any other wastes which contain any of the constituents listed in Annex II and any of the properties listed in Annex III.*

This list ends with the annotation: “*Certain duplications of entries found in Annex II are intentional.*”

A further annex, Annex II, defines “*Constituents of the Wastes in Annex I.B. which Render them Hazardous when they have the Properties Described in Annex III.*” It contains the following items:

Wastes having as constituents:

- C1 beryllium; beryllium compounds;*
- C2 vanadium compounds;*
- C3 chromium (VI) compounds;*
- C4 cobalt compounds;*
- C5 nickel compounds;*
- C6 copper compounds;*
- C7 zinc compounds;*
- C8 arsenic; arsenic compounds;*
- C9 selenium; selenium compounds;*
- C10 silver compounds;*
- C11 cadmium; cadmium compounds;*
- C12 tin compounds;*
- C13 antimony; antimony compounds;*

- C14 tellurium; tellurium compounds;*
- C15 barium compounds; excluding barium sulfate;*
- C16 mercury; mercury compounds;*
- C17 thallium; thallium compounds;*
- C18 lead; lead compounds;*
- C19 inorganic sulphides;*
- C20 inorganic fluorine compounds, excluding calcium fluoride;*
- C21 inorganic cyanides;*
- C22 the following alkaline or alkaline earth metals: lithium, sodium, potassium, calcium, magnesium in uncombined form;*
- C23 acidic solutions or acids in solid form;*
- C24 basic solutions or bases in solid form;*
- C25 asbestos (dust and fibres);*
- C26 phosphorus: phosphorus compounds, excluding mineral phosphates;*
- C27 metal carbonyls;*
- C28 peroxides;*
- C29 chlorates;*
- C30 perchlorates;*
- C31 azides;*
- C32 PCBs and/or PCTs;*
- C33 pharmaceutical or veterinary compounds;*
- C34 biocides and phyto-pharmaceutical substances (e.g. pesticides, etc.);*
- C35 infectious substances;*
- C36 creosotes;*
- C37 isocyanates; thiocyanates;*
- C38 organic cyanides (e.g. nitriles, etc.);*
- C39 phenols; phenol compounds;*
- C40 halogenated solvents;*
- C41 organic solvents, excluding halogenated solvents;*
- C42 organohalogen compounds, excluding inert polymerized materials and other substances referred to in this Annex;*
- C43 aromatic compounds; polycyclic and heterocyclic organic compounds;*
- C44 aliphatic amines;*
- C45 aromatic amines*
- C46 ethers;*
- C47 substances of an explosive character, excluding those listed elsewhere in this Annex;*
- C48 sulphur organic compounds;*
- C49 any congener of polychlorinated dibenzo-furan;*
- C50 any congener of polychlorinated dibenzo-p-dioxin;*
- C51 hydrocarbons and their oxygen; nitrogen and/or sulphur compounds not otherwise taken into account in this Annex.*

Finally, Annex III defines “*Properties of Wastes which Render them Hazardous.*” These properties are as follows:

- H1 'Explosive': substances and preparations which may explode under the effect of flame or which are more sensitive to shocks or friction than dinitrobenzene.
- H2 'Oxidizing': substances and preparations which exhibit highly exothermic reactions when in contact with other substances, particularly flammable substances.
- H3-A 'Highly flammable':
- liquid substances and preparations having a flash point below 21 °C (including extremely flammable liquids), or
 - substances and preparations which may become hot and finally catch fire in contact with air at ambient temperature without any application of energy, or
 - solid substances and preparations which may readily catch fire after brief contact with a source of ignition and which continue to burn or to be consumed after removal of the source of ignition, or
 - gaseous substances and preparations which are flammable in air at normal pressure, or
 - substances and preparations which, in contact with water or damp air, evolve highly flammable gases in dangerous quantities.
- H3-B 'Flammable': liquid substances and preparations having a flash point equal to or greater than 21 °C and less than or equal to 55 °C.
- H4 'Irritant': non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, can cause inflammation.
- H5 'harmful': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may involve limited health risks.
- H6 'Toxic': substances and preparations (including very toxic substances and preparations) which, if they are inhaled or ingested or if they penetrate the skin, may involve serious, acute or chronic health risks and even death.
- H7 'Carcinogenic': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce cancer or increase its incidence.
- H8 'Corrosive': substances and preparations which may destroy living tissue on contacts [sic].
- H9 'Infectious': substances containing viable micro-organisms or their toxins which are known or reliably believed to cause disease in man or other living organisms.
- H10 'Teratogenic': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce non-hereditary congenital malformations or increase their incidence.
- H11 'Mutagenic': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce hereditary genetic defects or increase their incidence.
- H12 Substances and preparations which release toxic or very toxic gases in contact with water, air or an acid.
- H13 Substances and preparations capable by any means, after disposal, of yielding another substance, e.g. a leachate, which possesses any of the characteristics listed above.

H14 'Ecotoxic': substances and preparations which present or may present immediate or delayed risks for one or more sectors of the environment.

None of the entries in Annexes I, II or III would appear to apply to CO₂ in its pure form. While a contaminated CO₂ stream captured from a fossil fuel combustion source might contain several of the substances listed in Annex II, in the absence of trace limits for these substances it is difficult to know whether such sequestered CO₂ could be regarded as hazardous. The provisions of Annex III provide little insight into this topic but would tend to suggest that such CO₂ would be non-hazardous even if it contained trace impurities among those listed in Annex II.

6.4. Council Regulation on the Supervision and Control of Shipments of Waste

Council Regulation on the supervision and control of shipments of waste within, into and out of the European Community (259/93/EEC) of 1 February 1993 (Appendix EUC), deals primarily with notification, reporting and documentation procedures for the shipment of wastes through, from and among EU Member States. This regulation is subordinate to the Waste Framework Directive discussed above. It is interesting that it excludes:

the offloading to shore of waste generated by the normal operation of ships and offshore platforms, including waste water and residues, provided that such waste is the subject of a specific binding international instrument.

This raises the question of whether CO₂ recovered as part of the normal operation of an offshore natural gas installation can be considered “*waste generated by the normal operation of ships and offshore platforms.*” It seems reasonable, on face value, to assume that it could be and that CO₂ transportation and offloading at ports for subsequent disposal or packaging for storage at sea or in the seabed from other installations would be allowable. However, the condition “*provided that such waste is the subject of a specific binding international instrument*” would not appear to be satisfied for such extracted CO₂.

6.5. Council Regulation amending Regulation 259/93/EEC on the Supervision and Control of Shipments of Waste

This regulation (120/97/EEC of 20 January 1997) (Appendix EUD) has the purpose of bringing the EU further into line with the Basel Convention and specifically the agreement reached during the Third Conference of the Parties to the Basel Convention (Decision III/1) to amend the convention to prohibit all exports of hazardous wastes that are destined for disposal from States listed in Annex VII to the Convention to States not so listed and to prohibit, as of 1 January 1998, all exports of hazardous wastes referred to in Article 1 (1) (a) of the Convention, which are destined for recovery operations, from States listed in Annex VII to the Convention to States not so listed. It should be noted that these amendments have been promulgated before the related amendments to the Basel Convention have come into force. Nevertheless, these amendments should have no bearing on the transport of CO₂ destined for ocean or seabed storage assuming that transboundary transport is between or among Parties to the Basel Convention or OECD Member States.

6.6. Environmental Impact Directive

The Environmental Impact Directive (Council Directive 85/337/EEC) has the purpose of requiring prior assessments of the effects of certain public and private projects (Appendix EUE). In its original form, there is no specification as to whether marine projects should be considered to be within the terms of this directive or not but, as the Directive is Pan-European, it must be assumed that they are. “*Projects*” are defined in this Directive as:

- *the execution of construction works or of other installations or schemes,*
- *other interventions in the natural surroundings and landscape including those involving the extraction of mineral resources.*

Annex I specifies those projects that would require an Environmental Impact Assessment (EIA). This list contains nothing that would be relevant to ocean or seabed CO₂ storage although land repositories for radioactive wastes are included. Annex II specifies projects for which Member States may require an EIA because of a project's characteristics. This list includes:

Deep drillings with the exception of drillings for investigating the stability of the soil and in particular:

*geothermal drilling,
drilling for the storage of nuclear waste material,
drilling for water supplies.*

Oil and gas pipeline installations [and]

Installations for the disposal of industrial and domestic waste (unless included in Annex I).

Article 3 states:

[t]he environmental impact assessment will identify, describe and assess in an appropriate manner, in the light of each individual case and in accordance with the Articles 4 to 11, the direct and indirect effects of a project on the following factors:

*human beings, fauna and flora,
soil, water, air, climate and the landscape,
the inter-action between the factors mentioned in the first and second indents,
material assets and the cultural heritage,
the interaction between the factors mentioned in the first, second and third indents.*” [This Indent was added through Council Directive 97/11/EEC amending the EIA Directive].

The Amendment Directive of 3 March 1997 also substituted new annexes that differ slightly from their originals. One new entry in Annex II is “*Installations for the disposal of waste (projects not included in Annex I)*” which could apply to CO₂ storage in the ocean and seabed depending on the actual geographical scope of the EIA Directive. None of the other changes appears to be relevant to the issue of ocean and seabed storage of CO₂.

The rather loose terminology in the EIA Directive does not seem to address marine activities specifically but, on the other hand, neither are they specifically excluded. In any event, this Directive merely deals with the requirements to undertake prior environmental impact assessments of substantial projects. These requirements could well be invoked in the case of the construction of a land pipeline for the transport of CO₂, the construction of port and harbour installations for the processing and transshipment of CO₂ and, under the amended Directive, an offshore installation for CO₂ emplacement into the seabed.

6.7. Directive on Integrated Pollution Prevention and Control

Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control (IPPC) (Appendix EUF) has the purpose of achieving “*integrated prevention and control of pollution arising from the activities listed in Annex I. It lays down measures designed to prevent or, where that is not practicable, to reduce emissions in the air, water and land from the abovementioned activities, including measures concerning waste, in order to achieve a high level of protection of the environment taken as a whole, without prejudice to Directive 85/337/EEC and other relevant Community provisions.*” However, Annex I, which is a listing of pertinent activities, contains nothing of direct relevance to the issue of ocean and seabed storage of CO₂. This is not to imply that this Directive would not be interpreted by some to cover some ancillary activities associated with CO₂ sequestration, processing and

intermediate storage, such as pumping, compression and liquefaction plants. This would follow from the reference to “*chemical installations for the production of basic inorganic chemicals, such as: (a) gases, such as ammonia, chlorine or hydrogen chloride, fluorine or hydrogen fluoride, carbon oxides, sulphur compounds, nitrogen oxides, hydrogen, sulphur dioxide, carbonyl chloride*” in Annex I, although it rather stretches the point to imply that the preparation of CO₂ for ocean or seabed storage really falls into such a category.

6.8. Directive on the Effects of Plans and Programmes on the Environment

Directive 2001/42/EC (Appendix EUG) of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment deals with the requirements for the inclusion of environmental considerations in the preparation and adoption of plans and programmes. Article 1 defines its objective as that of promoting sustainable development, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes that are likely to have significant effects on the environment. Article 2 defines: “*plans and programmes*” as meaning “*plans and programmes, including those co-financed by the European Community, as well as any modifications to them [that] are subject to preparation and/or adoption by an authority at national, regional or local level or which are prepared by an authority for adoption, through a legislative procedure by Parliament or Government.*” The term “*environmental assessment*” means “*the preparation of an environmental report, the carrying out of consultations, the taking into account of the environmental report and the results of the consultations in decision-making and the provision of information on the decision.*”

Article 3 requires that, with the exceptions of local plans, minor modifications to existing plans, civil emergency and national defence plans, and financial plans and programmes, an environmental assessment shall be carried out for plans and programmes prepared in the fields of agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use. A further provision requires that the conclusions of such assessments be made available to the public.

Article 5 requires that environmental assessments shall be prepared in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives, taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated.

Article 7 requires that where a Member State considers that the implementation of a plan or programme being prepared in relation to its territory is likely to have significant effects on the environment in another Member State, or where a Member State likely to be significantly affected so requests, the Member State in whose territory the plan or programme is being prepared shall, before its adoption or submission to the legislative procedure, forward a copy of the draft plan or programme and the relevant environmental report to the other Member State. It further specifies the nature and limitations of any subsequent bilateral consultations on the development proposal concerned and its impact.

In summary, this Directive requires the conduct of environmental assessments for plans and programmes of significant magnitude that are likely to have adverse environmental effects. The conclusions of such assessments are required to be made available to the public and, in cases where other national parties are potentially affected, requires that they are informed and consulted as appropriate. The inclusion of the energy sector within the terms of this Directive implicitly means that any planning for the implementation of the CO₂ sequestration and storage concept would be subjected to its provisions and a prior environmental assessment would be required in the case of any proposal made to an EU State.

6.9. Council Directive on Pollution Caused by Certain Dangerous Substances Discharged into the Aquatic Environment

Council Directive (76/464/EEC) (Appendix EUH) on ‘*pollution caused by certain dangerous substances discharged into the aquatic environment of the Community*’ was introduced on 4 May 1976. The purpose of this Directive is “to **eliminate** pollution from **list I** substances and to **reduce** pollution from **list II** substances.” On face value, this statement might seem to imply that the objective of the Directive is to prevent adverse effects in the environment associated with releases of list I substances and to reduce the adverse effects associated with list II substances. In fact, what it really means is “to *eliminate releases of list I substances and to reduce releases of list II substances*” because it is clear that “*pollution*” in this instance, as in many others within EU circles, is being equated to “contamination” probably because of a confusing and ungrammatical definition of pollution as follows:

"pollution" means the discharge by man, directly or indirectly, of substances or energy into the aquatic environment, the results of which are such as to cause hazards to human health, harm to living resources and to aquatic ecosystems, damage to amenities or interference with other legitimate uses of water.

A more precise definition would have served to prevent such confusion. The basis of all such definitions is that of the United Nations Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP 1969) and GESAMP has unfortunately declined to revise its definition despite repeated demonstrations of its flaws.

The Directive applies to: inland surface water, territorial waters, internal coastal waters and ground water. Under the definitions of Article 1 of the Directive:

"discharge" means the introduction into the waters referred to in paragraph 1 of any substances in List I or List II of the Annex, with the exception of:

- *discharges of dredgings,*
- *operational discharges from ships in territorial waters,*
- *dumping from ships in territorial waters.*

Article 2 specifies:

Member States shall take the appropriate steps to eliminate pollution of the waters referred to in Article 1 by the dangerous substances in the families and groups of substances in List I of the Annex and to reduce pollution of the said waters by the dangerous substances in the families and groups of substances in List II of the Annex, in accordance with this Directive, the provisions of which represent only a first step towards this goal.

Article 8 contains the following text:

Member States shall take all appropriate steps to implement measures adopted by them pursuant to this Directive in such a way as not to increase the pollution of waters to which Article 1 does not apply. They shall in addition prohibit all acts which intentionally or unintentionally circumvent the provisions of this Directive.

On first reading, the text of this Article appears relatively non-specific. However, the annex to the Directive contains the following “*Statement on Article 8*”:

With regard to the discharge of waste water into the open sea by means of pipelines, Member States undertake to lay down requirements which shall be not less stringent than those imposed by this Directive.

It is by no means clear what this sentence is meant to imply but it would appear to apply only to the discharge of substances specified in the annex.

List I of the annex contains “*certain individual substances which belong to the following families and groups of substances, selected mainly on the basis of their toxicity, persistence and bioaccumulation, with the exception of those which are biologically harmless or which are rapidly converted into substances which are biologically harmless:*”

1. *organohalogen compounds and substances which may form such compounds in the aquatic environment,*
2. *organophosphorus compounds,*
3. *organotin compounds,*
4. *substances in respect of which it has been proved that they possess carcinogenic properties in or via the aquatic environment,*
5. *mercury and its compounds,*
6. *cadmium and its compounds,*
7. *persistent mineral oils and hydrocarbons of petroleum origin, and for the purposes of implementing Articles 2, 8, 9 and 14 of this Directive:*
8. *persistent synthetic substances which may float, remain in suspension or sink and which may interfere with any use of the waters.”*

Neither this list nor List II, which defines additional ‘dangerous substances’, contains anything of relevance to CO₂. Accordingly, this Directive contains little of substance affecting planned injection of CO₂ into the ocean hydrosphere or seabed from land-based sources.

In 1982, the Environment Commission issued a “*Communication from the Commission to the Council*” (OJ C 176) (Appendix EUJ) containing a “*List of substances which could belong to List I of Council Directive 76/464/EEC.*” (Appendix EUK to this report). The list contains overwhelmingly organic substances. The two exceptions are “*cadmium and its compounds*” and “*mercury and its compounds*”. This appears to duplicate the existing entries in List I of the annex to Directive 76/464/EEC. Thus, nothing in either the original Directive or the subsequent proposal from the Environment Commission appears to introduce anything relevant to the chemical status of CO₂ other than in relation to trace constituents.

6.10. EU Strategy for a Future Chemicals Policy

The EU Commission issued a White Paper on this topic in 2001 (Document: COM(2001) 88 Final). While concerned with the protection of human health and the environment, its primary subject is chemical production and marketing in an economic and trade context. It is therefore not directly or immediately relevant to the present study. Nevertheless, for information purposes, the document is attached to this report as Appendix EUL.

6.11. EU Strategy to Protect and Conserve the Marine Environment

In October 2002, the Commission of the European Communities issued a document, as a communication from the Commission to the Council and European Parliament, entitled “*Towards a strategy to protect and conserve the marine environment*” (CEC, 2002) (Appendix EUM). This document lays down plans for the development of a system for the protection of the marine environment of the EU that is intended to apply beyond the limits of the current Water Framework Directive (*i.e.*, seawards of territorial sea baseline into territorial waters and the Exclusive Economic Zone of EU States). This document was the subject of a “Stakeholder Conference” held in Koge, Denmark, December 4-6, 2002. At the outset, it should be stressed that the EU Environment Commission states: “*The objectives in the Communication should be considered as aspirational objectives and are not of a legally binding nature.*” There is therefore no apparent intent to develop binding directives on marine strategic issues in the current phase of negotiations that are projected to extend at least until 2004. Nevertheless, it was clear from discussions at the Koge meeting that there are clearly some concerns on the part of industry that subsequent activities within the EU may lead to the development of more

binding instruments. These concerns were particularly evident among the maritime transport and offshore oil and gas sectors. Appendices EUN, EUP and EUQ contain the outcome of this meeting.

Further development of the EU Marine Strategy would clearly warrant surveillance from the perspective of potential ocean or seabed storage of CO₂. The topic remains of concern to the maritime transport and offshore development sectors and they also will be observing the process with interest to ensure that their concerns are addressed. It seems unlikely that much having a legally binding influence on maritime regulations will develop from this activity within the 4-7 year term. However, beyond this time frame, there could be rapid development within the EU of more binding provisions that could impose additional constraints on maritime activities in areas within EU State jurisdictions. Finally, there was discussion during the Koge meeting of the relationships between the EU and the existing regional marine environmental commissions (OSPAR, HELCOM, UNEP-MED). The creation of an on-going consultative process was discussed and this would be extended to new areas, such as the Black Sea as EU membership widens.

6.12. Summary Analysis of the Provisions of Relevant EU Directives

Contemporary EU Directives impose no prohibitions on the options for ocean and seabed storage of CO₂. They do, however, impose requirements that would have to be satisfied for any practical implementation of this practice within the European Union. These include the conduct of prior environmental impact assessments to ensure that effects on the environment would be limited and acceptable in a social and economic context. The one area in which current EU Directives may impose constraints on ocean and seabed storage options for CO₂ is in relation to the nature and levels of any hazardous impurities in the CO₂ sequestered from fossil fuel combustion sources. This issue has, however, not been addressed in this phase of the review.

Aside from the EU Directives themselves, there are several indications that, in the longer term, policy directions within the EU might impose considerable restrictions on the options for ocean and seabed storage of CO₂, especially storage in the hydrosphere. First is the inclusion in EU documentation and some directives of the statement “*with the ultimate aim of achieving concentrations in the marine environment near background values for naturally occurring substances and close to zero for man-made synthetic substances*” derived from an earlier OSPAR resolution. The fact that the marine environment is singled out is in itself rather peculiar but this undoubtedly reflects the sectoral development of environmental policy within the EU and elsewhere. Adherence to such an objective would place considerable *a priori* constraints on CO₂ storage in the hydrosphere but would not seem to directly affect storage in subseabed strata. The repeated reference to inadequately defined policy principles such as the ‘precautionary principle’, the ‘polluter-pays principle’, the ‘principle of sustainable development’ and the ‘concept of ecosystem management’ in current EU policy documents bearing on the marine environment suggests that continued foreclosure of management options will occur within the EU as has occurred within the London Convention without much consideration of the economic and social consequences. Despite the current claim that the development of a marine strategy by the EU is not foreseen as resulting in additional directives that will further constrain marine management options, such as the marine storage of CO₂, it appears to this observer that such increased restrictions are inevitable.

7. REGIONAL CONVENTIONS AND AGREEMENTS

This section of the report deals with multilateral agreements relating largely to the protection of regional marine and coastal environments. In most cases, these are full and binding conventions covering the protection of the marine environment from specific maritime and land-based activities. In other cases, they constitute non-binding agreements that do not have the status of conventions, such as the Arctic Council Agreement. Some regional conventions

(e.g., the Antarctic Treaty) and agreements (e.g., the Arctic Council agreement) have been included because, although their scope is generic (e.g., the primary focus of the Antarctic Treaty is the Antarctic Continent), they address activities affecting the marine environment or take into consideration marine environmental protection. Many of the regional conventions have been developed through the UNEP Regional Seas Programme, which notes that no conventions have yet been developed for East Asian Seas, South Asian Seas, Upper South-West Atlantic, North West Pacific, the northern North-East Pacific or Arctic regions.

7.1. North-East Atlantic: OSPAR Convention 1992

The *Convention for the Protection of the Marine Environment of the North-East Atlantic* (1992) (the OSPAR Convention) (Appendix RCB) stemmed from two earlier conventions, the Oslo Convention 1972) dealing with dumping of wastes at sea and the Paris Convention (1974) dealing with land-based sources of pollution. Its Contracting Parties are Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, the Netherlands, Norway, Portugal, Spain, Sweden and the United Kingdom of Great Britain and Northern Ireland, Luxembourg, Switzerland and the Commission of the European Communities.

Like its predecessors, the OSPAR Convention is designed to protect the environment of the maritime area generally described as 'the North-East Atlantic Region'. Article 3 requires that "...Contracting Parties shall take, individually and jointly, all possible steps to prevent and eliminate pollution from land-based sources in accordance with the provisions of the Convention" Furthermore, in contrast to its predecessors that were somewhat limited in scope, the OSPAR Convention aims to address all anthropogenic activities that have the potential to cause pollution or otherwise damage living marine resources, including threats to ecosystems and biodiversity. It is clear both from the text of the convention and approaches to its implementation adopted by many of its Contracting Parties that the programmes and measures of OSPAR will continue to develop and expand, addressing new threats and issues as they arise. OSPAR formally adheres to the concepts of 'sustainable development' and 'best environmental practice' as well as the 'polluter pays' and 'precautionary' principles.

7.1.1. Provisions of the OSPAR Convention

Article 1a of the convention defines the "Maritime Area" as:

the internal waters and the territorial seas of the Contracting Parties, the sea beyond and adjacent to the territorial sea under the jurisdiction of the coastal state to the extent recognised by international law, and the high seas, including the bed of all those waters and its sub-soil, situated within the following limits:

(i) *those parts of the Atlantic and Arctic Oceans and their dependent seas which lie north of 36° north latitude and between 42° west longitude and 51° east longitude, but excluding:*

(1) *the Baltic Sea and the Belts lying to the south and east of lines drawn from Hasenore Head to Griben Point, from Korshage to Spodsbjerg and from Gilbjerg Head to Kullen,*

(2) *the Mediterranean Sea and its dependent seas as far as the point of intersection of the parallel of 36° north latitude and the meridian of 5° 36' west longitude;*

(ii) *that part of the Atlantic Ocean north of 59° north latitude and between 44° west longitude and 42° west longitude. [Boldface added]*

Article 2 of the convention further extends the responsibilities of Contracting Parties requiring them to "apply the measures they adopt in such a way as to prevent an increase in pollution of the sea outside the maritime area or in other parts of the environment."

Article 1d defines "pollution" as "the introduction by man, directly or indirectly, of substances or energy into the maritime area which results, or is likely to result, in hazards to human

health, harm to living resources and marine ecosystems, damage to amenities or interference with other legitimate uses of the sea.” This definition is again derived from the 1969 definition of GESAMP and is similar to the forms used in the London Convention and UNCLOS.

Article 1e defines "land-based sources" as “point and diffuse sources on land from which substances or energy reach the maritime area by water, through the air, or directly from the coast. **It includes sources associated with any deliberate disposal under the sea-bed made accessible from land by tunnel, pipeline or other means and sources associated with man-made structures placed, in the maritime area under the jurisdiction of a Contracting Party, other than for the purpose of offshore activities.**” [Boldface added]

Article 1f defines "dumping" as “any deliberate disposal in the maritime area of wastes or other matter from vessels or aircraft, or from offshore installations, or any deliberate disposal in the maritime area of vessels or aircraft or offshore installations and pipelines.” "Dumping" does not include:

- (i) *the disposal in accordance with the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto [i.e., MARPOL 73/78], or other applicable international law, of wastes or other matter incidental to, or derived from, the normal operations of vessels or aircraft or offshore installations other than wastes or other matter transported by or to vessels or aircraft or offshore installations for the purpose of disposal of such wastes or other matter or derived from the treatment of such wastes or other matter on such vessels or aircraft or offshore installations;*
- (ii) ***placement of matter for a purpose other than the mere disposal thereof, provided that, if the placement is for a purpose other than that for which the matter was originally designed or constructed, it is in accordance with the relevant provisions of the Convention; and***
- (iii) *for the purposes of Annex III, the leaving wholly or partly in place of a disused offshore installation or disused offshore pipeline, provided that any such operation takes place in accordance with any relevant provision of the Convention and with other relevant international law.* [Boldface added]

Annexes I, II and III to the convention address the responsibilities and restrictions pertaining to the protection of the marine environment from land-based sources, dumping and incineration, and offshore installations respectively.

There are no outright bans on releases from land-based sources (e.g., discharges to water courses and via pipelines to the ocean) but there are requirements to use best available techniques for point sources and best environmental practice for point and diffuse sources. Article 3 of Annex I places emphasis on substances that “are toxic, persistent and liable to bioaccumulate arising from land-based sources and nutrients from urban, municipal, industrial, agricultural and other sources.”

Article 1 of Annex II of OSPAR states:

This Annex shall not apply to any deliberate disposal in the maritime area of:

- (a) *wastes or other matter from offshore installations;*
- (b) *offshore installations and offshore pipelines.*

This is a rather more general exclusion from the terms of Annex II than that contained in the Articles of the convention itself, especially Article 1 (f). On face value, it could be interpreted as excluding from the provisions of Annex II on dumping any deliberate disposal of waste from offshore installations. Consequently, there appears to be a contradiction between the text of Article 1 of Annex II and Article 1(f) of the convention that would deserve some attention and clarification from legal perspectives.

Under Annex II (Article 3) of the convention:

the dumping of all wastes or other matter is prohibited, except for:

- (a) *dredged material;*
- (b) *inert materials of natural origin, that is solid, chemically unprocessed geological material the chemical constituents of which are unlikely to be released into the marine environment;*
- (c) *sewage sludge until 31st December 1998;*
- (d) *fish waste from industrial fish processing operations;*
- (e) *vessels or aircraft until, at the latest, 31st December 2004.*

Paragraph 3 deals with the dumping of low and intermediate level radioactive wastes that was a topic of considerable contention when the OSPAR Convention text was being negotiated. As it currently stands, the dumping of radioactive waste is prohibited under this convention.

Article 5 of Annex II states:

*No placement of matter in the maritime area for a purpose other than that for which it was originally designed or constructed shall take place without authorisation or regulation by the competent authority of the relevant Contracting Party. Such authorisation or regulation shall be in accordance with the relevant applicable criteria, guidelines and procedures adopted by the Commission in accordance with Article 6 of this Annex. **This provision shall not be taken to permit the dumping of wastes or other matter otherwise prohibited under this Annex.***” [Boldface added]

Thus it appears that placement could not be used as a potential avenue for CO₂ storage in the ocean or seabed because, first, the CO₂ was not specifically produced for this purpose, and second, it is not covered by any entry in the reverse listing of candidate substances.

Annex II also states that it is “*the duty of the Commission to draw up and adopt criteria, guidelines and procedures relating to the dumping of [non-proscribed] wastes or other matter... and to the placement of matter referred to in Article 5, of this Annex, with a view to preventing and eliminating pollution.*”

A clause that could lay the foundation for exemptions in certain circumstances is included in Article 9 of Annex II:

In an emergency, if a Contracting Party considers that wastes or other matter the dumping of which is prohibited under this Annex cannot be disposed of on land without unacceptable danger or damage, it shall forthwith consult other Contracting Parties with a view to finding the most satisfactory methods of storage or the most satisfactory means of destruction or disposal under the prevailing circumstances. The Contracting Party shall inform the Commission of the steps adopted following this consultation. The Contracting Parties pledge themselves to assist one another in such situations.

In this context, it is difficult to interpret the strict meaning of the term “*in an emergency*”. Whether it could be claimed that the minimization of releases of CO₂ to the atmosphere to ameliorate potential climate change constituted an “*emergency*” is open to question.

Annex III, Article 3, which deals with offshore sources, specifies that:

1. *Any dumping of wastes or other matter from offshore installations is prohibited.*
2. *This prohibition does not relate to discharges or emissions from offshore sources.*

The strict interpretation of this Article would appear to rule out any direct disposal of CO₂ into the ocean from offshore installations into the water or the seabed. The exemption provided for discharges and emissions is obviously intended to cover operational discharges within the

meaning of the MARPOL 73/78 Convention but the language is rather ambiguous. The distinction between discharge and dumping when only the term “*dumping*” is defined (as “*any deliberate disposal in the maritime area of wastes or other matter*”) in the convention is open to debate but it is abundantly clear, from the remaining text of the convention, that the term “*discharge*” could not be interpreted as including activities such as the storage of CO₂ at sea from offshore platforms.

To date, OSPAR has no provisions, guidelines or procedures governing the placement of particular wastes or other matter into the seabed. This may be because no such practice falling within the jurisdiction of the convention has been considered within the OSPAR area. Nevertheless, it is clear from Article 1a that the *seabed and its sub-soil* (depth not specified) are considered integral parts of the maritime area. It is also explicit in Article 1e that potential sources of land-based pollution include “*any deliberate disposal under the sea-bed made accessible from land by tunnel, pipeline or other means...*” Finally, Article 1f shows that the deliberate disposal of waste into the seabed from vessels would be classified as a form of dumping.

The convention takes a strong stand against the dumping of wastes generally and precludes the dumping of industrial wastes and sewage sludge unless, in an emergency, contracting parties can agree that disposal on land cannot be conducted without unacceptable danger or damage. It is not clear whether or not the same provision would apply to wastes currently released into the atmosphere that putatively promote global climate change. The placement of matter, including placement into the seabed, is not considered a form of dumping but the placement of wastes precluded under the ‘*dumping*’ clauses of Annex II is not permitted. Unless otherwise determined by the Commission, it must be assumed that the by-products of power generation (e.g., CO₂) would be classified as waste.

The attitude of OSPAR Contracting Parties to any proposals for the placement of waste into the seabed is difficult to predict. There are few exemptions from the basic provisions of the convention and no explicit references, in either the articles or annexes of the convention, that would suggest a softer attitude towards practices that could be seen as being in the best interests of society. Nevertheless, there seems to be no *a priori* reason why a justifiable practice could not be regulated under the convention by means of guidelines and procedures developed by the Commission specifically for this purpose. An example of such a practice would be dredging, which clearly serves the common good. Other practices having net benefits to society could also be considered. It appears likely, however, that for OSPAR to approve the practice of marine storage of fossil fuel combustion derived CO₂ into subseabed strata from vessels and offshore platforms, much would depend upon:

- a) the collective view of contracting parties regarding the relative merits of continued CO₂ disposal into the atmosphere as opposed to the use of the seabed (e.g., Is the need for an alternative to atmospheric release sufficiently critical to be deemed ‘an emergency’); and
- b) how the practice of CO₂ placement into the seabed might be characterized (i.e., disposal, isolation, storage, etc.), the means of placement (e.g., by pipeline from land, injection from vessels, etc.) and the potential for harmful effects on the marine environment.

In this context, it would clearly be necessary to demonstrate that the technologies to be employed present minimal risks of pollution (i.e., minimal risks of adverse effects on the marine environment rather than contamination to which the term ‘pollution’ is commonly equated in OSPAR circles) and that adequate safeguards would be in place to deal with accidents, leakages and so forth. Opinions on such issues can be sought from the Commission at the request of one or more contracting parties.

With respect to how the convention rates the potential of a practice to harm the environment, some guidance may be drawn from Appendix 3 that gives the criteria to be used in identifying

activities that may affect ecosystems and biodiversity (the subject of Annex V). This Appendix states:

The criteria to be used, taking into account regional differences, for identifying human activities for the purposes of Annex V are:

- a. *the extent, intensity and duration of the human activity under consideration;*
- b. *actual and potential adverse effects of the human activity on specific species, communities and habitats;*
- c. *actual and potential adverse effects of the human activity on specific ecological processes;*
- d. *irreversibility or durability of these effects.*

Although these criteria are not exhaustive, they nevertheless provide useful insight into the characteristics of human activities that are considered most relevant in assessing risks to the environment. None of the articles or annexes to the convention embraces the concept of net-benefit to society, whereby a comparison of all options for the conduct or management of an essential activity shows that use of the sea is the option of least detriment to the environment and Man.

7.1.2. Summary Analysis of the Provisions of the OSPAR Convention

Drawing overall and unequivocal conclusions from the analysis of the OSPAR Convention is somewhat difficult. Nevertheless, there is little doubt that the storage of CO₂ in the ocean or seabed from vessels or offshore structures would be interpreted as constituting “*dumping*” and therefore, because CO₂ does not fall within the list of materials contained in the reverse listing of Annex II, it is prohibited. Such a prohibition would apply equally to storage in the marine hydrosphere and the seabed (accessed from land or sea).

The terms applying to “*emplacement*” under the convention would also seem to exclude ocean and seabed storage of CO₂ especially since the CO₂ was not specifically generated for this purpose. On the other hand, Article 3 of Annex III while stating that *any dumping of wastes or other matter from offshore installations is prohibited* notes that “*This prohibition does not relate to discharges or emissions from offshore sources.*” Interpretation on this point requires a fine distinction between the concepts of “*discharge*” and “*dumping*”. Only if ocean or seabed storage of CO₂ could be defined as a “*discharge*”, and probably also an “*operational discharge*”, would it be permissible, in principle, to consider the practice but from an offshore installation. It appears that the subseabed injection of CO₂, generated specifically at an offshore installation might be permissible under the OSPAR Convention but that subseabed injection of CO₂ transported to an offshore installation for subsequent injection would not be permissible. This would appear to be the *de facto* situation in view of the OSPAR Commission remaining mute on current practices at the Sleipner field.

The introduction of CO₂ from a terrigenous source via a pipeline into the ocean hydrosphere or into the seabed, or indeed from land to an offshore structure followed by similar injection, would not appear to be prohibited under the OSPAR Convention. Nevertheless, in view of the strong desire on the part of the Contracting Parties to the convention to limit anthropogenic influences on the marine environment, it seems likely that only CO₂ storage in the seabed would be viewed sympathetically by a Contracting Party to which an application for authorization is made.

7.1.3. Internal Review by the OSPAR Commission of Ocean and Seabed Storage of CO₂

The OSPAR Commission has recently prepared a working paper on the topic of ocean injection of CO₂ under the title of “*Compatibility with the OSPAR Convention of possible placements of carbon dioxide in the sea or the seabed.*” (OSPAR, 2002) (Appendix RCC) The review in this paper is primarily from legal perspectives and is intended for consideration by a

panel of jurists and linguists to determine its validity and to make any recommendations for action on the part of the Commission. The working paper comes to similar conclusions to those reached above, namely that injection of CO₂ from a vessel or platform would be prohibited under the terms of the convention while injection via a pipeline from land appears permissible under the convention subject to authorization by a Contracting Party and compliance with the provisions of the convention. The working paper includes reference to the provisions of the London Convention 1972 although it does not take account of all recent amendments to the latter. Most interestingly, the review considers the possibility of defining CO₂ as an “*organic material of natural origin*” in order to make it compatible with one of the entries on the reverse list of allowable candidate materials for dumping at sea. From chemical perspectives this seems a flawed approach, because CO₂ is not, according to technical definitions of terms, an organic chemical. It might have been more reasonable to have considered whether CO₂ could be defined as an ‘*inert, inorganic geological material*’. Nevertheless, the fact that the CO₂ is derived from industrial activities would seem to confound any attempt to align CO₂ with entries on the reverse list in the London Convention as proposed in the OSPAR document. It might, however, constitute a possible approach in the context of the 1996 Protocol to the London Convention when it comes into force.

7.2. Baltic Sea: Helsinki Convention 1992

The *Convention on the Protection of the Marine Environment of the Baltic Sea Area* (Helsinki Convention 1992) (Appendix RCD) covers the “Baltic Sea Area” defined (in Article 1) as “*the Baltic Sea and the entrance to the Baltic Sea bounded by the parallel of the Skaw in the Skagerrak at 57 44.43’N. It includes the internal waters, i.e., for the purpose of this Convention waters on the landward side of the base lines from which the breadth of the territorial sea is measured up to the landward limit according to the designation by the Contracting Parties.*” Contracting Parties to this convention are Denmark, Estonia, the European Community, Finland, Germany, Latvia, Lithuania, Poland, Russia and Sweden.

Its objective is the adoption by Contracting Parties of “*all appropriate legislative, administrative or other relevant measures to prevent and eliminate pollution in order to promote the ecological restoration of the Baltic Sea Area and the preservation of its ecological balance.*”

7.2.1. Provisions of the Helsinki Convention

The terms “*pollution*” and “*dumping*” are defined (Article 2) in a similar manner to the definitions in the London and OSPAR Conventions. The Helsinki Convention definition of dumping and its exclusions reads as follows:

4. a) “*Dumping*” means:

- i) *any deliberate disposal **at sea or into the seabed** of wastes or other matter from ships, other man-made structures at sea or aircraft;*
- ii) *any deliberate disposal at sea of ships, other man-made structures at sea or aircraft;*

b) “*Dumping*” does not include:

- i) *the disposal at sea of wastes or other matter incidental to, or derived from the normal operations of ships, other man-made structures at sea or aircraft and their equipment, other than wastes or other matter transported by or to ships, other man-made structures at sea or aircraft, operating for the purpose of disposal of such matter or derived from the treatment of such wastes or other matter on such ships, structures or aircraft;*
- ii) *placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of the present Convention; [Boldface added]*

Like OSPAR, the Helsinki Convention formally embodies the ‘*precautionary principle*’, the application of the ‘*polluter-pays principle*’ and the concepts of ‘*best environmental practice*’ and ‘*best available technology*’. Also like the OSPAR Convention, it extends the responsibilities of Contracting Parties (Article 3) to using “*their best endeavours to ensure that the implementation of this Convention does not cause transboundary pollution in areas outside the Baltic Sea Area. Furthermore, the relevant measures shall not lead either to unacceptable environmental strains on air quality and the atmosphere or on waters, soil and ground water, to unacceptably harmful or increasing waste disposal, or to increased risks to human health.*”

Under the terms of Article 11 of the convention, the only candidate material permitted for non-emergency dumping under the Helsinki Convention is dredged material. The emergency provisions apply only to considerations of “*safety of human life or of a ship or aircraft at sea is threatened by the complete destruction or total loss of the ship or aircraft*”. Accordingly, the deliberate introduction of CO₂ into the hydrosphere or the seabed of the Baltic Sea Area would be prohibited.

Article 4 specifies that the convention applies “*to the protection of the marine environment of the Baltic Sea Area which comprises the water-body and the seabed including their living resources and other forms of marine life.*” **[Boldface added]**

Article 5 states “*The Contracting Parties undertake to prevent and eliminate pollution of the marine environment of the Baltic Sea Area caused by harmful substances from all sources, according to the provisions of this Convention and, to this end, to implement the procedures and measures of Annex I.*”

Article 6 deals specifically with protection from land-based sources and states

1. *The Contracting Parties undertake to prevent and eliminate pollution of the Baltic Sea Area from land-based sources by using, inter alia, Best Environmental Practice for all sources and Best Available Technology for point sources. The relevant measures to this end shall be taken by each Contracting Party in the catchment area of the Baltic Sea without prejudice to its sovereignty.*
2. *The Contracting Parties shall implement the procedures and measures set out in Annex III. To this end they shall, inter alia, as appropriate co-operate in the development and adoption of specific programmes, guidelines, standards or regulations concerning emissions and inputs to water and air, environmental quality, and products containing harmful substances and materials and the use thereof.*

The terms of the convention and its Annex III pertaining to land-based discharges contain no specific provisions that would prohibit the introduction of CO₂ from a land source via a pipeline for the purposes of ocean or seabed storage. However, similar to most other regional conventions, it is likely that any proposal to a Helsinki Convention Contracting Party for authorization of such a practice would have a much greater probability of success in respect to CO₂ storage in the subseabed than in the hydrosphere. This is largely because of the scale of effects of CO₂ injection into this relatively shallow marginal sea having restricted water exchange with external offshore areas would be greater than those in well flushed regions.

Article 7 of the Helsinki Convention does not have a parallel in the other regional conventions reviewed. This Article is worth quoting in its entirety and reads:

1. *Whenever an environmental impact assessment of a proposed activity that is likely to cause a significant adverse impact on the marine environment of the Baltic Sea Area is required by international law or supra-national regulations applicable to the Contracting Party of origin, that Contracting Party shall notify the Commission and*

any Contracting Party which may be affected by a transboundary impact on the Baltic Sea Area.

2. *The Contracting Party of origin shall enter into consultations with any Contracting Party which is likely to be affected by such transboundary impact, whenever consultations are required by international law or supra-national regulations applicable to the Contracting Party of origin.*
3. *Where two or more Contracting Parties share transboundary waters within the catchment area of the Baltic Sea, these Parties shall cooperate to ensure that potential impacts on the marine environment of the Baltic Sea Area are fully investigated within the environmental impact assessment referred to in paragraph 1 of this Article. The Contracting Parties concerned shall jointly take appropriate measures in order to prevent and eliminate pollution including cumulative deleterious effects.*

The inclusion of this Article might offer a means of exploring the acceptability under the Helsinki Convention of the concept of ocean and seabed storage of CO₂ on the grounds of its being sanctioned by the Framework Convention on Climate Change.

7.2.2. Summary Analysis of the Provisions of the Helsinki Convention

In its current form, the Helsinki Convention would not permit any injection from a ship or offshore platform of land-derived CO₂ into the hydrosphere or seabed of the Baltic Sea Area. This is also the case for CO₂ recovered from a natural gas stream on an offshore oil and gas platform unless the emplacement of such CO₂ can be categorized as an operational activity, e.g., enhanced oil recovery.

Pipeline discharges into the Baltic Sea from land are not prohibited under the convention. However, any proposal to inject CO₂ into the hydrosphere of the Baltic Sea via a pipeline from land is only likely to be tenable in relation to storage in subseabed strata. Any proposal to inject CO₂ into the hydrosphere is unlikely to be approved because the extremely limited exchange of the Baltic Sea with external offshore areas that will result in the concentration of any concomitant effects in the marginal sea itself.

This convention differs from others, however, in that it makes allowance for practices approved by supra-regional agreements to which Contracting Parties may be bound. This offers the possibility of making an argument in favour of marine storage of CO₂, possibly under the “*placement*” provisions of the convention, on the grounds of claiming that the practice is in conformity with the provisions of the FCCC and offers net benefit to society.

7.3. Antarctic: Antarctic Treaty 1961

The Antarctic Treaty (Appendix RCE) is a convention covering a regional area to which 27 countries, including Argentina, Australia, Belgium, Chile, the French Republic, Japan, New Zealand, Norway, the Union of South Africa, the Union of Soviet Socialist Republics, the United Kingdom and the United States of America, are Contracting Parties.

Article VI of the Treaty states:

The provisions of the present Treaty shall apply to the area south of 60° South Latitude, including all ice shelves, but nothing in the present Treaty shall prejudice or in any way affect the rights, or the exercise of the rights, of any State under international law with regard to the high seas within that area.

The Treaty has the objective of ensuring that the Antarctic is used for peaceful purposes only and prohibits military activities of any kind. The main features of the Treaty are the promotion of scientific research and cooperation among the parties.

7.3.1. Protocol on Environmental Protection to the Antarctic Treaty (Madrid Protocol 1991)

The Madrid Protocol (Appendix RCF) was adopted in 1991 in response to proposals that the wide range of provisions relating to protection of Antarctica should be harmonized in a comprehensive and legally binding form. It draws on, and updates, the Agreed Measures under Article IX of the Antarctic Treaty as well as subsequent Treaty meeting recommendations relating to protection of the environment. The negotiation of the protocol followed many years of international negotiations on controlling potential mineral resource exploitation activities in Antarctica. The underlying assumption of the Antarctic Minerals Convention, adopted in June 1988 by a Special Antarctic Treaty Consultative Meeting in Wellington (NZ), was that it may be possible for mining activities to be consistent with the protection of the antarctic environment. This assumption, however, became a subject of increased questioning.

The Madrid Protocol entered into force on 14 January 1998 following the deposit of instruments of ratification, acceptance, approval or accession by all the States that were Consultative Parties on 4 October 1991. It:

- designates Antarctica as a '*natural reserve, devoted to peace and science*';
- establishes environmental principles for the conduct of all activities;
- prohibits mining;
- subjects all activities to prior assessment of their environmental impacts;
- provides for the establishment of a Committee for Environmental Protection, to advise the ATCM (Arctic Treaty Consultative Meeting);
- requires the development of contingency plans to respond to environmental emergencies; and
- provides for the elaboration of rules relating to liability for environmental damage.

The protocol is based on the premise that the protection of the antarctic environment and its dependent and associated ecosystems and the preservation of the intrinsic value of Antarctica must be fundamental precepts in the planning and conduct of human activities in the region. It requires that all human activities in Antarctica are planned and conducted so as to:

- *limit adverse impacts on the antarctic environment; and*
- *avoid*
 - *adverse effects on climate or weather patterns;*
 - *significant adverse effects on air or water quality;*
 - *significant changes in the atmospheric, terrestrial (including aquatic), glacial or marine environments;*
 - *detrimental changes in the distribution, abundance or productivity of species or populations of species of fauna and flora;*
 - *further jeopardy to endangered or threatened species; or*
 - *degradation of, or substantial risk to, areas of biological, scientific, historic, aesthetic or wilderness significance;*

[and]

- *accord priority to preserving the value of Antarctica for scientific research.*

The environmental principles in the protocol also include requirements for:

- prior assessment of the environmental impacts of all activities; and
- regular and effective monitoring to assess predicted impacts and to detect unforeseen impacts.

Article 7 of the protocol states “*Any activity relating to mineral resources, other than scientific research, shall be prohibited.*”

Annexes that detail specific measures and procedures also accompany the protocol. These annexes and their subject matter are outlined in the following subsections.

Annex I: Environmental impact assessment. Activities are assessed on whether they have a minor or transitory impact on the environment. At the highest level of impact a Comprehensive Environment Evaluation must be prepared and opportunity provided for the Committee for Environmental Protection and other Consultative Parties to comment on the proposal.

Article 2 of Annex I entitled “*Initial Environmental Evaluation*” specifies:

1 Unless it has been determined that an activity will have less than a minor or transitory impact, or unless a Comprehensive Environmental Evaluation is being prepared in accordance with Article 3, an Initial Environmental Evaluation shall be prepared. It shall contain sufficient detail to assess whether a proposed activity may have more than a minor or transitory impact and shall include:

- (a) a description of the proposed activity, including its purpose, location, duration and intensity; and*
- (b) consideration of alternatives to the proposed activity and any impacts that the activity may have, including consideration of cumulative impacts in the light of existing and known planned activities.*

2 If an Initial Environmental Evaluation indicates that a proposed activity is likely to have no more than a minor or transitory impact, the activity may proceed, provided that appropriate procedures, which may include monitoring, are put in place to assess and verify the impact of the activity.

Article 3 specifies the nature of the comprehensive environmental evaluation that is required in the event that the proposed activity may have more than a minor or transitory impact. Any decision on proceeding with the proposed activity must be based on this comprehensive environmental evaluation.

Annex II: Conservation of Antarctic fauna and flora. Annex II updates the existing rules relating to the protection of animals and plants (requiring a permit for interference with them) and relating to the introduction of non-indigenous organisms.

This annex deals with the introduction of species and the protection of indigenous species. It also places restrictions on human activities that potentially disturb indigenous species.

Annex III: Waste disposal and waste management. This annex specifies wastes that may be disposed of within Antarctica and wastes that must be removed. It also provides rules relating to the disposal of human waste and the use of incinerators. Particularly harmful products such as PCBs, polystyrene packaging beads and pesticides are prohibited in the Antarctic. Nothing in this annex deals with wastes brought into the Antarctic for ultimate disposal.

Annex IV: Prevention of marine pollution. The discharge of substances from ships, including oily mixtures and garbage is regulated, as is the disposal of ship-generated sewage. The annex adopts practices broadly consistent with those applying in the relevant annexes of MARPOL. Disposal at sea of any plastics is prohibited.

This annex deals only with operational releases from ships and marine platforms that are covered under the MARPOL 73/78 Convention. No reference is made to materials brought into the Antarctic for disposal from ships.

Annex V: Management of protected areas. Annex V establishes a revised protected area system that integrates the previous categories of protected areas into Antarctic Specially Protected Areas (entry to which requires a permit) and Antarctic Specially Managed Areas. Management plans apply to both categories. The protected area system also provides for the designation of historic sites and monuments that must not be damaged or removed. Nothing in this annex is relevant to the present study.

An additional annex to the protocol is to be negotiated that deals with liability for environmental damage.

7.3.2. Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR)

This convention (Appendix RCG) is of no direct relevance to the present study as it deals with conservation of marine organisms and the prevention of over-exploitation.

7.3.3. Summary Analysis of the Provisions of the Antarctic Treaty

The predominant component of the Antarctic Treaty system that is relevant to the present study is the Madrid Protocol. Its aim of avoiding “*significant adverse effects on air or water quality, detrimental changes in the distribution, abundance or productivity of species or populations of species of fauna and flora, further jeopardy to endangered or threatened species and degradation of, or substantial risk to, areas of biological, scientific, historic, aesthetic or wilderness significance*” would suggest that any proposal to store CO₂ in the ocean hydrosphere south of the Antarctic Convergence would be unlikely to receive a favourable reception. In any event, it would require the completion of a prior impact assessment indicating that adverse effects on the environment would be of minor significance. It is conceivable that CO₂ placement in the seabed might be able to meet all the obligations under the Antarctic Treaty and related protocols and conventions. Nevertheless, it is unlikely to be viewed positively because of the potential damage caused by the injection system itself and the potential for setting a precedent for other anthropogenic activities in the Antarctic. In this context, it should also be remembered that the Basel Convention prohibits the export of wastes from Contracting Parties to the Antarctic below 60°S latitude.

7.4. Mediterranean Sea: Barcelona Convention 1976

The *Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean* (Barcelona Convention 1976) (Appendix RCH) is a UNEP Regional Seas Convention that entered into force on 12 February 1978. The following analysis is carried out in relation to the text of the Barcelona Convention as revised in Barcelona, Spain, on 10 June 1995. This amendment has not yet come into force.

The *Mediterranean Sea Area* covered by the Barcelona Convention “*shall mean the maritime waters of the Mediterranean Sea proper, including its gulfs and seas, bounded to the west by the meridian passing through Cape Spartel lighthouse, at the entrance of the Straits of Gibraltar, and to the east by the southern limits of the Straits of the Dardanelles between Mehmetcik and Kumkale lighthouses.*” The Barcelona Convention therefore only applies to the hydrosphere, not to the seabed or subsoil, of the Mediterranean region extending from the Straits of Gibraltar and Dardanelles. Articles 5, 6, 7 and 8 of the convention deal with the prevention of pollution from: dumping from ships and aircraft; discharges from ships; exploration and exploitation of the continental shelf, the seabed and its subsoil; and land-based sources respectively. Nevertheless, the terms of these articles take the form: “*Contracting Parties shall take all appropriate measures to prevent, abate, combat and to the fullest possible extent eliminate pollution of the Mediterranean Sea Area caused by/resulting from*” The convention is of an advisory nature and nothing in its general provisions and obligations implies prohibition of any specific activity or the introduction of any specific substance. Article 8 on pollution from land-based sources covers the

introduction of material to the Mediterranean Sea Area through runoff via rivers, canals, etc., discharges via outfalls, groundwater flow and transport via the atmosphere. It requires Contracting Parties “to draw up and implement plans for the reduction and phasing out of substances that are toxic, persistent and liable to bioaccumulate arising from land-based sources.”

This reflects contemporary concerns about so-called “Persistent Toxic Substances” (PTS) (this is UNEP and Global Environment Facility terminology) but this class of compounds would not include CO₂.

In addition, Article 11 requires Contracting Parties to “take all appropriate measures to prevent, abate and to the fullest possible extent eliminate pollution of the environment which can be caused by transboundary movements and disposal of hazardous wastes, and to reduce to a minimum, and if possible eliminate, such transboundary movements.”

7.4.1. Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft 1976 (Revised 1995)

The 1976 Dumping Protocol under the Barcelona Convention, as revised in 1995 (Appendix RCJ) but not yet in force, takes a form analogous to that of the original London Convention 1972. It contains in Annex I a list of banned substances and in Annex II a list of substances for which special permits for dumping at sea are required. Under Annex I, the following substances are prohibited from dumping at sea:

1. *Organohalogen compounds and compounds which may form such substances in the marine environment, excluding those which are non-toxic or which are rapidly converted in the sea into substances which are biologically harmless, provided that they do not make edible marine organisms unpalatable.*
2. *Organosilicon compounds and compounds which may form such substances in the marine environment, excluding those which are non-toxic or which are rapidly converted in the sea into substances which are biologically harmless, provided that they do not make edible marine organisms unpalatable.*
3. *Mercury and mercury compounds.*
4. *Cadmium and cadmium compounds.*
5. *Persistent plastic and other persistent synthetic materials which may materially interfere with fishing or navigation, reduce amenities, or interfere with other legitimate uses of the sea.*
6. *Crude oil and hydrocarbons which may be derived from petroleum, and any mixtures containing any of these, taken on board for the purpose of dumping.*
7. *High-, medium- and low-level radioactive wastes or other high-, medium- and low-level radioactive matter to be defined by the International Atomic Energy Agency.*
8. *Acid and alkaline compounds of such composition and in such quantity that they may seriously impair the quality of sea water. The composition and quantity to be taken into consideration shall be determined by the Parties in accordance with the procedure laid down in Article 14 (3) of this Protocol.*
9. *Materials in whatever form (e.g. solids, liquids, semi-liquids, gases, or in a living state) produced for biological and chemical warfare, other than those rapidly rendered harmless by physical, chemical or biological processes in the sea, provided that they do not:*
 - (i) *make edible marine organisms unpalatable; or*
 - (ii) *endanger human or animal health.*

B. This Annex does not apply to wastes or other materials, such as sewage sludge and dredge spoils, containing the substances referred to in paragraphs 1 to 6 above as trace contaminants. The dumping of such wastes shall be subject to the provisions of Annexes II and III as appropriate.

Among these, the entry coming closest to CO₂ is: “*Acid and alkaline compounds of such composition and in such quantity that they may seriously impair the quality of sea water.*” Under Annex II, substances requiring special care, the entry of most relevance is “*Substances which, though of a non-toxic nature may become harmful owing to the quantities in which they are dumped, or which are liable to reduce amenities seriously or to endanger human life or marine organisms or to interfere with navigation.*”

While there exists no prohibition that would apply to CO₂, these entries in the annexes could be used to object to any plan to store CO₂ in the Mediterranean hydrosphere. No such objection would be likely to be tenable in relation to CO₂ storage in the seabed as this would be unlikely to have any profound effects on water quality or endanger marine life.

The protocol contains a similar exclusion from “*dumping*” to that of several other conventions, namely:

- (a) the disposal at sea of wastes or other matter incidental to, or derived from, the normal operations of vessels, or aircraft and their equipment, other than wastes or other matter transported by or to vessels or aircraft, operating for the purpose of disposal of such matter, or derived from the treatment of such wastes or other matter on such vessels or aircraft;*
- (b) placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of this Protocol.*

Thus, if CO₂ sequestered from an offshore natural gas stream were to be defined as ‘*matter incidental to, or derived from, the normal operation of a structure at sea*’, it could be injected into the hydrosphere or seabed without this protocol imposing any restriction. The exclusion of ‘*placement*’ could be used as a basis for ocean and seabed storage of CO₂ derived from offshore or land sources in the ocean or seabed if it could be shown to be consistent with the aims of the protocol.

7.4.2. Protocol on the Prevention of Pollution of the Mediterranean Sea by Transboundary Movements of Hazardous Wastes and their Disposal 1996

This protocol (Appendix RCK), which is not yet in force, is intended to reflect the provisions of the Basel Convention within the Mediterranean region. It essentially adheres to the provisions, language and structure of the Basel Convention. It therefore contains nothing that would apply a more restrictive regime than that imposed by the Basel Convention itself.

7.4.3. Protocol Concerning Co-operation in Combating Pollution of the Mediterranean Sea by Oil and Other Harmful Substances in Cases of Emergency 1976

This protocol that entered into force 12 February 1978 relates to accidents and contains nothing of immediate relevance to this study.

7.4.4. Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities 1996

This protocol (Appendix RCL), which was adopted in Syracuse, Italy, on 7 March 1996, largely reflects the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities adopted in Washington, D.C., in November 1995. The protocol covers discharges in the hydrologic basin of the Mediterranean Sea, into the Mediterranean Sea Area itself from coastal activities and the entry of substances from land-based activities by way of atmospheric transport and deposition. It also extends to “*polluting discharges from*

fixed man-made offshore structures which are under the jurisdiction of a Party and which serve purposes other than exploration and exploitation of mineral resources of the continental shelf and the sea-bed and its subsoil.”

Under “*General Obligations*” in Article 5 of the protocol, it states: “*Parties undertake to eliminate pollution deriving from land-based sources and activities, in particular to phase out inputs of the substances that are toxic, persistent and liable to bioaccumulate listed in annex I.*” As in the GPA, this protocol contains language of an advisory nature with Annex I containing a list of relevant land-based practices, a list of characteristics relevant to deciding on the potential adverse effects of substances should they be introduced to the marine environment and a list of substances of most concern when considering the authorization of activities potentially affecting the marine environment of the region. In the last of these entries, that of most relevance to ocean storage of CO₂ is “*Non-toxic substances that may have adverse effects on the physical or chemical characteristics of seawater.*”

Nothing in this protocol imposes prohibitions on either activities or substances. As with other elements of the Barcelona Convention system, there may be greater concern about adverse effects resulting from CO₂ storage in the hydrosphere than with storage in subseabed strata.

This protocol encompasses discharges from offshore structures that serve purposes other than seabed mineral exploitation. Thus, while injection of CO₂ extracted from a natural gas stream at an offshore installation would appear not to be covered by this protocol, the same is not the case for the injection of CO₂ derived from terrigenous sources and brought to the marine environment for injection from an offshore platform.

7.4.5. Protocol for the Protection of the Mediterranean Sea against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil 1994

This protocol (Appendix RCM) was adopted in Madrid, Spain, on 14 October 1994, but is not yet in force. It applies to offshore exploration and exploitation activities including materials used in and wastes derived from such activities. Nothing in the text of this protocol would apply to wastes brought from land for marine storage. It might be invoked in relation to CO₂ removed from an offshore hydrocarbon waste stream for re-injection into a subseabed structure but such a practice would only have to meet the relevant requirements of this protocol.

7.4.6. Protocol Concerning Mediterranean Specially Protected Areas 1982

This protocol (Appendix RCN), which came into force since 1986 and was subsequently revised in Barcelona, Spain, on 10 June 1995, deals with the designation of specially protected areas. In the 1982 version of the protocol these are restricted to the territorial waters and internal waters of parties to the Barcelona Convention. They are extended to all areas under national jurisdiction in the 1995 revision (*Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean*) that came into force in 1999. Apart from the more stringent controls on anthropogenic activities that might be applied within designated specially protected areas, the protocol contains nothing of immediate relevance to the present study.

7.4.7. Summary Analysis of the Provisions of the Barcelona Convention and Protocols

There are virtually no provisions of the Barcelona Convention and its protocols that create a regime in the Mediterranean Sea Area that is more restrictive than the global conventions to which its Contracting Parties are bound or non-binding international agreements, such as the GPA. This applies particularly in respect to the provisions regarding dumping at sea that are analogous to those of the original London Convention. These are much less restrictive than the current provisions of this latter convention. The one area where the protocols to the Barcelona Convention extend jurisdiction into offshore operations is in relation to offshore exploration and exploitation. Nevertheless, there is nothing imposing a more restrictive regime that might

apply to CO₂ storage in the ocean or seabed except in the case of the reinjection of CO₂ extracted from hydrocarbons recovered during offshore exploitation activities into the seabed. In this latter instance, there would be a mandatory requirement for prior assessments of the concomitant effects on the Mediterranean hydrosphere.

7.5. Red Sea/Gulf of Aden: Jeddah Convention 1982

The *Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment* and its *Protocol Concerning Regional Co-Operation in Combating Pollution By Oil and Other Harmful Substances in Cases of Emergency* (Jeddah Convention) (Appendix RCP) entered into force 20 August 1985. This UNEP Regional Seas Convention covers the Red Sea, the Gulf of Aqaba, the Gulf of Suez, the Suez Canal to its Mediterranean extremity and the Gulf of Aden as bounded by the following coordinates: from Ras Dharbat Ali (16° 39' N; 53° 03.5' E), thence to a point (16° 00' N; 53° 25' E), thence to a point (12° 40' N; 55° 00' E) lying ENE of Socotra Island, thence to Ras Hafun (lat. 10° 26' N, long. 51° 25' E). This convention addresses the prevention of pollution derived from intentional and accidental discharges from ships, dumping from ships and aircraft, discharges from land, including outfalls and pipelines, exploration and exploitation of seabed resources, land reclamation and coastal, estuarine and river dredging activities. In the case of the first two of these categories, it has the objective of ensuring regional compliance with the corresponding global conventions (*i.e.*, the MARPOL 73/78 and London Conventions).

The associated protocol deals specifically with cooperation “*in taking measures to protect the coastline and related interests of one or more of the Parties from the threat and effects of pollution due to the presence of oil or other harmful substances in the marine environment resulting from marine emergencies.*”

As in the case of the Mediterranean, nothing in this convention imposes a stricter regime in the Red Sea and Gulf of Aden than that imposed by relevant global conventions.

7.6. Eastern Africa: Nairobi Convention 1985

The *Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region* (Nairobi Convention 1985) (Appendix RCQ) is also a UNEP Regional Seas Convention. Its geographical scope is defined as the “*Convention area*” and comprises the marine and coastal environment of that part of the Indian Ocean situated within the Eastern African region and falling within the jurisdiction of the Contracting Parties to this convention. As in several other Regional Seas Conventions, the areas of coverage of this convention are the protection of the marine environment from discharges from ships, dumping at sea, discharges and emissions from land-based sources (introduced both through water and atmospheric transport) land reclamation and dredging. Other parts of the convention deal with emergencies and the designation of specially protected areas. The convention is primarily of a consultative nature and specifies responsibilities for the introduction of environmental protection measures by Contracting Parties.

7.6.1. Protocol Concerning Protected Areas and Wild Fauna and Flora in the Eastern African Region 1985

This protocol (Appendix RCR), which was adopted at Nairobi on 21 June 1985, has the purpose of ensuring that “*all appropriate measures to maintain essential ecological processes and life support systems, to preserve genetic diversity, and to ensure the sustainable utilization of harvested natural resources under their jurisdiction. In particular, the Contracting Parties shall endeavour to protect and preserve rare or fragile ecosystems as well as rare, depleted, threatened or endangered species of wild fauna and flora and their habitats in the Eastern African region.*” Should specially protected areas be designated according to the provisions of this protocol, additional restrictions on anthropogenic activities may be imposed within these areas. In other respects, the protocol is not directly relevant to the present study.

7.6.2. Summary Analysis of the Provisions of the Nairobi Convention and Protocols

Similar to the case of the Barcelona and Jeddah Conventions, the requirements of the Nairobi Convention impose no additional restrictions to those associated with global marine environmental protection conventions and agreements.

7.7. South Pacific: Noumea Convention 1986

The *Convention for the Protection of the Natural Resources and Environment of the South Pacific Region* (Noumea Convention 1986) (Appendix RCS) is another UNEP Regional Seas Convention. The Convention Area is defined as:

- (i) *the 200 nautical mile zones established in accordance with international law off: American Samoa; Australia (East coast and Islands to eastward including Macquarie Island); the Cook Islands; the Federated States of Micronesia; French Polynesia; Guam; Kiribati; the Marshall Islands; Nauru; New Caledonia and Dependencies; New Zealand; Niue; the Northern Mariana Islands; Palau; Papua New Guinea; the Pitcairn Islands; the Solomon Islands; Tokelau; Tonga; Tuvalu; Vanuatu; Wallis and Futuna; and Western Samoa.*
- (ii) *those areas of high seas which are enclosed from all sides by the 200 nautical mile zones referred to in sub-paragraph (i);*
- (iii) *areas of the Pacific Ocean which have been included in the Convention Area pursuant to Article 3 (which states that “Any Party may add areas under its jurisdiction within the Pacific Ocean between the Tropic of Cancer and 60 degrees South latitude and between 130 degrees East longitude and 120 degrees West longitude to the Convention Area.”)*

The convention covers the prevention of pollution from discharges from vessels, coastal disposals and land-based sources (both by way of water and atmospheric transport mechanisms), seabed exploration and exploitation, dumping by ships and aircraft, and coastal erosion arising from coastal engineering works, mining, land reclamation and dredging. Largely because of contemporary regional concerns about nuclear weapons testing in the Pacific, dominant attention is paid to radioactive matter. The convention prohibits the dumping of radioactive wastes or other radioactive matter in the Convention Area. In this context it further states:

Without prejudice to whether or not disposal into the seabed and subsoil of wastes or other matter is "dumping", the Parties agree to prohibit the disposal into the seabed and subsoil of the Convention Area of radioactive wastes or other radioactive matter.

Article 11 of the convention states: “*The Parties shall take all appropriate measures to prevent, reduce and control pollution in the Convention Area resulting from the storage of toxic and hazardous wastes. In particular, the Parties shall prohibit the storage of radioactive wastes or other radioactive matter in the Convention Area.*” The relevance of this text to CO₂ storage in the ocean and seabed is not known without a definition of the phrase ‘*storage of toxic and hazardous wastes*’. However, CO₂ would not appear to be characterized as hazardous waste under other international conventions although the *de minimis* level for natural radioactivity might be relevant because of the preoccupation with radioactive matter within this convention.

In other respects, there are no technical provisions of this convention that would provide a stricter regime in relation to possible CO₂ storage in the ocean or seabed than that imposed under other relevant (global) conventions and agreements.

7.7.1. Protocol Concerning Co-Operation in Combating Pollution Emergencies in the South Pacific Region 1986

Under this protocol (Appendix RCT), which was adopted in Noumea on 25 November 1986, a "pollution incident" is defined as *"a discharge or significant threat of a discharge of oil or other hazardous substance, however caused, resulting in pollution or an imminent threat of pollution to the marine and coastal environment or which adversely affects the related interests of one or more of the Parties and of a magnitude that requires emergency action or other immediate response for the purpose of minimizing its effects or eliminating its threat."*

The inclusion of the words *"of a magnitude that requires emergency action"* would mean that it would apply to emergencies and not to planned activities that had been previously authorized based on a satisfactory environmental impact assessment. Accordingly, the Noumea Convention and its 1986 Protocol have no direct bearing on the present study of CO₂ storage in the ocean or seabed. It is nevertheless apparent that the region responds fairly quickly to perceived concerns, however well justified, as evidenced by the priority accorded to radioactive material issues in the convention. Any interest in pursuing ocean or seabed storage of CO₂ in the South Pacific would have to be preceded by the presentation of a convincing environmental impact assessment demonstrating insignificant or minor effects on the marine environment for it to offer a reasonable chance of regional acceptance of the practice.

7.7.2. Protocol for the Prevention of Pollution of the South Pacific Region by Dumping 1986

This protocol (Appendix RCU) was adopted at Noumea on 25 November 1986. It states: *"National laws, regulations and measures adopted by the Parties shall be no less effective in preventing, reducing and controlling pollution by dumping than the relevant internationally recognized rules and procedures relating to the control of dumping established within the framework of the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972."*

The protocol takes a form similar to the original London Convention 1972 in which Annex I contains a list of prohibited substances and Annex II a list of substances requiring special care and a special permit for authorizing dumping at sea. Annex I contains the following substances:

1. *Organohalogen compounds.*
2. *Mercury and mercury compounds.*
3. *Cadmium and cadmium compounds.*
4. *Persistent plastics and other persistent synthetic materials, for example, netting and ropes, which may remain in suspension in the sea in such a manner as to interfere materially with fishing, navigation or other legitimate uses of the sea.*
5. *Crude oil and its wastes, refined petroleum products, petroleum distillate residues and any mixtures containing any of these taken on board for the purpose of dumping.*
6. *Materials in whatever form (e.g. solids, liquids, semi-liquids, gases, or in a living state) produced for biological and chemical warfare.*
7. *Organosphorous [sic] compounds.*

While the dumping of these substances is prohibited, they are permissible as trace contaminants in other materials that are legitimate candidates for dumping under the protocol (e.g., sewage sludge and dredge spoils). Annex II is virtually identical to Annex II under the original London Convention of 1972.

7.7.3. Summary Analysis of the Provisions of the Noumea Convention and Protocols

There are no provisions of the Noumea Convention or its protocols that would create *de facto* a more restrictive regime than that imposed by relevant global conventions. Indeed, the current provisions of the London Convention are considerably more restrictive than the dumping protocol under the Noumea Convention.

7.8. South Pacific: Waigani Convention 1995

The *Convention to Ban the Importation into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes within the South Pacific Region* (Waigani Convention 1995) (Appendix RCV) entered into force 21 October 2001. The convention area comprises:

- *the land territory, internal waters, territorial sea, continental shelf, archipelagic waters, and exclusive economic zones established in accordance with the international law of countries and territories located within the South Pacific region;*
- *those areas of high seas which are enclosed from all sides by the exclusive economic zones referred to above;*
- *areas of the Pacific Ocean between the Tropic of Cancer and 60°S and between 130°E and 120°W to the Convention area.*

The convention is open to all members of the South Pacific Forum, other states not members of the South Pacific Forum that have territories in the convention area and other States that do not have territories in the convention area pursuant to a decision of the Conference of the Parties (COP). The convention is, however, not open to economic regional organizations. The convention essentially imposes the provisions of the Basel Convention on the South Pacific Region. It therefore creates a situation that is no more or less restrictive than the Basel Convention. Furthermore, because the convention contains provisions not only for coordination with the Noumea Convention but with several global conventions including the London Convention 1972, UNCLOS, the Rotterdam Convention, the MARPOL 73/78 Convention and the Stockholm Convention on Persistent Organic Compounds, compliance with these global conventions would ensure compatibility with regional requirements for the South Pacific Region.

7.9. West and Central Africa: Abidjan Convention 1981

The *Convention for Co-Operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region* (Abidjan Convention 1981) (Appendix RCW) is a UNEP Regional Seas Convention. Its geographical area is “*the marine environment, coastal zones and related inland waters falling within the jurisdiction of the States of the West and Central African Region, from Mauritania to Namibia inclusive, which have become Contracting Parties to this Convention*” Similar to most other regional conventions, it deals with regional cooperation in the prevention of pollution resulting from discharges from ships, dumping from ships and aircraft, land-based releases carried to the ocean through water or atmospheric transport and exploration and exploitation of the seabed. It also covers erosion resulting from coastal activities.

7.9.1. Protocol Concerning Co-Operation in Combating Pollution in Cases of Emergency 1981

This contains procedures for regional cooperation in dealing with emergencies and contains nothing of relevance to the present study.

7.9.2. Summary Analysis of the Provisions of the Abidjan Convention and its Protocol

The Abidjan Convention covers cooperation and consultation among its parties and contains no direct restrictions on any activities of relevance to this study.

7.10. Northeast Pacific: Antigua Convention 2002

The *Convention for Cooperation in the Protection and Sustainable Development of the Marine and Coastal Environment of the Northeast Pacific* (Antigua Convention 2002) (Appendix RCY) is another UNEP Regional Seas Convention. The geographical scope of this convention “*comprises the maritime areas of the Northeast Pacific, defined in conformity with the United Nations Convention on the Law of the Sea.*” The signatories to the convention are all Central American States extending from Panama to Guatemala thus implying that the maritime area is the Pacific Ocean adjacent to these states. It should be noted that the UNEP statement quoted earlier (Page 45) that there does not exist a regional convention for the Northeast Pacific really applies to the region to the north of the Antigua Convention area. Article 6 of the convention states:

The Contracting Parties shall adopt measures to prevent, reduce, control and remedy pollution and other forms of deterioration of the marine and coastal environment, including:

- (a) Discharge of toxic, injurious or harmful substances into the sea and coastal areas, especially those that are persistent, originating from sources or activities including:
 - (i) Land-based sources;*
 - (ii) Atmospheric, including those effected through the atmosphere, and*
 - (iii) Dumping;**
- (b) Pollution caused by ships and any other arrangement or installation that operates in the marine environment; in particular, measures to avoid discharges, accidental or not, addressing emergencies in accordance with generally accepted international standards;*
- (c) Biophysical modifications, including alteration and destruction of habitats.*

Article 7 of the convention addresses coastal erosion resulting from anthropogenic activities. Nothing in the Antigua Convention goes beyond obligations of cooperation and consultation and is therefore of no direct relevance to this study.

7.11. Black Sea: Bucharest Convention 1992

The *Convention on the Protection of the Black Sea Against Pollution* (Bucharest Convention 1992) (Appendix RCZ) is a UNEP Regional Seas Convention. Its geographical area is the Black Sea proper with a southern limit constituted by the line joining Capes Kelagra and Dalyan. The convention covers the prevention of pollution from dumping at sea, discharges and emissions from land-based sources entering the marine environment through water or atmospheric transport and releases from vessels.

Under the definitions of Article II of the convention:

- 3. a) "Dumping" means:
 - i) any deliberate disposal of wastes or other matter from vessels or aircraft;*
 - ii) any deliberate disposal of vessels or aircraft;**
- b) "Dumping" does not include:
 - i) the disposal of wastes or other matter incidental to or derived from the normal operations of vessels or aircraft and their equipment, other than wastes or other matter transported by or to vessels or aircraft operating for purpose of disposal**

of such matter or derived from the treatment of such wastes or other matter on such vessels or aircraft;

ii) placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of this Convention.

This is a similar definition to that in the London Convention 1972. Article II further defines:

4. "Harmful substance" means any hazardous, noxious or other substance, the introduction of which into the marine environment would result in pollution or adversely affect the biological processes due to its toxicity and/or persistence and/or bioaccumulation characteristics.

Article VI of the convention states:

Each Contracting Party shall prevent pollution of the marine environment of the Black Sea from any source by substances or matter specified in the Annex to this Convention.

The Annex lists the following substances:

- 1. Organotin compounds.*
- 2. Organohalogen compounds e. g. DDT, DDE, DDD, PCB's.*
- 3. Persistent organophosphorus compounds.*
- 4. Mercury and mercury compounds.*
- 5. Cadmium and cadmium compounds.*
- 6. Persistent substances with proven toxic, carcinogenic, teratogenic or mutagenic properties.*
- 7. Used lubricating oils.*
- 8. Persistent synthetic materials which may float, sink or remain in suspension.*
- 9. Radioactive substances and wastes, including used radioactive fuel.*
- 10. Lead and lead compounds.*

Recognizing that most Contracting Parties will interpret the words “*prevention of pollution*” in Article VI as “*prevention of contamination*”, the disposal of these substances in the marine environment can be assumed to be prohibited under the convention. However, none of these categories of substance could be interpreted to include CO₂. The Bucharest Convention is mute on the definition of the “*marine environment*” and there is no reference to seabed in the text of the convention itself. In most other respects, the Bucharest Convention contains language regarding cooperation and consultation similar to most other regional conventions and there is no provision that would prevent consideration of CO₂ injection into either the hydrosphere or the seabed of the Black Sea.

The Black Sea Convention has two protocols dealing respectively with dumping at sea and land-based sources.

7.11.1. Protocol on the Protection of the Black Sea Marine Environment Against Pollution by Dumping 1992

This protocol (Appendix RDA) was signed on 21 Apr 1992 and entered into force in 1994. Article 2 of the protocol states:

Dumping in the Black Sea of wastes or other matter containing substances listed in Annex I to this Protocol is prohibited.

The preceding provision does not apply to dredged spoils provided that they contain trace contaminants listed in Annex I below the limits of concentration to be defined by the Commission within a 3 year period from the entry into force of the Convention.

Article 3 further states:

Dumping in the Black Sea of wastes or other matter containing noxious substances listed in Annex II to this Protocol requires, in each case, a prior special permit from the competent national authorities.

Annex I is identical to the annex to the Bucharest Convention itself. Annex II is analogous to the original Annex II under the London Convention 1972 and lists the following substances:

1. *Biocides and their derivatives not covered in Annex I.*
2. *Cyanides, fluorides, and elemental phosphorus.*
3. *Pathogenic micro-organisms.*
4. *Nonbiodegradable detergents and their surface-active substances.*
5. *Alkaline or acid compounds.*
6. *Substances which, though of a non-toxic nature, may become harmful to the marine biota owing to the quantities in which they are discharged e. g. inorganic phosphorus, nitrogen, organic matter and other nutrient compounds. Also substances which have an adverse effect on the oxygen content of the marine environment.*
7. *The following elements and their compounds:*
Zinc Selenium Tin Vanadium Copper Arsenic Barium Cobalt Nickel Antimony Beryllium Thallium Chromium Molybdenum Boron Tellurium Titanium Uranium Silver
8. *Sewage Sludge*

Annex III of the protocol is analogous to and, for all intents and purposes, identical to, the original Annex III under the London Convention 1972.

7.11.2. Protocol on Protection of the Black Sea Marine Environment Against Pollution from Land Based Sources 1992

This protocol (Appendix RDB), which was signed 21 April 1992 and entered into force 1994, has the purpose of regional implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities adopted in Washington, D.C., in November 1995. It is intended to “*prevent, reduce and control pollution of the marine environment of the Black Sea caused by discharges from land-based sources on their territories such as rivers, canals, coastal establishments, other artificial structures, outfalls or run-off, or emanating from any other land-based source, including through the atmosphere.*” It contains the same Annex I and Annex II lists of substances with the same intent of application as the preceding protocol on dumping.

7.11.3. Summary Analysis of the Provisions of the Bucharest Convention and Protocols

Because the Bucharest Convention and its protocols on dumping and land-based sources essentially align with the original text of the London Convention and the text of the GPA, there is nothing that would impose any more stringent conditions in the Black Sea than those imposed by global conventions. Indeed, the prevailing provisions of the Bucharest Convention and its dumping protocol are considerably less stringent than the current form of the London Convention. There appear to be no barriers to considering the emplacement or storage of CO₂ in the Black Sea through pipeline discharge from land although the limited volume of water for the absorption of CO₂ would suggest, as in the case of other semi-enclosed areas of restricted exchange, that seabed emplacement options would be more tenable than storage in the hydrosphere.

7.12. Wider Caribbean: Cartagena de Indias Convention 1983

The *Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region* (Cartagena de Indias Convention 1983) (Appendix RDC) is also a UNEP Regional Seas Convention. Article 2 of the convention defines the "Convention area" as "the marine environment of the Gulf of Mexico, the Caribbean Sea and the areas of the Atlantic Ocean adjacent thereto, south of 30 degrees north latitude and within 200 nautical miles of the Atlantic coasts of the States referred to in Article 25 of the Convention." The convention addresses the prevention of pollution from ships, dumping at sea, land-based sources whether through aqueous or atmospheric transport, and seabed resource exploration and exploitation. Similar to many other regional conventions, it is predominantly concerned with cooperation and consultation in the prevention of marine pollution. The convention itself contains no provisions that would make it more restrictive than the prevailing global conventions covering marine environmental protection.

7.12.1. Protocol Concerning Pollution from Land-Based Sources and Activities to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region 1999

This protocol (Appendix RDD), which was adopted at Aruba on 6 October 1999, is intended to reflect the adoption and provisions of the GPA of 1995. In the case of the Wider Caribbean, the LBS protocol is quite detailed. The primary pollutants of concern specified in Annex I of the protocol are:

- *Organohalogen compounds and substances which could result in the formation of these compounds in the marine environment;*
- *Organophosphorus compounds and substances which could result in the formation of these compounds in the marine environment;*
- *Organotin compounds and substances which could result in the formation of these compounds in the marine environment;*
- *Heavy metals and their compounds;*
- *Crude petroleum and hydrocarbons;*
- *Used lubricating oils;*
- *Polycyclic aromatic hydrocarbons;*
- *Biocides and their derivatives;*
- *Pathogenic micro-organisms;*
- *Cyanides and fluorides;*
- *Detergents and other non-biodegradable surface tension substances;*
- *Nitrogen and phosphorus compounds;*
- *Persistent synthetic and other materials, including garbage, that float, flow or remain in suspension or settle to the bottom and affect marine life and hamper the uses of the sea;*
- *Compounds with hormone-like effects;*
- *Radioactive substances;*
- *Sediments; and*
- *Any other substance or group of substances with one or more of the characteristics outlined below.*

The "characteristics and other factors to be considered in evaluating additional pollutants of concern" (Annex I.2) are:

- *Persistency; [sic]*

- *Toxicity or other harmful properties (for example, carcinogenic, mutagenic and teratogenic properties);*
- *Bio-accumulation;*
- *Radioactivity;*
- *Potential for causing eutrophication;*
- *Impact on, and risks to, health;*
- *Potential for migration;*
- *Effects at the transboundary level;*
- ***Risk of undesirable changes in the marine ecosystem, irreversibility or durability of effects;***
- ***Negative impacts on marine life and the sustainable development of living resources or on other legitimate uses of the seas; and***
- *Effects on the taste or smell of marine products intended for human consumption or effects on the smell, colour, transparency or other characteristics of the water in the marine environment. [Boldface added]*

While CO₂ does not appear among the entries of specific substances, it could be considered to hold more than one of the attributes or characteristics on the second list. While nothing in this protocol specifically precludes considering placement or storage of CO₂ in the marine environment, the requirement for prior assessments taking account of interactions with the receiving environment, as required by the provisions of Annex I, would suggest that it is unlikely that the injection of CO₂ into the oceanic hydrosphere of the region would be treated sympathetically. There would be much greater chance that emplacement of CO₂ in the seabed, especially if introduced by a pipeline, would be viewed more favourably.

7.12.2. Protocol Concerning Co-operation in Combating Oil Spills in the Wider Caribbean Region 1983

This protocol (Appendix RDE) deals with contingency planning and combating of oil spills and contains nothing of relevance to the present study.

7.12.3. Protocol Concerning Specially Protected Areas and Wildlife to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region 1990

This protocol (Appendix RDF) deals with the procedures for establishing specially protected areas within the Wider Caribbean and the restrictions that may be required on a range of human activities to ensure adequate conservation and protection of such areas. Among the list of measures included in the protocol is “*the regulation or prohibition of any activity involving the exploration or exploitation of the sea-bed or its subsoil or a modification of the sea-bed profile*” that could be of relevance to storage of CO₂ in the seabed. Should protected areas have been, or will be, declared under this protocol, it would be necessary to determine the attendant conditions applying to human activities that might impose area-specific restrictions on the options for ocean or seabed storage of CO₂ in the region.

7.12.4. Summary Analysis of the Provisions of the Cartagena de Indias Convention and Protocols

The development of protocols under the Cartagena Convention is at a greater stage of development than for most other regions. Furthermore, they reflect a degree of detail and currency that suggests that the Wider Caribbean Region is probably one of the most potentially restrictive of the marine regions. Nevertheless, the current forms of the Cartagena Convention and its protocols show no evidence of any unusual or extreme constraints on activities that might preclude consideration of ocean or seabed storage of CO₂. As in the case

of almost all other regional areas, the most restrictive provisions are those of the global conventions, especially the London Convention 1972, in respect to the injection of CO₂ from ships or offshore platforms. There are no outright bans on pipeline discharges for the introduction of CO₂ into the water column or seabed strata in the Wider Caribbean imposed either by global or regional conventions or agreements. The acceptability of such a practice would lie with prior demonstration of limited effects on the marine environment of the region and this would be most easily achieved in relation to seabed emplacement of CO₂. There might, however, be additional restrictions on anthropogenic activities in specially protected areas designated under the provisions of the Protocol Concerning Specially Protected Areas.

7.13. South-East Pacific: Lima Convention 1981

The *Convention for the Protection of the Marine Environment and Coastal Area of the South-East Pacific* (Lima Convention 1981) (Appendix RDG) came into force in 1986. Article 1 of the Lima Convention, which is another UNEP Regional Seas Convention, defines “*the sphere of application of this Convention*” [as] “*the sea area and the coastal zone of the South-East Pacific within the 200-mile maritime area of sovereignty and jurisdiction of the High Contracting Parties and, beyond that area, the high seas up to a distance within which pollution of the high seas may affect that area.*” This convention covers the prevention of pollution arising from discharges from vessels, dumping and land-based sources both by way of aqueous and atmospheric transport. It also addresses coastal erosion resulting from human activities.

The Lima Convention deals with regional cooperation and consultation in the prevention of marine pollution and contains no provisions of greater restriction than those imposed by global conventions and agreements.

7.13.1. Agreement on Regional Co-Operation in Combating Pollution of the South-East Pacific by Hydrocarbons or Other Harmful Substances in Cases of Emergency 1981

This protocol (Appendix RDH) deals with contingency planning and combating of oil spills and contains nothing of relevance to the present study.

7.13.2. Protocol for the Protection of the South-East Pacific Against Pollution from Land-Based Sources 1983

This protocol (Appendix RDJ) was adopted in Quito on 23 July 1983 and deals purely with the reduction and elimination of releases from land-based sources. The protocol imposes on parties (Article IV) the duty to “*prevent, reduce, control and eliminate in their respective zones within the sphere of application of this Protocol pollution from land-based sources caused by the substances listed in annex I to this Protocol*”. Annex I contains a list of substances selected on the basis of their toxicities, persistence and bioaccumulative properties but, somewhat surprisingly, contains a list similar to that in Annex I of the original London Convention. Under Article V of the protocol, Contracting Parties are to “*endeavour progressively to reduce in their respective zone within the sphere of application of this Protocol pollution from land-based sources caused by the substances or sources listed in annex II to this Protocol*”. Annex II contains, like Annex I, a list of substances resembling the original London Convention Annex II substances. Furthermore, Annex III has a purpose and content again similar to that under the London Convention 1972. Nevertheless, although the protocol covers discharges via pipeline into marine waters, nothing in Annexes I and II would suggest that there are any restrictions on the release of CO₂ to the marine environment from land-based sources.

7.13.3. Protocol for the Conservation and Management of Protected Marine and Coastal Areas of the South-East Pacific 1989

This protocol (Appendix RDK) deals with the designation of marine protected areas in the South-East Pacific Region. It stipulates: “*any activity liable to have adverse effects on the ecosystem, flora and fauna or their habitat, shall be prohibited.*” Contracting Parties also have a duty to “*prohibit the dumping of toxic, harmful or noxious substances, especially those which are persistent, from land-based sources, including rivers, estuaries, drainage pipes and structures, from or through the atmosphere.*” However, the term “*harmful or noxious substances*” is not defined in the protocol or referenced to the previous Protocol on Land-Based Sources. This protocol takes a form similar to that of the similar protocol under the Cartagena Convention for the Wider Caribbean Region and the conclusions of the previous analysis of the latter region would apply also to the South-East Pacific Region.

7.13.4. Summary Analysis of the Provisions of the Lima Convention and Protocols

The Lima Convention itself and its Emergency Protocol contain nothing that would constrain CO₂ storage in the marine environment to any greater extent than existing global conventions, particularly the London Convention 1972. The Land-Based Sources Protocol is somewhat more detailed than most similar regional protocols but contains no provisions that would prohibit CO₂ injection through pipelines from land. It might, however, come into play in the context of any impurities in CO₂ intended for marine storage. As with the situation in the Wider Caribbean, the Protocol on the Conservation and Management of Protected and Coastal Areas is likely to constrain anthropogenic activities that could be conducted in any designated protected areas.

7.14. Persian/Arabian Gulf: Kuwait Convention 1978

The *Kuwait Regional Convention for Co-Operation on the Protection of the Marine Environment from Pollution* (Kuwait Convention 1978) (Appendix RDL) is a UNEP Regional Seas Convention and came into force in 1979. Its Contracting Parties are Oman, Iraq, Iran, Kuwait, the United Arab Emirates, Bahrain, Qatar and Saudi Arabia. Article II of the convention defines its geographical coverage as “*the sea area in the Region bounded in the south by the following rhumb lines: from Ras Dharbat Ali in (16 deg 39 min N, 35 deg 3 min 30 sec E) [Note: The longitude given appears to be erroneous] then to a position in (16 deg 00 min N 53 deg 25 min E) then to a position in (17 deg 00 min N, 56 deg 30 min E) then to a position in (20 deg 30 min N, 60 deg 00 min E) then to Ras Al-Fasteh in (25 deg 04 min N, 61 deg 25 min E).*” This covers the Arabian or Persian Gulf, the Gulf of Oman and the northwestern part of the Indian Ocean adjacent to the coast of Oman. The convention deals with cooperation and consultation relating to the prevention of marine pollution resulting from discharges from ships, dumping at sea, land-based sources whether through waterborne or aerial transport or through outfalls and pipelines, and seabed and subsoil resource exploration and exploitation activities. Article VII of the convention stipulates that “*Contracting States shall take all appropriate measures to prevent, abate and combat pollution in the Sea Area resulting from exploration and exploitation of the bed of the territorial sea and its sub-soil and the continental shelf, including the prevention of accidents and the combating of pollution emergencies resulting in damage to the marine environment.*” This would imply that, despite any direct confirmation within the convention itself, that it is intended to cover activities affecting the seabed.

The Kuwait Convention is generally similar to other UNEP Regional Sea Conventions in form and provisions. It contains one uncommon provision borrowed from the 1992 Conference on the Human Environment which states: “*Contracting States shall use their best endeavour to ensure that the implementation of the present Convention shall not cause transformation of one type of pollution to another which could be more detrimental to the environment.*” This

statement also appears in the UNCLOS Convention (see previous discussion of UNCLOS) but is not common among regional conventions.

7.14.1. Protocol Concerning Regional Co-Operation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency 1978

This protocol (Appendix RDM) deals with contingency planning and combating of oil spills and contains nothing of relevance to the present study.

7.14.2. Protocol concerning Marine Pollution Resulting from Exploration and Exploitation of the Continental Shelf 1989

This protocol (Appendix RDN) deals with controlling the effects of offshore activities defined as “*any operations conducted in the Protocol Area for the purposes of exploring of oil or natural gas or for the purposes of exploiting those resources, including any treatment before transport to shore and any transport of the same by pipeline to shore. It includes also any work of construction, repair, maintenance, inspection or like operation incidental to the main purpose of exploration or exploitation.*”

An "Offshore Installation" is, however defined in broader terms as meaning:

[A]ny structure, plant or vessel, whether floating or fixed to or under the seabed, placed in a location in the Protocol Area for the purpose of offshore operations, including any tanker for the time being moored and used for the temporary storage of oil, and including any plant for treating, storing or regaining control of the flow of crude oil; and for the purposes of certification under Article VI, an installation includes any integral part of the structure, plant, equipment or vessel, any attached lifting gear or safety mechanism, and any other part or equipment specified by the Contracting State as part of the installation.

Article IV of the protocol requires:

Before licensing any offshore operation which could cause significant risks of pollution in the Protocol Area or any adjacent coastal area, the Competent State Authority shall call for submission of an assessment of the potential environmental effects thereof. No such operation shall commence until a statement of those effects has been submitted, and no licence shall be granted until the Competent State Authority is satisfied that the operation will entail no unacceptable risk of such damage in the Protocol Area or any adjacent coastal area.

The protocol thus requires prior authorization of offshore activities and prohibits the use of oil-based drilling muds. Generally, it promotes *inter alia* the application of MARPOL 73/78 provisions relevant to offshore activities in the Gulf Region.

7.14.3. Protocol to the Kuwait Regional Convention for the Protection of the Marine Environment Against Pollution from Land-Based Sources 1990

This protocol (Appendix RDP) was formulated as a means of applying the provisions and intent of the Montreal Guidelines for the Protection of the Marine Environment against Pollution from Land-Based Sources (1985). The Montreal Guidelines were a predecessor to the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities adopted in 1995. The protocol imposes no prohibitions on human activities relating to land-based discharges but stresses the need for prior environmental impact assessments as a means of ensuring that the consequences of such activities are acceptable.

7.14.4. Summary Analysis of the Provisions of the Kuwait Convention and Protocols

The situation regarding the Gulf Region is similar to those pertaining under most of the UNEP Regional Seas Conventions such as the Lima and Abidjan Conventions for the South-East Pacific and West and Central African Regions discussed above.

7.15. Caspian Sea: Draft Framework Convention for the Protection of the Marine Environment of the Caspian Sea

There have long been discussions regarding the development of an environmental protection convention for the Caspian Sea in cooperation with UNEP. A *Framework Convention for the Protection of the Caspian Sea* (Appendix RDQ) has been developed under the auspices of the Caspian Environment Programme that was established by all five Caspian States (Azerbaijan, Iran, Kazakhstan, Russia and Turkmenistan) in 1995. This Framework Convention is planned for signature by all five Caspian States (Azerbaijan, Iran, Kazakhstan, Russia and Turkmenistan) in January 2003 (UNEP, 2002). The objective of this convention (Article 2) “*is the protection of the Caspian environment from all sources of pollution including the protection, preservation, restoration and sustainable and rational use of the living resources of the Caspian Sea.*” It covers pollution prevention from dumping at sea, land-based activities, vessels and other human activities and gives special attention to mitigation of sea level fluctuations in the Caspian Sea.

Within the draft Framework Convention, Article 1 defines the following terms:

"Dumping" means:

- (i) *any deliberate disposal of wastes or other matter from vessels, aircraft, platforms, or other man-made structures in the Caspian Sea;*
- (ii) *any deliberate disposal of vessels, aircraft, platforms, or other man-made structures in the Caspian Sea;*

"Hazardous substance" means:

any substance, which is toxic, carcinogenic, mutagenic, teratogenic or bio-accumulative, especially when they are persistent.

"Pollution from land-based sources" means:

*pollution of the sea from all kinds of point and non-point sources based on land reaching the marine environment, whether water-borne, air-borne or directly from the coast. **It includes pollution resulting from any predetermined disposal from land to the seabed by way of tunnel, pipeline or other means. [Boldface added]***

It proclaims among its guiding principles (Article 5) the ‘*precautionary principle*’, the ‘*polluter-pays principle*’ and the ‘*principle of accessibility of information on the pollution of the marine environment of the Caspian Sea*’.

Article 7 entitled “*Pollution from land-based sources*” states:

1. *The Contracting Parties shall take all appropriate measures to prevent, reduce and control pollution of the Caspian Sea from land-based sources.*
2. *The Contracting Parties shall co-operate in the development of protocols to this Convention prescribing additional measures for prevention, reduction and control of pollution of the Caspian Sea from land-based sources. Such protocols may include, inter alia, the following measures:*
 - (a) *the emission of pollutants is prevented, controlled and reduced at source through application, inter alia, of low- and non-waste technology;*
 - (b) *the pollution from land-based point sources is prevented, reduced and controlled through licensing of waste-water discharges by competent national authorities of the Contracting Parties;*
 - (c) *licensing of waste-water discharges is based on promoting the use of environmentally sound technology;*
 - (d) *requirements stricter than those provided in sub-paragraphs (b) and (c)*

of this Article, are imposed according to additional protocols to this convention when the quality of the receiving water or the affected ecosystem of the Caspian Sea so requires;

- (e) various treatments are to be applied to municipal waste water and, where necessary, in a step-by-step approach;
- (f) appropriate measures are to be taken in order to reduce organic substances inputs from industrial and municipal sources, such as the application of the best available environmentally sound technology;
- (g) appropriate measures based on best environmental practices are to be developed and implemented for the reduction of inputs of organic substances and hazardous substances from non-point sources, including agriculture;
- (h) measures on their conservation and full liquidation should be taken for some coastal sources of pollution that continue to have negative impact on the Caspian Sea.

Article 8 deals with “Pollution from Seabed Activities.” It states:

The Contracting Parties shall take all appropriate measures to prevent, control and reduce pollution of the Caspian Sea resulting from seabed activities. They are encouraged to co-operate in the development of protocols to this Convention to that effect. [Boldface added]

Article 10 addresses “Pollution Caused by Dumping” and states:

1. *The Contracting Parties shall take all appropriate measures to prevent, hindrance, reduce and control pollution of the Caspian Sea caused by dumping from vessels and aircraft registered in their territory or flying their flag.*
2. *The Contracting Parties shall co-operate in the development of protocols to the Convention prescribing agreed measures, procedures and standards to that effect.*
3. *The provisions of this Article shall not apply when the safety of a vessel or aircraft at sea is threatened by the complete destruction or total loss of the vessel or aircraft or in any case which constitutes a danger to human or marine life, if dumping appears to be the only way of averting the threat, and if there is every probability that the damage consequent upon such dumping will be less than would otherwise occur.*

Finally, Article 11 deals with “Pollution from Other Human Activities” and states:

1. *The Contracting Parties shall take all appropriate measures to prevent, reduce and **control pollution of the Caspian Sea resulting from other human activities not covered by Articles 7-10 above**, including land reclamation and associated coastal dredging and construction of dams. [Boldface added]*
2. *The Contracting Parties shall take all appropriate measures to reduce the possible negative impact of anthropogenic activities aimed at mitigating the consequences of the sea-level fluctuations on the Caspian Sea ecosystem.*

7.15.1. Protocol Concerning Regional Co-Operation in Combating Oil Pollution in Cases of Emergency

A protocol (Appendix RDR) with this title is also being developed for the Caspian Sea. The text of the protocol leaves the impression that it is intended to be adopted at the same time as the Framework Convention but apparently this is uncertain. The protocol deals *inter alia* with

oil spill contingency arrangements, assignment of zones of responsibility within the Caspian Sea, pollution reporting and mutual assistance.

7.15.2. Summary Analysis of the Provisions of the draft Caspian Sea Framework Convention and its draft Protocol

Nothing in the Draft Framework Convention would imply prohibition of activities. It is largely a convention on statements of principle and responsibilities incumbent on Contracting Parties with reference to consultative arrangements. The definition of hazardous substances would clearly not apply to carbon dioxide although there are a few references to '*hazardous substances*' elsewhere in the draft convention. Furthermore, nothing in the draft protocol on combating oil pollution in cases of emergency appears to be relevant to the subject of ocean and seabed storage of CO₂.

7.16. Arctic: Arctic Council Activities

The Arctic Council (Appendix RDS) was established at Ottawa on the 19th of September 1996 as a high level forum to:

- provide a means for promoting cooperation, coordination and interaction among the Arctic States, with the involvement of the Arctic indigenous communities and other Arctic inhabitants on common arctic issues (excluding matters related to military security), in particular issues of sustainable development and environmental protection in the Arctic.
- oversee and coordinate the programs established under the AEPS on the Arctic Monitoring and Assessment Program (AMAP); Conservation of Arctic Flora and Fauna (CAFF); Protection of the Arctic Marine Environment (PAME); and Emergency Preparedness and Response (EPPR).
- adopt terms of reference for and oversee and coordinate a sustainable development program.
- disseminate information, encourage education and promote interest in Arctic-related issues.

The current members of the Arctic Council are: Canada, Denmark, the Faroe Islands, Finland, Iceland, Norway, the Russian Federation, Sweden and the United States of America. Observer States include Germany, the Netherlands and the United Kingdom.

The Arctic Council does not constitute a convention or a legally binding international agreement. Therefore, it does not police anthropogenic activities in the Arctic that remain within the jurisdiction of individual arctic countries. Nevertheless, it does have an influence over practices conducted in the Arctic by Member States. At a minimum, it would ensure that anthropogenic activities in the region are fully compliant with current international conventions on environmental protection to which its member states are party.

7.16.1. Arctic Offshore Oil and Gas Guidelines

The Arctic Council Working Group on the Protection of the Arctic Marine Environment produced in 2002, at the request of the Council, a revised set of guidelines for offshore oil and gas developments in the Arctic (Appendix RDT). These were formulated in the context of the provisions of the Law of the Sea Treaty, the MARPOL 73/78 Convention and the London Convention 1972 and were adopted at the Second Ministerial Meeting of the Arctic Council in October 2002. They are non-binding but provide guidance to the offshore oil and gas industry, governments and the public regarding the minimum standards for the exploration and development of hydrocarbon reserves in the Arctic. The guidelines establish requirements for transparency and openness, community and other stakeholder participation, ensure effective use of scientific and traditional knowledge and the creation of regional mechanisms best suited to the physical, biological and socio-economic conditions in the Arctic and its sub-regions.

They advocate the use of Environmental Impact Assessments and cite the “*Guidelines for Environmental Impact Assessment (EIA) in the Arctic*” prepared under the Arctic Environmental Protection Strategy (the arctic regional consultative mechanism prior to the establishment of the Arctic Council). Subsequent sections of the guidelines: address *inter alia*: safety and environmental management; management systems, policy and strategic objectives; risk management; monitoring; auditing; compliance monitoring and assessment; waste management including treatment approaches; human health and safety; transport and transport infrastructure; oil spill preparedness; and decommissioning and site clearance.

7.16.2. Summary Analysis of Arctic Council Activities

Currently, the Arctic Council does not impose mandatory constraints on activities within the Arctic. Nevertheless, it seems likely that its influence and formality will increase over the next few decades. The Arctic Offshore Oil and Gas Guidelines provide guidance on procedures to be followed for offshore natural resource exploration and exploitation in the Arctic and merely serve to ensure good practice and compliance with global conventions. Thus, while these guidelines are generally relevant to other planned offshore activities in the Arctic, they introduce no additional constraints to those imposed by existing global conventions.

7.17. Summary Analysis of Relevant Provisions of Regional Conventions

Figure 2 depicts the geographical areas covered by the regional marine environmental protection agreements discussed in this review (Note: there is some imprecision in the regional convention boundaries due to the finite increments of the mapping software with which this figure was created). Table 3 provides summary information on the provisions of relevant regional conventions and agreements. It should be noted that many regional conventions do not define their areas of jurisdiction comprehensively enough to judge whether they cover the seabed and substrata. In some cases, there are inferences in the articles of a particular regional convention that the seabed is covered but, in such cases, the definitions or descriptions of the areas of applicability are too imprecise to make a firm judgement. Such cases are indicated in Table 3 by the term ‘*Mute*’ in the relevant column.

The regional conventions of greatest significance in terms of constraints on the practical implementation of the concept of ocean or seabed storage of CO₂ are the OSPAR Convention applying to the Northeast Atlantic and the Helsinki Convention applying to the Baltic Sea. Both effectively prohibit any injection of CO₂ from land-based sources into the hydrosphere or seabed using ships or offshore platforms. The Helsinki Convention essentially promulgates this prohibition by severe restrictions on the types of material that are allowable candidates for dumping at sea. The OSPAR Convention achieves the prohibition through much more specific provisions as discussed above. No other regional marine environmental protection conventions impose comparable prohibitions. While seabed storage of CO₂ might be reasonable options for consideration in the case of the Baltic Sea and Northeast Atlantic, any serious consideration of CO₂ storage in the hydrosphere should be limited to the open water areas of the Northeast Atlantic because of the extremely limited rate of exchange of the Baltic Sea area with offshore waters.

There are no comparable impediments to CO₂ storage using pipelines from land for the injection of CO₂ into the ocean imposed by regional conventions or agreements. Nevertheless, it is abundantly clear that many regional conventions would not immediately accept the practical implementation of the concept of CO₂ injection into the hydrosphere because it would be interpreted as inconsistent with their aims. Proposals for the storage of CO₂ in subseabed strata, while they would be carefully evaluated and questioned, are more likely to be acceptable than proposals for injection into the hydrosphere simply because of concerns about consequent effects on the marine environment and its resources.

Figure 2
Regional Convention Areas

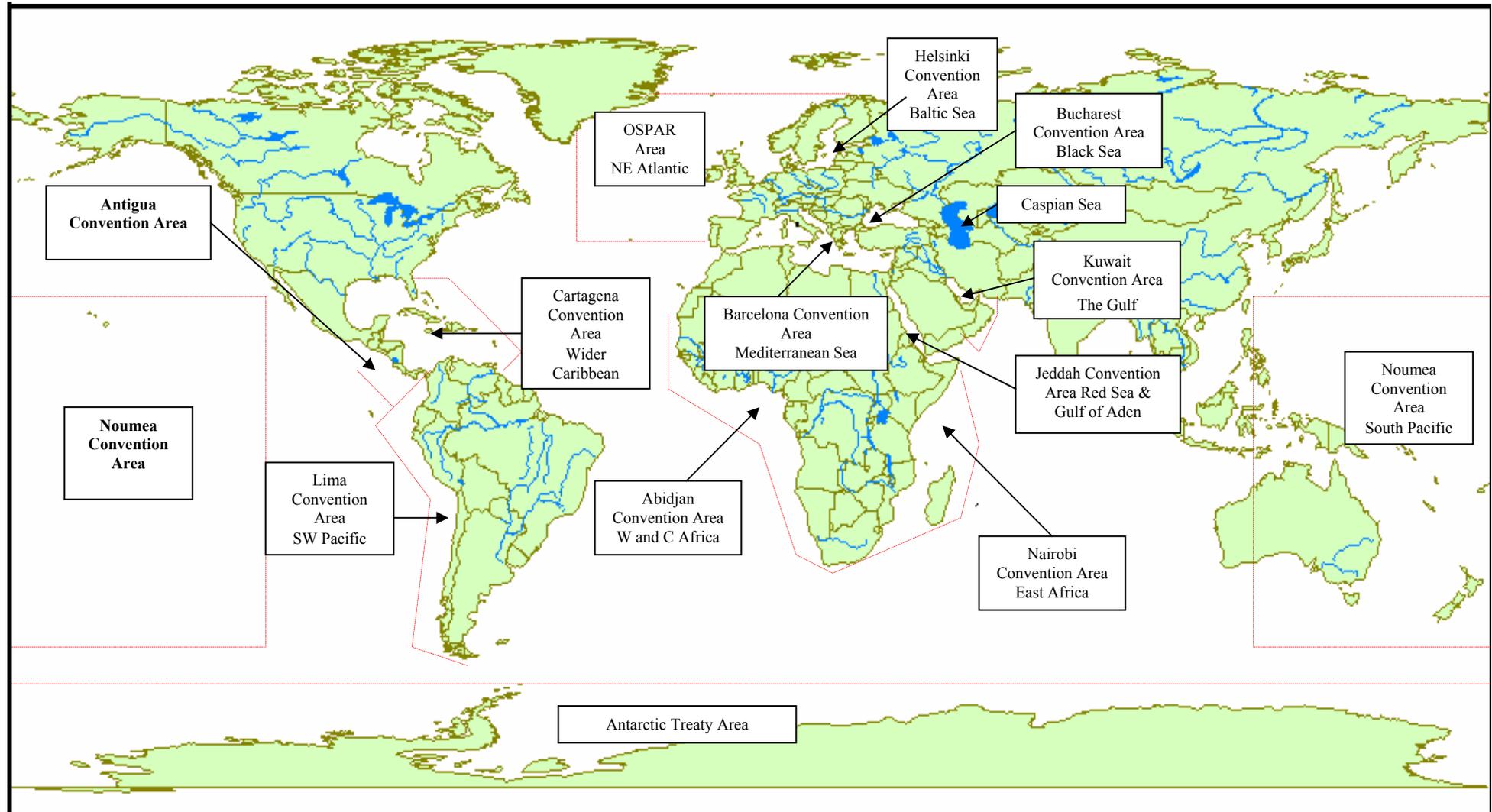


Table 3
Summary of Provisions of Regional Conventions and Subordinate Protocols

Convention / Protocol	Geographical Area (Entry into Force)	Convention / Protocol Subject	Covers Dumping? (Mechanism) ¹	Seabed Included?	Vessel/Platform Discharges	Land-Based Sources	Prohibition of CO ₂ Dumping?	Prohibition of CO ₂ Pipeline Discharge?
OSPAR Convention 1992	NE Atlantic (1998)	Marine Environmental Protection	Yes (Reverse List)	Yes	Yes excl. normal operations	Yes	Yes	No
Helsinki Convention 1992	Baltic Sea (2000)	Marine Environmental Protection	Yes (Reverse List)	Yes	Yes excl. normal operations	Yes	Yes	No
Antarctic Treaty 1961	Antarctic (1998)	Peaceful Use of Antarctica	No	No	No	No	No	No
Madrid Protocol 1991	Antarctic (1998)	Environmental Protection/Prior Assessment of Practices	No	Mining Only	Yes	No	No	No
Convention on the Conservation of Antarctic Marine Living Resources 1980	Antarctic (1982)	Conservation and Protection of Living Marine Resources	No	No	No	No	No	No
Barcelona Convention 1976 (Amended 1995 but NIF)	Mediterranean (1978)	Marine Environmental Protection UNEP RS	Yes (Consultative)	Mute ²	Yes	Yes	No	No
Dumping Protocol 1976 (Amended 1995 but NIF)	Mediterranean (1978)	Protection of the Marine Environment from Sea Dumping	Yes (Prohibited List)	Mute	No	No	No	No
Hazardous Wastes Protocol 1996	Mediterranean (NIF)	Transboundary Movement of Hazardous Wastes	No	No	No	No	Yes	No
Oil/Emergency Protocol 1976	Mediterranean (1978)	Consultation in the event of Pollution Incidents/Emergencies	No	No	No	No	No	No
LBS Protocol 1996	Mediterranean (1983)	Protection of the Marine Environment from Land-Based Sources	No	No	Yes	Yes	No	No
Seabed Exploit. Protocol 1994	Mediterranean (NIF)	Protection of the Marine Environment from Seabed Exploitation Activities	No	No	Yes	No	No	No
SPA Protocol 1982	Mediterranean (1999)	Protected Areas	P (in SPAs)	No	P (in SPAs)	P (in SPAs)	No	No
Jeddah Convention 1982	Red Sea/Gulf of Aden (1985)	Marine Environmental Protection UNEP RS	Yes (Consultative)	Mute ³	Yes	Yes	No	No
Nairobi Convention 1985	East Africa (1996)	Marine Environmental Protection UNEP RS	Yes (Consultative)	Mute	Yes	Yes	No	No
Protected Areas Protocol 1985	East Africa (1996)	Protected Areas	P (in SPAs)	P (by implication)	P (in SPAs)	No	No	No
Noumea Convention 1986	South Pacific (1990)	Marine Environmental Protection UNEP RS	Yes (Consultative)	Yes (Radioactive Matter Only)	Yes (Vessels Only)	Yes	No	No
Pollution Emergency Protocol 1986	South Pacific (1990)	Consultation/Cooperation in the event of Pollution Incidents/Emergencies	No	Mute	No	No	No	No
Dumping Protocol 1986	South Pacific (1990)	Protection of the Marine Environment from Sea Dumping	Yes (Prohibited List OLC) ⁴	Mute	No	No	No	No
Waigani Convention 1995	South Pacific (2001)	Hazardous Waste Management	No	No	No	No	No	No
Abidjan Convention 1981	West & Central Africa (1984)	Marine Environmental Protection UNEP RS	Yes (Consultative)	Mute	Yes	Yes	No	No

Convention / Protocol	Geographical Area	Convention / Protocol Subject	Covers Dumping? (Mechanism) ¹	Seabed Included?	Vessel/Platform Discharges	Land-Based Sources	Prohibition of CO ₂ Dumping?	Prohibition of CO ₂ Pipeline Discharge?
Pollution Emergency Protocol 1981	West & Central Africa (1984)	Consultation/Cooperation in the Event of Marine Emergencies	No	Mute	No	No	No	No
Antigua Convention 2002	Northeast Pacific (NIF)	Regional Cooperation on Sustainable Development UNEP RS	Yes (excl. Offshore Platforms) (Consultative)	Mute	Yes	Yes (Consultative)	No	No
Bucharest Convention 1992	Black Sea (1992)	Marine Environmental Protection UNEP RS	Yes (General Prohibited List)	Mute	Yes	Yes (General Prohibited List)	No	No
Dumping Protocol 1992	Black Sea (1994)	Protection of the Marine Environment from Sea Dumping	Yes (Prohibited List OLC)	Mute	No	No	No	No
LBS Protocol 1992	Black Sea (1994)	Protection of the Marine Environment from Land-Based Sources	No	Mute	No	Yes (Surrogate Prohibited Substance List)	No	No
Cartagena de Indias Convention 1983	Wider Caribbean (1986)	Marine Environmental Protection UNEP RS	Yes (Ships Only) (Consultative)	Mute	Yes	Yes (Consultative)	No	No
LBS Protocol 1999	Wider Caribbean (NIF)	Protection of the Marine Environment from Land-Based Sources	No	Mute	No	Yes (Hazardous Substance List)	No	P (Annex I Provisions)
Oil Spill Protocol 1983	Wider Caribbean (1986)	Protection of the Marine Environment in the Event of Oil Spills	No	No	In Emergencies Only	No	No	No
SPA Protocol 1990	Wider Caribbean (2000)	Protected Areas and Protection of Living Resources	P (in SPAs) ⁵	P (in SPAs)	P (in SPAs)	P (in SPAs)	P (in SPAs)	P (in SPAs)
Lima Convention 1981	South-East Pacific (1986)	Marine Environmental Protection UNEP RS	Yes (Consultative)	Mute	Yes	Yes (Consultative)	No	No
Emergency Protocol 1981	South-East Pacific (1986/A:1987)	Consultation/Cooperation in the Event of Marine Emergencies	No	Mute	In Emergencies Only	No	No	No
LBS Protocol 1983	South-East Pacific (1986)	Protection of the Marine Environment from Land-Based Sources	No	Mute	No	Yes (Hazardous Substance List)	No	No
Protection of Marine and Coastal Areas Protocol 1989	South-East Pacific (1994)	Protected Areas and Protection of Living Resources	P	Yes (By implication) ⁶	Yes	Yes (Consultative)	P	P
Kuwait Convention 1978	Persian/Arabian Gulf (1979)	Marine Environmental Protection UNEP RS	Yes (Ships Only) (Consultative)	Mute	Yes (Ships Only)	Yes (Consultative)	No	No
Emergency Protocol 1978	Persian/Arabian Gulf (1979)	Consultation/Cooperation in the Event of Marine Emergencies	No	Mute	In Emergencies Only	No	No	No
Continental Shelf Exploitation Protocol 1989	Persian/Arabian Gulf (1990)	Protection of the Marine Environment from Continental Shelf Exploitation Activities	No	Mute	Yes	No	No	No
LBS Protocol 1990	Persian/Arabian Gulf (1993)	Protection of the Marine Environment from Land-Based Sources	No	Mute	Yes (non-hydrocarbon platforms)	Yes (Consultative)	No	No
Draft Caspian Sea Framework Convention	Caspian Sea (NIF)	Marine Environmental Protection UNEP RS	Yes	Yes (By implication – Art. 1) ⁷	Yes Incl. Seabed Activities	Yes (Consultative)	No	No
Draft Caspian Emergency Protocol	Caspian Sea (NIF)	Protection of the Marine Environment from Oil Spills and Accidents	No	No	Yes	No	No	No
Arctic Council Agreement (Non-Binding) 1996	Arctic (1996)	General Environmental Protection	No	Yes (Consultative) ⁸	Yes (Consultative) ⁸	Yes (Consultative) ⁸	Yes (Consultative) ⁸	No

Key/Annotations for Table 3

NIF = Not in Force

A: = Amendment (Entry shows date of entry into force of Amendment in addition to Convention/Protocol)

P: = Potentially included (as specified in parentheses)

Footnotes

¹ ‘Mechanism’ means the procedure used to define limitations on dumping at sea, if any.

² “Mute” implies that the Convention/Protocol is said to apply to a “regional sea area” or “the marine environment” but with no specific provisions that these terms encompass the seabed and/or subsoil.

³ But does cover seabed exploration and exploitation activities as a source of marine pollution.

⁴ OLC implies similarity to the original form of the London Convention 1972.

⁵ Implies that the special provisions applying in “specially protected areas” may include additional restrictions on designated anthropogenic activities.

⁶ By the content of Article 5 of the Protocol.

⁷ By the content of Article 1 of the Framework Convention.

⁸ The entire Arctic Council Agreement constitutes a consultative mechanism applicable to all such anthropogenic activities.

8. SUMMARY ANALYSIS AND CONCLUSIONS

Tables 1 and 3 present summaries of the provisions of relevant global and regional conventions and agreements respectively. Most regional conventions do not define their areas of jurisdiction comprehensively enough to judge whether they cover the seabed and substrata. In some cases, there are inferences in articles of a particular regional convention that the seabed is covered but, in such cases, the definitions or description of the areas of applicability are too imprecise to make a firm judgement. Legal judgements regarding the inclusion of the seabed within each of these conventions would have to be made in the context of the Vienna Convention on the Law of Treaties (see Appendix GCE)

The conventions and agreements applicable to the options for ocean and seabed storage of CO₂ are depicted in Figure 3. Although several conventions are relevant to the practical implementation of the concept of ocean or seabed storage of CO₂, the principal constraints derive from the London Convention 1972, which is global in scope, and the OSPAR Convention, which applies to the Northeast Atlantic.

The London Convention 1972 applies only to sea dumping from ships, aircraft and offshore platforms and installations. Accordingly, it imposes constraints on the introduction of CO₂ into the ocean from these sources (*i.e.*, through “*dumping*” as defined in the convention). The current terms of the convention prohibit the dumping of industrial wastes, with the exceptions of specified categories of material, namely,

- *dredged material;*
- *sewage sludge;*
- *fish waste or material resulting from industrial fish processing operations;*
- *vessels, platforms or other man-made structures at sea;*
- *inert, inorganic geological material,*
- *organic material of natural origin; and*
- *bulky items (defined as “bulky items primarily comprising iron, steel concrete and similarly unarmful materials for which concern is physical impact, and limited to those circumstances where such wastes are generated at locations, such as small islands with isolated communities, having no practicable access to disposal options other than dumping”).*

Thus, only if CO₂ could be successfully argued to reside within one of these categories would storage of CO₂ at sea be permissible under the dumping provisions of the London Convention. It might be possible, in this context, to argue that CO₂ was an inert inorganic geological material although it does not ideally fit this category in respect to either of the terms ‘inert’ or ‘geological’.

Because, in 1989, the London Convention extended its scope to include dumping into the seabed, these impediments to marine CO₂ storage would apply equally to storage in the hydrosphere itself and in, and under, the seabed from ships and platforms. This extension of jurisdiction by a meeting of Contracting Parties may be questionable from legal perspectives but such legal analysis is not within the scope of this study. On the face of things, it would appear that the storage of CO₂ in the marine hydrosphere and the seabed, if carried out from vessels or offshore platforms, would contravene the dumping provisions of the London Convention in its current form.

The London Convention contains exclusions from the definition of dumping. These are:

- (i) *the disposal of wastes or other matter incidental to, or derived from the normal operations of vessels, aircraft, platforms or other man-made structures at sea and their equipment, other than wastes or other matter transported by or to*

vessels, aircraft, platforms or other man-made structures at sea, operating for the purpose of disposal of such matter or derived from the treatment of such wastes or other matter on such vessels, aircraft, platforms or structures;

- (ii) *placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of this Convention.*

Paragraph (i) would permit the disposal of wastes derived from the normal operation of offshore platforms. Thus, *in situ* stripping of CO₂ from an offshore natural gas stream and its subsequent injection into the ocean, if considered part of the normal operations of the relevant offshore installation, would be excluded from the terms of the convention. Such exclusion under paragraph (i) would, however, not apply in the case of wastes transported from land to an offshore location for disposal at sea. Paragraph (ii) provides a rather wider exemption to the terms of the convention. If it could be successfully argued that the intent of the action to store CO₂ in the ocean was not “disposal” but “storage”, the grounds for exclusion in this paragraph would appear to be applicable. Proponents of CO₂ storage would need to present a convincing argument to the regulatory authority of a country from which authorization for the activity was being sought. Clearly, the possibility of success of such a proposal would be greater in the case of storage in the seabed than storage (*i.e.*, dispersal) in the hydrosphere because subsequent recovery of much of the CO₂ would be possible in the former case but not in the latter.

The London Convention is likely to continue as the only binding global international agreement regarding dumping at sea for at least the rest of this decade (*i.e.*, until 2010). It is, however, conceivable that the 1996 Protocol under the London Convention will come into force by the end of the decade and that it will attract a sufficient body of Contracting Parties to have an influence on the concept of ocean and seabed storage of CO₂ thereafter. The differences between the 1996 Protocol and the London Convention are significant and potentially important in the current context. Once the protocol becomes the dominant binding agreement on ocean dumping, no longer will there exist a general prohibition on the dumping of industrial wastes. However, the allowable categories of candidate material for disposal under the 1996 Protocol essentially remain unaltered from those in the current form of the London Convention. The absence of a ban on industrial waste in the Protocol might simplify making a case for the authorization of ocean or seabed storage of CO₂ under a category of allowed candidate materials, such as inert inorganic geological material, because it removes from consideration the industrial origin of the CO₂. More importantly though, the protocol introduces an additional clause under the definition of “*dumping*”, namely:

any storage of wastes or other matter in the seabed and the subsoil thereof from vessels, aircraft, platforms or other man-made structures at sea

One suspects that this phrase was inserted in full knowledge of the burgeoning interest in ocean and seabed storage of CO₂ and was intended to foreclose the option. This really would make the 1996 Protocol considerably more restrictive than the current form of the London Convention 1972. It would appear to forestall the primary basis for arguing the legitimacy of the practice of marine storage of CO₂ under the existing convention. The 1996 Protocol would therefore essentially foreclose all opportunities for the storage of fossil-fuel combustion derived CO₂ in the seabed from vessels and platforms once it enters into force.

There are no global conventions that would prohibit the storage of CO₂ in the ocean or seabed introduced via a pipeline from land, either in the hydrosphere or seabed. Nevertheless, there is enough evidence in international agreements to provide policy impediments to individual state authorization of land discharge of CO₂ into the marine hydrosphere. Such would not be the case in respect to seabed storage accessed via a pipeline from land simply because the associated damage would be confined to subseabed strata rather than to the “global commons” in UNCLOS parlance, provided CO₂ does not leak from subseabed strata into the hydrosphere.

Despite the relatively large number of binding regional marine environmental protection instruments that cover most of the marginal sea areas of the northern hemisphere and some extensive southern hemisphere areas, few of these conventions impose rigid impediments to maritime activities that would constitute components of a CO₂ storage scenario for continental shelf areas.

In large part, this is because the dumping provisions of most regional conventions mirror the original wording and structure of the London Convention 1972. Nevertheless, it is evident that storage of CO₂ in the ocean hydrosphere from vessels and offshore platforms would be regarded negatively in most quarters because of the unknown scale of adverse effects on the marine environment and its resources and the perception that such a practice would constitute “disposal at sea”. It is likely that there would be far less reluctance to consider authorizing the injection of CO₂ from vessels and platforms into the seabed, especially in strata or reservoirs that were likely to retain the CO₂ over geological time scales. Nevertheless, if the countries concerned were parties to the London Convention, it is likely that they would closely examine the provisions of this convention rather than those of the older regional conventions.

The regional conventions that can be interpreted as laying down prohibitions on maritime activities that would affect the legitimacy of the concept of ocean and seabed storage of CO₂ are the OSPAR Convention for the Northeast Atlantic and the Helsinki Convention for the Baltic Sea. In view of the semi-enclosed nature of the Baltic Sea, it seems unlikely that this area would be one of primary interest from the perspective of ocean or seabed storage of CO₂. Both in the foregoing analysis presented in this paper and the independent internal review of the legal provisions of the OSPAR Convention, it appears that the options for the storage of CO₂ in the marine hydrosphere and in subseabed strata emplaced from vessels and platforms in the Northeast Atlantic Area have already been foreclosed. Nevertheless, in this context, there appears to be an unresolved conflict between the text of Article 1 of Annex II and the text of Article 1(f) of the convention itself that might deserve some evaluation and clarification from legal perspectives. The OSPAR Convention contains an exclusion for “*placement of matter*” similar to that under the London Convention. The same considerations already discussed in relation to the London Convention would apply equally to the OSPAR Convention should any attempt be made to define ocean or seabed storage of CO₂ as “*placement*”.

No existing regional or global convention prohibits pipeline discharges of CO₂ from land either into water or the seabed. Thus, the sole globally-applicable option for ocean or seabed storage of CO₂ that does not contravene the provisions of any existing convention, global or regional, is the injection of land-derived CO₂ through a pipeline from shore. However, in view of contemporary policy positions, this option is only likely to be tenable for storage in the seabed. Any proposal for CO₂ storage in the hydrosphere in areas of limited circulation and water exchange (*e.g.*, the Baltic Sea and the Mediterranean Sea) is likely to be untenable for oceanographic reasons. More generally, any proposal for injection of CO₂ into the marine hydrosphere would be unlikely to be viewed favourably from policy perspectives simply because of concerns about the consequent short and long term effects on the marine environment and its living resources and the difficulty in accepting such a practice as “*storage*”.

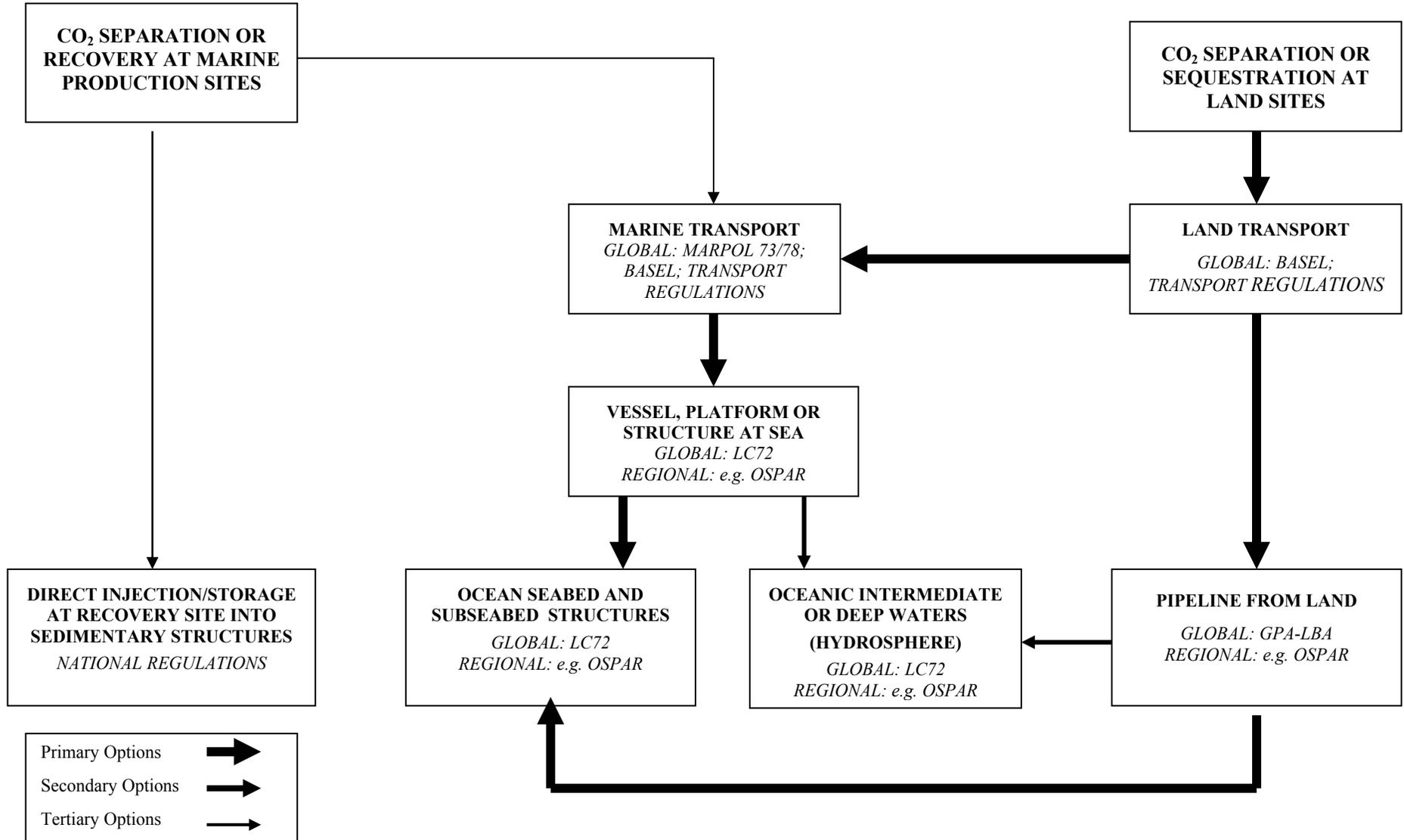
There is, nevertheless, a further legal consideration in respect to the injection of CO₂ via pipelines from land. This arises from the terms of UNCLOS and several of the dumping conventions in which reference is frequently made to disposal from “*other man-made structures at sea*” (the London Convention, the 1996 Protocol to the London Convention and the Helsinki Convention) or merely to marine “*structures*” (*e.g.*, the Barcelona, Lima and Bucharest Conventions) or, more specifically, to “*man-made structures placed, in the maritime area under the jurisdiction of a Contracting Party, other than for the purpose of offshore activities*” (the OSPAR Convention). These terms could be interpreted as covering

seabed or floating structures created for the purpose of transporting from land (*i.e.*, pipelines) and injecting CO₂ into the ocean or seabed thereby making the practice of injection via pipeline from land subject to the provisions of the dumping conventions. From the perspectives of the conventions currently in force, the extent of their jurisdiction over potential CO₂ injection via pipeline from land becomes a matter of legal interpretation. In this context, it might be noted that the internal review carried out from legal perspectives by the OSPAR Secretariat (OSPAR, 2002) did not in any way imply that the provisions of the OSPAR Convention would prohibit such a practice even though dumping of CO₂ was prohibited under this convention.

The one agreement that would appear to provide a much more comprehensive jurisdictional regime is the 1996 Protocol under the London Convention 1972 in which the definition of “dumping” includes “*any storage of wastes or other matter in the seabed and the subsoil thereof from vessels, aircraft, platforms or other man-made structures at sea.*” This protocol, when it enters into force, would appear to make it unequivocal that pipeline injection of CO₂ would be subject to its provisions and, accordingly, prohibited under the other terms of the protocol.

As stated in the Objectives and Purpose of this Review (Section 2), the practice of enhanced oil recovery (EOR) has been excluded from detailed consideration in this report. The reason for this is that such a practice can be deemed an operational activity associated with the legitimate exploitation of marine resources. As such, EOR is generally excluded from the jurisdiction of marine environmental protection conventions. Accordingly, it is the ***purpose*** of the activity (*i.e.*, enhanced oil recovery) that results in its exclusion from the provisions of these conventions. Care must therefore always be exercised in maintaining such an operational purpose in any injection of CO₂ into the seabed to ensure its legitimacy. If advantage were to be sought by using such an activity as an umbrella for CO₂ injection into the seabed *for purposes other than EOR* (*i.e.*, for CO₂ storage in the seabed), the practice would be unlikely to be accepted as an “*operational*” activity.

Figure 3
Conventions and Agreements Applicable to Options for Ocean and Seabed Storage of CO₂



9. RECOMMENDATIONS

The preceding parts of this report are an impartial review of the current status of CO₂ storage in the ocean and seabed within international conventions. The following is a suggested strategy that could be followed by proponents of CO₂ storage to attempt to obtain authorization of CO₂ storage under international conventions. The IEA Greenhouse Gas R&D Programme does not express a view about whether or not attempts should be made to obtain such authorization of CO₂ storage under the conventions. Rather, such policy decisions lie within the purview of national governments and other international agencies.

1. A strategy for obtaining broad acceptance at political levels, especially among representatives of Contracting Parties to the London Convention 1972 and the 1996 Protocol to the London Convention, of the concept of ocean and/or seabed storage of CO₂ would need to be developed. The development of such a strategy should concentrate on CO₂ storage in subseabed strata rather than in the hydrosphere because this option offers the greater chance of success.
2. Work would need to commence on the preparation of a case in favour of the storage of CO₂ in the ocean and/or seabed that concentrates on demonstrating the net benefit of the concept to society. To the greatest extent possible, it should include socio-economic considerations and be prepared in straightforward, non-scientific, language. It should exploit the contemporary policy preoccupation with the 'precautionary principle' as a means of justifying preventative action to ameliorate climate change induced by CO₂ buildup in the atmosphere and carefully explaining that it provides time to develop other measures for reducing atmospheric emissions of CO₂ from anthropogenic sources. It should place ocean and seabed storage carefully in context of the provisions of the Framework Convention on Climate Change and explain the work being conducted to determine the effects on the marine environment of both the "no action" and marine storage scenarios. Explanatory papers on the topic should also be prepared for publication in marine policy journals and popular science journals such as the *Scientific American* and the *New Scientist*.
3. Proponents of ocean and/or seabed storage of CO₂ should increase their visibility within, and interactions with, relevant convention forums, especially those of the London and OSPAR Conventions, which present the most severe limitations on the application of the concept of ocean and seabed storage of CO₂. This should be done by obtaining observer status in the Consultative Meetings of Contracting Parties to these conventions and by regularly presenting information papers on the topic of marine storage of CO₂, explaining the progress of related research and posing questions to elicit the positions of Contracting Parties regarding:
 - their willingness to condone ocean and/or seabed storage of CO₂; and
 - whether there would be differing attitudes to ocean or seabed storage of CO₂ derived from fossil fuel combustion, CO₂ stripped from natural gas streams both on land and offshore, and CO₂ derived from renewable energy processes.
4. To the extent possible, an analysis should be made of the purity of CO₂ recovered from fossil fuel combustion sources in relation to costs. The specifications of CO₂ purity derived from different technologies should be analyzed from the perspective of 'trace contaminant' and other provisions of existing global and regional conventions to determine the likely acceptability of different qualities of CO₂ under such conventions.

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LIST OF APPENDICES

Global Conventions and Agreements

- GCA: Framework Convention on Climate Change.
- GCB: United Nations Convention on the Law of the Sea (UNCLOS).
- GCC: London Convention 1972 and the 1996 Protocol Thereto.
- GCD: Dumping at sea: The evolution of the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (LC) 1972.
- GCE: Vienna Convention on the Law of Treaties.
- GCF: London Convention Information Paper on Future objectives for the London Convention 1972 and the 1996 Protocol thereto, the Netherlands.
- GCG: MARPOL 73/78: Consolidated Edition 2002, International Maritime Organization, London, 511 pp. (hardcopy)
- GCH: Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities, Washington, D.C., 1995. (hardcopy)
- GCI: Basel Convention.
- GCK: Text of the Basel Convention and Decisions of the Conference of Parties (COP 1 to 5). Basel Convention Series No. 00/01, UNEP Publication UNEP/SBS/2000/12, United Nations Environment Programme, Geneva, 223 pp. (hardcopy)
- GCL: Rotterdam (PIC) Convention.

EU Directives, Documents, Regulations and Policy Papers

- EUA: Water Framework Directive 2000/60/EC.
- EUB: Hazardous Waste Directive 91/689/EEC.
- EUC: Directive (EEC) 259/93/EEC on the Supervision and Control of Shipments of Waste.
- EUD: Council Regulation (EC) 120/97 Amending Directive 259/93.
- EUE: Council Directive 85/337/EEC of 27 June 185 on the Assessment of the Effects of Certain Public and Private Projects on the Environment.
- EUF: Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control.
- EUG: Directive 96/61/EC Concerning Integrated Pollution Prevention and Control.
- EUH: Directive 2001/42/EEC on the Assessment of the Effects of Certain Plans and Programmes on the Environment.
- EUJ: Directive 76/464/EEC on Water Pollution by Discharges of Certain Dangerous Substances. (hardcopy)
- EUK: List of substances which could belong to List I of Council Directive 76/464/EEC.
- EUL: White Paper: Strategy for a Future Chemicals Policy.
- EUM: Towards a Strategy to Protect and Conserve the Marine Environment.

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- EUP: Conclusions from the conference working session on an ecosystem approach to assessment and management. Stakeholder Conference, 4-6 December 2002, Koge, Denmark, 5 pp. (hardcopy)
- EUQ: Conclusions from the conference working session on monitoring and assessment – How to streamline the generation, gathering and assessment of information. Stakeholder Conference, 4-6 December 2002, Koge, Denmark, 5 pp. (hardcopy)

Regional Conventions and Agreements

- RCA: Summary of the status of relevant regional conventions.
- RCB: OSPAR Convention.
- RCC: OSPAR Secretariat Working Paper on the Compatibility with the OSPAR Convention of Possible Placements of Carbon Dioxide in the Sea or the Sea-Bed. **(Not for attribution or citation)**
- RCD: Helsinki Convention (Baltic Sea).
- RCE: Antarctic Treaty.
- RCF: Madrid Protocol to the Antarctic Treaty.
- RCG: Convention on the Conservation of Antarctic Marine Living Resources.
- RCH: Barcelona Convention (Mediterranean Sea).
- RCJ: Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft 1995.
- RCK: Mediterranean Hazardous Wastes Protocol.
- RCL: Mediterranean Land Based Sources Protocol.
- RCM: Mediterranean Offshore Protocol.
- RCN: Mediterranean Specially Protected Areas Protocol.
- RCP: Jeddah Convention (Red Sea and Gulf of Aden).
- RCQ: Nairobi Convention (Eastern Africa).
- RCR: Protocol Concerning Protected Areas and Wild Fauna and Flora in the Eastern African Region.
- RCS: Noumea Convention (South Pacific).
- RCT: Protocol Concerning Co-Operation in Combating Pollution Emergencies in the South Pacific Region.
- RCU: Protocol for the Prevention of Pollution of the South Pacific Region by Dumping.
- RCV: Waigani Convention (South Pacific).
- RCW: Abidjan Convention (West and Central Africa) and Protocol Concerning Co-Operation in Combating Pollution in Cases of Emergency (1981).
- RCY: Antigua Convention (Northeast Pacific).

- RCZ: Bucharest Convention (Black Sea).
- RDA: Protocol on the Protection of the Black Sea Marine Environment Against Pollution by Dumping.
- RDB: Protocol on Protection of the Black Sea Marine Environment Against Pollution from Land Based Sources.
- RDC: Cartagena de Indias Convention (Wider Caribbean).
- RDD: Protocol Concerning Pollution from Land-Based Sources and Activities to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region.
- RDE: Protocol Concerning Co-operation in Combating Oil Spills in the Wider Caribbean Region.
- RDF: Protocol Concerning Specially Protected Areas and Wildlife to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region.
- RDG: Lima Convention (South-East Pacific).
- RDH: Supplementary Protocol to the Agreement on Regional Cooperation in Combating Pollution of the South-East Pacific by Hydrocarbons or Other Harmful Substances in Cases of Emergency.
- RDJ: Protocol for the Protection of the South-East Pacific Against Pollution from Land-Based Sources.
- RDK: Protocol for the Conservation and Management of Protected Marine and Coastal Areas of the South-East Pacific (1989).
- RDL: Kuwait Convention (Arabian/Persian Gulf).
- RDM: Protocol Concerning Regional Co-Operation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency.
- RDN: Protocol concerning Marine Pollution Resulting from Exploration and Exploitation of the Continental Shelf.
- RDP: Protocol to the Kuwait Regional Convention for the Protection of the Marine Environment Against Pollution from Land-Based Sources.
- RDQ: Draft Framework Convention for the Protection of the Marine Environment of the Caspian Sea.
- RDR: Draft Protocol Concerning Regional Co-Operation In Combating Oil Pollution In Cases Of Emergency (Caspian Sea).
- RDS: Declaration on the Establishment of the Arctic Council.
- RDT: Arctic Offshore Oil and Gas Guidelines.

Appendix GCA
Framework Convention on Climate Change

FCCC Article 4 Commitments

Para. 1d Legitimizes oceans reservoirs for the storage of greenhouse gases.

Para 1g deals with Research

Para 2a Legitimizes reservoirs for developed countries.

**UNITED NATIONS FRAMEWORK CONVENTION
ON CLIMATE CHANGE**

UNITED NATIONS

1992

UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

The Parties to this Convention,

Acknowledging that change in the Earth's climate and its adverse effects are a common concern of humankind,

Concerned that human activities have been substantially increasing the atmospheric concentrations of greenhouse gases, that these increases enhance the natural greenhouse effect, and that this will result on average in an additional warming of the Earth's surface and atmosphere and may adversely affect natural ecosystems and humankind,

Noting that the largest share of historical and current global emissions of greenhouse gases has originated in developed countries, that per capita emissions in developing countries are still relatively low and that the share of global emissions originating in developing countries will grow to meet their social and development needs,

Aware of the role and importance in terrestrial and marine ecosystems of sinks and reservoirs of greenhouse gases,

Noting that there are many uncertainties in predictions of climate change, particularly with regard to the timing, magnitude and regional patterns thereof,

Acknowledging that the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response, in accordance with their common but differentiated responsibilities and respective capabilities and their social and economic conditions,

Recalling the pertinent provisions of the Declaration of the United Nations Conference on the Human Environment, adopted at Stockholm on 16 June 1972,

Recalling also that States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction,

Reaffirming the principle of sovereignty of States in international cooperation to address climate change,

Recognizing that States should enact effective environmental legislation, that environmental standards, management objectives and priorities should reflect the environmental and developmental context to which they apply,

and that standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries,

Recalling the provisions of General Assembly resolution 44/228 of 22 December 1989 on the United Nations Conference on Environment and Development, and resolutions 43/53 of 6 December 1988, 44/207 of 22 December 1989, 45/212 of 21 December 1990 and 46/169 of 19 December 1991 on protection of global climate for present and future generations of mankind,

Recalling also the provisions of General Assembly resolution 44/206 of 22 December 1989 on the possible adverse effects of sea-level rise on islands and coastal areas, particularly low-lying coastal areas and the pertinent provisions of General Assembly resolution 44/172 of 19 December 1989 on the implementation of the Plan of Action to Combat Desertification,

Recalling further the Vienna Convention for the Protection of the Ozone Layer, 1985, and the Montreal Protocol on Substances that Deplete the Ozone Layer, 1987, as adjusted and amended on 29 June 1990,

Noting the Ministerial Declaration of the Second World Climate Conference adopted on 7 November 1990,

Conscious of the valuable analytical work being conducted by many States on climate change and of the important contributions of the World Meteorological Organization, the United Nations Environment Programme and other organs, organizations and bodies of the United Nations system, as well as other international and intergovernmental bodies, to the exchange of results of scientific research and the coordination of research,

Recognizing that steps required to understand and address climate change will be environmentally, socially and economically most effective if they are based on relevant scientific, technical and economic considerations and continually re-evaluated in the light of new findings in these areas,

Recognizing that various actions to address climate change can be justified economically in their own right and can also help in solving other environmental problems,

Recognizing also the need for developed countries to take immediate action in a flexible manner on the basis of clear priorities, as a first step towards comprehensive response strategies at the global, national and, where agreed, regional levels that take into account all greenhouse gases, with due consideration of their relative contributions to the enhancement of the greenhouse effect,

Recognizing further that low-lying and other small island countries, countries with low-lying coastal, arid and semi-arid areas or areas liable to floods, drought and

desertification, and developing countries with fragile mountainous ecosystems are particularly vulnerable to the adverse effects of climate change,

Recognizing the special difficulties of those countries, especially developing countries, whose economies are particularly dependent on fossil fuel production, use and exportation, as a consequence of action taken on limiting greenhouse gas emissions,

Affirming that responses to climate change should be coordinated with social and economic development in an integrated manner with a view to avoiding adverse impacts on the latter, taking into full account the legitimate priority needs of developing countries for the achievement of sustained economic growth and the eradication of poverty,

Recognizing that all countries, especially developing countries, need access to resources required to achieve sustainable social and economic development and that, in order for developing countries to progress towards that goal, their energy consumption will need to grow taking into account the possibilities for achieving greater energy efficiency and for controlling greenhouse gas emissions in general, including through the application of new technologies on terms which make such an application economically and socially beneficial,

Determined to protect the climate system for present and future generations,

Have agreed as follows:

ARTICLE 1**DEFINITIONS ***

For the purposes of this Convention:

1. "Adverse effects of climate change" means changes in the physical environment or biota resulting from climate change which have significant deleterious effects on the composition, resilience or productivity of natural and managed ecosystems or on the operation of socio-economic systems or on human health and welfare.
 2. "Climate change" means a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.
 3. "Climate system" means the totality of the atmosphere, hydrosphere, biosphere and geosphere and their interactions.
 4. "Emissions" means the release of greenhouse gases and/or their precursors into the atmosphere over a specified area and period of time.
 5. "Greenhouse gases" means those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation.
 6. "Regional economic integration organization" means an organization constituted by sovereign States of a given region which has competence in respect of matters governed by this Convention or its protocols and has been duly authorized, in accordance with its internal procedures, to sign, ratify, accept, approve or accede to the instruments concerned.
 7. "Reservoir" means a component or components of the climate system where a greenhouse gas or a precursor of a greenhouse gas is stored.
 8. "Sink" means any process, activity or mechanism which removes a greenhouse gas, an aerosol or a precursor of a greenhouse gas from the atmosphere.
 9. "Source" means any process or activity which releases a greenhouse gas, an aerosol or a precursor of a greenhouse gas into the atmosphere.
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* Titles of articles are included solely to assist the reader.

ARTICLE 2**OBJECTIVE**

The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.

ARTICLE 3**PRINCIPLES**

In their actions to achieve the objective of the Convention and to implement its provisions, the Parties shall be guided, inter alia, by the following:

1. The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof.
2. The specific needs and special circumstances of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change, and of those Parties, especially developing country Parties, that would have to bear a disproportionate or abnormal burden under the Convention, should be given full consideration.
3. The Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost. To achieve this, such policies and measures should take into account different socio-economic contexts, be comprehensive, cover all relevant sources, sinks and reservoirs of greenhouse gases and adaptation, and comprise all economic sectors. Efforts to address climate change may be carried out cooperatively by interested Parties.

4. The Parties have a right to, and should, promote sustainable development. Policies and measures to protect the climate system against human-induced change should be appropriate for the specific conditions of each Party and should be integrated with national development programmes, taking into account that economic development is essential for adopting measures to address climate change.

5. The Parties should cooperate to promote a supportive and open international economic system that would lead to sustainable economic growth and development in all Parties, particularly developing country Parties, thus enabling them better to address the problems of climate change. Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade.

ARTICLE 4

COMMITMENTS

1. All Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, shall:

- (a) Develop, periodically update, publish and make available to the Conference of the Parties, in accordance with Article 12, national inventories of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, using comparable methodologies to be agreed upon by the Conference of the Parties;
- (b) Formulate, implement, publish and regularly update national and, where appropriate, regional programmes containing measures to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, and measures to facilitate adequate adaptation to climate change;
- (c) Promote and cooperate in the development, application and diffusion, including transfer, of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases not controlled by the Montreal Protocol in all relevant sectors, including the energy, transport, industry, agriculture, forestry and waste management sectors;
- (d) Promote sustainable management, and promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all

greenhouse gases not controlled by the Montreal Protocol, including biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems;

- (e) Cooperate in preparing for adaptation to the impacts of climate change; develop and elaborate appropriate and integrated plans for coastal zone management, water resources and agriculture, and for the protection and rehabilitation of areas, particularly in Africa, affected by drought and desertification, as well as floods;
- (f) Take climate change considerations into account, to the extent feasible, in their relevant social, economic and environmental policies and actions, and employ appropriate methods, for example impact assessments, formulated and determined nationally, with a view to minimizing adverse effects on the economy, on public health and on the quality of the environment, of projects or measures undertaken by them to mitigate or adapt to climate change;
- (g) Promote and cooperate in scientific, technological, technical, socio-economic and other research, systematic observation and development of data archives related to the climate system and intended to further the understanding and to reduce or eliminate the remaining uncertainties regarding the causes, effects, magnitude and timing of climate change and the economic and social consequences of various response strategies;
- (h) Promote and cooperate in the full, open and prompt exchange of relevant scientific, technological, technical, socio-economic and legal information related to the climate system and climate change, and to the economic and social consequences of various response strategies;
- (i) Promote and cooperate in education, training and public awareness related to climate change and encourage the widest participation in this process, including that of non-governmental organizations; and
- (j) Communicate to the Conference of the Parties information related to implementation, in accordance with Article 12.

2. The developed country Parties and other Parties included in Annex I commit themselves specifically as provided for in the following:

- (a) Each of these Parties shall adopt national¹ policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs. These policies and measures will demonstrate that developed countries are taking the lead in modifying longer-term trends in anthropogenic emissions consistent with the objective of the Convention, recognizing that the return by the end of the present decade to earlier levels of anthropogenic emissions of carbon dioxide and other greenhouse gases not controlled by the Montreal Protocol would contribute to such modification, and taking into account the differences in these Parties' starting points and approaches, economic structures and resource bases, the need to maintain strong and sustainable economic growth, available technologies and other individual circumstances, as well as the need for equitable and appropriate contributions by each of these Parties to the global effort regarding that objective. These Parties may implement such policies and measures jointly with other Parties and may assist other Parties in contributing to the achievement of the objective of the Convention and, in particular, that of this subparagraph;
- (b) In order to promote progress to this end, each of these Parties shall communicate, within six months of the entry into force of the Convention for it and periodically thereafter, and in accordance with Article 12, detailed information on its policies and measures referred to in subparagraph (a) above, as well as on its resulting projected anthropogenic emissions by sources and removals by sinks of greenhouse gases not controlled by the Montreal Protocol for the period referred to in subparagraph (a), with the aim of returning individually or jointly to their 1990 levels these anthropogenic emissions of carbon dioxide and other greenhouse gases not controlled by the Montreal Protocol. This information will be reviewed by the Conference of the Parties, at its first session and periodically thereafter, in accordance with Article 7;
- (c) Calculations of emissions by sources and removals by sinks of greenhouse gases for the purposes of subparagraph (b) above should take into account the best available scientific knowledge, including of the effective capacity of sinks and the respective contributions of such gases to climate change. The Conference of the Parties shall consider and agree

¹ This includes policies and measures adopted by regional economic integration organizations.

on methodologies for these calculations at its first session and review them regularly thereafter;

- (d) The Conference of the Parties shall, at its first session, review the adequacy of subparagraphs (a) and (b) above. Such review shall be carried out in the light of the best available scientific information and assessment on climate change and its impacts, as well as relevant technical, social and economic information. Based on this review, the Conference of the Parties shall take appropriate action, which may include the adoption of amendments to the commitments in subparagraphs (a) and (b) above. The Conference of the Parties, at its first session, shall also take decisions regarding criteria for joint implementation as indicated in subparagraph (a) above. A second review of subparagraphs (a) and (b) shall take place not later than 31 December 1998, and thereafter at regular intervals determined by the Conference of the Parties, until the objective of the Convention is met;
- (e) Each of these Parties shall :
 - (i) Coordinate as appropriate with other such Parties, relevant economic and administrative instruments developed to achieve the objective of the Convention; and
 - (ii) Identify and periodically review its own policies and practices which encourage activities that lead to greater levels of anthropogenic emissions of greenhouse gases not controlled by the Montreal Protocol than would otherwise occur;
- (f) The Conference of the Parties shall review, not later than 31 December 1998, available information with a view to taking decisions regarding such amendments to the lists in Annexes I and II as may be appropriate, with the approval of the Party concerned;
- (g) Any Party not included in Annex I may, in its instrument of ratification, acceptance, approval or accession, or at any time thereafter, notify the Depositary that it intends to be bound by subparagraphs (a) and (b) above. The Depositary shall inform the other signatories and Parties of any such notification.

3. The developed country Parties and other developed Parties included in Annex II shall provide new and additional financial resources to meet the agreed full costs incurred by

developing country Parties in complying with their obligations under Article 12, paragraph 1. They shall also provide such financial resources, including for the transfer of technology, needed by the developing country Parties to meet the agreed full incremental costs of implementing measures that are covered by paragraph 1 of this Article and that are agreed between a developing country Party and the international entity or entities referred to in Article 11, in accordance with that Article. The implementation of these commitments shall take into account the need for adequacy and predictability in the flow of funds and the importance of appropriate burden sharing among the developed country Parties.

4. The developed country Parties and other developed Parties included in Annex II shall also assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects.

5. The developed country Parties and other developed Parties included in Annex II shall take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention. In this process, the developed country Parties shall support the development and enhancement of endogenous capacities and technologies of developing country Parties. Other Parties and organizations in a position to do so may also assist in facilitating the transfer of such technologies.

6. In the implementation of their commitments under paragraph 2 above, a certain degree of flexibility shall be allowed by the Conference of the Parties to the Parties included in Annex I undergoing the process of transition to a market economy, in order to enhance the ability of these Parties to address climate change, including with regard to the historical level of anthropogenic emissions of greenhouse gases not controlled by the Montreal Protocol chosen as a reference.

7. The extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology and will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties.

8. In the implementation of the commitments in this Article, the Parties shall give full consideration to what actions are necessary under the Convention, including actions related to funding, insurance and the transfer of technology, to meet the

specific needs and concerns of developing country Parties arising from the adverse effects of climate change and/or the impact of the implementation of response measures, especially on:

- (a) Small island countries;
- (b) Countries with low-lying coastal areas;
- (c) Countries with arid and semi-arid areas, forested areas and areas liable to forest decay;
- (d) Countries with areas prone to natural disasters;
- (e) Countries with areas liable to drought and desertification;
- (f) Countries with areas of high urban atmospheric pollution;
- (g) Countries with areas with fragile ecosystems, including mountainous ecosystems;
- (h) Countries whose economies are highly dependent on income generated from the production, processing and export, and/or on consumption of fossil fuels and associated energy-intensive products; and
- (i) Land-locked and transit countries.

Further, the Conference of the Parties may take actions, as appropriate, with respect to this paragraph.

9. The Parties shall take full account of the specific needs and special situations of the least developed countries in their actions with regard to funding and transfer of technology.

10. The Parties shall, in accordance with Article 10, take into consideration in the implementation of the commitments of the Convention the situation of Parties, particularly developing country Parties, with economies that are vulnerable to the adverse effects of the implementation of measures to respond to climate change. This applies notably to Parties with economies that are highly dependent on income generated from the production, processing and export, and/or consumption of fossil fuels and associated energy-intensive products and/or the use of fossil fuels for which such Parties have serious difficulties in switching to alternatives.

ARTICLE 5

RESEARCH AND SYSTEMATIC OBSERVATION

In carrying out their commitments under Article 4, paragraph 1(g), the Parties shall:

- (a) Support and further develop, as appropriate, international and intergovernmental programmes and networks or organizations aimed at defining, conducting, assessing and financing research, data collection and systematic observation, taking into account the need to minimize duplication of effort;
- (b) Support international and intergovernmental efforts to strengthen systematic observation and national scientific and technical research capacities and capabilities, particularly in developing countries, and to promote access to, and the exchange of, data and analyses thereof obtained from areas beyond national jurisdiction; and
- (c) Take into account the particular concerns and needs of developing countries and cooperate in improving their endogenous capacities and capabilities to participate in the efforts referred to in subparagraphs (a) and (b) above.

ARTICLE 6**EDUCATION, TRAINING AND PUBLIC AWARENESS**

In carrying out their commitments under Article 4, paragraph 1(i), the Parties shall:

- (a) Promote and facilitate at the national and, as appropriate, subregional and regional levels, and in accordance with national laws and regulations, and within their respective capacities:
 - (i) The development and implementation of educational and public awareness programmes on climate change and its effects;
 - (ii) Public access to information on climate change and its effects;
 - (iii) Public participation in addressing climate change and its effects and developing adequate responses; and
 - (iv) Training of scientific, technical and managerial personnel.
- (b) Cooperate in and promote, at the international level, and, where appropriate, using existing bodies:
 - (i) The development and exchange of educational and public awareness material on climate change and its effects; and
 - (ii) The development and implementation of education and training programmes, including the strengthening of national institutions and the exchange or secondment of personnel to train experts in this field, in particular for developing countries.

ARTICLE 7**CONFERENCE OF THE PARTIES**

1. A Conference of the Parties is hereby established.
2. The Conference of the Parties, as the supreme body of this Convention, shall keep under regular review the implementation of the Convention and any related legal instruments that the Conference of the Parties may adopt, and shall make, within its mandate, the decisions necessary to promote the effective implementation of the Convention. To this end, it shall:

- (a) Periodically examine the obligations of the Parties and the institutional arrangements under the Convention, in the light of the objective of the Convention, the experience gained in its implementation and the evolution of scientific and technological knowledge;
- (b) Promote and facilitate the exchange of information on measures adopted by the Parties to address climate change and its effects, taking into account the differing circumstances, responsibilities and capabilities of the Parties and their respective commitments under the Convention;
- (c) Facilitate, at the request of two or more Parties, the coordination of measures adopted by them to address climate change and its effects, taking into account the differing circumstances, responsibilities and capabilities of the Parties and their respective commitments under the Convention;
- (d) Promote and guide, in accordance with the objective and provisions of the Convention, the development and periodic refinement of comparable methodologies, to be agreed on by the Conference of the Parties, inter alia, for preparing inventories of greenhouse gas emissions by sources and removals by sinks, and for evaluating the effectiveness of measures to limit the emissions and enhance the removals of these gases;
- (e) Assess, on the basis of all information made available to it in accordance with the provisions of the Convention, the implementation of the Convention by the Parties, the overall effects of the measures taken pursuant to the Convention, in particular environmental, economic and social effects as well as their cumulative impacts and the extent to which progress towards the objective of the Convention is being achieved;
- (f) Consider and adopt regular reports on the implementation of the Convention and ensure their publication;
- (g) Make recommendations on any matters necessary for the implementation of the Convention;
- (h) Seek to mobilize financial resources in accordance with Article 4, paragraphs 3, 4 and 5, and Article 11;
- (i) Establish such subsidiary bodies as are deemed necessary for the implementation of the Convention;

- (j) Review reports submitted by its subsidiary bodies and provide guidance to them;
- (k) Agree upon and adopt, by consensus, rules of procedure and financial rules for itself and for any subsidiary bodies;
- (l) Seek and utilize, where appropriate, the services and cooperation of, and information provided by, competent international organizations and intergovernmental and non-governmental bodies; and
- (m) Exercise such other functions as are required for the achievement of the objective of the Convention as well as all other functions assigned to it under the Convention.

3. The Conference of the Parties shall, at its first session, adopt its own rules of procedure as well as those of the subsidiary bodies established by the Convention, which shall include decision-making procedures for matters not already covered by decision-making procedures stipulated in the Convention. Such procedures may include specified majorities required for the adoption of particular decisions.

4. The first session of the Conference of the Parties shall be convened by the interim secretariat referred to in Article 21 and shall take place not later than one year after the date of entry into force of the Convention. Thereafter, ordinary sessions of the Conference of the Parties shall be held every year unless otherwise decided by the Conference of the Parties.

5. Extraordinary sessions of the Conference of the Parties shall be held at such other times as may be deemed necessary by the Conference, or at the written request of any Party, provided that, within six months of the request being communicated to the Parties by the secretariat, it is supported by at least one third of the Parties.

6. The United Nations, its specialized agencies and the International Atomic Energy Agency, as well as any State member thereof or observers thereto not Party to the Convention, may be represented at sessions of the Conference of the Parties as observers. Any body or agency, whether national or international, governmental or non-governmental, which is qualified in matters covered by the Convention, and which has informed the secretariat of its wish to be represented at a session of the Conference of the Parties as an observer, may be so admitted unless at least one third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure adopted by the Conference of the Parties.

ARTICLE 8

SECRETARIAT

1. A secretariat is hereby established.
2. The functions of the secretariat shall be:
 - (a) To make arrangements for sessions of the Conference of the Parties and its subsidiary bodies established under the Convention and to provide them with services as required;
 - (b) To compile and transmit reports submitted to it;
 - (c) To facilitate assistance to the Parties, particularly developing country Parties, on request, in the compilation and communication of information required in accordance with the provisions of the Convention;
 - (d) To prepare reports on its activities and present them to the Conference of the Parties;
 - (e) To ensure the necessary coordination with the secretariats of other relevant international bodies;
 - (f) To enter, under the overall guidance of the Conference of the Parties, into such administrative and contractual arrangements as may be required for the effective discharge of its functions; and
 - (g) To perform the other secretariat functions specified in the Convention and in any of its protocols and such other functions as may be determined by the Conference of the Parties.
3. The Conference of the Parties, at its first session, shall designate a permanent secretariat and make arrangements for its functioning.

ARTICLE 9**SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE**

1. A subsidiary body for scientific and technological advice is hereby established to provide the Conference of the Parties and, as appropriate, its other subsidiary bodies with timely information and advice on scientific and technological matters relating to the Convention. This body shall be open to participation by all Parties and shall be multidisciplinary. It shall comprise government representatives competent in the relevant field of expertise. It shall report regularly to the Conference of the Parties on all aspects of its work.

2. Under the guidance of the Conference of the Parties, and drawing upon existing competent international bodies, this body shall:

- (a) Provide assessments of the state of scientific knowledge relating to climate change and its effects;
- (b) Prepare scientific assessments on the effects of measures taken in the implementation of the Convention;
- (c) Identify innovative, efficient and state-of-the-art technologies and know-how and advise on the ways and means of promoting development and/or transferring such technologies;
- (d) Provide advice on scientific programmes, international cooperation in research and development related to climate change, as well as on ways and means of supporting endogenous capacity-building in developing countries; and
- (e) Respond to scientific, technological and methodological questions that the Conference of the Parties and its subsidiary bodies may put to the body.

3. The functions and terms of reference of this body may be further elaborated by the Conference of the Parties.

ARTICLE 10

SUBSIDIARY BODY FOR IMPLEMENTATION

1. A subsidiary body for implementation is hereby established to assist the Conference of the Parties in the assessment and review of the effective implementation of the Convention. This body shall be open to participation by all Parties and comprise government representatives who are experts on matters related to climate change. It shall report regularly to the Conference of the Parties on all aspects of its work.

2. Under the guidance of the Conference of the Parties, this body shall:

- (a) Consider the information communicated in accordance with Article 12, paragraph 1, to assess the overall aggregated effect of the steps taken by the Parties in the light of the latest scientific assessments concerning climate change;
- (b) Consider the information communicated in accordance with Article 12, paragraph 2, in order to assist the

Conference of the Parties in carrying out the reviews required by Article 4, paragraph 2(d); and

- (c) Assist the Conference of the Parties, as appropriate, in the preparation and implementation of its decisions.

ARTICLE 11

FINANCIAL MECHANISM

1. A mechanism for the provision of financial resources on a grant or concessional basis, including for the transfer of technology, is hereby defined. It shall function under the guidance of and be accountable to the Conference of the Parties, which shall decide on its policies, programme priorities and eligibility criteria related to this Convention. Its operation shall be entrusted to one or more existing international entities.

2. The financial mechanism shall have an equitable and balanced representation of all Parties within a transparent system of governance.

3. The Conference of the Parties and the entity or entities entrusted with the operation of the financial mechanism shall agree upon arrangements to give effect to the above paragraphs, which shall include the following:

- (a) Modalities to ensure that the funded projects to address climate change are in conformity with the policies, programme priorities and eligibility criteria established by the Conference of the Parties;
- (b) Modalities by which a particular funding decision may be reconsidered in light of these policies, programme priorities and eligibility criteria;
- (c) Provision by the entity or entities of regular reports to the Conference of the Parties on its funding operations, which is consistent with the requirement for accountability set out in paragraph 1 above; and
- (d) Determination in a predictable and identifiable manner of the amount of funding necessary and available for the implementation of this Convention and the conditions under which that amount shall be periodically reviewed.

4. The Conference of the Parties shall make arrangements to implement the above-mentioned provisions at its first session, reviewing and taking into account the interim arrangements referred to in Article 21, paragraph 3, and shall decide

whether these interim arrangements shall be maintained. Within four years thereafter, the Conference of the Parties shall review the financial mechanism and take appropriate measures.

5. The developed country Parties may also provide and developing country Parties avail themselves of, financial resources related to the implementation of the Convention through bilateral, regional and other multilateral channels.

ARTICLE 12

COMMUNICATION OF INFORMATION RELATED TO IMPLEMENTATION

1. In accordance with Article 4, paragraph 1, each Party shall communicate to the Conference of the Parties, through the secretariat, the following elements of information:

- (a) A national inventory of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, to the extent its capacities permit, using comparable methodologies to be promoted and agreed upon by the Conference of the Parties;
- (b) A general description of steps taken or envisaged by the Party to implement the Convention; and
- (c) Any other information that the Party considers relevant to the achievement of the objective of the Convention and suitable for inclusion in its communication, including, if feasible, material relevant for calculations of global emission trends.

2. Each developed country Party and each other Party included in Annex I shall incorporate in its communication the following elements of information:

- (a) A detailed description of the policies and measures that it has adopted to implement its commitment under Article 4, paragraphs 2(a) and 2(b); and
- (b) A specific estimate of the effects that the policies and measures referred to in subparagraph (a) immediately above will have on anthropogenic emissions by its sources and removals by its sinks of greenhouse gases during the period referred to in Article 4, paragraph 2(a).

3. In addition, each developed country Party and each other developed Party included in Annex II shall incorporate details of measures taken in accordance with Article 4, paragraphs 3, 4 and 5.

4. Developing country Parties may, on a voluntary basis, propose projects for financing, including specific technologies, materials, equipment, techniques or practices

that would be needed to implement such projects, along with, if possible, an estimate of all incremental costs, of the reductions of emissions and increments of removals of greenhouse gases, as well as an estimate of the consequent benefits.

5. Each developed country Party and each other Party included in Annex I shall make its initial communication within six months of the entry into force of the Convention for that Party. Each Party not so listed shall make its initial communication within three years of the entry into force of the Convention for that Party, or of the availability of financial resources in accordance with Article 4, paragraph 3. Parties that are least developed countries may make their initial communication at their discretion. The frequency of subsequent communications by all Parties shall be determined by the Conference of the Parties, taking into account the differentiated timetable set by this paragraph.

6. Information communicated by Parties under this Article shall be transmitted by the secretariat as soon as possible to the Conference of the Parties and to any subsidiary bodies concerned. If necessary, the procedures for the communication of information may be further considered by the Conference of the Parties.

7. From its first session, the Conference of the Parties shall arrange for the provision to developing country Parties of technical and financial support, on request, in compiling and communicating information under this Article, as well as in identifying the technical and financial needs associated with proposed projects and response measures under Article 4. Such support may be provided by other Parties, by competent international organizations and by the secretariat, as appropriate.

8. Any group of Parties may, subject to guidelines adopted by the Conference of the Parties, and to prior notification to the Conference of the Parties, make a joint communication in fulfilment of their obligations under this Article, provided that such a communication includes information on the fulfilment by each of these Parties of its individual obligations under the Convention.

9. Information received by the secretariat that is designated by a Party as confidential, in accordance with criteria to be established by the Conference of the Parties, shall be aggregated by the secretariat to protect its confidentiality before being made available to any of the bodies involved in the communication and review of information.

10. Subject to paragraph 9 above, and without prejudice to the ability of any Party to make public its communication at any time, the secretariat shall make communications by Parties

under this Article publicly available at the time they are submitted to the Conference of the Parties.

ARTICLE 13

RESOLUTION OF QUESTIONS REGARDING IMPLEMENTATION

The Conference of the Parties shall, at its first session, consider the establishment of a multilateral consultative process, available to Parties on their request, for the resolution of questions regarding the implementation of the Convention.

ARTICLE 14

SETTLEMENT OF DISPUTES

1. In the event of a dispute between any two or more Parties concerning the interpretation or application of the Convention, the Parties concerned shall seek a settlement of the dispute through negotiation or any other peaceful means of their own choice.

2. When ratifying, accepting, approving or acceding to the Convention, or at any time thereafter, a Party which is not a regional economic integration organization may declare in a written instrument submitted to the Depositary that, in respect of any dispute concerning the interpretation or application of the Convention, it recognizes as compulsory ipso facto and without special agreement, in relation to any Party accepting the same obligation:

- (a) Submission of the dispute to the International Court of Justice, and/or
- (b) Arbitration in accordance with procedures to be adopted by the Conference of the Parties as soon as practicable, in an annex on arbitration.

A Party which is a regional economic integration organization may make a declaration with like effect in relation to arbitration in accordance with the procedures referred to in subparagraph (b) above.

3. A declaration made under paragraph 2 above shall remain in force until it expires in accordance with its terms or until three months after written notice of its revocation has been deposited with the Depositary.

4. A new declaration, a notice of revocation or the expiry of a declaration shall not in any way affect proceedings pending before the International Court of Justice or the arbitral tribunal, unless the parties to the dispute otherwise agree.

5. Subject to the operation of paragraph 2 above, if after twelve months following notification by one Party to another that a dispute exists between them, the Parties concerned have not been able to settle their dispute through the means mentioned in paragraph 1 above, the dispute shall be submitted, at the request of any of the parties to the dispute, to conciliation.

6. A conciliation commission shall be created upon the request of one of the parties to the dispute. The commission shall be composed of an equal number of members appointed by each party concerned and a chairman chosen jointly by the members appointed by each party. The commission shall render a recommendatory award, which the parties shall consider in good faith.

7. Additional procedures relating to conciliation shall be adopted by the Conference of the Parties, as soon as practicable, in an annex on conciliation.

8. The provisions of this Article shall apply to any related legal instrument which the Conference of the Parties may adopt, unless the instrument provides otherwise.

ARTICLE 15

AMENDMENTS TO THE CONVENTION

1. Any Party may propose amendments to the Convention.

2. Amendments to the Convention shall be adopted at an ordinary session of the Conference of the Parties. The text of any proposed amendment to the Convention shall be communicated to the Parties by the secretariat at least six months before the meeting at which it is proposed for adoption. The secretariat shall also communicate proposed amendments to the signatories to the Convention and, for information, to the Depositary.

3. The Parties shall make every effort to reach agreement on any proposed amendment to the Convention by consensus. If all efforts at consensus have been exhausted, and no agreement reached, the amendment shall as a last resort be adopted by a three-fourths majority vote of the Parties present and voting at the meeting. The adopted amendment shall be communicated by the secretariat to the Depositary, who shall circulate it to all Parties for their acceptance.

4. Instruments of acceptance in respect of an amendment shall be deposited with the Depositary. An amendment adopted in accordance with paragraph 3 above shall enter into force for those Parties having accepted it on the ninetieth day after the date of receipt by the Depositary of an instrument of acceptance by at least three fourths of the Parties to the Convention.

5. The amendment shall enter into force for any other Party on the ninetieth day after the date on which that Party deposits with the Depositary its instrument of acceptance of the said amendment.

6. For the purposes of this Article, "Parties present and voting" means Parties present and casting an affirmative or negative vote.

ARTICLE 16

ADOPTION AND AMENDMENT OF ANNEXES TO THE CONVENTION

1. Annexes to the Convention shall form an integral part thereof and, unless otherwise expressly provided, a reference to the Convention constitutes at the same time a reference to any annexes thereto. Without prejudice to the provisions of Article 14, paragraphs 2(b) and 7, such annexes shall be restricted to lists, forms and any other material of a descriptive nature that is of a scientific, technical, procedural or administrative character.

2. Annexes to the Convention shall be proposed and adopted in accordance with the procedure set forth in Article 15, paragraphs 2, 3 and 4.

3. An annex that has been adopted in accordance with paragraph 2 above shall enter into force for all Parties to the Convention six months after the date of the communication by the Depositary to such Parties of the adoption of the annex, except for those Parties that have notified the Depositary, in writing, within that period of their non-acceptance of the annex. The annex shall enter into force for Parties which withdraw their notification of non-acceptance on the ninetieth day after the date on which withdrawal of such notification has been received by the Depositary.

4. The proposal, adoption and entry into force of amendments to annexes to the Convention shall be subject to the same procedure as that for the proposal, adoption and entry into force of annexes to the Convention in accordance with paragraphs 2 and 3 above.

5. If the adoption of an annex or an amendment to an annex involves an amendment to the Convention, that annex or amendment to an annex shall not enter into force until such time as the amendment to the Convention enters into force.

ARTICLE 17

PROTOCOLS

1. The Conference of the Parties may, at any ordinary session, adopt protocols to the Convention.
2. The text of any proposed protocol shall be communicated to the Parties by the secretariat at least six months before such a session.
3. The requirements for the entry into force of any protocol shall be established by that instrument.
4. Only Parties to the Convention may be Parties to a protocol.
5. Decisions under any protocol shall be taken only by the Parties to the protocol concerned.

ARTICLE 18

RIGHT TO VOTE

1. Each Party to the Convention shall have one vote, except as provided for in paragraph 2 below.
2. Regional economic integration organizations, in matters within their competence, shall exercise their right to vote with a number of votes equal to the number of their member States that are Parties to the Convention. Such an organization shall not exercise its right to vote if any of its member States exercises its right, and vice versa.

ARTICLE 19

DEPOSITARY

The Secretary-General of the United Nations shall be the Depositary of the Convention and of protocols adopted in accordance with Article 17.

ARTICLE 20**SIGNATURE**

This Convention shall be open for signature by States Members of the United Nations or of any of its specialized agencies or that are Parties to the Statute of the International Court of Justice and by regional economic integration organizations at Rio de Janeiro, during the United Nations Conference on Environment and Development, and thereafter at United Nations Headquarters in New York from 20 June 1992 to 19 June 1993.

ARTICLE 21**INTERIM ARRANGEMENTS**

1. The secretariat functions referred to in Article 8 will be carried out on an interim basis by the secretariat established by the General Assembly of the United Nations in its resolution 45/212 of 21 December 1990, until the completion of the first session of the Conference of the Parties.

2. The head of the interim secretariat referred to in paragraph 1 above will cooperate closely with the Intergovernmental Panel on Climate Change to ensure that the Panel can respond to the need for objective scientific and technical advice. Other relevant scientific bodies could also be consulted.

3. The Global Environment Facility of the United Nations Development Programme, the United Nations Environment Programme and the International Bank for Reconstruction and Development shall be the international entity entrusted with the operation of the financial mechanism referred to in Article 11 on an interim basis. In this connection, the Global Environment Facility should be appropriately restructured and its membership made universal to enable it to fulfil the requirements of Article 11.

ARTICLE 22**RATIFICATION, ACCEPTANCE, APPROVAL OR ACCESSION**

1. The Convention shall be subject to ratification, acceptance, approval or accession by States and by regional economic integration organizations. It shall be open for accession from the day after the date on which the Convention is closed for signature. Instruments of ratification, acceptance, approval or accession shall be deposited with the Depositary.

2. Any regional economic integration organization which becomes a Party to the Convention without any of its member

States being a Party shall be bound by all the obligations under the Convention. In the case of such organizations, one or more of whose member States is a Party to the Convention, the organization and its member States shall decide on their respective responsibilities for the performance of their obligations under the Convention. In such cases, the organization and the member States shall not be entitled to exercise rights under the Convention concurrently.

3. In their instruments of ratification, acceptance, approval or accession, regional economic integration organizations shall declare the extent of their competence with respect to the matters governed by the Convention. These organizations shall also inform the Depositary, who shall in turn inform the Parties, of any substantial modification in the extent of their competence.

ARTICLE 23

ENTRY INTO FORCE

1. The Convention shall enter into force on the ninetieth day after the date of deposit of the fiftieth instrument of ratification, acceptance, approval or accession.

2. For each State or regional economic integration organization that ratifies, accepts or approves the Convention or accedes thereto after the deposit of the fiftieth instrument of ratification, acceptance, approval or accession, the Convention shall enter into force on the ninetieth day after the date of deposit by such State or regional economic integration organization of its instrument of ratification, acceptance, approval or accession.

3. For the purposes of paragraphs 1 and 2 above, any instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by States members of the organization.

ARTICLE 24

RESERVATIONS

No reservations may be made to the Convention.

ARTICLE 25

WITHDRAWAL

1. At any time after three years from the date on which the Convention has entered into force for a Party, that Party may withdraw from the Convention by giving written notification to the Depositary.

2. Any such withdrawal shall take effect upon expiry of one year from the date of receipt by the Depositary of the notification of withdrawal, or on such later date as may be specified in the notification of withdrawal.

3. Any Party that withdraws from the Convention shall be considered as also having withdrawn from any protocol to which it is a Party.

ARTICLE 26

AUTHENTIC TEXTS

The original of this Convention, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

IN WITNESS WHEREOF the undersigned, being duly authorized to that effect, have signed this Convention.

DONE at New York this ninth day of May one thousand nine hundred and ninety-two.

Annex I

Australia
Austria
Belarus^{a/}
Belgium
Bulgaria^{a/}
Canada
Czechoslovakia^{a/}
Denmark
European Economic Community
Estonia^{a/}
Finland
France
Germany
Greece
Hungary^{a/}
Iceland
Ireland
Italy
Japan
Latvia^{a/}
Lithuania^{a/}
Luxembourg
Netherlands
New Zealand
Norway
Poland^{a/}
Portugal
Romania^{a/}
Russian Federation^{a/}
Spain
Sweden
Switzerland
Turkey
Ukraine^{a/}
United Kingdom of Great
 Britain and Northern Ireland
United States of America

^{a/} Countries that are undergoing the process of transition to a market economy.

Annex II

Australia
Austria
Belgium
Canada
Denmark
European Economic Community
Finland
France
Germany
Greece
Iceland
Ireland
Italy
Japan
Luxembourg
Netherlands
New Zealand
Norway
Portugal
Spain
Sweden
Switzerland
Turkey
United Kingdom of Great
 Britain and Northern Ireland
United States of America

**KYOTO PROTOCOL TO THE
UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE**

The Parties to this Protocol,

Being Parties to the United Nations Framework Convention on Climate Change, hereinafter referred to as “the Convention”,

In pursuit of the ultimate objective of the Convention as stated in its Article 2,

Recalling the provisions of the Convention,

Being guided by Article 3 of the Convention,

Pursuant to the Berlin Mandate adopted by decision 1/CP.1 of the Conference of the Parties to the Convention at its first session,

Have agreed as follows:

Article 1

For the purposes of this Protocol, the definitions contained in Article 1 of the Convention shall apply. In addition:

1. “Conference of the Parties” means the Conference of the Parties to the Convention.
2. “Convention” means the United Nations Framework Convention on Climate Change, adopted in New York on 9 May 1992.
3. “Intergovernmental Panel on Climate Change” means the Intergovernmental Panel on Climate Change established in 1988 jointly by the World Meteorological Organization and the United Nations Environment Programme.
4. “Montreal Protocol” means the Montreal Protocol on Substances that Deplete the Ozone Layer, adopted in Montreal on 16 September 1987 and as subsequently adjusted and amended.
5. “Parties present and voting” means Parties present and casting an affirmative or negative vote.
6. “Party” means, unless the context otherwise indicates, a Party to this Protocol.
7. “Party included in Annex I” means a Party included in Annex I to the Convention, as may be amended, or a Party which has made a notification under Article 4, paragraph 2(g), of the Convention.

Article 2

1. Each Party included in Annex I, in achieving its quantified emission limitation and reduction commitments under Article 3, in order to promote sustainable development, shall:

- (a) Implement and/or further elaborate policies and measures in accordance with its national circumstances, such as:
- (i) Enhancement of energy efficiency in relevant sectors of the national economy;
 - (ii) Protection and enhancement of sinks and reservoirs of greenhouse gases not controlled by the Montreal Protocol, taking into account its commitments under relevant international environmental agreements; promotion of sustainable forest management practices, afforestation and reforestation;
 - (iii) Promotion of sustainable forms of agriculture in light of climate change considerations;
 - (iv) Research on, and promotion, development and increased use of, new and renewable forms of energy, of carbon dioxide sequestration technologies and of advanced and innovative environmentally sound technologies;
 - (v) Progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse gas emitting sectors that run counter to the objective of the Convention and application of market instruments;
 - (vi) Encouragement of appropriate reforms in relevant sectors aimed at promoting policies and measures which limit or reduce emissions of greenhouse gases not controlled by the Montreal Protocol;
 - (vii) Measures to limit and/or reduce emissions of greenhouse gases not controlled by the Montreal Protocol in the transport sector;
 - (viii) Limitation and/or reduction of methane emissions through recovery and use in waste management, as well as in the production, transport and distribution of energy;
- (b) Cooperate with other such Parties to enhance the individual and combined effectiveness of their policies and measures adopted under this Article, pursuant to Article 4, paragraph 2(e)(i), of the Convention. To this end, these Parties shall take steps to share their experience and exchange information on such policies and measures, including developing ways of improving their comparability, transparency and effectiveness. The Conference of

Parties serving as the meeting of the Parties to this Protocol shall, at its first session or as soon as practicable thereafter, consider ways to facilitate such cooperation, taking into account all relevant information.

2. The Parties included in Annex I shall pursue limitation or reduction of emissions of greenhouse gases not controlled by the Montreal Protocol from aviation and marine bunker fuels, working through the International Civil Aviation Organization and the International Maritime Organization, respectively.

3. The Parties included in Annex I shall strive to implement policies and measures under this Article in such a way as to minimize adverse effects, including the adverse effects of climate change, effects on international trade, and social, environmental and economic impacts on other Parties, especially developing country Parties and in particular those identified in Article 4, paragraphs 8 and 9, of the Convention, taking into account Article 3 of the Convention. The Conference of the Parties serving as the meeting of the Parties to this Protocol may take further action, as appropriate, to promote the implementation of the provisions of this paragraph.

4. The Conference of the Parties serving as the meeting of the Parties to this Protocol, if it decides that it would be beneficial to coordinate any of the policies and measures in paragraph 1(a) above, taking into account different national circumstances and potential effects, shall consider ways and means to elaborate the coordination of such policies and measures.

Article 3

1. The Parties included in Annex I shall, individually or jointly, ensure that their aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases listed in Annex A do not exceed their assigned amounts, calculated pursuant to their quantified emission limitation and reduction commitments inscribed in Annex B and in accordance with the provisions of this Article, with a view to reducing their overall emissions of such gases by at least 5 per cent below 1990 levels in the commitment period 2008 to 2012.

2. Each Party included in Annex I shall, by 2005, have made demonstrable progress in achieving its commitments under this Protocol.

3. The net changes in greenhouse gas emissions by sources and removals by sinks resulting from direct human-induced land-use change and forestry activities, limited to afforestation, reforestation and deforestation since 1990, measured as verifiable changes in carbon stocks in each commitment period, shall be used to meet the commitments under this Article of each Party included in Annex I. The greenhouse gas emissions by sources and removals by sinks associated with those activities shall be reported in a transparent and verifiable manner and reviewed in accordance with Articles 7 and 8.

4. Prior to the first session of the Conference of the Parties serving as the meeting of the Parties to this Protocol, each Party included in Annex I shall provide, for consideration by the Subsidiary Body for Scientific and Technological Advice, data to establish its level of carbon

stocks in 1990 and to enable an estimate to be made of its changes in carbon stocks in subsequent years. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall, at its first session or as soon as practicable thereafter, decide upon modalities, rules and guidelines as to how, and which, additional human-induced activities related to changes in greenhouse gas emissions by sources and removals by sinks in the agricultural soils and the land-use change and forestry categories shall be added to, or subtracted from, the assigned amounts for Parties included in Annex I, taking into account uncertainties, transparency in reporting, verifiability, the methodological work of the Intergovernmental Panel on Climate Change, the advice provided by the Subsidiary Body for Scientific and Technological Advice in accordance with Article 5 and the decisions of the Conference of the Parties. Such a decision shall apply in the second and subsequent commitment periods. A Party may choose to apply such a decision on these additional human-induced activities for its first commitment period, provided that these activities have taken place since 1990.

5. The Parties included in Annex I undergoing the process of transition to a market economy whose base year or period was established pursuant to decision 9/CP.2 of the Conference of the Parties at its second session shall use that base year or period for the implementation of their commitments under this Article. Any other Party included in Annex I undergoing the process of transition to a market economy which has not yet submitted its first national communication under Article 12 of the Convention may also notify the Conference of the Parties serving as the meeting of the Parties to this Protocol that it intends to use an historical base year or period other than 1990 for the implementation of its commitments under this Article. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall decide on the acceptance of such notification.

6. Taking into account Article 4, paragraph 6, of the Convention, in the implementation of their commitments under this Protocol other than those under this Article, a certain degree of flexibility shall be allowed by the Conference of the Parties serving as the meeting of the Parties to this Protocol to the Parties included in Annex I undergoing the process of transition to a market economy.

7. In the first quantified emission limitation and reduction commitment period, from 2008 to 2012, the assigned amount for each Party included in Annex I shall be equal to the percentage inscribed for it in Annex B of its aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases listed in Annex A in 1990, or the base year or period determined in accordance with paragraph 5 above, multiplied by five. Those Parties included in Annex I for whom land-use change and forestry constituted a net source of greenhouse gas emissions in 1990 shall include in their 1990 emissions base year or period the aggregate anthropogenic carbon dioxide equivalent emissions by sources minus removals by sinks in 1990 from land-use change for the purposes of calculating their assigned amount.

8. Any Party included in Annex I may use 1995 as its base year for hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride, for the purposes of the calculation referred to in paragraph 7 above.

9. Commitments for subsequent periods for Parties included in Annex I shall be established in amendments to Annex B to this Protocol, which shall be adopted in accordance

with the provisions of Article 21, paragraph 7. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall initiate the consideration of such commitments at least seven years before the end of the first commitment period referred to in paragraph 1 above.

10. Any emission reduction units, or any part of an assigned amount, which a Party acquires from another Party in accordance with the provisions of Article 6 or of Article 17 shall be added to the assigned amount for the acquiring Party.

11. Any emission reduction units, or any part of an assigned amount, which a Party transfers to another Party in accordance with the provisions of Article 6 or of Article 17 shall be subtracted from the assigned amount for the transferring Party.

12. Any certified emission reductions which a Party acquires from another Party in accordance with the provisions of Article 12 shall be added to the assigned amount for the acquiring Party.

13. If the emissions of a Party included in Annex I in a commitment period are less than its assigned amount under this Article, this difference shall, on request of that Party, be added to the assigned amount for that Party for subsequent commitment periods.

14. Each Party included in Annex I shall strive to implement the commitments mentioned in paragraph 1 above in such a way as to minimize adverse social, environmental and economic impacts on developing country Parties, particularly those identified in Article 4, paragraphs 8 and 9, of the Convention. In line with relevant decisions of the Conference of the Parties on the implementation of those paragraphs, the Conference of the Parties serving as the meeting of the Parties to this Protocol shall, at its first session, consider what actions are necessary to minimize the adverse effects of climate change and/or the impacts of response measures on Parties referred to in those paragraphs. Among the issues to be considered shall be the establishment of funding, insurance and transfer of technology.

Article 4

1. Any Parties included in Annex I that have reached an agreement to fulfil their commitments under Article 3 jointly, shall be deemed to have met those commitments provided that their total combined aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases listed in Annex A do not exceed their assigned amounts calculated pursuant to their quantified emission limitation and reduction commitments inscribed in Annex B and in accordance with the provisions of Article 3. The respective emission level allocated to each of the Parties to the agreement shall be set out in that agreement.

2. The Parties to any such agreement shall notify the secretariat of the terms of the agreement on the date of deposit of their instruments of ratification, acceptance or approval of this Protocol, or accession thereto. The secretariat shall in turn inform the Parties and signatories to the Convention of the terms of the agreement.

3. Any such agreement shall remain in operation for the duration of the commitment period specified in Article 3, paragraph 7.
4. If Parties acting jointly do so in the framework of, and together with, a regional economic integration organization, any alteration in the composition of the organization after adoption of this Protocol shall not affect existing commitments under this Protocol. Any alteration in the composition of the organization shall only apply for the purposes of those commitments under Article 3 that are adopted subsequent to that alteration.
5. In the event of failure by the Parties to such an agreement to achieve their total combined level of emission reductions, each Party to that agreement shall be responsible for its own level of emissions set out in the agreement.
6. If Parties acting jointly do so in the framework of, and together with, a regional economic integration organization which is itself a Party to this Protocol, each member State of that regional economic integration organization individually, and together with the regional economic integration organization acting in accordance with Article 24, shall, in the event of failure to achieve the total combined level of emission reductions, be responsible for its level of emissions as notified in accordance with this Article.

Article 5

1. Each Party included in Annex I shall have in place, no later than one year prior to the start of the first commitment period, a national system for the estimation of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol. Guidelines for such national systems, which shall incorporate the methodologies specified in paragraph 2 below, shall be decided upon by the Conference of the Parties serving as the meeting of the Parties to this Protocol at its first session.
2. Methodologies for estimating anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol shall be those accepted by the Intergovernmental Panel on Climate Change and agreed upon by the Conference of the Parties at its third session. Where such methodologies are not used, appropriate adjustments shall be applied according to methodologies agreed upon by the Conference of the Parties serving as the meeting of the Parties to this Protocol at its first session. Based on the work of, *inter alia*, the Intergovernmental Panel on Climate Change and advice provided by the Subsidiary Body for Scientific and Technological Advice, the Conference of the Parties serving as the meeting of the Parties to this Protocol shall regularly review and, as appropriate, revise such methodologies and adjustments, taking fully into account any relevant decisions by the Conference of the Parties. Any revision to methodologies or adjustments shall be used only for the purposes of ascertaining compliance with commitments under Article 3 in respect of any commitment period adopted subsequent to that revision.
3. The global warming potentials used to calculate the carbon dioxide equivalence of anthropogenic emissions by sources and removals by sinks of greenhouse gases listed in Annex A shall be those accepted by the Intergovernmental Panel on Climate Change and agreed upon by the Conference of the Parties at its third session. Based on the work of, *inter*

alia, the Intergovernmental Panel on Climate Change and advice provided by the Subsidiary Body for Scientific and Technological Advice, the Conference of the Parties serving as the meeting of the Parties to this Protocol shall regularly review and, as appropriate, revise the global warming potential of each such greenhouse gas, taking fully into account any relevant decisions by the Conference of the Parties. Any revision to a global warming potential shall apply only to commitments under Article 3 in respect of any commitment period adopted subsequent to that revision.

Article 6

1. For the purpose of meeting its commitments under Article 3, any Party included in Annex I may transfer to, or acquire from, any other such Party emission reduction units resulting from projects aimed at reducing anthropogenic emissions by sources or enhancing anthropogenic removals by sinks of greenhouse gases in any sector of the economy, provided that:

- (a) Any such project has the approval of the Parties involved;
- (b) Any such project provides a reduction in emissions by sources, or an enhancement of removals by sinks, that is additional to any that would otherwise occur;
- (c) It does not acquire any emission reduction units if it is not in compliance with its obligations under Articles 5 and 7; and
- (d) The acquisition of emission reduction units shall be supplemental to domestic actions for the purposes of meeting commitments under Article 3.

2. The Conference of the Parties serving as the meeting of the Parties to this Protocol may, at its first session or as soon as practicable thereafter, further elaborate guidelines for the implementation of this Article, including for verification and reporting.

3. A Party included in Annex I may authorize legal entities to participate, under its responsibility, in actions leading to the generation, transfer or acquisition under this Article of emission reduction units.

4. If a question of implementation by a Party included in Annex I of the requirements referred to in this Article is identified in accordance with the relevant provisions of Article 8, transfers and acquisitions of emission reduction units may continue to be made after the question has been identified, provided that any such units may not be used by a Party to meet its commitments under Article 3 until any issue of compliance is resolved.

Article 7

1. Each Party included in Annex I shall incorporate in its annual inventory of anthropogenic emissions by sources and removals by sinks of greenhouse gases not controlled by the Montreal Protocol, submitted in accordance with the relevant decisions of the Conference of the Parties, the necessary supplementary information for the purposes of

ensuring compliance with Article 3, to be determined in accordance with paragraph 4 below.

2. Each Party included in Annex I shall incorporate in its national communication, submitted under Article 12 of the Convention, the supplementary information necessary to demonstrate compliance with its commitments under this Protocol, to be determined in accordance with paragraph 4 below.

3. Each Party included in Annex I shall submit the information required under paragraph 1 above annually, beginning with the first inventory due under the Convention for the first year of the commitment period after this Protocol has entered into force for that Party. Each such Party shall submit the information required under paragraph 2 above as part of the first national communication due under the Convention after this Protocol has entered into force for it and after the adoption of guidelines as provided for in paragraph 4 below. The frequency of subsequent submission of information required under this Article shall be determined by the Conference of the Parties serving as the meeting of the Parties to this Protocol, taking into account any timetable for the submission of national communications decided upon by the Conference of the Parties.

4. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall adopt at its first session, and review periodically thereafter, guidelines for the preparation of the information required under this Article, taking into account guidelines for the preparation of national communications by Parties included in Annex I adopted by the Conference of the Parties. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall also, prior to the first commitment period, decide upon modalities for the accounting of assigned amounts.

Article 8

1. The information submitted under Article 7 by each Party included in Annex I shall be reviewed by expert review teams pursuant to the relevant decisions of the Conference of the Parties and in accordance with guidelines adopted for this purpose by the Conference of the Parties serving as the meeting of the Parties to this Protocol under paragraph 4 below. The information submitted under Article 7, paragraph 1, by each Party included in Annex I shall be reviewed as part of the annual compilation and accounting of emissions inventories and assigned amounts. Additionally, the information submitted under Article 7, paragraph 2, by each Party included in Annex I shall be reviewed as part of the review of communications.

2. Expert review teams shall be coordinated by the secretariat and shall be composed of experts selected from those nominated by Parties to the Convention and, as appropriate, by intergovernmental organizations, in accordance with guidance provided for this purpose by the Conference of the Parties.

3. The review process shall provide a thorough and comprehensive technical assessment of all aspects of the implementation by a Party of this Protocol. The expert review teams shall prepare a report to the Conference of the Parties serving as the meeting of the Parties to this Protocol, assessing the implementation of the commitments of the Party and identifying any potential problems in, and factors influencing, the fulfilment of commitments. Such

reports shall be circulated by the secretariat to all Parties to the Convention. The secretariat shall list those questions of implementation indicated in such reports for further consideration by the Conference of the Parties serving as the meeting of the Parties to this Protocol.

4. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall adopt at its first session, and review periodically thereafter, guidelines for the review of implementation of this Protocol by expert review teams taking into account the relevant decisions of the Conference of the Parties.

5. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall, with the assistance of the Subsidiary Body for Implementation and, as appropriate, the Subsidiary Body for Scientific and Technological Advice, consider:

(a) The information submitted by Parties under Article 7 and the reports of the expert reviews thereon conducted under this Article; and

(b) Those questions of implementation listed by the secretariat under paragraph 3 above, as well as any questions raised by Parties.

6. Pursuant to its consideration of the information referred to in paragraph 5 above, the Conference of the Parties serving as the meeting of the Parties to this Protocol shall take decisions on any matter required for the implementation of this Protocol.

Article 9

1. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall periodically review this Protocol in the light of the best available scientific information and assessments on climate change and its impacts, as well as relevant technical, social and economic information. Such reviews shall be coordinated with pertinent reviews under the Convention, in particular those required by Article 4, paragraph 2(d), and Article 7, paragraph 2(a), of the Convention. Based on these reviews, the Conference of the Parties serving as the meeting of the Parties to this Protocol shall take appropriate action.

2. The first review shall take place at the second session of the Conference of the Parties serving as the meeting of the Parties to this Protocol. Further reviews shall take place at regular intervals and in a timely manner.

Article 10

All Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, without introducing any new commitments for Parties not included in Annex I, but reaffirming existing commitments under Article 4, paragraph 1, of the Convention, and continuing to advance the implementation of these commitments in order to achieve sustainable development, taking into account Article 4, paragraphs 3, 5 and 7, of the Convention, shall:

(a) Formulate, where relevant and to the extent possible, cost-effective national and, where appropriate, regional programmes to improve the quality of local emission factors, activity data and/or models which reflect the socio-economic conditions of each Party for the preparation and periodic updating of national inventories of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, using comparable methodologies to be agreed upon by the Conference of the Parties, and consistent with the guidelines for the preparation of national communications adopted by the Conference of the Parties;

(b) Formulate, implement, publish and regularly update national and, where appropriate, regional programmes containing measures to mitigate climate change and measures to facilitate adequate adaptation to climate change:

- (i) Such programmes would, *inter alia*, concern the energy, transport and industry sectors as well as agriculture, forestry and waste management. Furthermore, adaptation technologies and methods for improving spatial planning would improve adaptation to climate change; and
- (ii) Parties included in Annex I shall submit information on action under this Protocol, including national programmes, in accordance with Article 7; and other Parties shall seek to include in their national communications, as appropriate, information on programmes which contain measures that the Party believes contribute to addressing climate change and its adverse impacts, including the abatement of increases in greenhouse gas emissions, and enhancement of and removals by sinks, capacity building and adaptation measures;

(c) Cooperate in the promotion of effective modalities for the development, application and diffusion of, and take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies, know-how, practices and processes pertinent to climate change, in particular to developing countries, including the formulation of policies and programmes for the effective transfer of environmentally sound technologies that are publicly owned or in the public domain and the creation of an enabling environment for the private sector, to promote and enhance the transfer of, and access to, environmentally sound technologies;

(d) Cooperate in scientific and technical research and promote the maintenance and the development of systematic observation systems and development of data archives to reduce uncertainties related to the climate system, the adverse impacts of climate change and the economic and social consequences of various response strategies, and promote the development and strengthening of endogenous capacities and capabilities to participate in international and intergovernmental efforts, programmes and networks on research and systematic observation, taking into account Article 5 of the Convention;

(e) Cooperate in and promote at the international level, and, where appropriate, using existing bodies, the development and implementation of education and training programmes, including the strengthening of national capacity building, in particular human and institutional capacities and the exchange or secondment of personnel to train experts in this field, in particular for developing countries, and facilitate at the national level public awareness of, and public access to information on, climate change. Suitable modalities should be developed to implement these activities through the relevant bodies of the Convention, taking into account Article 6 of the Convention;

(f) Include in their national communications information on programmes and activities undertaken pursuant to this Article in accordance with relevant decisions of the Conference of the Parties; and

(g) Give full consideration, in implementing the commitments under this Article, to Article 4, paragraph 8, of the Convention.

Article 11

1. In the implementation of Article 10, Parties shall take into account the provisions of Article 4, paragraphs 4, 5, 7, 8 and 9, of the Convention.

2. In the context of the implementation of Article 4, paragraph 1, of the Convention, in accordance with the provisions of Article 4, paragraph 3, and Article 11 of the Convention, and through the entity or entities entrusted with the operation of the financial mechanism of the Convention, the developed country Parties and other developed Parties included in Annex II to the Convention shall:

(a) Provide new and additional financial resources to meet the agreed full costs incurred by developing country Parties in advancing the implementation of existing commitments under Article 4, paragraph 1(a), of the Convention that are covered in Article 10, subparagraph (a); and

(b) Also provide such financial resources, including for the transfer of technology, needed by the developing country Parties to meet the agreed full incremental costs of advancing the implementation of existing commitments under Article 4, paragraph 1, of the Convention that are covered by Article 10 and that are agreed between a developing country Party and the international entity or entities referred to in Article 11 of the Convention, in accordance with that Article.

The implementation of these existing commitments shall take into account the need for adequacy and predictability in the flow of funds and the importance of appropriate burden sharing among developed country Parties. The guidance to the entity or entities entrusted with the operation of the financial mechanism of the Convention in relevant decisions of the Conference of the Parties, including those agreed before the adoption of this Protocol, shall apply *mutatis mutandis* to the provisions of this paragraph.

3. The developed country Parties and other developed Parties in Annex II to the Convention may also provide, and developing country Parties avail themselves of, financial resources for the implementation of Article 10, through bilateral, regional and other multilateral channels.

Article 12

1. A clean development mechanism is hereby defined.

2. The purpose of the clean development mechanism shall be to assist Parties not included in Annex I in achieving sustainable development and in contributing to the ultimate objective of the Convention, and to assist Parties included in Annex I in achieving compliance with their quantified emission limitation and reduction commitments under Article 3.

3. Under the clean development mechanism:

(a) Parties not included in Annex I will benefit from project activities resulting in certified emission reductions; and

(b) Parties included in Annex I may use the certified emission reductions accruing from such project activities to contribute to compliance with part of their quantified emission limitation and reduction commitments under Article 3, as determined by the Conference of the Parties serving as the meeting of the Parties to this Protocol.

4. The clean development mechanism shall be subject to the authority and guidance of the Conference of the Parties serving as the meeting of the Parties to this Protocol and be supervised by an executive board of the clean development mechanism.

5. Emission reductions resulting from each project activity shall be certified by operational entities to be designated by the Conference of the Parties serving as the meeting of the Parties to this Protocol, on the basis of:

(a) Voluntary participation approved by each Party involved;

(b) Real, measurable, and long-term benefits related to the mitigation of climate change; and

(c) Reductions in emissions that are additional to any that would occur in the absence of the certified project activity.

6. The clean development mechanism shall assist in arranging funding of certified project activities as necessary.

7. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall, at its first session, elaborate modalities and procedures with the objective of ensuring transparency, efficiency and accountability through independent auditing and verification of project activities.

8. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall ensure that a share of the proceeds from certified project activities is used to cover administrative expenses as well as to assist developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation.

9. Participation under the clean development mechanism, including in activities mentioned in paragraph 3(a) above and in the acquisition of certified emission reductions, may involve private and/or public entities, and is to be subject to whatever guidance may be provided by the executive board of the clean development mechanism.

10. Certified emission reductions obtained during the period from the year 2000 up to the beginning of the first commitment period can be used to assist in achieving compliance in the first commitment period.

Article 13

1. The Conference of the Parties, the supreme body of the Convention, shall serve as the meeting of the Parties to this Protocol.

2. Parties to the Convention that are not Parties to this Protocol may participate as observers in the proceedings of any session of the Conference of the Parties serving as the meeting of the Parties to this Protocol. When the Conference of the Parties serves as the meeting of the Parties to this Protocol, decisions under this Protocol shall be taken only by those that are Parties to this Protocol.

3. When the Conference of the Parties serves as the meeting of the Parties to this Protocol, any member of the Bureau of the Conference of the Parties representing a Party to the Convention but, at that time, not a Party to this Protocol, shall be replaced by an additional member to be elected by and from amongst the Parties to this Protocol.

4. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall keep under regular review the implementation of this Protocol and shall make, within its mandate, the decisions necessary to promote its effective implementation. It shall perform the functions assigned to it by this Protocol and shall:

(a) Assess, on the basis of all information made available to it in accordance with the provisions of this Protocol, the implementation of this Protocol by the Parties, the overall effects of the measures taken pursuant to this Protocol, in particular environmental, economic and social effects as well as their cumulative impacts and the extent to which progress towards the objective of the Convention is being achieved;

(b) Periodically examine the obligations of the Parties under this Protocol, giving due consideration to any reviews required by Article 4, paragraph 2(d), and Article 7, paragraph 2, of the Convention, in the light of the objective of the Convention, the experience gained in its implementation and the evolution of scientific and technological knowledge, and in this respect consider and adopt regular reports on the implementation of this Protocol;

(c) Promote and facilitate the exchange of information on measures adopted by the Parties to address climate change and its effects, taking into account the differing circumstances, responsibilities and capabilities of the Parties and their respective commitments under this Protocol;

(d) Facilitate, at the request of two or more Parties, the coordination of measures adopted by them to address climate change and its effects, taking into account the differing circumstances, responsibilities and capabilities of the Parties and their respective commitments under this Protocol;

(e) Promote and guide, in accordance with the objective of the Convention and the provisions of this Protocol, and taking fully into account the relevant decisions by the Conference of the Parties, the development and periodic refinement of comparable methodologies for the effective implementation of this Protocol, to be agreed on by the Conference of the Parties serving as the meeting of the Parties to this Protocol;

(f) Make recommendations on any matters necessary for the implementation of this Protocol;

(g) Seek to mobilize additional financial resources in accordance with Article 11, paragraph 2;

(h) Establish such subsidiary bodies as are deemed necessary for the implementation of this Protocol;

(i) Seek and utilize, where appropriate, the services and cooperation of, and information provided by, competent international organizations and intergovernmental and non-governmental bodies; and

(j) Exercise such other functions as may be required for the implementation of this Protocol, and consider any assignment resulting from a decision by the Conference of the Parties.

5. The rules of procedure of the Conference of the Parties and financial procedures applied under the Convention shall be applied *mutatis mutandis* under this Protocol, except as may be otherwise decided by consensus by the Conference of the Parties serving as the meeting of the Parties to this Protocol.

6. The first session of the Conference of the Parties serving as the meeting of the Parties to this Protocol shall be convened by the secretariat in conjunction with the first session of the Conference of the Parties that is scheduled after the date of the entry into force of this

Protocol. Subsequent ordinary sessions of the Conference of the Parties serving as the meeting of the Parties to this Protocol shall be held every year and in conjunction with ordinary sessions of the Conference of the Parties, unless otherwise decided by the Conference of the Parties serving as the meeting of the Parties to this Protocol.

7. Extraordinary sessions of the Conference of the Parties serving as the meeting of the Parties to this Protocol shall be held at such other times as may be deemed necessary by the Conference of the Parties serving as the meeting of the Parties to this Protocol, or at the written request of any Party, provided that, within six months of the request being communicated to the Parties by the secretariat, it is supported by at least one third of the Parties.

8. The United Nations, its specialized agencies and the International Atomic Energy Agency, as well as any State member thereof or observers thereto not party to the Convention, may be represented at sessions of the Conference of the Parties serving as the meeting of the Parties to this Protocol as observers. Any body or agency, whether national or international, governmental or non-governmental, which is qualified in matters covered by this Protocol and which has informed the secretariat of its wish to be represented at a session of the Conference of the Parties serving as the meeting of the Parties to this Protocol as an observer, may be so admitted unless at least one third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure, as referred to in paragraph 5 above.

Article 14

1. The secretariat established by Article 8 of the Convention shall serve as the secretariat of this Protocol.

2. Article 8, paragraph 2, of the Convention on the functions of the secretariat, and Article 8, paragraph 3, of the Convention on arrangements made for the functioning of the secretariat, shall apply *mutatis mutandis* to this Protocol. The secretariat shall, in addition, exercise the functions assigned to it under this Protocol.

Article 15

1. The Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation established by Articles 9 and 10 of the Convention shall serve as, respectively, the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation of this Protocol. The provisions relating to the functioning of these two bodies under the Convention shall apply *mutatis mutandis* to this Protocol. Sessions of the meetings of the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation of this Protocol shall be held in conjunction with the meetings of, respectively, the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation of the Convention.

2. Parties to the Convention that are not Parties to this Protocol may participate as observers in the proceedings of any session of the subsidiary bodies. When the subsidiary

bodies serve as the subsidiary bodies of this Protocol, decisions under this Protocol shall be taken only by those that are Parties to this Protocol.

3. When the subsidiary bodies established by Articles 9 and 10 of the Convention exercise their functions with regard to matters concerning this Protocol, any member of the Bureaux of those subsidiary bodies representing a Party to the Convention but, at that time, not a party to this Protocol, shall be replaced by an additional member to be elected by and from amongst the Parties to this Protocol.

Article 16

The Conference of the Parties serving as the meeting of the Parties to this Protocol shall, as soon as practicable, consider the application to this Protocol of, and modify as appropriate, the multilateral consultative process referred to in Article 13 of the Convention, in the light of any relevant decisions that may be taken by the Conference of the Parties. Any multilateral consultative process that may be applied to this Protocol shall operate without prejudice to the procedures and mechanisms established in accordance with Article 18.

Article 17

The Conference of the Parties shall define the relevant principles, modalities, rules and guidelines, in particular for verification, reporting and accountability for emissions trading. The Parties included in Annex B may participate in emissions trading for the purposes of fulfilling their commitments under Article 3. Any such trading shall be supplemental to domestic actions for the purpose of meeting quantified emission limitation and reduction commitments under that Article.

Article 18

The Conference of the Parties serving as the meeting of the Parties to this Protocol shall, at its first session, approve appropriate and effective procedures and mechanisms to determine and to address cases of non-compliance with the provisions of this Protocol, including through the development of an indicative list of consequences, taking into account the cause, type, degree and frequency of non-compliance. Any procedures and mechanisms under this Article entailing binding consequences shall be adopted by means of an amendment to this Protocol.

Article 19

The provisions of Article 14 of the Convention on settlement of disputes shall apply *mutatis mutandis* to this Protocol.

Article 20

1. Any Party may propose amendments to this Protocol.
2. Amendments to this Protocol shall be adopted at an ordinary session of the Conference of the Parties serving as the meeting of the Parties to this Protocol. The text of

any proposed amendment to this Protocol shall be communicated to the Parties by the secretariat at least six months before the meeting at which it is proposed for adoption. The secretariat shall also communicate the text of any proposed amendments to the Parties and signatories to the Convention and, for information, to the Depositary.

3. The Parties shall make every effort to reach agreement on any proposed amendment to this Protocol by consensus. If all efforts at consensus have been exhausted, and no agreement reached, the amendment shall as a last resort be adopted by a three-fourths majority vote of the Parties present and voting at the meeting. The adopted amendment shall be communicated by the secretariat to the Depositary, who shall circulate it to all Parties for their acceptance.

4. Instruments of acceptance in respect of an amendment shall be deposited with the Depositary. An amendment adopted in accordance with paragraph 3 above shall enter into force for those Parties having accepted it on the ninetieth day after the date of receipt by the Depositary of an instrument of acceptance by at least three fourths of the Parties to this Protocol.

5. The amendment shall enter into force for any other Party on the ninetieth day after the date on which that Party deposits with the Depositary its instrument of acceptance of the said amendment.

Article 21

1. Annexes to this Protocol shall form an integral part thereof and, unless otherwise expressly provided, a reference to this Protocol constitutes at the same time a reference to any annexes thereto. Any annexes adopted after the entry into force of this Protocol shall be restricted to lists, forms and any other material of a descriptive nature that is of a scientific, technical, procedural or administrative character.

2. Any Party may make proposals for an annex to this Protocol and may propose amendments to annexes to this Protocol.

3. Annexes to this Protocol and amendments to annexes to this Protocol shall be adopted at an ordinary session of the Conference of the Parties serving as the meeting of the Parties to this Protocol. The text of any proposed annex or amendment to an annex shall be communicated to the Parties by the secretariat at least six months before the meeting at which it is proposed for adoption. The secretariat shall also communicate the text of any proposed annex or amendment to an annex to the Parties and signatories to the Convention and, for information, to the Depositary.

4. The Parties shall make every effort to reach agreement on any proposed annex or amendment to an annex by consensus. If all efforts at consensus have been exhausted, and no agreement reached, the annex or amendment to an annex shall as a last resort be adopted by a three-fourths majority vote of the Parties present and voting at the meeting. The adopted annex or amendment to an annex shall be communicated by the secretariat to the Depositary, who shall circulate it to all Parties for their acceptance.

5. An annex, or amendment to an annex other than Annex A or B, that has been adopted in accordance with paragraphs 3 and 4 above shall enter into force for all Parties to this Protocol six months after the date of the communication by the Depositary to such Parties of the adoption of the annex or adoption of the amendment to the annex, except for those Parties that have notified the Depositary, in writing, within that period of their non-acceptance of the annex or amendment to the annex. The annex or amendment to an annex shall enter into force for Parties which withdraw their notification of non-acceptance on the ninetieth day after the date on which withdrawal of such notification has been received by the Depositary.

6. If the adoption of an annex or an amendment to an annex involves an amendment to this Protocol, that annex or amendment to an annex shall not enter into force until such time as the amendment to this Protocol enters into force.

7. Amendments to Annexes A and B to this Protocol shall be adopted and enter into force in accordance with the procedure set out in Article 20, provided that any amendment to Annex B shall be adopted only with the written consent of the Party concerned.

Article 22

1. Each Party shall have one vote, except as provided for in paragraph 2 below.

2. Regional economic integration organizations, in matters within their competence, shall exercise their right to vote with a number of votes equal to the number of their member States that are Parties to this Protocol. Such an organization shall not exercise its right to vote if any of its member States exercises its right, and vice versa.

Article 23

The Secretary-General of the United Nations shall be the Depositary of this Protocol.

Article 24

1. This Protocol shall be open for signature and subject to ratification, acceptance or approval by States and regional economic integration organizations which are Parties to the Convention. It shall be open for signature at United Nations Headquarters in New York from 16 March 1998 to 15 March 1999. This Protocol shall be open for accession from the day after the date on which it is closed for signature. Instruments of ratification, acceptance, approval or accession shall be deposited with the Depositary.

2. Any regional economic integration organization which becomes a Party to this Protocol without any of its member States being a Party shall be bound by all the obligations under this Protocol. In the case of such organizations, one or more of whose member States is a Party to this Protocol, the organization and its member States shall decide on their respective responsibilities for the performance of their obligations under this Protocol. In such cases, the organization and the member States shall not be entitled to exercise rights under this Protocol concurrently.

3. In their instruments of ratification, acceptance, approval or accession, regional economic integration organizations shall declare the extent of their competence with respect to the matters governed by this Protocol. These organizations shall also inform the Depositary, who shall in turn inform the Parties, of any substantial modification in the extent of their competence.

Article 25

1. This Protocol shall enter into force on the ninetieth day after the date on which not less than 55 Parties to the Convention, incorporating Parties included in Annex I which accounted in total for at least 55 per cent of the total carbon dioxide emissions for 1990 of the Parties included in Annex I, have deposited their instruments of ratification, acceptance, approval or accession.

2. For the purposes of this Article, “the total carbon dioxide emissions for 1990 of the Parties included in Annex I” means the amount communicated on or before the date of adoption of this Protocol by the Parties included in Annex I in their first national communications submitted in accordance with Article 12 of the Convention.

3. For each State or regional economic integration organization that ratifies, accepts or approves this Protocol or accedes thereto after the conditions set out in paragraph 1 above for entry into force have been fulfilled, this Protocol shall enter into force on the ninetieth day following the date of deposit of its instrument of ratification, acceptance, approval or accession.

4. For the purposes of this Article, any instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by States members of the organization.

Article 26

No reservations may be made to this Protocol.

Article 27

1. At any time after three years from the date on which this Protocol has entered into force for a Party, that Party may withdraw from this Protocol by giving written notification to the Depositary.

2. Any such withdrawal shall take effect upon expiry of one year from the date of receipt by the Depositary of the notification of withdrawal, or on such later date as may be specified in the notification of withdrawal.

3. Any Party that withdraws from the Convention shall be considered as also having withdrawn from this Protocol.

Article 28

The original of this Protocol, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

DONE at Kyoto this eleventh day of December one thousand nine hundred and ninety-seven.

IN WITNESS WHEREOF the undersigned, being duly authorized to that effect, have affixed their signatures to this Protocol on the dates indicated.

Annex A

Greenhouse gases

Carbon dioxide (CO₂)
Methane (CH₄)
Nitrous oxide (N₂O)
Hydrofluorocarbons (HFCs)
Perfluorocarbons (PFCs)
Sulphur hexafluoride (SF₆)

Sectors/source categories

Energy

- Fuel combustion
 - Energy industries
 - Manufacturing industries and construction
 - Transport
 - Other sectors
 - Other
- Fugitive emissions from fuels
 - Solid fuels
 - Oil and natural gas
 - Other

Industrial processes

- Mineral products
- Chemical industry
- Metal production
- Other production
- Production of halocarbons and sulphur hexafluoride
- Consumption of halocarbons and sulphur hexafluoride
- Other

Solvent and other product use

Agriculture

- Enteric fermentation
- Manure management
- Rice cultivation
- Agricultural soils
- Prescribed burning of savannas
- Field burning of agricultural residues
- Other

Waste

Solid waste disposal on land

Wastewater handling

Waste incineration

Other

Annex B

<u>Party</u>	<u>Quantified emission limitation or reduction commitment</u> (percentage of base year or period)
Australia	108
Austria	92
Belgium	92
Bulgaria*	92
Canada	94
Croatia*	95
Czech Republic*	92
Denmark	92
Estonia*	92
European Community	92
Finland	92
France	92
Germany	92
Greece	92
Hungary*	94
Iceland	110
Ireland	92
Italy	92
Japan	94
Latvia*	92
Liechtenstein	92
Lithuania*	92
Luxembourg	92
Monaco	92
Netherlands	92
New Zealand	100
Norway	101
Poland*	94
Portugal	92
Romania*	92
Russian Federation*	100
Slovakia*	92
Slovenia*	92
Spain	92
Sweden	92
Switzerland	92
Ukraine*	100
United Kingdom of Great Britain and Northern Ireland	92
United States of America	93

* Countries that are undergoing the process of transition to a market economy.

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THE CONVENTION AND KYOTO PROTOCOL

▶ **The United Nations Framework Convention on Climate Change Guide Books**

Text of the Convention

(pdf) [English](#) [Arabic](#) [Français](#) [Deutsch](#) [Russian](#) [Español](#)

(html) English as a [single document](#) , or by [Articles](#)

Status of Signatories & Ratification of the Convention

The text of the Convention was adopted at the United Nations Headquarters, New York on the 9 May 1992; it was open for signature at the Rio de Janeiro from 4 to 14 June 1992, and thereafter at the United Nations Headquarters, New York, from 20 June 1992 to 19 June 1993. By that date the Convention had received 166 signatures. The Convention entered into force on 21 March 1994. Those States that have not signed the Convention may accede to it at any time.

For those States that ratify, accept or approve the Convention or accede thereto after the date of entry into force, the Convention shall enter into force on the ninetieth day after the date of the deposit by such State of its instrument of ratification, acceptance, approval or accession.

The list below contains the latest information concerning dates of signature and ratification received from the Secretary-General of the United Nations, as Depository of the Convention. The dates in the column entitled "date of ratification" are those of the receipt of the instrument of ratification **(R)**, acceptance **(At)**, approval **(Ap)** or accession **(Ac)**.

(For an explanation of these legal terms, please [follow this link](#))

List of Signatories & Ratification of the Convention (Parties in chronological order (pdf)) as of 24 September 2002. The Convention currently has received 186 instruments of ratification.

▶ **The Kyoto Protocol**

[The Kyoto "thermometer": measuring progress toward entry in to force](#)

[Kyoto Protocol Introduction text](#)

Text of the Kyoto Protocol

(pdf) [English](#) [Arabic](#) [Chinese](#) [Français](#) [Russian](#) [Español](#)

(html) [English](#)

Status of the Kyoto Protocol

The text of the Protocol to the UNFCCC was adopted at the third session of the Conference of the Parties to the UNFCCC in Kyoto, Japan, on 11 December 1997; it was open for signature from 16 March 1998 to 15 March 1999 at United Nations Headquarters, New York. By that date the Protocol had received 84 signatures. Those Parties that have not yet signed the Kyoto Protocol may accede to it at any time.

The Protocol is subject to ratification, acceptance, approval or accession by Parties to the Convention. It shall enter into force on the ninetieth day after the date on which not less than 55 Parties to the Convention, incorporating Annex I Parties which accounted in total for at least 55 % of the total carbon dioxide emissions for 1990 from that group, have deposited their instruments of ratification, acceptance, approval or accession.

The list below contains the latest information concerning dates of signature and ratification received from the Secretary-General of the United Nations, as Depository of the Kyoto Protocol. The dates in the column entitled "date of ratification" are those of the receipt of the instrument of ratification **(R)**, acceptance **(At)**, approval **(Ap)** or accession **(Ac)**.

(For an explanation of these legal terms, please [follow this link](#))

List of Signatories & Ratification to the Kyoto Protocol, Parties in alphabetical order (pdf) as at 14-October-2002, 84 Parties have signed and 96 Parties have ratified or acceded to the Kyoto Protocol.

Guide Books

- ▶ **Guide to the climate change process** (UNFCCC)
preliminary version

- ▶ **Guide to the Climate Change Convention and its Kyoto Protocol** (UNFCCC)
preliminary version

- ▶ **Beginner's Guide to the Convention** (UNFCCC/UNEP)
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(html) [English](#)



Climate Change Information Kit (UNFCCC/UNEP)

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(html) [English](#)

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Last modified on: 24 September 2002

**UNITED NATIONS FRAMEWORK
CONVENTION ON CLIMATE CHANGE**

STATUS OF RATIFICATION

COUNTRY	SIGNATURE	RATIFICATION	ENTRY INTO FORCE	REMARKS
1. AFGHANISTAN	12/06/92	19/09/02 (R)	[18/12/02]	
2. ALBANIA	----	03/10/94 (Ac)	01/01/95	
3. ALGERIA	13/06/92	09/06/93 (R)	21/03/94	
4. ANDORRA	----			
5. ANGOLA	14/06/92	17/05/00 (R)	15/08/00	
6. ANTIGUA AND BARBUDA	04/06/92	02/02/93 (R)	21/03/94	
7. ARGENTINA	12/06/92	11/03/94 (R)	09/06/94	
8. ARMENIA	13/06/92	14/05/93 (R)	21/03/94	
9. AUSTRALIA	04/06/92	30/12/92 (R)	21/03/94	
10. AUSTRIA	08/06/92	28/02/94 (R)	29/05/94	
11. AZERBAIJAN	12/06/92	16/05/95 (R)	14/08/95	
12. BAHAMAS	12/06/92	29/03/94 (R)	27/06/94	
13. BAHRAIN	08/06/92	28/12/94 (R)	28/03/95	
14. BANGLADESH	09/06/92	15/04/94 (R)	14/07/94	
15. BARBADOS	12/06/92	23/03/94 (R)	21/06/94	
16. BELARUS	11/06/92	11/05/00 (Ap)	09/08/00	
17. BELGIUM	04/06/92	16/01/96 (R)	15/04/96	
18. BELIZE	13/06/92	31/10/94 (R)	29/01/95	
19. BENIN	13/06/92	30/06/94 (R)	28/09/94	
20. BHUTAN	11/06/92	25/08/95 (R)	23/11/95	
21. BOLIVIA	10/06/92	03/10/94 (R)	01/01/95	
22. BOSNIA AND HERZEGOVINA	----	07/09/00 (Ac)	06/12/00	
23. BOTSWANA	12/06/92	27/01/94 (R)	27/04/94	
24. BRAZIL	04/06/92	28/02/94 (R)	29/05/94	
25. BRUNEI DARUSSALAM	----			
26. BULGARIA	05/06/92	12/05/95 (R)	10/08/95	(12)
27. BURKINA FASO	12/06/92	02/09/93 (R)	21/03/94	
28. BURUNDI	11/06/92	06/01/97 (R)	07/04/97	

Last modified on: 24 September 2002

COUNTRY	SIGNATURE	RATIFICATION	ENTRY INTO FORCE	REMARKS
29. CAMBODIA	----	18/12/95 (Ac)	17/03/96	
30. CAMEROON	14/06/92	19/10/94 (R)	17/01/95	
31. CANADA	12/06/92	04/12/92 (R)	21/03/94	
32. CAPE VERDE	12/06/92	29/03/95 (R)	27/06/95	
33. CENTRAL AFRICAN REPUBLIC	13/06/92	10/03/95 (R)	08/06/95	
34. CHAD	12/06/92	07/06/94 (R)	05/09/94	
35. CHILE	13/06/92	22/12/94 (R)	22/03/95	
36. CHINA	11/06/92	05/01/93 (R)	21/03/94	
37. COLOMBIA	13/06/92	22/03/95 (R)	20/06/95	
38. COMOROS	11/06/92	31/10/94 (R)	29/01/95	
39. CONGO	12/06/92	14/10/96 (R)	35441	
40. COOK ISLANDS	12/06/92	20/04/93 (R)	21/03/94	
41. COSTA RICA	13/06/92	26/08/94 (R)	24/11/94	
42. COTE D'IVOIRE	10/06/92	29/11/94 (R)	27/02/95	
43. CROATIA	11/06/92	08/04/96 (At)	07/07/96	(15)
44. CUBA	13/06/92	05/01/94 (R)	05/04/94	(9)
45. CYPRUS	12/06/92	15/10/97 (R)	13/01/98	
46. CZECH REPUBLIC	18/06/93	07/10/93 (Ap)	21/03/94	(13)
47. DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA	11/06/92	05/12/94 (Ap)	05/03/95	
48. DEMOCRATIC REPUBLIC OF THE CONGO	11/06/92	09/01/95 (R)	09/04/95	
49. DENMARK	09/06/92	21/12/93 (R)	21/03/94	
50. DJIBOUTI	12/06/92	27/08/95 (R)	25/11/95	
51. DOMINICA	----	21/06/93 (Ac)	21/03/94	
52. DOMINICAN REPUBLIC	12/06/92	07/10/98 (R)	05/01/99	
53. ECUADOR	09/06/92	23/02/93 (R)	21/03/94	
54. EGYPT	09/06/92	05/12/94 (R)	05/03/95	
55. EL SALVADOR	13/06/92	04/12/95 (R)	03/03/96	
56. EQUATORIAL GUINEA	-----	16/08/00 (Ac)	14/11/00	
57. ERITREA	----	24/04/95 (Ac)	23/07/95	
58. ESTONIA	12/06/92	27/07/94 (R)	25/10/94	
59. ETHIOPIA	10/06/92	05/04/94 (R)	04/07/94	

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COUNTRY	SIGNATURE	RATIFICATION	ENTRY INTO FORCE	REMARKS
60. FIJI	09/10/92	25/02/93 (R)	21/03/94	(5)
61. FINLAND	04/06/92	03/05/94 (At)	01/08/94	
62. FRANCE	13/06/92	25/03/94 (R)	23/06/94	
63. GABON	12/06/92	21/01/98 (R)	21/04/98	
64. GAMBIA	12/06/92	10/06/94 (R)	08/09/94	
65. GEORGIA	----	29/07/94 (Ac)	27/10/94	
66. GERMANY	12/06/92	09/12/93 (R)	21/03/94	
67. GHANA	12/06/92	06/09/95 (R)	05/12/95	
68. GREECE	12/06/92	04/08/94 (R)	02/11/94	
69. GRENADA	03/12/92	11/08/94 (R)	09/11/94	
70. GUATEMALA	13/06/92	15/12/95 (R)	14/03/96	
71. GUINEA	12/06/92	07/05/93 (R)	21/03/94	
72. GUINEA-BISSAU	12/06/92	27/10/95 (R)	25/01/96	
73. GUYANA	13/06/92	29/08/94 (R)	27/11/94	
74. HAITI	13/06/92	25/09/96 (R)	24/12/96	
75. HOLY SEE	----			
76. HONDURAS	13/06/92	19/10/95 (R)	17/01/96	
77. HUNGARY	13/06/92	24/02/94 (R)	25/05/94	(10)
78. ICELAND	04/06/92	16/06/93 (R)	21/03/94	
79. INDIA	10/06/92	01/11/93 (R)	21/03/94	
80. INDONESIA	05/06/92	23/08/94 (R)	21/11/94	
81. IRAN (ISLAMIC REPUBLIC OF)	14/06/92	18/07/96 (R)	16/10/96	
82. IRAQ	----			
83. IRELAND	13/06/92	20/04/94 (R)	19/07/94	
84. ISRAEL	04/06/92	04/06/96 (R)	02/09/96	
85. ITALY	05/06/92	15/04/94 (R)	14/07/94	
86. JAMAICA	12/06/92	06/01/95 (R)	06/04/95	
87. JAPAN	13/06/92	28/05/93 (At)	21/03/94	
88. JORDAN	11/06/92	12/11/93 (R)	21/03/94	
89. KAZAKHSTAN	08/06/92	17/05/95 (R)	15/08/95	
90. KENYA	12/06/92	30/08/94 (R)	28/11/94	
91. KIRIBATI	13/06/92	07/02/95 (R)	08/05/95	(3)

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COUNTRY	SIGNATURE	RATIFICATION	ENTRY INTO FORCE	REMARKS
92. KUWAIT	----	28/12/94 (Ac)	28/03/95	
93. KYRGYZSTAN	----	25/05/00 (Ac)	23/08/00	
94. LAO PEOPLE'S DEMOCRATIC REPUBLIC	----	04/01/95 (Ac)	04/04/95	
95. LATVIA	11/06/92	23/03/95 (R)	21/06/95	
96. LEBANON	12/06/92	15/12/94 (R)	15/03/95	
97. LESOTHO	11/06/92	07/02/95 (R)	08/05/95	
98. LIBERIA	12/06/92			
99. LIBYAN ARAB JAMAHIRIYA	29/06/92	14/06/99 (R)	12/09/99	
100. LIECHTENSTEIN	04/06/92	22/06/94 (R)	20/09/94	
101. LITHUANIA	11/06/92	24/03/95 (R)	22/06/95	
102. LUXEMBOURG	09/06/92	09/05/94 (R)	07/08/94	
103. MADAGASCAR	10/06/92	02/06/99 (R)	31/08/99	
104. MALAWI	10/06/92	21/04/94 (R)	20/07/94	
105. MALAYSIA	09/06/93	13/07/94 (R)	11/10/94	
106. MALDIVES	12/06/92	09/11/92 (R)	21/03/94	
107. MALI	22/09/92	28/12/94 (R)	28/03/95	
108. MALTA	12/06/92	17/03/94 (R)	15/06/94	
109. MARSHALL ISLANDS	12/06/92	08/10/92 (R)	21/03/94	
110. MAURITANIA	12/06/92	20/01/94 (R)	20/04/94	
111. MAURITIUS	10/06/92	04/09/92 (R)	21/03/94	
112. MEXICO	13/06/92	11/03/93 (R)	21/03/94	
113. MICRONESIA (FEDERATED STATES OF)	12/06/92	18/11/93 (R)	21/03/94	
114. MONACO	11/06/92	20/11/92 (R)	21/03/94	(6)
115. MONGOLIA	12/06/92	30/09/93 (R)	21/03/94	
116. MOROCCO	13/06/92	28/12/95 (R)	27/03/96	
117. MOZAMBIQUE	12/06/92	25/08/95 (R)	23/11/95	
118. MYANMAR	11/06/92	25/11/94 (R)	23/02/95	
119. NAMIBIA	12/06/92	16/05/95 (R)	14/08/95	
120. NAURU	08/06/92	11/11/93 (R)	21/03/94	(1)

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COUNTRY	SIGNATURE	RATIFICATION	ENTRY INTO FORCE	REMARKS
121. NEPAL	12/06/92	02/05/94 (R)	31/07/94	
122. NETHERLANDS ¹	04/06/92	20/12/93 (At)	21/03/94	
123. NEW ZEALAND	04/06/92	16/09/93 (R)	21/03/94	
124. NICARAGUA	13/06/92	31/10/95 (R)	29/01/96	
125. NIGER	11/06/92	25/07/95 (R)	23/10/95	
126. NIGERIA	13/06/92	29/08/94 (R)	27/11/94	
127. NIUE	----	28/02/96 (Ac)	28/05/96	
128. NORWAY	04/06/92	09/07/93 (R)	21/03/94	
129. OMAN	11/06/92	08/02/95 (R)	09/05/95	
130. PAKISTAN	13/06/92	01/06/94 (R)	30/08/94	
131. PALAU	----	10/12/99 (Ac)	09/03/00	
132. PANAMA	18/03/93	23/05/95 (R)	21/08/95	
133. PAPUA NEW GUINEA	13/06/92	16/03/93 (R)	21/03/94	(7)
134. PARAGUAY	12/06/92	24/02/94 (R)	25/05/94	
135. PERU	12/06/92	07/06/93 (R)	21/03/94	
136. PHILIPPINES	12/06/92	02/08/94 (R)	31/10/94	
137. POLAND	05/06/92	28/07/94 (R)	26/10/94	
138. PORTUGAL	13/06/92	21/12/93 (R)	21/03/94	
139. QATAR	----	18/04/96 (Ac)	17/07/96	
140. REPUBLIC OF KOREA	13/06/92	14/12/93 (R)	21/03/94	
141. REPUBLIC OF MOLDOVA	12/06/92	09/06/95 (R)	07/09/95	
142. ROMANIA	05/06/92	08/06/94 (R)	06/09/94	
143. RUSSIAN FEDERATION	13/06/92	28/12/94 (R)	28/03/95	
144. RWANDA	10/06/92	18/08/98 (R)	16/11/98	
145. SAINT KITTS AND NEVIS	12/06/92	07/01/93 (R)	21/03/94	
146. SAINT LUCIA	14/06/93	14/06/93 (R)	21/03/94	
147. SAINT VINCENT AND THE GRENADINES	----	02/12/96 (Ac)	02/03/97	
148. SAMOA	12/06/92	29/11/94 (R)	27/02/95	
149. SAN MARINO	10/06/92	28/10/94 (R)	26/01/95	
150. SAO TOME AND PRINCIPE	12/06/92	29/09/99 (R)	28/12/99	
151. SAUDI ARABIA	----	28/12/94 (Ac)	28/03/95	

¹ For the Kingdom in Europe

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COUNTRY	SIGNATURE	RATIFICATION	ENTRY INTO FORCE	REMARKS
152. SENEGAL	13/06/92	17/10/94 (R)	15/01/95	
153. SEYCHELLES	10/06/92	22/09/92 (R)	21/03/94	
154. SIERRA LEONE	11/02/93	22/06/95 (R)	20/09/95	
155. SINGAPORE	13/06/92	29/05/97 (R)	27/08/97	
156. SLOVAKIA	19/05/93	25/08/94 (Ap)	23/11/94	(14)
157. SLOVENIA	13/06/92	01/12/95 (R)	29/02/96	
158. SOLOMON ISLANDS	13/06/92	28/12/94 (R)	28/03/95	(11)
159. SOMALIA	----			
160. SOUTH AFRICA	15/06/93	29/08/97 (R)	27/11/97	
161. SPAIN	13/06/92	21/12/93 (R)	21/03/94	
162. SRI LANKA	10/06/92	23/11/93 (R)	21/03/94	
163. SUDAN	09/06/92	19/11/93 (R)	21/03/94	
164. SURINAME	13/06/92	14/10/96 (R)	12/01/98	
165. SWAZILAND	12/06/92	07/10/96 (R)	05/01/97	
166. SWEDEN	08/06/92	23/06/93 (R)	21/03/94	
167. SWITZERLAND	12/06/92	10/12/93 (R)	21/03/94	
168. SYRIAN ARAB REPUBLIC	----	04/01/96 (Ac)	03/04/96	
169. TAJIKISTAN	----	07/01/98 (Ac)	07/04/98	
170. THAILAND	12/06/92	28/12/94 (R)	28/03/95	
171. THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA	----	28/01/98 (Ac)	28/04/98	
172. TOGO	12/06/92	08/03/95 (At)	06/06/95	
173. TONGA	----	20/07/98 (Ac)	18/10/98	
174. TRINIDAD AND TOBAGO	11/06/92	24/06/94 (R)	22/09/94	
175. TUNISIA	13/06/92	15/07/93 (R)	21/03/94	
176. TURKEY	----			
177. TURKMENISTAN	----	05/06/95 (Ac)	03/09/95	
178. TUVALU	08/06/92	26/10/93 (R)	21/03/94	(2)
179. UGANDA	13/06/92	08/09/93 (R)	21/03/94	
180. UKRAINE	11/06/92	13/05/97 (R)	11/08/97	

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COUNTRY	SIGNATURE	RATIFICATION	ENTRY INTO FORCE	REMARKS
181. UNITED ARAB EMIRATES	----	29/12/95 (Ac)	28/03/96	
182. UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND ²	12/06/92	08/12/93 (R)	21/03/94	
183. UNITED REPUBLIC OF TANZANIA	12/06/92	17/04/96 (R)	16/07/96	
184. UNITED STATES OF AMERICA	12/06/92	15/10/92 (R)	21/03/94	
185. URUGUAY	04/06/92	18/08/94 (R)	16/11/94	
186. UZBEKISTAN	----	20/06/93 (Ac)	21/03/94	
187. VANUATU	09/06/92	25/03/93 (R)	21/03/94	
188. VENEZUELA	12/06/92	28/12/94 (R)	28/03/95	
189. VIET NAM	11/06/92	16/11/94 (R)	14/02/95	
190. YEMEN	12/06/92	21/02/96 (R)	21/05/96	
191. YUGOSLAVIA		12/03/01	10/06/01	(16)
192. ZAMBIA	11/06/92	28/05/93 (R)	21/03/94	
193. ZIMBABWE	12/06/92	03/11/92 (R)	21/03/94	
***** ORGANIZATION *****	*****	*****	*****	*****
194. EUROPEAN ECONOMIC COMMUNITY	13/06/92	21/12/93 (Ap)	21/03/94	(4) (8)
***** TOTAL *****	166	186	*****	*****

Notes:

R = Ratification
 At = Acceptance
 Ap = Approval
 Ac = Accession

² In respect of Great Britain and Northern Ireland, the Bailiwick of Jersey and the Isle of Man

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DECLARATIONS

(1) Upon signature, the following formal declaration was made:

"The Government of Nauru declares its understanding that signature of the Convention shall in no way constitute a renunciation of any rights under international law concerning state responsibility for the adverse effects of climate change, and that no provisions in the Convention can be interpreted as derogating from the principles of general international law."

(2) Upon signature, the following formal declaration was made:

"The Government of Tuvalu declares its understanding that signature of the Convention shall in no way constitute a renunciation of any rights under international law concerning state responsibility for the adverse effects of climate change, and that no provisions in the Convention can be interpreted as derogating from the principles of general international law."

(3) Upon signature, the following formal declaration was made:

"The Government of the Republic of Kiribati declares its understanding that signature and/or ratification of the Convention shall in no way constitute a renunciation of any rights under international law concerning state responsibility for the adverse effects of climate change, and that no provisions in the Convention can be interpreted as derogating from the principles of general international law."

(4) Upon signature, the following formal declaration was made:

"The European Community and its Member States declare, for the purposes of clarity, that the inclusion of the European Community as well as its Member States in the lists in the Annexes to the Convention is without prejudice to the division of competence and responsibilities between the Community and its Member States, which is to be declared in accordance with Article 21.3 of the Convention."

(5) Upon signature, the following formal declaration was made:

"The Government of Fiji declares its understanding that signature of the Convention shall, in no way, constitute a renunciation of any rights under international law concerning state responsibility for the adverse effects of climate change, and that no provisions in the Convention can be interpreted as derogating from the principles of general international law."

(6) The instrument of ratification contains the following declaration:

"In accordance with sub-paragraph g of article 4.2 of the Convention, the Principality of Monaco declares that it intends to be bound by the provision of sub-paragraphs a and b of said article."

(7) The instrument of ratification was accompanied by the following declaration:

"The Government of the Independent State of Papua New Guinea declares its understanding that ratification of the Convention shall in no way constitute a renunciation of any rights under international law concerning state responsibility for the adverse effects of climate change as derogating from the principles of general international law."

(8) The instrument of ratification was accompanied by the following declaration:

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"The European Economic Community and its Member States declare that the commitment to limit anthropogenic CO₂ emissions set out in Article 4(2) of the Convention will be fulfilled in the Community as a whole through action by the Community and its Member States, within the respective competence of each.

In this perspective, the Community and its Member States reaffirm the objectives set out in the Council conclusions of 29 October 1990, and in particular the objective of stabilization of CO₂ emissions by 2000 at 1990 level in the Community as a whole.

The European Community and its Member States are elaborating a coherent strategy in order to attain this objective."

(9) The instrument of ratification contains the following declaration:

AWith reference to Article 14 of the United Nations Framework Convention on Climate Change, the Government of the Republic of Cuba declares that, insofar as concerns the Republic of Cuba, any dispute that may arise between the Parties concerning the interpretation or application of the Convention shall be settled through negotiations through the diplomatic channel.@"

(10) Upon deposit, the Government of Hungary made the following declaration:

"The Government of the Republic of Hungary attributes great significance to the United Nations Framework Convention on Climate Change and it reiterates its position in accordance with the provision of Article 4.6 of the Convention on certain degree of flexibility that the average level of anthropogenic carbon-dioxide emissions for the period of 1985-1987 will be considered as reference level in context of the commitments under Article 4.2 of the Convention. This understanding is closely related to the "process of transition" as it is given in Article 4.6 of the Convention. The Government of the Republic of Hungary declares that it will do all efforts to contribute to the objective of the Convention."

(11) The instrument of ratification contains the following declaration:

"Now therefore in pursuance of Article 14.2 of the said Convention I hereby declare that the Government of Solomon Islands shall recognise as compulsory, arbitration, in accordance with procedures to be adopted by the Conference of the Parties as soon as practicable, in an annex on arbitrations."

(12) The instrument of ratification contains the following declaration:

"The Republic of Bulgaria declares that in accordance with article 4, paragraph 6, and with respect to paragraph 2 (b) of the said article, it accepts as a basis of the anthropogenic emissions in Bulgaria of carbon dioxide and other greenhouse gases not controlled by the Montreal Protocol, the 1988 levels of the said emissions in the country and not their 1990 levels, keeping records of and comparing the emission rates during the subsequent years."

13) The Government of the Czech Republic, by letter of 17 November 1995, informed the Secretary-General of the United Nations, as Depositary, of the following formal declaration:

"[...] I would like to notify you, as Depositary of the Convention, that the Czech Republic intends to be bound by Article 4, paragraph 2, of the Convention. In addition, I would like to advise you to make the following steps:

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(1) Delete notion of "Czechoslovakia" in Annex I. Czechoslovakia has never been a Party to the Convention and it no more exists as a State entity.

(2) Include "Czech Republic" in the Annex I Parties. [...]."

(14) The Government of the Slovak Republic, by letter of 29 January 1995, informed the Secretary- General of the United Nations, as Depositary, of the following formal declaration:

"[...] I would like to notify you, as Depositary of the Convention, that the Slovak Republic intends to be bound by the Article 4, paragraph 2, of the Convention. In addition, I would like to delete the notion of "Czechoslovakia" in Annex I. Czechoslovakia has never been a party to the Convention and it no more exists as a State entity. Instead, Slovakia would be included in Annex I Parties [...]."

(15) The instrument of acceptance contains the following declaration:

"The Republic of Croatia declares, that it intends to be bound by the provisions of the Annex I, as a country undergoing the process of transition to a market economy."

(16) The General Assembly admitted Yugoslavia to membership by its resolution A/55/12 on 1 November 2000.

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KYOTO PROTOCOL

STATUS OF RATIFICATION

Notes:

R = Ratification
 At = Acceptance
 Ap = Approval
 Ac = Accession

COUNTRY	SIGNATURE	RATIFICATION OR ACCESSION	REMARKS	% of emissions
1. ANTIGUA AND BARBUDA	16/03/98	03/11/98 (R)		
2. ARGENTINA	16/03/98	28/09/01 (R)		
3. AUSTRALIA*	29/04/98			
4. AUSTRIA*	29/04/98	31/05/02 (R)		0.4%
5. AZERBAIJAN	-----	28/09/00 (Ac)		
6. BAHAMAS	-----	09/04/99 (Ac)		
7. BANGLADESH	-----	22/10/01 (Ac)		
8. BARBADOS	-----	07/08/00 (Ac)		
9. BELGIUM*	29/04/98	31/05/02 (R)		0.8%
10. BENIN	-----	25/02/02 (Ac)		
11. BHUTAN	-----	26/08/02 (Ac)		
12. BOLIVIA	09/07/98	30/11/99 (R)		
13. BRAZIL	29/04/98	23/08/02 (R)		
14. BULGARIA*	18/09/98	15/08/02 (R)		0.6%
15. BURUNDI	-----	18/10/01 (Ac)		
16. CAMBODIA	-----	22/08/02 (Ac)		
17. CAMEROON	-----	28/08/02 (Ac)		
18. CANADA*	29/04/98			
19. CHILE	17/06/98	26/08/02 (R)		
20. CHINA	29/05/98	30/08/02 (Ap)		
21. COLOMBIA	-----	30/11/01 (Ac)		
22. COOK ISLANDS	16/09/98	27/08/01 (R)	(4)	
23. COSTA RICA	27/04/98	09/08/02 (R)		

* indicates Annex I Party to the United Nations Framework Convention on Climate Change.

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COUNTRY	SIGNATURE	RATIFICATION OR ACCESSION	REMARKS	% of emissions
24. CROATIA*	11/03/99			
25. CUBA	15/03/99	30/04/02 (R)		
26. CYPRUS	-----	16/07/99 (Ac)		
27. CZECH REPUBLIC*	23/11/98	15/11/01 (Ap)		1.2%
28. DENMARK*	29/04/98	31/05/02 (R) ¹		0.4%
29. DJIBOUTI	-----	12/03/02 (Ac)		
30. DOMINICAN REPUBLIC	-----	12/02/02 (Ac)		
31. ECUADOR	15/01/99	13/01/00 (R)		
32. EGYPT	15/03/99			
33. EL SALVADOR	08/06/98	30/11/98 (R)		
34. EQUATORIAL GUINEA	-----	16/08/00 (Ac)		
35. ESTONIA*	03/12/98	14/10/02 (R)		0.3%
36. EUROPEAN COMMUNITY*	29/04/98	31/05/02 (Ap)	(1) (7)	
37. FIJI	17/09/98	17/09/98 (R)		
38. FINLAND*	29/04/98	31/05/02 (R)		0.4%
39. FRANCE*	29/04/98	31/05/02 (Ap)	(2) (8)	2.7%
40. GAMBIA	-----	01/06/01 (Ac)		
41. GEORGIA	-----	16/06/99 (Ac)		
42. GERMANY*	29/04/98	31/05/02 (R)		7.4%
43. GREECE*	29/04/98	31/05/02 (R)		0.6%
44. GRENADA	-----	06/08/02 (Ac)		
45. GUATEMALA	10/07/98	05/10/99 (R)		
46. GUINEA	-----	07/09/00 (Ac)		
47. HONDURAS	25/02/99	19/07/00 (R)		
48. HUNGARY*	-----	21/08/02 (Ac)		0.5%
49. ICELAND*	-----	23/05/02 (Ac)		0.0%
50. INDIA	-----	26/08/02 (Ac)		
51. INDONESIA	13/07/98			

¹ With a territorial exclusion to the Faroe Islands.

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COUNTRY	SIGNATURE	RATIFICATION OR ACCESSION	REMARKS	% of emissions
52. IRELAND*	29/04/98	31/05/02 (R)	(3)	0.2%
53. ISRAEL	16/12/98			
54. ITALY*	29/04/98	31/05/02 (R)		3.1%
55. JAMAICA	-----	28/06/99 (Ac)		
56. JAPAN*	28/04/98	04/06/02 (At)		8.5%
57. KAZAKHSTAN	12/03/99			
58. KIRIBATI	-----	07/09/00 (Ac)	(6)	
59. LATVIA*	14/12/98	05/07/02 (R)		0.2
60. LESOTHO	-----	06/09/00 (Ac)		
61. LIECHTENSTEIN*	29/06/98			
62. LITHUANIA*	21/09/98			
63. LUXEMBOURG*	29/04/98	31/05/02 (R)		0.1%
64. MALAWI	-----	26/10/01 (Ac)		
65. MALAYSIA	12/03/99	04/09/02 (R)		
66. MALDIVES	16/03/98	30/12/98 (R)		
67. MALI	27/01/99	28/03/02 (R)		
68. MALTA	17/04/98	11/11/01 (R)		
69. MARSHALL ISLANDS	17/03/98			
70. MAURITIUS	-----	09/05/01 (Ac)		
71. MEXICO	09/06/98	07/09/00 (R)		
72. MICRONESIA (FEDERATED STATES OF)	17/03/98	21/06/99 (R)		
73. MONACO*	29/04/98			
74. MONGOLIA	-----	15/12/99 (Ac)		
75. MOROCCO	-----	25/01/02 (Ac)		
76. NAURU	-----	16/08/01 (R)		
77. NETHERLANDS*	29/04/98	31/05/02 (Ac) ²		1.2%
78. NEW ZEALAND*	22/05/98			

² For the Kingdom in Europe.

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COUNTRY	SIGNATURE	RATIFICATION OR ACCESSION	REMARKS	% of emissions
79. NICARAGUA	07/07/98	18/11/99 (R)		
80. NIGER	23/10/98			
81. NIUE	08/12/98	06/05/99 (R)	(5)	
82. NORWAY*	29/04/98	30/05/02 (R)		0.3%
83. PALAU	-----	10/12/99 (Ac)		
84. PANAMA	08/06/98	05/03/99 (R)		
85. PAPUA NEW GUINEA	02/03/99	28/03/02 (R)		
86. PARAGUAY	25/08/98	27/8/99 (R)		
87. PERU	13/11/98	12/09/02 (R)		
88. PHILIPPINES	15/04/98			
89. POLAND*	15/07/98			
90. PORTUGAL*	29/04/98	31/05/02 (Ap)		0.3%
91. REPUBLIC OF KOREA	25/09/98			
92. ROMANIA*	05/01/99	19/03/01 (R)		1.2%
93. RUSSIAN FEDERATION*	11/03/99			
94. SAINT LUCIA	16/03/98			
95. SAINT VINCENT AND THE GRENADINES	19/03/98			
96. SAMOA	16/03/98	27/11/00 (R)		
97. SENEGAL	-----	20/07/01 (Ac)		
98. SEYCHELLES	20/03/98	22/07/02 (R)		
99. SLOVAKIA*	26/02/99	31/05/02 (R)		0.4%
100. SLOVENIA*	21/10/98	02/08/02 (R)		
101. SOLOMON ISLANDS	29/09/98			
102. SOUTH AFRICA	-----	31/07/02 (Ac)		
103. SPAIN*	29/04/98	31/05/02 (R)		1.9%
104. SRI LANKA	-----	03/09/02 (Ac)		
105. SWEDEN*	29/04/98	31/05/02 (R)		0.4%
106. SWITZERLAND*	16/03/98			
107. THAILAND	02/02/99	28/08/02 (R)		

* indicates Annex I Party to the United Nations Framework Convention on Climate Change.

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COUNTRY	SIGNATURE	RATIFICATION OR ACCESSION	REMARKS	% of emissions
108. TRINIDAD AND TOBAGO	07/01/99	28/01/99 (R)		
109. TURKMENISTAN	28/09/98	11/01/99 (R)		
110. TUVALU	16/11/98	16/11/98 (R)		
111. UGANDA	-----	25/03/02 (Ac)		
112. UKRAINE*	15/03/99			
113. UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND*	29/04/98	31/05/02 (R)		4.3%
114. UNITED REPUBLIC OF TANZANIA	-----	26/08/02 (Ac)		
115. UNITED STATES OF AMERICA*	12/11/98			
116. URUGUAY	29/07/98	05/02/01 (R)		
117. UZBEKISTAN	20/11/98	12/10/99 (R)		
118. VANUATU	-----	17/07/01 (Ac)		
119. VIET NAM	03/12/98	25/09/02 (R)		
120. ZAMBIA	05/08/98			
TOTAL	84	96	-----	37.4%

* indicates Annex I Party to the United Nations Framework Convention on Climate Change.

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DECLARATIONS

(1) European Community:

“The European Community and its Member States will fulfil their respective commitments under Article 3, paragraph 1, of the Protocol jointly in accordance with the provisions of Article 4.”

(2) France:

“The French Republic reserves the right, in ratifying the Kyoto Protocol to the United Nations Framework Convention on Climate Change, to exclude its Overseas Territories from the scope of the Protocol.”

(3) Ireland:

“The European Community and the member States, including Ireland, will fulfil their respective commitments under Article 3, paragraph 1, of the Protocol in accordance with the provisions of Article 4.”

(4) Cook Islands:

“The Government of the Cook Islands declares its understanding that signature and subsequent ratification of the Kyoto Protocol shall in no way constitute a renunciation of any rights under international law concerning State responsibility for the adverse effects of the climate change and that no provision in the Protocol can be interpreted as derogating from principles of general international law.

In this regard, the Government of the Cook Islands further declares that, in light of the best available scientific information and assessment on climate change and its impacts, it considers the emissions reduction obligation in Article 3 of the Kyoto Protocol to be inadequate to prevent dangerous anthropogenic interference with the climate system.”

(5) Niue:

“The Government of Niue declares its understanding that ratification of the Kyoto Protocol shall in no way constitute a renunciation of any rights under international law concerning state responsibility for the adverse effects of climate change and that no provisions in the Protocol can be interpreted as derogating from the principles of general international law.

In this regard, the Government of Niue further declares that, in light of the best available scientific information and assessment of climate change and impacts, it considers the emissions reduction obligations in Article 3 of the Kyoto Protocol to be inadequate to prevent dangerous anthropogenic interference with the climate system.”

(6) Kiribati:

“The Government of the Republic of Kiribati declares its understanding that accession to the Kyoto Protocol shall in no way constitute a renunciation of any rights under international law concerning State responsibility for the adverse effects of the climate change and that no provision in the Protocol can be interpreted as derogating from principles of general international law.”

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(7) European Community:

“The European Community declares that, in accordance with the Treaty establishing the European Community, and in particular article 175 (1) thereof, it is competent to enter into international agreements, and to implement the obligations resulting therefrom, which contribute to the pursuit of the following objectives:

- preserving, protecting and improving the quality of the environment;**
- protecting human health;**
- prudent and rational utilisation of natural resources;**
- promoting measures at international level to deal with regional or world wide environmental problems.**

The European Community declares that its quantified emission reduction commitment under the Protocol will be fulfilled through action by the Community and its Member States within the respective competence of each and that it has already adopted legal instruments, binding on its Member States, covering matters governed by the Protocol.

The European Community will on a regular basis provide information on relevant Community legal instruments within the framework of the supplementary information incorporated in its national communication submitted under article 12 of the Convention for the purpose of demonstrating compliance with its commitments under the Protocol in accordance with article 7 (2) thereof and the guidelines thereunder.”

(8) France:

“The ratification by the French Republic of the Kyoto Protocol to the United Nations Framework Convention on Climate Change of 11 December 1997 should be interpreted in the context of the commitment assumed under article 4 of the Protocol by the European Community, from which it is indissociable. The ratification does not, therefore, apply to the Territories of the French Republic to which the Treaty establishing the European Community is not applicable.

Nonetheless, in accordance with article 4, paragraph 6, of the Protocol, the French Republic shall, in the event of failure to achieve the total combined level of emission reductions, remain individually responsible for its own level of emissions.”

<http://unfccc.int/resource/convkp.html>

Appendix GCB
United Nations Convention on the Law of the Sea (UNCLOS)

UNITED NATIONS CONVENTION ON THE LAW OF THE SEA

AGREEMENT RELATING TO THE IMPLEMENTATION OF PART XI OF THE CONVENTION

(Full texts)

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UNITED NATIONS CONVENTION ON THE LAW OF THE SEA

AGREEMENT RELATING TO THE IMPLEMENTATION OF PART XI OF THE CONVENTION

(Full texts)

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PREAMBLE

The States Parties to this Convention,

- *Prompted* by the desire to settle, in a spirit of mutual understanding and cooperation, all issues relating to the law of the sea and aware of the historic significance of this Convention as an important contribution to the maintenance of peace, justice and progress for all peoples of the world,
- *Noting* that developments since the United Nations Conferences on the Law of the Sea held at Geneva in 1958 and 1960 have accentuated the need for a new and generally acceptable Convention on the law of the sea,
- *Conscious* that the problems of ocean space are closely interrelated and need to be considered as a whole,
- *Recognizing* the desirability of establishing through this Convention, with due regard for the sovereignty of all States, a legal order for the seas and oceans which will facilitate international communication, and will promote the peaceful uses of the seas and oceans, the equitable and efficient utilization of their resources, the conservation of their living resources, and the study, protection and preservation of the marine environment,
- *Bearing in mind* that the achievement of these goals will contribute to the realization of a just and equitable international economic order which takes into account the interests and needs of mankind as a whole and, in particular, the special interests and needs of developing countries, whether coastal or land-locked,
- *Desiring* by this Convention to develop the principles embodied in

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resolution 2749 (XXV) of 17 December 1970 in which the General Assembly of the United Nations solemnly declared *inter alia* that the area of the seabed and ocean floor and the subsoil thereof, beyond the limits of national jurisdiction, as well as its resources, are the common heritage of mankind, the exploration and exploitation of which shall be carried out for the benefit of mankind as a whole, irrespective of the geographical location of States,

➤ *Believing* that the codification and progressive development of the law of the sea achieved in this Convention will contribute to the strengthening of peace, security, cooperation and friendly relations among all nations in conformity with the principles of justice and equal rights and will promote the economic and social advancement of all peoples of the world, in accordance with the Purposes and Principles of the United Nations as set forth in the Charter,

➤ *Affirming* that matters not regulated by this Convention continue to be governed by the rules and principles of general international law,

➤ *Have agreed* as follows:

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PART I

INTRODUCTION



Article 1

Use of terms and scope

1. For the purposes of this Convention:

(1) "Area" means the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction;

(2) "Authority" means the International Seabed Authority;

(3) "activities in the Area" means all activities of exploration for, and exploitation of, the resources of the Area;

(4) "pollution of the marine environment" means the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities;

(5) (a) "dumping" means:

(i) any deliberate disposal of wastes or other matter

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from vessels, aircraft, platforms or other man-made structures at sea;

(ii) any deliberate disposal of vessels, aircraft, platforms or other man-made structures at sea;

(b) "dumping" does not include:

(i) the disposal of wastes or other matter incidental to, or derived from the normal operations of vessels, aircraft, platforms or other man-made structures at sea and their equipment, other than wastes or other matter transported by or to vessels, aircraft, platforms or other man-made structures at sea, operating for the purpose of disposal of such matter or derived from the treatment of such wastes or other matter on such vessels, aircraft, platforms or structures;

(ii) placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of this Convention.

2. (1) "States Parties" means States which have consented to be bound by this Convention and for which this Convention is in force.

(2) This Convention applies *mutatis mutandis* to the entities referred to in article 305, paragraph 1(b), (c), (d), (e) and (f), which become Parties to this Convention in accordance with the conditions relevant to each, and to that extent "States Parties" refers to those entities.

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PART II

TERRITORIAL SEA AND CONTIGUOUS ZONE



SECTION 1. GENERAL PROVISIONS



Article 2

Legal status of the territorial sea, of the air space

over the territorial sea and of its bed and subsoil

1. The sovereignty of a coastal State extends, beyond its land territory and internal waters and, in the case of an archipelagic State, its archipelagic waters, to an adjacent belt of sea, described as the territorial sea.
2. This sovereignty extends to the air space over the territorial sea as well as to its bed and subsoil.
3. The sovereignty over the territorial sea is exercised subject to this Convention and to other rules of international law.



SECTION 2. LIMITS OF THE TERRITORIAL SEA



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Article3

Breadth of the territorial sea

Every State has the right to establish the breadth of its territorial sea up to a limit not exceeding 12 nautical miles, measured from baselines determined in accordance with this Convention.



Article4

Outer limit of the territorial sea

The outer limit of the territorial sea is the line every point of which is at a distance from the nearest point of the baseline equal to the breadth of the territorial sea.



Article5

Normal baseline

Except where otherwise provided in this Convention, the normal baseline for measuring the breadth of the territorial sea is the low-water line along the coast as marked on large-scale charts officially recognized by the coastal State.



Article6

Reefs

In the case of islands situated on atolls or of islands having fringing reefs, the baseline for measuring the breadth of the territorial sea is the seaward low-water line of the reef, as shown by the appropriate symbol on charts officially recognized by the coastal State.



Article 7

Straight baselines

1. In localities where the coastline is deeply indented and cut into, or if there is a fringe of islands along the coast in its immediate vicinity, the method of straight baselines joining appropriate points may be employed in drawing the baseline from which the breadth of the territorial sea is measured.
2. Where because of the presence of a delta and other natural conditions the coastline is highly unstable, the appropriate points may be selected along the furthest seaward extent of the low-water line and, notwithstanding subsequent regression of the low-water line, the straight baselines shall remain effective until changed by the coastal State in accordance with this Convention.
3. The drawing of straight baselines must not depart to any appreciable extent from the general direction of the coast, and the sea areas lying within the lines must be sufficiently closely linked to the land domain to be subject to the regime of internal waters.
4. Straight baselines shall not be drawn to and from low-tide elevations, unless lighthouses or similar installations which are permanently above sea level have been built on them or except in instances where the drawing of baselines to and from such elevations has received general international recognition.
5. Where the method of straight baselines is applicable under paragraph 1, account may be taken, in determining particular baselines, of economic interests peculiar to the region concerned, the reality and the importance of which are clearly evidenced by long usage.
6. The system of straight baselines may not be applied by a State in such a manner as to cut off the territorial sea of another State from the high seas or an exclusive economic zone.



Article 8

Internal waters

1. Except as provided in Part IV, waters on the landward side of the baseline of the territorial sea form part of the internal waters of the State.

2. Where the establishment of a straight baseline in accordance with the method set forth in article 7 has the effect of enclosing as internal waters areas which had not previously been considered as such, a right of innocent passage as provided in this Convention shall exist in those waters.



Article 9

Mouths of rivers

If a river flows directly into the sea, the baseline shall be a straight line across the mouth of the river between points on the low-water line of its banks.



Article 10

Bays

1. This article relates only to bays the coasts of which belong to a single State.

2. For the purposes of this Convention, a bay is a well-marked indentation whose penetration is in such proportion to the width of its mouth as to contain land-locked waters and constitute more than a mere curvature of the coast. An indentation shall not, however, be regarded as a bay unless its area is as large as, or larger than, that of the semi-circle whose diameter is a line drawn across the mouth of that indentation.

3. For the purpose of measurement, the area of an indentation is that lying between the low-water mark around the shore of the indentation and a line joining the low-water mark of its natural entrance points. Where, because of the presence of islands, an indentation has more than one mouth, the semi-circle shall be drawn on a line as long as the sum total of the lengths of the lines across the different mouths. Islands within an indentation shall be included as if they were part of the water area of the indentation.

4. If the distance between the low-water marks of the natural entrance points of a bay does not exceed 24 nautical miles, a closing line may be drawn between these two low-water marks, and the waters enclosed thereby shall be considered as internal waters.

5. Where the distance between the low-water marks of the natural entrance points of a bay exceeds 24 nautical miles, a straight baseline of 24 nautical miles shall be drawn within the bay in such a manner as to enclose the maximum area of water that is possible with a line of that length.

6. The foregoing provisions do not apply to so-called "historic" bays, or in any case where the system of straight baselines provided for in article 7 is applied.



Article 11

Ports

For the purpose of delimiting the territorial sea, the outermost permanent harbour works which form an integral part of the harbour system are regarded as forming part of the coast. Off-shore installations and artificial islands shall not be considered as permanent harbour works.



Article 12

Roadsteads

Roadsteads which are normally used for the loading, unloading and anchoring of ships, and which would otherwise be situated wholly or partly outside the outer limit of the territorial sea, are included in the territorial sea.



Article 13

Low-tide elevations

1. A low-tide elevation is a naturally formed area of land which is

surrounded by and above water at low tide but submerged at high tide. Where a low-tide elevation is situated wholly or partly at a distance not exceeding the breadth of the territorial sea from the mainland or an island, the low-water line on that elevation may be used as the baseline for measuring the breadth of the territorial sea.

2. Where a low-tide elevation is wholly situated at a distance exceeding the breadth of the territorial sea from the mainland or an island, it has no territorial sea of its own.



Article 14

Combination of methods for determining baselines

The coastal State may determine baselines in turn by any of the methods provided for in the foregoing articles to suit different conditions.



Article 15

Delimitation of the territorial sea between States

with opposite or adjacent coasts

Where the coasts of two States are opposite or adjacent to each other, neither of the two States is entitled, failing agreement between them to the contrary, to extend its territorial sea beyond the median line every point of which is equidistant from the nearest points on the baselines from which the breadth of the territorial seas of each of the two States is measured. The above provision does not apply, however, where it is necessary by reason of historic title or other special circumstances to delimit the territorial seas of the two States in a way which is at variance therewith.



Article 16

Charts and lists of geographical coordinates

1. The baselines for measuring the breadth of the territorial sea determined in accordance with articles 7, 9 and 10, or the limits derived therefrom, and the lines of delimitation drawn in accordance with articles 12 and 15 shall be shown on charts of a scale or scales adequate for ascertaining their position. Alternatively, a list of geographical coordinates of points, specifying the geodetic datum, may be substituted.

2. The coastal State shall give due publicity to such charts or lists of geographical coordinates and shall deposit a copy of each such chart or list with the Secretary-General of the United Nations.



SECTION 3. INNOCENT PASSAGE IN THE TERRITORIAL SEA

SUBSECTION A. RULES APPLICABLE TO ALL SHIPS



Article 17

Right of innocent passage

Subject to this Convention, ships of all States, whether coastal or land-locked, enjoy the right of innocent passage through the territorial sea.



Article 18

Meaning of passage

1. Passage means navigation through the territorial sea for the purpose of:

(a) traversing that sea without entering internal waters or calling at a roadstead or port facility outside internal waters; or

(b) proceeding to or from internal waters or a call at such roadstead or port facility.

2. Passage shall be continuous and expeditious. However, passage includes

stopping and anchoring, but only in so far as the same are incidental to ordinary navigation or are rendered necessary by *force majeure* or distress or for the purpose of rendering assistance to persons, ships or aircraft in danger or distress.



Article 19

Meaning of innocent passage

1. Passage is innocent so long as it is not prejudicial to the peace, good order or security of the coastal State. Such passage shall take place in conformity with this Convention and with other rules of international law.
2. Passage of a foreign ship shall be considered to be prejudicial to the peace, good order or security of the coastal State if in the territorial sea it engages in any of the following activities:
 - (a) any threat or use of force against the sovereignty, territorial integrity or political independence of the coastal State, or in any other manner in violation of the principles of international law embodied in the Charter of the United Nations;
 - (b) any exercise or practice with weapons of any kind;
 - (c) any act aimed at collecting information to the prejudice of the defence or security of the coastal State;
 - (d) any act of propaganda aimed at affecting the defence or security of the coastal State;
 - (e) the launching, landing or taking on board of any aircraft;
 - (f) the launching, landing or taking on board of any military device;
 - (g) the loading or unloading of any commodity, currency or person contrary to the customs, fiscal, immigration or sanitary laws and regulations of the

coastal State;

(h) any act of wilful and serious pollution contrary to this Convention;

(i) any fishing activities;

(j) the carrying out of research or survey activities;

(k) any act aimed at interfering with any systems of communication or any other facilities or installations of the coastal State;

(l) any other activity not having a direct bearing on passage.



Article 20

Submarines and other underwater vehicles

In the territorial sea, submarines and other underwater vehicles are required to navigate on the surface and to show their flag.



Article 21

Laws and regulations of the coastal State relating to innocent passage

1. The coastal State may adopt laws and regulations, in conformity with the provisions of this Convention and other rules of international law, relating to innocent passage through the territorial sea, in respect of all or any of the following:

(a) the safety of navigation and the regulation of maritime traffic;

(b) the protection of navigational aids and facilities and other facilities or installations;

- (c) the protection of cables and pipelines;
- (d) the conservation of the living resources of the sea;
- (e) the prevention of infringement of the fisheries laws and regulations of the coastal State;
- (f) the preservation of the environment of the coastal State and the prevention, reduction and control of pollution thereof;
- (g) marine scientific research and hydrographic surveys;
- (h) the prevention of infringement of the customs, fiscal, immigration or sanitary laws and regulations of the coastal State.

2. Such laws and regulations shall not apply to the design, construction, manning or equipment of foreign ships unless they are giving effect to generally accepted international rules or standards.

3. The coastal State shall give due publicity to all such laws and regulations.

4. Foreign ships exercising the right of innocent passage through the territorial sea shall comply with all such laws and regulations and all generally accepted international regulations relating to the prevention of collisions at sea.



Article 22

Sea lanes and traffic separation schemes in the territorial sea

1. The coastal State may, where necessary having regard to the safety of navigation, require foreign ships exercising the right of innocent passage through its territorial sea to use such sea lanes and traffic separation schemes as it may designate or prescribe for the regulation of the passage of ships.

2. In particular, tankers, nuclear-powered ships and ships carrying nuclear or other inherently dangerous or noxious substances or materials may be

required to confine their passage to such sea lanes.

3. In the designation of sea lanes and the prescription of traffic separation schemes under this article, the coastal State shall take into account:

(a) the recommendations of the competent international organization;

(b) any channels customarily used for international navigation;

(c) the special characteristics of particular ships and channels; and

(d) the density of traffic.

4. The coastal State shall clearly indicate such sea lanes and traffic separation schemes on charts to which due publicity shall be given.



Article 23

Foreign nuclear-powered ships and ships carrying nuclear or other inherently dangerous or noxious substances

Foreign nuclear-powered ships and ships carrying nuclear or other inherently dangerous or noxious substances shall, when exercising the right of innocent passage through the territorial sea, carry documents and observe special precautionary measures established for such ships by international agreements.



Article 24

Duties of the coastal State

1. The coastal State shall not hamper the innocent passage of foreign ships through the territorial sea except in accordance with this Convention. In particular, in the application of this Convention or of any laws or regulations adopted in conformity with this Convention, the coastal State shall not:

(a) impose requirements on foreign ships which have the practical effect of denying or impairing the right of innocent passage; or

(b) discriminate in form or in fact against the ships of any State or against ships carrying cargoes to, from or on behalf of any State.

2. The coastal State shall give appropriate publicity to any danger to navigation, of which it has knowledge, within its territorial sea.



Article 25

Rights of protection of the coastal State

1. The coastal State may take the necessary steps in its territorial sea to prevent passage which is not innocent.

2. In the case of ships proceeding to internal waters or a call at a port facility outside internal waters, the coastal State also has the right to take the necessary steps to prevent any breach of the conditions to which admission of those ships to internal waters or such a call is subject.

3. The coastal State may, without discrimination in form or in fact among foreign ships, suspend temporarily in specified areas of its territorial sea the innocent passage of foreign ships if such suspension is essential for the protection of its security, including weapons exercises. Such suspension shall take effect only after having been duly published.



Article 26

Charges which may be levied upon foreign ships

1. No charge may be levied upon foreign ships by reason only of their passage through the territorial sea.

2. Charges may be levied upon a foreign ship passing through the territorial

sea as payment only for specific services rendered to the ship. These charges shall be levied without discrimination.



**SUBSECTION B. RULES APPLICABLE TO
MERCHANT SHIPS AND GOVERNMENT SHIPS
OPERATED FOR COMMERCIAL PURPOSES**



Article 27

Criminal jurisdiction on board a foreign ship

1. The criminal jurisdiction of the coastal State should not be exercised on board a foreign ship passing through the territorial sea to arrest any person or to conduct any investigation in connection with any crime committed on board the ship during its passage, save only in the following cases:

(a) if the consequences of the crime extend to the coastal State;

(b) if the crime is of a kind to disturb the peace of the country or the good order of the territorial sea;

(c) if the assistance of the local authorities has been requested by the master of the ship or by a diplomatic agent or consular officer of the flag State; or

(d) if such measures are necessary for the suppression of illicit traffic in narcotic drugs or psychotropic substances.

2. The above provisions do not affect the right of the coastal State to take any steps authorized by its laws for the purpose of an arrest or investigation on board a foreign ship passing through the territorial sea after leaving internal waters.

3. In the cases provided for in paragraphs 1 and 2, the coastal State shall, if

the master so requests, notify a diplomatic agent or consular officer of the flag State before taking any steps, and shall facilitate contact between such agent or officer and the ship's crew. In cases of emergency this notification may be communicated while the measures are being taken.

4. In considering whether or in what manner an arrest should be made, the local authorities shall have due regard to the interests of navigation.

5. Except as provided in Part XII or with respect to violations of laws and regulations adopted in accordance with Part V, the coastal State may not take any steps on board a foreign ship passing through the territorial sea to arrest any person or to conduct any investigation in connection with any crime committed before the ship entered the territorial sea, if the ship, proceeding from a foreign port, is only passing through the territorial sea without entering internal waters.



Article 28

Civil jurisdiction in relation to foreign ships

1. The coastal State should not stop or divert a foreign ship passing through the territorial sea for the purpose of exercising civil jurisdiction in relation to a person on board the ship.

2. The coastal State may not levy execution against or arrest the ship for the purpose of any civil proceedings, save only in respect of obligations or liabilities assumed or incurred by the ship itself in the course or for the purpose of its voyage through the waters of the coastal State.

3. Paragraph 2 is without prejudice to the right of the coastal State, in accordance with its laws, to levy execution against or to arrest, for the purpose of any civil proceedings, a foreign ship lying in the territorial sea, or passing through the territorial sea after leaving internal waters.



SUBSECTION C. RULES APPLICABLE TO WARSHIPS AND OTHER GOVERNMENT SHIPS

OPERATED FOR NON-COMMERCIAL PURPOSES



Article 29

Definition of warships

For the purposes of this Convention, "warship" means a ship belonging to the armed forces of a State bearing the external marks distinguishing such ships of its nationality, under the command of an officer duly commissioned by the government of the State and whose name appears in the appropriate service list or its equivalent, and manned by a crew which is under regular armed forces discipline.



Article 30

Non-compliance by warships with the laws and regulations

of the coastal State

If any warship does not comply with the laws and regulations of the coastal State concerning passage through the territorial sea and disregards any request for compliance therewith which is made to it, the coastal State may require it to leave the territorial sea immediately.



Article 31

Responsibility of the flag State for damage caused by a warship

or other government ship operated for non-commercial purposes

The flag State shall bear international responsibility for any loss or damage to the coastal State resulting from the non-compliance by a warship or other government ship operated for non-commercial purposes with the laws and regulations of the coastal State concerning passage through the territorial sea or with the provisions of this Convention or other rules of international law.



Article32

*Immunities of warships and other government ships
operated for non-commercial purposes*

With such exceptions as are contained in subsection A and in articles 30 and 31, nothing in this Convention affects the immunities of warships and other government ships operated for non-commercial purposes.



SECTION 4. CONTIGUOUS ZONE



Article33

Contiguous zone

1. In a zone contiguous to its territorial sea, described as the contiguous zone, the coastal State may exercise the control necessary to:

- (a) prevent infringement of its customs, fiscal, immigration or sanitary laws and regulations within its territory or territorial sea;
- (b) punish infringement of the above laws and regulations committed within its territory or territorial sea.

2. The contiguous zone may not extend beyond 24 nautical miles from the baselines from which the breadth of the territorial sea is measured.

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PART III

STRAITS USED FOR INTERNATIONAL NAVIGATION



SECTION 1. GENERAL PROVISIONS



Article 34

Legal status of waters forming straits used for international navigation

1. The regime of passage through straits used for international navigation established in this Part shall not in other respects affect the legal status of the waters forming such straits or the exercise by the States bordering the straits of their sovereignty or jurisdiction over such waters and their air space, bed and subsoil.

2. The sovereignty or jurisdiction of the States bordering the straits is exercised subject to this Part and to other rules of international law.



Article 35

Scope of this Part

Nothing in this Part affects:

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(a) any areas of internal waters within a strait, except where the establishment of a straight baseline in accordance with the method set forth in article 7 has the effect of enclosing as internal waters areas which had not previously been considered as such;

(b) the legal status of the waters beyond the territorial seas of States bordering straits as exclusive economic zones or high seas; or

(c) the legal regime in straits in which passage is regulated in whole or in part by long-standing international conventions in force specifically relating to such straits.



Article 36

High seas routes or routes through exclusive economic zones

through straits used for international navigation

This Part does not apply to a strait used for international navigation if there exists through the strait a route through the high seas or through an exclusive economic zone of similar convenience with respect to navigational and hydrographical characteristics; in such routes, the other relevant Parts of this Convention, including the provisions regarding the freedoms of navigation and overflight, apply.



SECTION 2. TRANSIT PASSAGE



Article 37

Scope of this section

This section applies to straits which are used for international navigation between one part of the high seas or an exclusive economic zone and another part of the high seas or an exclusive economic zone.



Article 38

Right of transit passage

1. In straits referred to in article 37, all ships and aircraft enjoy the right of transit passage, which shall not be impeded; except that, if the strait is formed by an island of a State bordering the strait and its mainland, transit passage shall not apply if there exists seaward of the island a route through the high seas or through an exclusive economic zone of similar convenience with respect to navigational and hydrographical characteristics.

2. Transit passage means the exercise in accordance with this Part of the freedom of navigation and overflight solely for the purpose of continuous and expeditious transit of the strait between one part of the high seas or an exclusive economic zone and another part of the high seas or an exclusive economic zone. However, the requirement of continuous and expeditious transit does not preclude passage through the strait for the purpose of entering, leaving or returning from a State bordering the strait, subject to the conditions of entry to that State.

3. Any activity which is not an exercise of the right of transit passage through a strait remains subject to the other applicable provisions of this Convention.



Article 39

Duties of ships and aircraft during transit passage

1. Ships and aircraft, while exercising the right of transit passage, shall:

(a) proceed without delay through or over the strait;

(b) refrain from any threat or use of force against the sovereignty, territorial integrity or political independence of States bordering the strait, or in any other manner in violation of the principles of international law embodied in the Charter of the United Nations;

(c) refrain from any activities other than those incident to their normal modes of continuous and expeditious transit unless rendered necessary by *force majeure* or by distress;

(d) comply with other relevant provisions of this Part.

2. Ships in transit passage shall:

(a) comply with generally accepted international regulations, procedures and practices for safety at sea, including the International Regulations for Preventing Collisions at Sea;

(b) comply with generally accepted international regulations, procedures and practices for the prevention, reduction and control of pollution from ships.

3. Aircraft in transit passage shall:

(a) observe the Rules of the Air established by the International Civil Aviation Organization as they apply to civil aircraft; state aircraft will normally comply with such safety measures and will at all times operate with due regard for the safety of navigation;

(b) at all times monitor the radio frequency assigned by the competent internationally designated air traffic control authority or the appropriate international distress radio frequency.



Article 40

Research and survey activities

During transit passage, foreign ships, including marine scientific research and hydrographic survey ships, may not carry out any research or survey activities without the prior authorization of the States bordering straits.



Article41

Sea lanes and traffic separation schemes in straits

used for international navigation

1. In conformity with this Part, States bordering straits may designate sea lanes and prescribe traffic separation schemes for navigation in straits where necessary to promote the safe passage of ships.
2. Such States may, when circumstances require, and after giving due publicity thereto, substitute other sea lanes or traffic separation schemes for any sea lanes or traffic separation schemes previously designated or prescribed by them.
3. Such sea lanes and traffic separation schemes shall conform to generally accepted international regulations.
4. Before designating or substituting sea lanes or prescribing or substituting traffic separation schemes, States bordering straits shall refer proposals to the competent international organization with a view to their adoption. The organization may adopt only such sea lanes and traffic separation schemes as may be agreed with the States bordering the straits, after which the States may designate, prescribe or substitute them.
5. In respect of a strait where sea lanes or traffic separation schemes through the waters of two or more States bordering the strait are being proposed, the States concerned shall cooperate in formulating proposals in consultation with the competent international organization.
6. States bordering straits shall clearly indicate all sea lanes and traffic separation schemes designated or prescribed by them on charts to which due publicity shall be given.
7. Ships in transit passage shall respect applicable sea lanes and traffic separation schemes established in accordance with this article.



Article42

Laws and regulations of States bordering straits

relating to transit passage

1. Subject to the provisions of this section, States bordering straits may adopt laws and regulations relating to transit passage through straits, in respect of all or any of the following:

(a) the safety of navigation and the regulation of maritime traffic, as provided in article 41;

(b) the prevention, reduction and control of pollution, by giving effect to applicable international regulations regarding the discharge of oil, oily wastes and other noxious substances in the strait;

(c) with respect to fishing vessels, the prevention of fishing, including the stowage of fishing gear;

(d) the loading or unloading of any commodity, currency or person in contravention of the customs, fiscal, immigration or sanitary laws and regulations of States bordering straits.

2. Such laws and regulations shall not discriminate in form or in fact among foreign ships or in their application have the practical effect of denying, hampering or impairing the right of transit passage as defined in this section.

3. States bordering straits shall give due publicity to all such laws and regulations.

4. Foreign ships exercising the right of transit passage shall comply with such laws and regulations.

5. The flag State of a ship or the State of registry of an aircraft entitled to sovereign immunity which acts in a manner contrary to such laws and regulations or other provisions of this Part shall bear international responsibility for any loss or damage which results to States bordering straits.



Article 43

Navigational and safety aids and other improvements

and the prevention, reduction and control of pollution

User States and States bordering a strait should by agreement cooperate:

(a) in the establishment and maintenance in a strait of necessary navigational and safety aids or other improvements in aid of international navigation; and

(b) for the prevention, reduction and control of pollution from ships.



Article 44

Duties of States bordering straits

States bordering straits shall not hamper transit passage and shall give appropriate publicity to any danger to navigation or overflight within or over the strait of which they have knowledge. There shall be no suspension of transit passage.



SECTION 3. INNOCENT PASSAGE



Article 45

Innocent passage

1. The regime of innocent passage, in accordance with Part II, section 3, shall apply in straits used for international navigation:

(a) excluded from the application of the regime of transit passage under article 38, paragraph 1; or

(b) between a part of the high seas or an exclusive economic zone and the territorial sea of a foreign State.

2. There shall be no suspension of innocent passage through such straits.

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PART IV

ARCHIPELAGIC STATES



Article 46

Use of terms

For the purposes of this Convention:

(a) "archipelagic State" means a State constituted wholly by one or more archipelagos and may include other islands;

(b) "archipelago" means a group of islands, including parts of islands, interconnecting waters and other natural features which are so closely interrelated that such islands, waters and other natural features form an intrinsic geographical, economic and political entity, or which historically have been regarded as such.



Article 47

Archipelagic baselines

1. An archipelagic State may draw straight archipelagic baselines joining the outermost points of the outermost islands and drying reefs of the archipelago provided that within such baselines are included the main islands and an area in which the ratio of the area of the water to the area of the land, including atolls, is between 1 to 1 and 9 to 1.

2. The length of such baselines shall not exceed 100 nautical miles, except that up to 3 per cent of the total number of baselines enclosing any archipelago may exceed that length, up to a maximum length of 125 nautical miles.

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3. The drawing of such baselines shall not depart to any appreciable extent from the general configuration of the archipelago.

4. Such baselines shall not be drawn to and from low-tide elevations, unless lighthouses or similar installations which are permanently above sea level have been built on them or where a low-tide elevation is situated wholly or partly at a distance not exceeding the breadth of the territorial sea from the nearest island.

5. The system of such baselines shall not be applied by an archipelagic State in such a manner as to cut off from the high seas or the exclusive economic zone the territorial sea of another State.

6. If a part of the archipelagic waters of an archipelagic State lies between two parts of an immediately adjacent neighbouring State, existing rights and all other legitimate interests which the latter State has traditionally exercised in such waters and all rights stipulated by agreement between those States shall continue and be respected.

7. For the purpose of computing the ratio of water to land under paragraph 1, land areas may include waters lying within the fringing reefs of islands and atolls, including that part of a steep-sided oceanic plateau which is enclosed or nearly enclosed by a chain of limestone islands and drying reefs lying on the perimeter of the plateau.

8. The baselines drawn in accordance with this article shall be shown on charts of a scale or scales adequate for ascertaining their position. Alternatively, lists of geographical coordinates of points, specifying the geodetic datum, may be substituted.

9. The archipelagic State shall give due publicity to such charts or lists of geographical coordinates and shall deposit a copy of each such chart or list with the Secretary-General of the United Nations.



Article 48

*Measurement of the breadth of the territorial sea, the contiguous zone,
the exclusive economic zone and the continental shelf*

The breadth of the territorial sea, the contiguous zone, the exclusive economic zone and the continental shelf shall be measured from archipelagic baselines drawn in accordance with article 47.



Article 49

*Legal status of archipelagic waters, of the air space
over archipelagic waters and of their bed and subsoil*

1. The sovereignty of an archipelagic State extends to the waters enclosed by the archipelagic baselines drawn in accordance with article 47, described as archipelagic waters, regardless of their depth or distance from the coast.
2. This sovereignty extends to the air space over the archipelagic waters, as well as to their bed and subsoil, and the resources contained therein.
3. This sovereignty is exercised subject to this Part.
4. The regime of archipelagic sea lanes passage established in this Part shall not in other respects affect the status of the archipelagic waters, including the sea lanes, or the exercise by the archipelagic State of its sovereignty over such waters and their air space, bed and subsoil, and the resources contained therein.



Article 50

Delimitation of internal waters

Within its archipelagic waters, the archipelagic State may draw closing lines for the delimitation of internal waters, in accordance with articles 9, 10 and 11.



Article 51

Existing agreements, traditional fishing rights

and existing submarine cables

1. Without prejudice to article 49, an archipelagic State shall respect existing agreements with other States and shall recognize traditional fishing rights and other legitimate activities of the immediately adjacent neighbouring States in certain areas falling within archipelagic waters. The terms and conditions for the exercise of such rights and activities, including the nature, the extent and the areas to which they apply, shall, at the request of any of the States concerned, be regulated by bilateral agreements between them. Such rights shall not be transferred to or shared with third States or their nationals.

2. An archipelagic State shall respect existing submarine cables laid by other States and passing through its waters without making a landfall. An archipelagic State shall permit the maintenance and replacement of such cables upon receiving due notice of their location and the intention to repair or replace them.



Article 52

Right of innocent passage

1. Subject to article 53 and without prejudice to article 50, ships of all States enjoy the right of innocent passage through archipelagic waters, in accordance with Part II, section 3.

2. The archipelagic State may, without discrimination in form or in fact among foreign ships, suspend temporarily in specified areas of its archipelagic waters the innocent passage of foreign ships if such suspension is essential for the protection of its security. Such suspension shall take effect only after having been duly published.



Article 53

Right of archipelagic sea lanes passage

1. An archipelagic State may designate sea lanes and air routes thereabove, suitable for the continuous and expeditious passage of foreign ships and

aircraft through or over its archipelagic waters and the adjacent territorial sea.

2. All ships and aircraft enjoy the right of archipelagic sea lanes passage in such sea lanes and air routes.

3. Archipelagic sea lanes passage means the exercise in accordance with this Convention of the rights of navigation and overflight in the normal mode solely for the purpose of continuous, expeditious and unobstructed transit between one part of the high seas or an exclusive economic zone and another part of the high seas or an exclusive economic zone.

4. Such sea lanes and air routes shall traverse the archipelagic waters and the adjacent territorial sea and shall include all normal passage routes used as routes for international navigation or overflight through or over archipelagic waters and, within such routes, so far as ships are concerned, all normal navigational channels, provided that duplication of routes of similar convenience between the same entry and exit points shall not be necessary.

5. Such sea lanes and air routes shall be defined by a series of continuous axis lines from the entry points of passage routes to the exit points. Ships and aircraft in archipelagic sea lanes passage shall not deviate more than 25 nautical miles to either side of such axis lines during passage, provided that such ships and aircraft shall not navigate closer to the coasts than 10 per cent of the distance between the nearest points on islands bordering the sea lane.

6. An archipelagic State which designates sea lanes under this article may also prescribe traffic separation schemes for the safe passage of ships through narrow channels in such sea lanes.

7. An archipelagic State may, when circumstances require, after giving due publicity thereto, substitute other sea lanes or traffic separation schemes for any sea lanes or traffic separation schemes previously designated or prescribed by it.

8. Such sea lanes and traffic separation schemes shall conform to generally accepted international regulations.

9. In designating or substituting sea lanes or prescribing or substituting traffic separation schemes, an archipelagic State shall refer proposals to the competent international organization with a view to their adoption. The

organization may adopt only such sea lanes and traffic separation schemes as may be agreed with the archipelagic State, after which the archipelagic State may designate, prescribe or substitute them.

10. The archipelagic State shall clearly indicate the axis of the sea lanes and the traffic separation schemes designated or prescribed by it on charts to which due publicity shall be given.

11. Ships in archipelagic sea lanes passage shall respect applicable sea lanes and traffic separation schemes established in accordance with this article.

12. If an archipelagic State does not designate sea lanes or air routes, the right of archipelagic sea lanes passage may be exercised through the routes normally used for international navigation.



Article 54

*Duties of ships and aircraft during their passage,
research and survey activities, duties of the archipelagic State
and laws and regulations of the archipelagic State
relating to archipelagic sea lanes passage*

Articles 39, 40, 42 and 44 apply *mutatis mutandis* to archipelagic sea lanes passage.

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PART V

EXCLUSIVE ECONOMIC ZONE



Article 55

Specific legal regime of the exclusive economic zone

The exclusive economic zone is an area beyond and adjacent to the territorial sea, subject to the specific legal regime established in this Part, under which the rights and jurisdiction of the coastal State and the rights and freedoms of other States are governed by the relevant provisions of this Convention.



Article 56

Rights, jurisdiction and duties of the coastal State in the exclusive economic zone

1. In the exclusive economic zone, the coastal State has:

- (a) sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil, and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and

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winds;

(b) jurisdiction as provided for in the relevant provisions of this Convention with regard to:

(i) the establishment and use of artificial islands, installations and structures;

(ii) marine scientific research;

(iii) the protection and preservation of the marine environment;

(c) other rights and duties provided for in this Convention.

2. In exercising its rights and performing its duties under this Convention in the exclusive economic zone, the coastal State shall have due regard to the rights and duties of other States and shall act in a manner compatible with the provisions of this Convention.

3. The rights set out in this article with respect to the seabed and subsoil shall be exercised in accordance with Part VI.



Article 57

Breadth of the exclusive economic zone

The exclusive economic zone shall not extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured.



Article 58

Rights and duties of other States in the exclusive economic zone

1. In the exclusive economic zone, all States, whether coastal or land-locked, enjoy, subject to the relevant provisions of this Convention, the freedoms referred to in article 87 of navigation and overflight and of the laying of

submarine cables and pipelines, and other internationally lawful uses of the sea related to these freedoms, such as those associated with the operation of ships, aircraft and submarine cables and pipelines, and compatible with the other provisions of this Convention.

2. Articles 88 to 115 and other pertinent rules of international law apply to the exclusive economic zone in so far as they are not incompatible with this Part.

3. In exercising their rights and performing their duties under this Convention in the exclusive economic zone, States shall have due regard to the rights and duties of the coastal State and shall comply with the laws and regulations adopted by the coastal State in accordance with the provisions of this Convention and other rules of international law in so far as they are not incompatible with this Part.



Article 59

Basis for the resolution of conflicts

regarding the attribution of rights and jurisdiction

in the exclusive economic zone

In cases where this Convention does not attribute rights or jurisdiction to the coastal State or to other States within the exclusive economic zone, and a conflict arises between the interests of the coastal State and any other State or States, the conflict should be resolved on the basis of equity and in the light of all the relevant circumstances, taking into account the respective importance of the interests involved to the parties as well as to the international community as a whole.



Article 60

Artificial islands, installations and structures

in the exclusive economic zone

1. In the exclusive economic zone, the coastal State shall have the exclusive right to construct and to authorize and regulate the construction, operation and use of:
 - (a) artificial islands;
 - (b) installations and structures for the purposes provided for in article 56 and other economic purposes;
 - (c) installations and structures which may interfere with the exercise of the rights of the coastal State in the zone.
2. The coastal State shall have exclusive jurisdiction over such artificial islands, installations and structures, including jurisdiction with regard to customs, fiscal, health, safety and immigration laws and regulations.
3. Due notice must be given of the construction of such artificial islands, installations or structures, and permanent means for giving warning of their presence must be maintained. Any installations or structures which are abandoned or disused shall be removed to ensure safety of navigation, taking into account any generally accepted international standards established in this regard by the competent international organization. Such removal shall also have due regard to fishing, the protection of the marine environment and the rights and duties of other States. Appropriate publicity shall be given to the depth, position and dimensions of any installations or structures not entirely removed.
4. The coastal State may, where necessary, establish reasonable safety zones around such artificial islands, installations and structures in which it may take appropriate measures to ensure the safety both of navigation and of the artificial islands, installations and structures.
5. The breadth of the safety zones shall be determined by the coastal State, taking into account applicable international standards. Such zones shall be designed to ensure that they are reasonably related to the nature and function of the artificial islands, installations or structures, and shall not exceed a distance of 500 metres around them, measured from each point of their outer edge, except as authorized by generally accepted international standards or as recommended by the competent international organization. Due notice shall be given of the extent of safety zones.

6. All ships must respect these safety zones and shall comply with generally accepted international standards regarding navigation in the vicinity of artificial islands, installations, structures and safety zones.

7. Artificial islands, installations and structures and the safety zones around them may not be established where interference may be caused to the use of recognized sea lanes essential to international navigation.

8. Artificial islands, installations and structures do not possess the status of islands. They have no territorial sea of their own, and their presence does not affect the delimitation of the territorial sea, the exclusive economic zone or the continental shelf.



Article 61

Conservation of the living resources

1. The coastal State shall determine the allowable catch of the living resources in its exclusive economic zone.

2. The coastal State, taking into account the best scientific evidence available to it, shall ensure through proper conservation and management measures that the maintenance of the living resources in the exclusive economic zone is not endangered by over-exploitation. As appropriate, the coastal State and competent international organizations, whether subregional, regional or global, shall cooperate to this end.

3. Such measures shall also be designed to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield, as qualified by relevant environmental and economic factors, including the economic needs of coastal fishing communities and the special requirements of developing States, and taking into account fishing patterns, the interdependence of stocks and any generally recommended international minimum standards, whether subregional, regional or global.

4. In taking such measures the coastal State shall take into consideration the effects on species associated with or dependent upon harvested species with a view to maintaining or restoring populations of such associated or dependent species above levels at which their reproduction may become seriously threatened.

5. Available scientific information, catch and fishing effort statistics, and other data relevant to the conservation of fish stocks shall be contributed and exchanged on a regular basis through competent international organizations, whether subregional, regional or global, where appropriate and with participation by all States concerned, including States whose nationals are allowed to fish in the exclusive economic zone.



Article 62

Utilization of the living resources

1. The coastal State shall promote the objective of optimum utilization of the living resources in the exclusive economic zone without prejudice to article 61.
2. The coastal State shall determine its capacity to harvest the living resources of the exclusive economic zone. Where the coastal State does not have the capacity to harvest the entire allowable catch, it shall, through agreements or other arrangements and pursuant to the terms, conditions, laws and regulations referred to in paragraph 4, give other States access to the surplus of the allowable catch, having particular regard to the provisions of articles 69 and 70, especially in relation to the developing States mentioned therein.
3. In giving access to other States to its exclusive economic zone under this article, the coastal State shall take into account all relevant factors, including, *inter alia*, the significance of the living resources of the area to the economy of the coastal State concerned and its other national interests, the provisions of articles 69 and 70, the requirements of developing States in the subregion or region in harvesting part of the surplus and the need to minimize economic dislocation in States whose nationals have habitually fished in the zone or which have made substantial efforts in research and identification of stocks.
4. Nationals of other States fishing in the exclusive economic zone shall comply with the conservation measures and with the other terms and conditions established in the laws and regulations of the coastal State. These laws and regulations shall be consistent with this Convention and may relate, *inter alia*, to the following:

(a) licensing of fishermen, fishing vessels and

equipment, including payment of fees and other forms of remuneration, which, in the case of developing coastal States, may consist of adequate compensation in the field of financing, equipment and technology relating to the fishing industry;

(b) determining the species which may be caught, and fixing quotas of catch, whether in relation to particular stocks or groups of stocks or catch per vessel over a period of time or to the catch by nationals of any State during a specified period;

(c) regulating seasons and areas of fishing, the types, sizes and amount of gear, and the types, sizes and number of fishing vessels that may be used;

(d) fixing the age and size of fish and other species that may be caught;

(e) specifying information required of fishing vessels, including catch and effort statistics and vessel position reports;

(f) requiring, under the authorization and control of the coastal State, the conduct of specified fisheries research programmes and regulating the conduct of such research, including the sampling of catches, disposition of samples and reporting of associated scientific data;

(g) the placing of observers or trainees on board such vessels by the coastal State;

(h) the landing of all or any part of the catch by such vessels in the ports of the coastal State;

(i) terms and conditions relating to joint ventures or other cooperative arrangements;

(j) requirements for the training of personnel and the transfer of fisheries technology, including enhancement of the coastal State's capability of undertaking fisheries research;

(k) enforcement procedures.

5. Coastal States shall give due notice of conservation and management laws and regulations.



Article 63

Stocks occurring within the exclusive economic zones of two or more coastal States or both within the exclusive economic zone and in an area beyond and adjacent to it

1. Where the same stock or stocks of associated species occur within the exclusive economic zones of two or more coastal States, these States shall seek, either directly or through appropriate subregional or regional organizations, to agree upon the measures necessary to coordinate and ensure the conservation and development of such stocks without prejudice to the other provisions of this Part.

2. Where the same stock or stocks of associated species occur both within the exclusive economic zone and in an area beyond and adjacent to the zone, the coastal State and the States fishing for such stocks in the adjacent area shall seek, either directly or through appropriate subregional or regional organizations, to agree upon the measures necessary for the conservation of these stocks in the adjacent area.



Article 64

Highly migratory species

1. The coastal State and other States whose nationals fish in the region for the highly migratory species listed in Annex I shall cooperate directly or through appropriate international organizations with a view to ensuring conservation and promoting the objective of optimum utilization of such species throughout the region, both within and beyond the exclusive economic zone. In regions for which no appropriate international organization exists, the coastal State and other States whose nationals harvest these species in the

region shall cooperate to establish such an organization and participate in its work.

2. The provisions of paragraph 1 apply in addition to the other provisions of this Part.



Article 65

Marine mammals

Nothing in this Part restricts the right of a coastal State or the competence of an international organization, as appropriate, to prohibit, limit or regulate the exploitation of marine mammals more strictly than provided for in this Part. States shall cooperate with a view to the conservation of marine mammals and in the case of cetaceans shall in particular work through the appropriate international organizations for their conservation, management and study.



Article 66

Anadromous stocks

1. States in whose rivers anadromous stocks originate shall have the primary interest in and responsibility for such stocks.

2. The State of origin of anadromous stocks shall ensure their conservation by the establishment of appropriate regulatory measures for fishing in all waters landward of the outer limits of its exclusive economic zone and for fishing provided for in paragraph 3(b). The State of origin may, after consultations with the other States referred to in paragraphs 3 and 4 fishing these stocks, establish total allowable catches for stocks originating in its rivers.

3. (a) Fisheries for anadromous stocks shall be conducted only in waters landward of the outer limits of exclusive economic zones, except in cases where this provision would result in economic dislocation for a State other than the State of origin. With respect to such fishing beyond the outer limits of the exclusive

economic zone, States concerned shall maintain consultations with a view to achieving agreement on terms and conditions of such fishing giving due regard to the conservation requirements and the needs of the State of origin in respect of these stocks.

(b) The State of origin shall cooperate in minimizing economic dislocation in such other States fishing these stocks, taking into account the normal catch and the mode of operations of such States, and all the areas in which such fishing has occurred.

(c) States referred to in subparagraph (b), participating by agreement with the State of origin in measures to renew anadromous stocks, particularly by expenditures for that purpose, shall be given special consideration by the State of origin in the harvesting of stocks originating in its rivers.

(d) Enforcement of regulations regarding anadromous stocks beyond the exclusive economic zone shall be by agreement between the State of origin and the other States concerned.

4. In cases where anadromous stocks migrate into or through the waters landward of the outer limits of the exclusive economic zone of a State other than the State of origin, such State shall cooperate with the State of origin with regard to the conservation and management of such stocks.

5. The State of origin of anadromous stocks and other States fishing these stocks shall make arrangements for the implementation of the provisions of this article, where appropriate, through regional organizations.



Article 67

Catadromous species

1. A coastal State in whose waters catadromous species spend the greater part of their life cycle shall have responsibility for the management of these species and shall ensure the ingress and egress of migrating fish.

2. Harvesting of catadromous species shall be conducted only in waters landward of the outer limits of exclusive economic zones. When conducted in exclusive economic zones, harvesting shall be subject to this article and the other provisions of this Convention concerning fishing in these zones.

3. In cases where catadromous fish migrate through the exclusive economic zone of another State, whether as juvenile or maturing fish, the management, including harvesting, of such fish shall be regulated by agreement between the State mentioned in paragraph 1 and the other State concerned. Such agreement shall ensure the rational management of the species and take into account the responsibilities of the State mentioned in paragraph 1 for the maintenance of these species.



Article 68

Sedentary species

This Part does not apply to sedentary species as defined in article 77, paragraph 4.



Article 69

Right of land-locked States

1. Land-locked States shall have the right to participate, on an equitable basis, in the exploitation of an appropriate part of the surplus of the living resources of the exclusive economic zones of coastal States of the same subregion or region, taking into account the relevant economic and geographical circumstances of all the States concerned and in conformity with the provisions of this article and of articles 61 and 62.

2. The terms and modalities of such participation shall be established by the States concerned through bilateral, subregional or regional agreements taking into account, *inter alia*:

(a) the need to avoid effects detrimental to fishing communities or fishing industries of the coastal State;

(b) the extent to which the land-locked State, in accordance with the provisions of this article, is participating or is entitled to participate under existing bilateral, subregional or regional agreements in the exploitation of living resources of the exclusive economic zones of other coastal States;

(c) the extent to which other land-locked States and geographically disadvantaged States are participating in the exploitation of the living resources of the exclusive economic zone of the coastal State and the consequent need to avoid a particular burden for any single coastal State or a part of it;

(d) the nutritional needs of the populations of the respective States.

3. When the harvesting capacity of a coastal State approaches a point which would enable it to harvest the entire allowable catch of the living resources in its exclusive economic zone, the coastal State and other States concerned shall cooperate in the establishment of equitable arrangements on a bilateral, subregional or regional basis to allow for participation of developing land-locked States of the same subregion or region in the exploitation of the living resources of the exclusive economic zones of coastal States of the subregion or region, as may be appropriate in the circumstances and on terms satisfactory to all parties. In the implementation of this provision the factors mentioned in paragraph 2 shall also be taken into account.

4. Developed land-locked States shall, under the provisions of this article, be entitled to participate in the exploitation of living resources only in the exclusive economic zones of developed coastal States of the same subregion or region having regard to the extent to which the coastal State, in giving access to other States to the living resources of its exclusive economic zone, has taken into account the need to minimize detrimental effects on fishing communities and economic dislocation in States whose nationals have habitually fished in the zone.

5. The above provisions are without prejudice to arrangements agreed upon in subregions or regions where the coastal States may grant to land-locked States of the same subregion or region equal or preferential rights for the exploitation of the living resources in the exclusive economic zones.



Article 70

Right of geographically disadvantaged States

1. Geographically disadvantaged States shall have the right to participate, on an equitable basis, in the exploitation of an appropriate part of the surplus of the living resources of the exclusive economic zones of coastal States of the same subregion or region, taking into account the relevant economic and geographical circumstances of all the States concerned and in conformity with the provisions of this article and of articles 61 and 62.
2. For the purposes of this Part, "geographically disadvantaged States" means coastal States, including States bordering enclosed or semi-enclosed seas, whose geographical situation makes them dependent upon the exploitation of the living resources of the exclusive economic zones of other States in the subregion or region for adequate supplies of fish for the nutritional purposes of their populations or parts thereof, and coastal States which can claim no exclusive economic zones of their own.
3. The terms and modalities of such participation shall be established by the States concerned through bilateral, subregional or regional agreements taking into account, *inter alia*:
 - (a) the need to avoid effects detrimental to fishing communities or fishing industries of the coastal State;
 - (b) the extent to which the geographically disadvantaged State, in accordance with the provisions of this article, is participating or is entitled to participate under existing bilateral, subregional or regional agreements in the exploitation of living resources of the exclusive economic zones of other coastal States;
 - (c) the extent to which other geographically disadvantaged States and land-locked States are participating in the exploitation of the living resources of the exclusive economic zone of the coastal State and the consequent need to avoid a particular burden for any single coastal State or a part of it;
 - (d) the nutritional needs of the populations of the respective States.

4. When the harvesting capacity of a coastal State approaches a point which would enable it to harvest the entire allowable catch of the living resources in its exclusive economic zone, the coastal State and other States concerned shall cooperate in the establishment of equitable arrangements on a bilateral, subregional or regional basis to allow for participation of developing geographically disadvantaged States of the same subregion or region in the exploitation of the living resources of the exclusive economic zones of coastal States of the subregion or region, as may be appropriate in the circumstances and on terms satisfactory to all parties. In the implementation of this provision the factors mentioned in paragraph 3 shall also be taken into account.

5. Developed geographically disadvantaged States shall, under the provisions of this article, be entitled to participate in the exploitation of living resources only in the exclusive economic zones of developed coastal States of the same subregion or region having regard to the extent to which the coastal State, in giving access to other States to the living resources of its exclusive economic zone, has taken into account the need to minimize detrimental effects on fishing communities and economic dislocation in States whose nationals have habitually fished in the zone.

6. The above provisions are without prejudice to arrangements agreed upon in subregions or regions where the coastal States may grant to geographically disadvantaged States of the same subregion or region equal or preferential rights for the exploitation of the living resources in the exclusive economic zones.



Article 71

Non-applicability of articles 69 and 70

The provisions of articles 69 and 70 do not apply in the case of a coastal State whose economy is overwhelmingly dependent on the exploitation of the living resources of its exclusive economic zone.



Article 72

Restrictions on transfer of rights

1. Rights provided under articles 69 and 70 to exploit living resources shall not be directly or indirectly transferred to third States or their nationals by lease or licence, by establishing joint ventures or in any other manner which has the effect of such transfer unless otherwise agreed by the States concerned.

2. The foregoing provision does not preclude the States concerned from obtaining technical or financial assistance from third States or international organizations in order to facilitate the exercise of the rights pursuant to articles 69 and 70, provided that it does not have the effect referred to in paragraph 1.



Article 73

Enforcement of laws and regulations of the coastal State

1. The coastal State may, in the exercise of its sovereign rights to explore, exploit, conserve and manage the living resources in the exclusive economic zone, take such measures, including boarding, inspection, arrest and judicial proceedings, as may be necessary to ensure compliance with the laws and regulations adopted by it in conformity with this Convention.

2. Arrested vessels and their crews shall be promptly released upon the posting of reasonable bond or other security.

3. Coastal State penalties for violations of fisheries laws and regulations in the exclusive economic zone may not include imprisonment, in the absence of agreements to the contrary by the States concerned, or any other form of corporal punishment.

4. In cases of arrest or detention of foreign vessels the coastal State shall promptly notify the flag State, through appropriate channels, of the action taken and of any penalties subsequently imposed.



Article 74

Delimitation of the exclusive economic zone

between States with opposite or adjacent coasts

1. The delimitation of the exclusive economic zone between States with opposite or adjacent coasts shall be effected by agreement on the basis of international law, as referred to in Article 38 of the Statute of the International Court of Justice, in order to achieve an equitable solution.
2. If no agreement can be reached within a reasonable period of time, the States concerned shall resort to the procedures provided for in Part XV.
3. Pending agreement as provided for in paragraph 1, the States concerned, in a spirit of understanding and cooperation, shall make every effort to enter into provisional arrangements of a practical nature and, during this transitional period, not to jeopardize or hamper the reaching of the final agreement. Such arrangements shall be without prejudice to the final delimitation.
4. Where there is an agreement in force between the States concerned, questions relating to the delimitation of the exclusive economic zone shall be determined in accordance with the provisions of that agreement.



Article 75

Charts and lists of geographical coordinates

1. Subject to this Part, the outer limit lines of the exclusive economic zone and the lines of delimitation drawn in accordance with article 74 shall be shown on charts of a scale or scales adequate for ascertaining their position. Where appropriate, lists of geographical coordinates of points, specifying the geodetic datum, may be substituted for such outer limit lines or lines of delimitation.
2. The coastal State shall give due publicity to such charts or lists of geographical coordinates and shall deposit a copy of each such chart or list with the Secretary-General of the United Nations.

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PART VI

CONTINENTAL SHELF

Article 76

Definition of the continental shelf

1. The continental shelf of a coastal State comprises the seabed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin, or to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured where the outer edge of the continental margin does not extend up to that distance.
2. The continental shelf of a coastal State shall not extend beyond the limits provided for in paragraphs 4 to 6.
3. The continental margin comprises the submerged prolongation of the land mass of the coastal State, and consists of the seabed and subsoil of the shelf, the slope and the rise. It does not include the deep ocean floor with its oceanic ridges or the subsoil thereof.
4. (a) For the purposes of this Convention, the coastal State shall establish the outer edge of the continental margin wherever the margin extends beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured, by either:
 - (i) a line delineated in accordance with paragraph 7 by reference to the outermost fixed points at each of which

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the thickness of sedimentary rocks is at least 1 per cent of the shortest distance from such point to the foot of the continental slope; or

(ii) a line delineated in accordance with paragraph 7 by reference to fixed points not more than 60 nautical miles from the foot of the continental slope.

(b) In the absence of evidence to the contrary, the foot of the continental slope shall be determined as the point of maximum change in the gradient at its base.

5. The fixed points comprising the line of the outer limits of the continental shelf on the seabed, drawn in accordance with paragraph 4 (a)(i) and (ii), either shall not exceed 350 nautical miles from the baselines from which the breadth of the territorial sea is measured or shall not exceed 100 nautical miles from the 2,500 metre isobath, which is a line connecting the depth of 2,500 metres.

6. Notwithstanding the provisions of paragraph 5, on submarine ridges, the outer limit of the continental shelf shall not exceed 350 nautical miles from the baselines from which the breadth of the territorial sea is measured. This paragraph does not apply to submarine elevations that are natural components of the continental margin, such as its plateaux, rises, caps, banks and spurs.

7. The coastal State shall delineate the outer limits of its continental shelf, where that shelf extends beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured, by straight lines not exceeding 60 nautical miles in length, connecting fixed points, defined by coordinates of latitude and longitude.

8. Information on the limits of the continental shelf beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured shall be submitted by the coastal State to the Commission on the Limits of the Continental Shelf set up under Annex II on the basis of equitable geographical representation. The Commission shall make recommendations to coastal States on matters related to the establishment of the outer limits of their continental shelf. The limits of the shelf established by a coastal State on the basis of these recommendations shall be final and binding.

9. The coastal State shall deposit with the Secretary-General of the United Nations charts and relevant information, including geodetic data, permanently describing the outer limits of its continental shelf. The Secretary-General

shall give due publicity thereto.

10. The provisions of this article are without prejudice to the question of delimitation of the continental shelf between States with opposite or adjacent coasts.



Article 77

Rights of the coastal State over the continental shelf

1. The coastal State exercises over the continental shelf sovereign rights for the purpose of exploring it and exploiting its natural resources.
2. The rights referred to in paragraph 1 are exclusive in the sense that if the coastal State does not explore the continental shelf or exploit its natural resources, no one may undertake these activities without the express consent of the coastal State.
3. The rights of the coastal State over the continental shelf do not depend on occupation, effective or notional, or on any express proclamation.
4. The natural resources referred to in this Part consist of the mineral and other non-living resources of the seabed and subsoil together with living organisms belonging to sedentary species, that is to say, organisms which, at the harvestable stage, either are immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil.



Article 78

Legal status of the superjacent waters and air space

and the rights and freedoms of other States

1. The rights of the coastal State over the continental shelf do not affect the legal status of the superjacent waters or of the air space above those waters.
2. The exercise of the rights of the coastal State over the continental shelf

must not infringe or result in any unjustifiable interference with navigation and other rights and freedoms of other States as provided for in this Convention.



Article 79

Submarine cables and pipelines on the continental shelf

1. All States are entitled to lay submarine cables and pipelines on the continental shelf, in accordance with the provisions of this article.
2. Subject to its right to take reasonable measures for the exploration of the continental shelf, the exploitation of its natural resources and the prevention, reduction and control of pollution from pipelines, the coastal State may not impede the laying or maintenance of such cables or pipelines.
3. The delineation of the course for the laying of such pipelines on the continental shelf is subject to the consent of the coastal State.
4. Nothing in this Part affects the right of the coastal State to establish conditions for cables or pipelines entering its territory or territorial sea, or its jurisdiction over cables and pipelines constructed or used in connection with the exploration of its continental shelf or exploitation of its resources or the operations of artificial islands, installations and structures under its jurisdiction.
5. When laying submarine cables or pipelines, States shall have due regard to cables or pipelines already in position. In particular, possibilities of repairing existing cables or pipelines shall not be prejudiced.



Article 80

Artificial islands, installations and structures on the continental shelf

Article 60 applies *mutatis mutandis* to artificial islands, installations and structures on the continental shelf.



Article 81

Drilling on the continental shelf

The coastal State shall have the exclusive right to authorize and regulate drilling on the continental shelf for all purposes.



Article 82

Payments and contributions with respect to the

exploitation of the continental shelf beyond 200 nautical miles

1. The coastal State shall make payments or contributions in kind in respect of the exploitation of the non-living resources of the continental shelf beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured.
2. The payments and contributions shall be made annually with respect to all production at a site after the first five years of production at that site. For the sixth year, the rate of payment or contribution shall be 1 per cent of the value or volume of production at the site. The rate shall increase by 1 per cent for each subsequent year until the twelfth year and shall remain at 7 per cent thereafter. Production does not include resources used in connection with exploitation.
3. A developing State which is a net importer of a mineral resource produced from its continental shelf is exempt from making such payments or contributions in respect of that mineral resource.
4. The payments or contributions shall be made through the Authority, which shall distribute them to States Parties to this Convention, on the basis of equitable sharing criteria, taking into account the interests and needs of developing States, particularly the least developed and the land-locked among them.



Article 83

Delimitation of the continental shelf

between States with opposite or adjacent coasts

1. The delimitation of the continental shelf between States with opposite or adjacent coasts shall be effected by agreement on the basis of international law, as referred to in Article 38 of the Statute of the International Court of Justice, in order to achieve an equitable solution.
2. If no agreement can be reached within a reasonable period of time, the States concerned shall resort to the procedures provided for in Part XV.
3. Pending agreement as provided for in paragraph 1, the States concerned, in a spirit of understanding and cooperation, shall make every effort to enter into provisional arrangements of a practical nature and, during this transitional period, not to jeopardize or hamper the reaching of the final agreement. Such arrangements shall be without prejudice to the final delimitation.
4. Where there is an agreement in force between the States concerned, questions relating to the delimitation of the continental shelf shall be determined in accordance with the provisions of that agreement.



Article 84

Charts and lists of geographical coordinates

1. Subject to this Part, the outer limit lines of the continental shelf and the lines of delimitation drawn in accordance with article 83 shall be shown on charts of a scale or scales adequate for ascertaining their position. Where appropriate, lists of geographical coordinates of points, specifying the geodetic datum, may be substituted for such outer limit lines or lines of delimitation.
2. The coastal State shall give due publicity to such charts or lists of geographical coordinates and shall deposit a copy of each such chart or list with the Secretary-General of the United Nations and, in the case of those showing the outer limit lines of the continental shelf, with the Secretary-General of the Authority.



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PART VII

HIGH SEAS

SECTION 1. GENERAL PROVISIONS



Article 86

Application of the provisions of this Part

The provisions of this Part apply to all parts of the sea that are not included in the exclusive economic zone, in the territorial sea or in the internal waters of a State, or in the archipelagic waters of an archipelagic State. This article does not entail any abridgement of the freedoms enjoyed by all States in the exclusive economic zone in accordance with article 58.



Article 87

Freedom of the high seas

1. The high seas are open to all States, whether coastal or land-locked. Freedom of the high seas is exercised under the conditions laid down by this Convention and by other rules of international law. It comprises, *inter alia*, both for coastal and land-locked States:

(a) freedom of navigation;

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(b) freedom of overflight;

(c) freedom to lay submarine cables and pipelines, subject to Part VI;

(d) freedom to construct artificial islands and other installations permitted under international law, subject to Part VI;

(e) freedom of fishing, subject to the conditions laid down in section 2;

(f) freedom of scientific research, subject to Parts VI and XIII.

2. These freedoms shall be exercised by all States with due regard for the interests of other States in their exercise of the freedom of the high seas, and also with due regard for the rights under this Convention with respect to activities in the Area.



Article 88

Reservation of the high seas for peaceful purposes

The high seas shall be reserved for peaceful purposes.



Article 89

Invalidity of claims of sovereignty over the high seas

No State may validly purport to subject any part of the high seas to its sovereignty.



Article 90

Right of navigation

Every State, whether coastal or land-locked, has the right to sail ships flying its flag on the high seas.



Article91

Nationality of ships

1. Every State shall fix the conditions for the grant of its nationality to ships, for the registration of ships in its territory, and for the right to fly its flag. Ships have the nationality of the State whose flag they are entitled to fly. There must exist a genuine link between the State and the ship.
2. Every State shall issue to ships to which it has granted the right to fly its flag documents to that effect.



Article92

Status of ships

1. Ships shall sail under the flag of one State only and, save in exceptional cases expressly provided for in international treaties or in this Convention, shall be subject to its exclusive jurisdiction on the high seas. A ship may not change its flag during a voyage or while in a port of call, save in the case of a real transfer of ownership or change of registry.
2. A ship which sails under the flags of two or more States, using them according to convenience, may not claim any of the nationalities in question with respect to any other State, and may be assimilated to a ship without nationality.



Article93

Ships flying the flag of the United Nations, its specialized agencies

and the International Atomic Energy Agency

The preceding articles do not prejudice the question of ships employed on the official service of the United Nations, its specialized agencies or the International Atomic Energy Agency, flying the flag of the organization.



Article 94

Duties of the flag State

1. Every State shall effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag.

2. In particular every State shall:

(a) maintain a register of ships containing the names and particulars of ships flying its flag, except those which are excluded from generally accepted international regulations on account of their small size; and

(b) assume jurisdiction under its internal law over each ship flying its flag and its master, officers and crew in respect of administrative, technical and social matters concerning the ship.

3. Every State shall take such measures for ships flying its flag as are necessary to ensure safety at sea with regard, *inter alia*, to:

(a) the construction, equipment and seaworthiness of ships;

(b) the manning of ships, labour conditions and the training of crews, taking into account the applicable international instruments;

(c) the use of signals, the maintenance of communications and the prevention of collisions.

4. Such measures shall include those necessary to ensure:

(a) that each ship, before registration and thereafter at appropriate intervals, is surveyed by a qualified surveyor of ships, and has on board such charts, nautical publications and navigational equipment and instruments as are appropriate for the safe navigation of the ship;

(b) that each ship is in the charge of a master and officers who possess appropriate qualifications, in particular in seamanship, navigation, communications and marine engineering, and that the crew is appropriate in qualification and numbers for the type, size, machinery and equipment of the ship;

(c) that the master, officers and, to the extent appropriate, the crew are fully conversant with and required to observe the applicable international regulations concerning the safety of life at sea, the prevention of collisions, the prevention, reduction and control of marine pollution, and the maintenance of communications by radio.

5. In taking the measures called for in paragraphs 3 and 4 each State is required to conform to generally accepted international regulations, procedures and practices and to take any steps which may be necessary to secure their observance.

6. A State which has clear grounds to believe that proper jurisdiction and control with respect to a ship have not been exercised may report the facts to the flag State. Upon receiving such a report, the flag State shall investigate the matter and, if appropriate, take any action necessary to remedy the situation.

7. Each State shall cause an inquiry to be held by or before a suitably qualified person or persons into every marine casualty or incident of navigation on the high seas involving a ship flying its flag and causing loss of life or serious injury to nationals of another State or serious damage to ships or installations of another State or to the marine environment. The flag State and the other State shall cooperate in the conduct of any inquiry held by that other State into any such marine casualty or incident of navigation.



Article95

Immunity of warships on the high seas

Warships on the high seas have complete immunity from the jurisdiction of any State other than the flag State.



Article96

Immunity of ships used only on government non-commercial service

Ships owned or operated by a State and used only on government non-commercial service shall, on the high seas, have complete immunity from the jurisdiction of any State other than the flag State.



Article97

Penal jurisdiction in matters of collision or any other incident of navigation

1. In the event of a collision or any other incident of navigation concerning a ship on the high seas, involving the penal or disciplinary responsibility of the master or of any other person in the service of the ship, no penal or disciplinary proceedings may be instituted against such person except before the judicial or administrative authorities either of the flag State or of the State of which such person is a national.
2. In disciplinary matters, the State which has issued a master's certificate or a certificate of competence or licence shall alone be competent, after due legal process, to pronounce the withdrawal of such certificates, even if the holder is not a national of the State which issued them.
3. No arrest or detention of the ship, even as a measure of investigation, shall be ordered by any authorities other than those of the flag State.



Article98

Duty to render assistance

1. Every State shall require the master of a ship flying its flag, in so far as he can do so without serious danger to the ship, the crew or the passengers:

(a) to render assistance to any person found at sea in danger of being lost;

(b) to proceed with all possible speed to the rescue of persons in distress, if informed of their need of assistance, in so far as such action may reasonably be expected of him;

(c) after a collision, to render assistance to the other ship, its crew and its passengers and, where possible, to inform the other ship of the name of his own ship, its port of registry and the nearest port at which it will call.

2. Every coastal State shall promote the establishment, operation and maintenance of an adequate and effective search and rescue service regarding safety on and over the sea and, where circumstances so require, by way of mutual regional arrangements cooperate with neighbouring States for this purpose.



Article 99

Prohibition of the transport of slaves

Every State shall take effective measures to prevent and punish the transport of slaves in ships authorized to fly its flag and to prevent the unlawful use of its flag for that purpose. Any slave taking refuge on board any ship, whatever its flag, shall *ipso facto* be free.



Article 100

Duty to cooperate in the repression of piracy

All States shall cooperate to the fullest possible extent in the repression of

piracy on the high seas or in any other place outside the jurisdiction of any State.



Article 101

Definition of piracy

Piracy consists of any of the following acts:

(a) any illegal acts of violence or detention, or any act of depredation, committed for private ends by the crew or the passengers of a private ship or a private aircraft, and directed:

(i) on the high seas, against another ship or aircraft, or against persons or property on board such ship or aircraft;

(ii) against a ship, aircraft, persons or property in a place outside the jurisdiction of any State;

(b) any act of voluntary participation in the operation of a ship or of an aircraft with knowledge of facts making it a pirate ship or aircraft;

(c) any act of inciting or of intentionally facilitating an act described in subparagraph (a) or (b).



Article 102

Piracy by a warship, government ship or government aircraft

whose crew has mutinied

The acts of piracy, as defined in article 101, committed by a warship, government ship or government aircraft whose crew has mutinied and taken control of the ship or aircraft are assimilated to acts committed by a private ship or aircraft.



Article 103

Definition of a pirate ship or aircraft

A ship or aircraft is considered a pirate ship or aircraft if it is intended by the persons in dominant control to be used for the purpose of committing one of the acts referred to in article 101. The same applies if the ship or aircraft has been used to commit any such act, so long as it remains under the control of the persons guilty of that act.



Article 104

Retention or loss of the nationality of a pirate ship or aircraft

A ship or aircraft may retain its nationality although it has become a pirate ship or aircraft. The retention or loss of nationality is determined by the law of the State from which such nationality was derived.



Article 105

Seizure of a pirate ship or aircraft

On the high seas, or in any other place outside the jurisdiction of any State, every State may seize a pirate ship or aircraft, or a ship or aircraft taken by piracy and under the control of pirates, and arrest the persons and seize the property on board. The courts of the State which carried out the seizure may decide upon the penalties to be imposed, and may also determine the action to be taken with regard to the ships, aircraft or property, subject to the rights of third parties acting in good faith.



Article 106

Liability for seizure without adequate grounds

Where the seizure of a ship or aircraft on suspicion of piracy has been effected without adequate grounds, the State making the seizure shall be liable to the State the nationality of which is possessed by the ship or aircraft for any loss or damage caused by the seizure.



Article 107

Ships and aircraft which are entitled to seize on account of piracy

A seizure on account of piracy may be carried out only by warships or military aircraft, or other ships or aircraft clearly marked and identifiable as being on government service and authorized to that effect.



Article 108

Illicit traffic in narcotic drugs or psychotropic substances

1. All States shall cooperate in the suppression of illicit traffic in narcotic drugs and psychotropic substances engaged in by ships on the high seas contrary to international conventions.
2. Any State which has reasonable grounds for believing that a ship flying its flag is engaged in illicit traffic in narcotic drugs or psychotropic substances may request the cooperation of other States to suppress such traffic.



Article 109

Unauthorized broadcasting from the high seas

1. All States shall cooperate in the suppression of unauthorized broadcasting from the high seas.
2. For the purposes of this Convention, "unauthorized broadcasting" means the transmission of sound radio or television broadcasts from a ship or installation on the high seas intended for reception by the general public contrary to international regulations, but excluding the transmission of

distress calls.

3. Any person engaged in unauthorized broadcasting may be prosecuted before the court of:

- (a) the flag State of the ship;
- (b) the State of registry of the installation;
- (c) the State of which the person is a national;
- (d) any State where the transmissions can be received;
or
- (e) any State where authorized radio communication is suffering interference.

4. On the high seas, a State having jurisdiction in accordance with paragraph 3 may, in conformity with article 110, arrest any person or ship engaged in unauthorized broadcasting and seize the broadcasting apparatus.



Article 110

Right of visit

1. Except where acts of interference derive from powers conferred by treaty, a warship which encounters on the high seas a foreign ship, other than a ship entitled to complete immunity in accordance with articles 95 and 96, is not justified in boarding it unless there is reasonable ground for suspecting that:

- (a) the ship is engaged in piracy;
- (b) the ship is engaged in the slave trade;
- (c) the ship is engaged in unauthorized broadcasting and the flag State of the warship has jurisdiction under article 109;
- (d) the ship is without nationality; or

(e) though flying a foreign flag or refusing to show its flag, the ship is, in reality, of the same nationality as the warship.

2. In the cases provided for in paragraph 1, the warship may proceed to verify the ship's right to fly its flag. To this end, it may send a boat under the command of an officer to the suspected ship. If suspicion remains after the documents have been checked, it may proceed to a further examination on board the ship, which must be carried out with all possible consideration.

3. If the suspicions prove to be unfounded, and provided that the ship boarded has not committed any act justifying them, it shall be compensated for any loss or damage that may have been sustained.

4. These provisions apply *mutatis mutandis* to military aircraft.

5. These provisions also apply to any other duly authorized ships or aircraft clearly marked and identifiable as being on government service.



Article 111

Right of hot pursuit

1. The hot pursuit of a foreign ship may be undertaken when the competent authorities of the coastal State have good reason to believe that the ship has violated the laws and regulations of that State. Such pursuit must be commenced when the foreign ship or one of its boats is within the internal waters, the archipelagic waters, the territorial sea or the contiguous zone of the pursuing State, and may only be continued outside the territorial sea or the contiguous zone if the pursuit has not been interrupted. It is not necessary that, at the time when the foreign ship within the territorial sea or the contiguous zone receives the order to stop, the ship giving the order should likewise be within the territorial sea or the contiguous zone. If the foreign ship is within a contiguous zone, as defined in article 33, the pursuit may only be undertaken if there has been a violation of the rights for the protection of which the zone was established.

2. The right of hot pursuit shall apply *mutatis mutandis* to violations in the exclusive economic zone or on the continental shelf, including safety zones around continental shelf installations, of the laws and regulations of the

coastal State applicable in accordance with this Convention to the exclusive economic zone or the continental shelf, including such safety zones.

3. The right of hot pursuit ceases as soon as the ship pursued enters the territorial sea of its own State or of a third State.

4. Hot pursuit is not deemed to have begun unless the pursuing ship has satisfied itself by such practicable means as may be available that the ship pursued or one of its boats or other craft working as a team and using the ship pursued as a mother ship is within the limits of the territorial sea, or, as the case may be, within the contiguous zone or the exclusive economic zone or above the continental shelf. The pursuit may only be commenced after a visual or auditory signal to stop has been given at a distance which enables it to be seen or heard by the foreign ship.

5. The right of hot pursuit may be exercised only by warships or military aircraft, or other ships or aircraft clearly marked and identifiable as being on government service and authorized to that effect.

6. Where hot pursuit is effected by an aircraft:

(a) the provisions of paragraphs 1 to 4 shall apply *mutatis mutandis*;

(b) the aircraft giving the order to stop must itself actively pursue the ship until a ship or another aircraft of the coastal State, summoned by the aircraft, arrives to take over the pursuit, unless the aircraft is itself able to arrest the ship. It does not suffice to justify an arrest outside the territorial sea that the ship was merely sighted by the aircraft as an offender or suspected offender, if it was not both ordered to stop and pursued by the aircraft itself or other aircraft or ships which continue the pursuit without interruption.

7. The release of a ship arrested within the jurisdiction of a State and escorted to a port of that State for the purposes of an inquiry before the competent authorities may not be claimed solely on the ground that the ship, in the course of its voyage, was escorted across a portion of the exclusive economic zone or the high seas, if the circumstances rendered this necessary.

8. Where a ship has been stopped or arrested outside the territorial sea in

circumstances which do not justify the exercise of the right of hot pursuit, it shall be compensated for any loss or damage that may have been thereby sustained.



Article 112

Right to lay submarine cables and pipelines

1. All States are entitled to lay submarine cables and pipelines on the bed of the high seas beyond the continental shelf.
2. Article 79, paragraph 5, applies to such cables and pipelines.



Article 113

Breaking or injury of a submarine cable or pipeline

Every State shall adopt the laws and regulations necessary to provide that the breaking or injury by a ship flying its flag or by a person subject to its jurisdiction of a submarine cable beneath the high seas done wilfully or through culpable negligence, in such a manner as to be liable to interrupt or obstruct telegraphic or telephonic communications, and similarly the breaking or injury of a submarine pipeline or high-voltage power cable, shall be a punishable offence. This provision shall apply also to conduct calculated or likely to result in such breaking or injury. However, it shall not apply to any break or injury caused by persons who acted merely with the legitimate object of saving their lives or their ships, after having taken all necessary precautions to avoid such break or injury.



Article 114

Breaking or injury by owners of a submarine cable or pipeline

of another submarine cable or pipeline

Every State shall adopt the laws and regulations necessary to provide that, if

persons subject to its jurisdiction who are the owners of a submarine cable or pipeline beneath the high seas, in laying or repairing that cable or pipeline, cause a break in or injury to another cable or pipeline, they shall bear the cost of the repairs.



Article 115

Indemnity for loss incurred in avoiding injury

to a submarine cable or pipeline

Every State shall adopt the laws and regulations necessary to ensure that the owners of ships who can prove that they have sacrificed an anchor, a net or any other fishing gear, in order to avoid injuring a submarine cable or pipeline, shall be indemnified by the owner of the cable or pipeline, provided that the owner of the ship has taken all reasonable precautionary measures beforehand.

**SECTION 2. CONSERVATION AND MANAGEMENT OF THE
LIVING RESOURCES OF THE HIGH SEAS**



Article 116

Right to fish on the high seas

All States have the right for their nationals to engage in fishing on the high seas subject to:

- (a) their treaty obligations;
- (b) the rights and duties as well as the interests of coastal States provided for, *inter alia*, in article 63, paragraph 2, and articles 64 to 67; and
- (c) the provisions of this section.



Article 117

Duty of States to adopt with respect to their nationals

measures for the conservation of the living resources of the high seas

All States have the duty to take, or to cooperate with other States in taking, such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas.



Article 118

Cooperation of States in the conservation and management

of living resources

States shall cooperate with each other in the conservation and management of living resources in the areas of the high seas. States whose nationals exploit identical living resources, or different living resources in the same area, shall enter into negotiations with a view to taking the measures necessary for the conservation of the living resources concerned. They shall, as appropriate, cooperate to establish subregional or regional fisheries organizations to this end.



Article 119

Conservation of the living resources of the high seas

1. In determining the allowable catch and establishing other conservation measures for the living resources in the high seas, States shall:

- (a) take measures which are designed, on the best scientific evidence available to the States concerned, to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield, as qualified by relevant environmental and economic factors, including the special requirements of developing States, and taking into account fishing

patterns, the interdependence of stocks and any generally recommended international minimum standards, whether subregional, regional or global;

(b) take into consideration the effects on species associated with or dependent upon harvested species with a view to maintaining or restoring populations of such associated or dependent species above levels at which their reproduction may become seriously threatened.

2. Available scientific information, catch and fishing effort statistics, and other data relevant to the conservation of fish stocks shall be contributed and exchanged on a regular basis through competent international organizations, whether subregional, regional or global, where appropriate and with participation by all States concerned.

3. States concerned shall ensure that conservation measures and their implementation do not discriminate in form or in fact against the fishermen of any State.



Article 120

Marine mammals

Article 65 also applies to the conservation and management of marine mammals in the high seas.

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PART VIII

REGIME OF ISLANDS



Article 121

Regime of islands

1. An island is a naturally formed area of land, surrounded by water, which is above water at high tide.
2. Except as provided for in paragraph 3, the territorial sea, the contiguous zone, the exclusive economic zone and the continental shelf of an island are determined in accordance with the provisions of this Convention applicable to other land territory.
3. Rocks which cannot sustain human habitation or economic life of their own shall have no exclusive economic zone or continental shelf.

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PART X

RIGHT OF ACCESS OF LAND-LOCKED

STATES TO AND FROM THE SEA

AND FREEDOM OF TRANSIT



Article 124

Use of terms

1. For the purposes of this Convention:

(a) "land-locked State" means a State which has no sea-coast;

(b) "transit State" means a State, with or without a sea-coast, situated between a land-locked State and the sea, through whose territory traffic in transit passes;

(c) "traffic in transit" means transit of persons, baggage, goods and means of transport across the territory of one or more transit States, when the passage across such territory, with or without trans-shipment, warehousing, breaking bulk or change in the mode of transport, is only a portion of a complete journey which begins or terminates within the territory of the land-locked State;

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(d) "means of transport" means:

(i) railway rolling stock, sea, lake and river craft and road vehicles;

(ii) where local conditions so require, porters and pack animals.

2. Land-locked States and transit States may, by agreement between them, include as means of transport pipelines and gas lines and means of transport other than those included in paragraph 1.



Article 125

Right of access to and from the sea and freedom of transit

1. Land-locked States shall have the right of access to and from the sea for the purpose of exercising the rights provided for in this Convention including those relating to the freedom of the high seas and the common heritage of mankind. To this end, land-locked States shall enjoy freedom of transit through the territory of transit States by all means of transport.

2. The terms and modalities for exercising freedom of transit shall be agreed between the land-locked States and transit States concerned through bilateral, subregional or regional agreements.

3. Transit States, in the exercise of their full sovereignty over their territory, shall have the right to take all measures necessary to ensure that the rights and facilities provided for in this Part for land-locked States shall in no way infringe their legitimate interests.



Article 126

Exclusion of application of the most-favoured-nation clause

The provisions of this Convention, as well as special agreements relating to the exercise of the right of access to and from the sea, establishing rights and facilities on account of the special geographical position of land-locked

States, are excluded from the application of the most-favoured-nation clause.



Article 127

Customs duties, taxes and other charges

1. Traffic in transit shall not be subject to any customs duties, taxes or other charges except charges levied for specific services rendered in connection with such traffic.

2. Means of transport in transit and other facilities provided for and used by land-locked States shall not be subject to taxes or charges higher than those levied for the use of means of transport of the transit State.



Article 128

Free zones and other customs facilities

For the convenience of traffic in transit, free zones or other customs facilities may be provided at the ports of entry and exit in the transit States, by agreement between those States and the land-locked States.



Article 129

Cooperation in the construction and improvement of means of transport

Where there are no means of transport in transit States to give effect to the freedom of transit or where the existing means, including the port installations and equipment, are inadequate in any respect, the transit States and land-locked States concerned may cooperate in constructing or improving them.



Article 130

Measures to avoid or eliminate delays

or other difficulties of a technical nature in traffic in transit

1. Transit States shall take all appropriate measures to avoid delays or other difficulties of a technical nature in traffic in transit.
2. Should such delays or difficulties occur, the competent authorities of the transit States and land-locked States concerned shall cooperate towards their expeditious elimination.



Article 131

Equal treatment in maritime ports

Ships flying the flag of land-locked States shall enjoy treatment equal to that accorded to other foreign ships in maritime ports.



Article 132

Grant of greater transit facilities

This Convention does not entail in any way the withdrawal of transit facilities which are greater than those provided for in this Convention and which are agreed between States Parties to this Convention or granted by a State Party. This Convention also does not preclude such grant of greater facilities in the future.

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PART XI

THE AREA

SECTION 1. GENERAL PROVISIONS



Article 133

Use of terms

For the purposes of this Part:

(a) "resources" means all solid, liquid or gaseous mineral resources *in situ* in the Area at or beneath the seabed, including polymetallic nodules;

(b) resources, when recovered from the Area, are referred to as "minerals".



Article 134

Scope of this Part

1. This Part applies to the Area.

2. Activities in the Area shall be governed by the provisions of this Part.

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3. The requirements concerning deposit of, and publicity to be given to, the charts or lists of geographical coordinates showing the limits referred to in article 1, paragraph 1(1), are set forth in Part VI.

4. Nothing in this article affects the establishment of the outer limits of the continental shelf in accordance with Part VI or the validity of agreements relating to delimitation between States with opposite or adjacent coasts.



Article 135

Legal status of the superjacent waters and air space

Neither this Part nor any rights granted or exercised pursuant thereto shall affect the legal status of the waters superjacent to the Area or that of the air space above those waters.

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PART XI. SECTION 2.



SECTION 2. PRINCIPLES GOVERNING THE AREA



Article 136

Common heritage of mankind

The Area and its resources are the common heritage of mankind.



Article 137

Legal status of the Area and its resources

1. No State shall claim or exercise sovereignty or sovereign rights over any part of the Area or its resources, nor shall any State or natural or juridical person appropriate any part thereof. No such claim or exercise of sovereignty or sovereign rights nor such appropriation shall be recognized.

2. All rights in the resources of the Area are vested in mankind as a whole, on whose behalf the Authority shall act. These resources are not subject to alienation. The minerals recovered from the Area, however, may only be alienated in accordance with this Part and the rules, regulations and procedures of the Authority.

3. No State or natural or juridical person shall claim, acquire or exercise rights with respect to the minerals recovered from the Area except in accordance with this Part. Otherwise, no such claim, acquisition or exercise

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of such rights shall be recognized.



Article 138

General conduct of States in relation to the Area

The general conduct of States in relation to the Area shall be in accordance with the provisions of this Part, the principles embodied in the Charter of the United Nations and other rules of international law in the interests of maintaining peace and security and promoting international cooperation and mutual understanding.



Article 139

Responsibility to ensure compliance and liability for damage

1. States Parties shall have the responsibility to ensure that activities in the Area, whether carried out by States Parties, or state enterprises or natural or juridical persons which possess the nationality of States Parties or are effectively controlled by them or their nationals, shall be carried out in conformity with this Part. The same responsibility applies to international organizations for activities in the Area carried out by such organizations.

2. Without prejudice to the rules of international law and Annex III, article 22, damage caused by the failure of a State Party or international organization to carry out its responsibilities under this Part shall entail liability; States Parties or international organizations acting together shall bear joint and several liability. A State Party shall not however be liable for damage caused by any failure to comply with this Part by a person whom it has sponsored under article 153, paragraph 2(b), if the State Party has taken all necessary and appropriate measures to secure effective compliance under article 153, paragraph 4, and Annex III, article 4, paragraph 4.

3. States Parties that are members of international organizations shall take appropriate measures to ensure the implementation of this article with respect to such organizations.



Article 140

Benefit of mankind

1. Activities in the Area shall, as specifically provided for in this Part, be carried out for the benefit of mankind as a whole, irrespective of the geographical location of States, whether coastal or land-locked, and taking into particular consideration the interests and needs of developing States and of peoples who have not attained full independence or other self-governing status recognized by the United Nations in accordance with General Assembly resolution 1514 (XV) and other relevant General Assembly resolutions.
2. The Authority shall provide for the equitable sharing of financial and other economic benefits derived from activities in the Area through any appropriate mechanism, on a non-discriminatory basis, in accordance with article 160, paragraph 2(f)(i).



Article 141

Use of the Area exclusively for peaceful purposes

The Area shall be open to use exclusively for peaceful purposes by all States, whether coastal or land-locked, without discrimination and without prejudice to the other provisions of this Part.



Article 142

Rights and legitimate interests of coastal States

1. Activities in the Area, with respect to resource deposits in the Area which lie across limits of national jurisdiction, shall be conducted with due regard to the rights and legitimate interests of any coastal State across whose jurisdiction such deposits lie.
2. Consultations, including a system of prior notification, shall be maintained with the State concerned, with a view to avoiding infringement of such rights

and interests. In cases where activities in the Area may result in the exploitation of resources lying within national jurisdiction, the prior consent of the coastal State concerned shall be required.

3. Neither this Part nor any rights granted or exercised pursuant thereto shall affect the rights of coastal States to take such measures consistent with the relevant provisions of Part XII as may be necessary to prevent, mitigate or eliminate grave and imminent danger to their coastline, or related interests from pollution or threat thereof or from other hazardous occurrences resulting from or caused by any activities in the Area.



Article 143

Marine scientific research

1. Marine scientific research in the Area shall be carried out exclusively for peaceful purposes and for the benefit of mankind as a whole, in accordance with Part XIII.

2. The Authority may carry out marine scientific research concerning the Area and its resources, and may enter into contracts for that purpose. The Authority shall promote and encourage the conduct of marine scientific research in the Area, and shall coordinate and disseminate the results of such research and analysis when available.

3. States Parties may carry out marine scientific research in the Area. States Parties shall promote international cooperation in marine scientific research in the Area by:

(a) participating in international programmes and encouraging cooperation in marine scientific research by personnel of different countries and of the Authority;

(b) ensuring that programmes are developed through the Authority or other international organizations as appropriate for the benefit of developing States and technologically less developed States with a view to:

(i) strengthening their research capabilities;

(ii) training their personnel and the personnel of the Authority in the techniques and applications of research;

(iii) fostering the employment of their qualified personnel in research in the Area;

(c) effectively disseminating the results of research and analysis when available, through the Authority or other international channels when appropriate.



Article 144

Transfer of technology

1. The Authority shall take measures in accordance with this Convention:

(a) to acquire technology and scientific knowledge relating to activities in the Area; and

(b) to promote and encourage the transfer to developing States of such technology and scientific knowledge so that all States Parties benefit therefrom.

2. To this end the Authority and States Parties shall cooperate in promoting the transfer of technology and scientific knowledge relating to activities in the Area so that the Enterprise and all States Parties may benefit therefrom. In particular they shall initiate and promote:

(a) programmes for the transfer of technology to the Enterprise and to developing States with regard to activities in the Area, including, *inter alia*, facilitating the access of the Enterprise and of developing States to the relevant technology, under fair and reasonable terms and conditions;

(b) measures directed towards the advancement of the technology of the Enterprise and the domestic technology of developing States, particularly by providing opportunities to personnel from the

Enterprise and from developing States for training in marine science and technology and for their full participation in activities in the Area.



Article 145

Protection of the marine environment

Necessary measures shall be taken in accordance with this Convention with respect to activities in the Area to ensure effective protection for the marine environment from harmful effects which may arise from such activities. To this end the Authority shall adopt appropriate rules, regulations and procedures for *inter alia*:

- (a) the prevention, reduction and control of pollution and other hazards to the marine environment, including the coastline, and of interference with the ecological balance of the marine environment, particular attention being paid to the need for protection from harmful effects of such activities as drilling, dredging, excavation, disposal of waste, construction and operation or maintenance of installations, pipelines and other devices related to such activities;
- (b) the protection and conservation of the natural resources of the Area and the prevention of damage to the flora and fauna of the marine environment.



Article 146

Protection of human life

With respect to activities in the Area, necessary measures shall be taken to ensure effective protection of human life. To this end the Authority shall adopt appropriate rules, regulations and procedures to supplement existing international law as embodied in relevant treaties.



Article 147

Accommodation of activities in the Area and in the marine environment

1. Activities in the Area shall be carried out with reasonable regard for other activities in the marine environment.

2. Installations used for carrying out activities in the Area shall be subject to the following conditions:
 - (a) such installations shall be erected, emplaced and removed solely in accordance with this Part and subject to the rules, regulations and procedures of the Authority. Due notice must be given of the erection, emplacement and removal of such installations, and permanent means for giving warning of their presence must be maintained;

 - (b) such installations may not be established where interference may be caused to the use of recognized sea lanes essential to international navigation or in areas of intense fishing activity;

 - (c) safety zones shall be established around such installations with appropriate markings to ensure the safety of both navigation and the installations. The configuration and location of such safety zones shall not be such as to form a belt impeding the lawful access of shipping to particular maritime zones or navigation along international sea lanes;

 - (d) such installations shall be used exclusively for peaceful purposes;

 - (e) such installations do not possess the status of islands. They have no territorial sea of their own, and their presence does not affect the delimitation of the territorial sea, the exclusive economic zone or the continental shelf.

3. Other activities in the marine environment shall be conducted with reasonable regard for activities in the Area.



Article 148

Participation of developing States in activities in the Area

The effective participation of developing States in activities in the Area shall be promoted as specifically provided for in this Part, having due regard to their special interests and needs, and in particular to the special need of the land-locked and geographically disadvantaged among them to overcome obstacles arising from their disadvantaged location, including remoteness from the Area and difficulty of access to and from it.



Article 149

Archaeological and historical objects

All objects of an archaeological and historical nature found in the Area shall be preserved or disposed of for the benefit of mankind as a whole, particular regard being paid to the preferential rights of the State or country of origin, or the State of cultural origin, or the State of historical and archaeological origin.

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PART XI. SECTION 3.

SECTION 3. DEVELOPMENT OF RESOURCES OF THE AREA



Article 150

Policies relating to activities in the Area

Activities in the Area shall, as specifically provided for in this Part, be carried out in such a manner as to foster healthy development of the world economy and balanced growth of international trade, and to promote international cooperation for the over-all development of all countries, especially developing States, and with a view to ensuring:

- (a) the development of the resources of the Area;
- (b) orderly, safe and rational management of the resources of the Area, including the efficient conduct of activities in the Area and, in accordance with sound principles of conservation, the avoidance of unnecessary waste;
- (c) the expansion of opportunities for participation in such activities consistent in particular with articles 144 and 148;
- (d) participation in revenues by the Authority and the transfer of technology to the Enterprise and developing States as provided for in this Convention;
- (e) increased availability of the minerals derived from the Area as needed in conjunction with minerals derived from other sources, to ensure supplies to consumers of such minerals;

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(f) the promotion of just and stable prices remunerative to producers and fair to consumers for minerals derived both from the Area and from other sources, and the promotion of long-term equilibrium between supply and demand;

(g) the enhancement of opportunities for all States Parties, irrespective of their social and economic systems or geographical location, to participate in the development of the resources of the Area and the prevention of monopolization of activities in the Area;

(h) the protection of developing countries from adverse effects on their economies or on their export earnings resulting from a reduction in the price of an affected mineral, or in the volume of exports of that mineral, to the extent that such reduction is caused by activities in the Area, as provided in article 151;

(i) the development of the common heritage for the benefit of mankind as a whole; and

(j) conditions of access to markets for the imports of minerals produced from the resources of the Area and for imports of commodities produced from such minerals shall not be more favourable than the most favourable applied to imports from other sources.



Article 151

Production policies

1. (a) Without prejudice to the objectives set forth in article 150 and for the purpose of implementing subparagraph (h) of that article, the Authority, acting through existing forums or such new arrangements or agreements as may be appropriate, in which all interested parties, including both producers and consumers, participate, shall take measures necessary to promote the growth, efficiency and stability of markets for those commodities produced from the minerals derived from the Area, at prices remunerative to producers and fair to consumers. All States Parties shall

cooperate to this end.

(b) The Authority shall have the right to participate in any commodity conference dealing with those commodities and in which all interested parties including both producers and consumers participate. The Authority shall have the right to become a party to any arrangement or agreement resulting from such conferences. Participation of the Authority in any organs established under those arrangements or agreements shall be in respect of production in the Area and in accordance with the relevant rules of those organs.

(c) The Authority shall carry out its obligations under the arrangements or agreements referred to in this paragraph in a manner which assures a uniform and non-discriminatory implementation in respect of all production in the Area of the minerals concerned. In doing so, the Authority shall act in a manner consistent with the terms of existing contracts and approved plans of work of the Enterprise.

2. (a) During the interim period specified in paragraph 3, commercial production shall not be undertaken pursuant to an approved plan of work until the operator has applied for and has been issued a production authorization by the Authority. Such production authorizations may not be applied for or issued more than five years prior to the planned commencement of commercial production under the plan of work unless, having regard to the nature and timing of project development, the rules, regulations and procedures of the Authority prescribe another period.

(b) In the application for the production authorization, the operator shall specify the annual quantity of nickel expected to be recovered under the approved plan of work. The application shall include a schedule of expenditures to be made by the operator after he has received the authorization which are reasonably calculated to allow him to begin commercial production on the date planned.

(c) For the purposes of subparagraphs (a) and (b), the Authority shall establish appropriate performance requirements in accordance with Annex III, article 17.

(d) The Authority shall issue a production authorization for the level of production applied for unless the sum of that level and the levels already authorized exceeds the nickel production ceiling, as calculated pursuant to paragraph 4 in the year of issuance of the authorization, during any year of planned production falling within the interim period.

(e) When issued, the production authorization and approved application shall become a part of the approved plan of work.

(f) If the operator's application for a production authorization is denied pursuant to subparagraph (d), the operator may apply again to the Authority at any time.

3. The interim period shall begin five years prior to 1 January of the year in which the earliest commercial production is planned to commence under an approved plan of work. If the earliest commercial production is delayed beyond the year originally planned, the beginning of the interim period and the production ceiling originally calculated shall be adjusted accordingly. The interim period shall last 25 years or until the end of the Review Conference referred to in article 155 or until the day when such new arrangements or agreements as are referred to in paragraph 1 enter into force, whichever is earliest. The Authority shall resume the power provided in this article for the remainder of the interim period if the said arrangements or agreements should lapse or become ineffective for any reason whatsoever.

4. (a) The production ceiling for any year of the interim period shall be the sum of:

(i) the difference between the trend line values for nickel consumption, as calculated pursuant to subparagraph (b), for the year immediately prior to the year of the earliest commercial production and the year immediately prior to the commencement of the interim period; and

(ii) sixty per cent of the difference between the

trend line values for nickel consumption, as calculated pursuant to subparagraph (b), for the year for which the production authorization is being applied for and the year immediately prior to the year of the earliest commercial production.

(b) For the purposes of subparagraph (a):

(i) trend line values used for computing the nickel production ceiling shall be those annual nickel consumption values on a trend line computed during the year in which a production authorization is issued. The trend line shall be derived from a linear regression of the logarithms of actual nickel consumption for the most recent 15-year period for which such data are available, time being the independent variable. This trend line shall be referred to as the original trend line;

(ii) if the annual rate of increase of the original trend line is less than 3 per cent, then the trend line used to determine the quantities referred to in subparagraph (a) shall instead be one passing through the original trend line at the value for the first year of the relevant 15-year period, and increasing at 3 per cent annually; provided however that the production ceiling established for any year of the interim period may not in any case exceed the difference between the original trend line value for that year and the original trend line value for the year immediately prior to the commencement of the interim period.

5. The Authority shall reserve to the Enterprise for its initial production a quantity of 38,000 metric tonnes of nickel from the available production ceiling calculated pursuant to paragraph 4.

6. (a) An operator may in any year produce less than or up to 8 per cent more than the level of annual production of minerals from polymetallic nodules specified in his production authorization, provided that the over-all amount of production shall not exceed that specified in the authorization. Any excess over 8 per cent and up to

20 per cent in any year, or any excess in the first and subsequent years following two consecutive years in which excesses occur, shall be negotiated with the Authority, which may require the operator to obtain a supplementary production authorization to cover additional production.

(b) Applications for such supplementary production authorizations shall be considered by the Authority only after all pending applications by operators who have not yet received production authorizations have been acted upon and due account has been taken of other likely applicants. The Authority shall be guided by the principle of not exceeding the total production allowed under the production ceiling in any year of the interim period. It shall not authorize the production under any plan of work of a quantity in excess of 46,500 metric tonnes of nickel per year.

7. The levels of production of other metals such as copper, cobalt and manganese extracted from the polymetallic nodules that are recovered pursuant to a production authorization should not be higher than those which would have been produced had the operator produced the maximum level of nickel from those nodules pursuant to this article. The Authority shall establish rules, regulations and procedures pursuant to Annex III, article 17, to implement this paragraph.

8. Rights and obligations relating to unfair economic practices under relevant multilateral trade agreements shall apply to the exploration for and exploitation of minerals from the Area. In the settlement of disputes arising under this provision, States Parties which are Parties to such multilateral trade agreements shall have recourse to the dispute settlement procedures of such agreements.

9. The Authority shall have the power to limit the level of production of minerals from the Area, other than minerals from polymetallic nodules, under such conditions and applying such methods as may be appropriate by adopting regulations in accordance with article 161, paragraph 8.

10. Upon the recommendation of the Council on the basis of advice from the Economic Planning Commission, the Assembly shall establish a system of compensation or take other measures of economic adjustment assistance including cooperation with specialized agencies and other international

organizations to assist developing countries which suffer serious adverse effects on their export earnings or economies resulting from a reduction in the price of an affected mineral or in the volume of exports of that mineral, to the extent that such reduction is caused by activities in the Area. The Authority on request shall initiate studies on the problems of those States which are likely to be most seriously affected with a view to minimizing their difficulties and assisting them in their economic adjustment.



Article 152

Exercise of powers and functions by the Authority

1. The Authority shall avoid discrimination in the exercise of its powers and functions, including the granting of opportunities for activities in the Area.
2. Nevertheless, special consideration for developing States, including particular consideration for the land-locked and geographically disadvantaged among them, specifically provided for in this Part shall be permitted.



Article 153

System of exploration and exploitation

1. Activities in the Area shall be organized, carried out and controlled by the Authority on behalf of mankind as a whole in accordance with this article as well as other relevant provisions of this Part and the relevant Annexes, and the rules, regulations and procedures of the Authority.
2. Activities in the Area shall be carried out as prescribed in paragraph 3:
 - (a) by the Enterprise, and
 - (b) in association with the Authority by States Parties, or state enterprises or natural or juridical persons which possess the nationality of States Parties or are effectively controlled by them or their nationals, when sponsored by such States, or any group of the foregoing which meets the requirements provided in this Part and in Annex III.

3. Activities in the Area shall be carried out in accordance with a formal written plan of work drawn up in accordance with Annex III and approved by the Council after review by the Legal and Technical Commission. In the case of activities in the Area carried out as authorized by the Authority by the entities specified in paragraph 2(b), the plan of work shall, in accordance with Annex III, article 3, be in the form of a contract. Such contracts may provide for joint arrangements in accordance with Annex III, article 11.

4. The Authority shall exercise such control over activities in the Area as is necessary for the purpose of securing compliance with the relevant provisions of this Part and the Annexes relating thereto, and the rules, regulations and procedures of the Authority, and the plans of work approved in accordance with paragraph 3. States Parties shall assist the Authority by taking all measures necessary to ensure such compliance in accordance with article 139.

5. The Authority shall have the right to take at any time any measures provided for under this Part to ensure compliance with its provisions and the exercise of the functions of control and regulation assigned to it thereunder or under any contract. The Authority shall have the right to inspect all installations in the Area used in connection with activities in the Area.

6. A contract under paragraph 3 shall provide for security of tenure. Accordingly, the contract shall not be revised, suspended or terminated except in accordance with Annex III, articles 18 and 19.



Article 154

Periodic review

Every five years from the entry into force of this Convention, the Assembly shall undertake a general and systematic review of the manner in which the international regime of the Area established in this Convention has operated in practice. In the light of this review the Assembly may take, or recommend that other organs take, measures in accordance with the provisions and procedures of this Part and the Annexes relating thereto which will lead to the improvement of the operation of the regime.



Article 155

The Review Conference

1. Fifteen years from 1 January of the year in which the earliest commercial production commences under an approved plan of work, the Assembly shall convene a conference for the review of those provisions of this Part and the relevant Annexes which govern the system of exploration and exploitation of the resources of the Area. The Review Conference shall consider in detail, in the light of the experience acquired during that period:

- (a) whether the provisions of this Part which govern the system of exploration and exploitation of the resources of the Area have achieved their aims in all respects, including whether they have benefited mankind as a whole;
- (b) whether, during the 15-year period, reserved areas have been exploited in an effective and balanced manner in comparison with non-reserved areas;
- (c) whether the development and use of the Area and its resources have been undertaken in such a manner as to foster healthy development of the world economy and balanced growth of international trade;
- (d) whether monopolization of activities in the Area has been prevented;
- (e) whether the policies set forth in articles 150 and 151 have been fulfilled; and
- (f) whether the system has resulted in the equitable sharing of benefits derived from activities in the Area, taking into particular consideration the interests and needs of the developing States.

2. The Review Conference shall ensure the maintenance of the principle of the common heritage of mankind, the international regime designed to ensure equitable exploitation of the resources of the Area for the benefit of all countries, especially the developing States, and an Authority to organize, conduct and control activities in the Area. It shall also ensure the maintenance of the principles laid down in this Part with regard to the exclusion of claims or exercise of sovereignty over any part of the Area, the rights of States and

their general conduct in relation to the Area, and their participation in activities in the Area in conformity with this Convention, the prevention of monopolization of activities in the Area, the use of the Area exclusively for peaceful purposes, economic aspects of activities in the Area, marine scientific research, transfer of technology, protection of the marine environment, protection of human life, rights of coastal States, the legal status of the waters superjacent to the Area and that of the air space above those waters and accommodation between activities in the Area and other activities in the marine environment.

3. The decision-making procedure applicable at the Review Conference shall be the same as that applicable at the Third United Nations Conference on the Law of the Sea. The Conference shall make every effort to reach agreement on any amendments by way of consensus and there should be no voting on such matters until all efforts at achieving consensus have been exhausted.

4. If, five years after its commencement, the Review Conference has not reached agreement on the system of exploration and exploitation of the resources of the Area, it may decide during the ensuing 12 months, by a three-fourths majority of the States Parties, to adopt and submit to the States Parties for ratification or accession such amendments changing or modifying the system as it determines necessary and appropriate. Such amendments shall enter into force for all States Parties 12 months after the deposit of instruments of ratification or accession by three fourths of the States Parties.

5. Amendments adopted by the Review Conference pursuant to this article shall not affect rights acquired under existing contracts.

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PART XI. SECTION 4.



SECTION 4. THE AUTHORITY

SUBSECTION A. GENERAL PROVISIONS



Article 156

Establishment of the Authority

1. There is hereby established the International Seabed Authority, which shall function in accordance with this Part.
2. All States Parties are *ipso facto* members of the Authority.
3. Observers at the Third United Nations Conference on the Law of the Sea who have signed the Final Act and who are not referred to in article 305, paragraph 1(c), (d), (e) or (f), shall have the right to participate in the Authority as observers, in accordance with its rules, regulations and procedures.
4. The seat of the Authority shall be in Jamaica.
5. The Authority may establish such regional centres or offices as it deems necessary for the exercise of its functions.



Article 157

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Nature and fundamental principles of the Authority

1. The Authority is the organization through which States Parties shall, in accordance with this Part, organize and control activities in the Area, particularly with a view to administering the resources of the Area.
2. The powers and functions of the Authority shall be those expressly conferred upon it by this Convention. The Authority shall have such incidental powers, consistent with this Convention, as are implicit in and necessary for the exercise of those powers and functions with respect to activities in the Area.
3. The Authority is based on the principle of the sovereign equality of all its members.
4. All members of the Authority shall fulfil in good faith the obligations assumed by them in accordance with this Part in order to ensure to all of them the rights and benefits resulting from membership.

*Article 158**Organs of the Authority*

1. There are hereby established, as the principal organs of the Authority, an Assembly, a Council and a Secretariat.
2. There is hereby established the Enterprise, the organ through which the Authority shall carry out the functions referred to in article 170, paragraph 1.
3. Such subsidiary organs as may be found necessary may be established in accordance with this Part.
4. Each principal organ of the Authority and the Enterprise shall be responsible for exercising those powers and functions which are conferred upon it. In exercising such powers and functions each organ shall avoid taking any action which may derogate from or impede the exercise of specific powers and functions conferred upon another organ.

SUBSECTION B. THE ASSEMBLY



Article 159

Composition, procedure and voting

1. The Assembly shall consist of all the members of the Authority. Each member shall have one representative in the Assembly, who may be accompanied by alternates and advisers.
2. The Assembly shall meet in regular annual sessions and in such special sessions as may be decided by the Assembly, or convened by the Secretary-General at the request of the Council or of a majority of the members of the Authority.
3. Sessions shall take place at the seat of the Authority unless otherwise decided by the Assembly.
4. The Assembly shall adopt its rules of procedure. At the beginning of each regular session, it shall elect its President and such other officers as may be required. They shall hold office until a new President and other officers are elected at the next regular session.
5. A majority of the members of the Assembly shall constitute a quorum.
6. Each member of the Assembly shall have one vote.
7. Decisions on questions of procedure, including decisions to convene special sessions of the Assembly, shall be taken by a majority of the members present and voting.
8. Decisions on questions of substance shall be taken by a two-thirds majority of the members present and voting, provided that such majority includes a majority of the members participating in the session. When the issue arises as to whether a question is one of substance or not, that question shall be treated as one of substance unless otherwise decided by the Assembly by the majority required for decisions on questions of substance.
9. When a question of substance comes up for voting for the first time, the President may, and shall, if requested by at least one fifth of the members of the Assembly, defer the issue of taking a vote on that question for a period not exceeding five calendar days. This rule may be applied only once to any

question, and shall not be applied so as to defer the question beyond the end of the session.

10. Upon a written request addressed to the President and sponsored by at least one fourth of the members of the Authority for an advisory opinion on the conformity with this Convention of a proposal before the Assembly on any matter, the Assembly shall request the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea to give an advisory opinion thereon and shall defer voting on that proposal pending receipt of the advisory opinion by the Chamber. If the advisory opinion is not received before the final week of the session in which it is requested, the Assembly shall decide when it will meet to vote upon the deferred proposal.



Article 160

Powers and functions

1. The Assembly, as the sole organ of the Authority consisting of all the members, shall be considered the supreme organ of the Authority to which the other principal organs shall be accountable as specifically provided for in this Convention. The Assembly shall have the power to establish general policies in conformity with the relevant provisions of this Convention on any question or matter within the competence of the Authority.

2. In addition, the powers and functions of the Assembly shall be:

(a) to elect the members of the Council in accordance with article 161;

(b) to elect the Secretary-General from among the candidates proposed by the Council;

(c) to elect, upon the recommendation of the Council, the members of the Governing Board of the Enterprise and the Director-General of the Enterprise;

(d) to establish such subsidiary organs as it finds necessary for the exercise of its functions in accordance with this Part. In the composition of these subsidiary organs due account shall be taken of the principle of

equitable geographical distribution and of special interests and the need for members qualified and competent in the relevant technical questions dealt with by such organs;

(e) to assess the contributions of members to the administrative budget of the Authority in accordance with an agreed scale of assessment based upon the scale used for the regular budget of the United Nations until the Authority shall have sufficient income from other sources to meet its administrative expenses;

(f) (i) to consider and approve, upon the recommendation of the Council, the rules, regulations and procedures on the equitable sharing of financial and other economic benefits derived from activities in the Area and the payments and contributions made pursuant to article 82, taking into particular consideration the interests and needs of developing States and peoples who have not attained full independence or other self-governing status. If the Assembly does not approve the recommendations of the Council, the Assembly shall return them to the Council for reconsideration in the light of the views expressed by the Assembly;

(ii) to consider and approve the rules, regulations and procedures of the Authority, and any amendments thereto, provisionally adopted by the Council pursuant to article 162, paragraph 2 (o)(ii). These rules, regulations and procedures shall relate to prospecting, exploration and exploitation in the Area, the financial management and internal administration of the Authority, and, upon the recommendation of the Governing Board of the Enterprise, to the transfer of funds from the Enterprise to the Authority;

(g) to decide upon the equitable sharing of financial and other economic benefits derived from activities in the Area, consistent with this Convention and the rules,

regulations and procedures of the Authority;

(h) to consider and approve the proposed annual budget of the Authority submitted by the Council;

(i) to examine periodic reports from the Council and from the Enterprise and special reports requested from the Council or any other organ of the Authority;

(j) to initiate studies and make recommendations for the purpose of promoting international cooperation concerning activities in the Area and encouraging the progressive development of international law relating thereto and its codification;

(k) to consider problems of a general nature in connection with activities in the Area arising in particular for developing States, as well as those problems for States in connection with activities in the Area that are due to their geographical location, particularly for land-locked and geographically disadvantaged States;

(l) to establish, upon the recommendation of the Council, on the basis of advice from the Economic Planning Commission, a system of compensation or other measures of economic adjustment assistance as provided in article 151, paragraph 10;

(m) to suspend the exercise of rights and privileges of membership pursuant to article 185;

(n) to discuss any question or matter within the competence of the Authority and to decide as to which organ of the Authority shall deal with any such question or matter not specifically entrusted to a particular organ, consistent with the distribution of powers and functions among the organs of the Authority.

SUBSECTION C. THE COUNCIL



Article 161

Composition, procedure and voting

1. The Council shall consist of 36 members of the Authority elected by the Assembly in the following order:

(a) four members from among those States Parties which, during the last five years for which statistics are available, have either consumed more than 2 per cent of total world consumption or have had net imports of more than 2 per cent of total world imports of the commodities produced from the categories of minerals to be derived from the Area, and in any case one State from the Eastern European (Socialist) region, as well as the largest consumer;

(b) four members from among the eight States Parties which have the largest investments in preparation for and in the conduct of activities in the Area, either directly or through their nationals, including at least one State from the Eastern European (Socialist) region;

(c) four members from among States Parties which on the basis of production in areas under their jurisdiction are major net exporters of the categories of minerals to be derived from the Area, including at least two developing States whose exports of such minerals have a substantial bearing upon their economies;

(d) six members from among developing States Parties, representing special interests. The special interests to be represented shall include those of States with large populations, States which are land-locked or geographically disadvantaged, States which are major importers of the categories of minerals to be derived from the Area, States which are potential producers of such minerals, and least developed States;

(e) eighteen members elected according to the principle of ensuring an equitable geographical distribution of seats in the Council as a whole, provided that each

geographical region shall have at least one member elected under this subparagraph. For this purpose, the geographical regions shall be Africa, Asia, Eastern European (Socialist), Latin America and Western European and Others.

2. In electing the members of the Council in accordance with paragraph 1, the Assembly shall ensure that:

(a) land-locked and geographically disadvantaged States are represented to a degree which is reasonably proportionate to their representation in the Assembly;

(b) coastal States, especially developing States, which do not qualify under paragraph 1(a), (b), (c) or (d) are represented to a degree which is reasonably proportionate to their representation in the Assembly;

(c) each group of States Parties to be represented on the Council is represented by those members, if any, which are nominated by that group.

3. Elections shall take place at regular sessions of the Assembly. Each member of the Council shall be elected for four years. At the first election, however, the term of one half of the members of each group referred to in paragraph 1 shall be two years.

4. Members of the Council shall be eligible for re-election, but due regard should be paid to the desirability of rotation of membership.

5. The Council shall function at the seat of the Authority, and shall meet as often as the business of the Authority may require, but not less than three times a year.

6. A majority of the members of the Council shall constitute a quorum.

7. Each member of the Council shall have one vote.

8. (a) Decisions on questions of procedure shall be taken by a majority of the members present and voting.

(b) Decisions on questions of substance arising under

the following provisions shall be taken by a two-thirds majority of the members present and voting, provided that such majority includes a majority of the members of the Council: article 162, paragraph 2, subparagraphs (f); (g); (h); (i); (n); (p); (v); article 191.

(c) Decisions on questions of substance arising under the following provisions shall be taken by a three-fourths majority of the members present and voting, provided that such majority includes a majority of the members of the Council: article 162, paragraph 1; article 162, paragraph 2, subparagraphs (a); (b); (c); (d); (e); (l); (q); (r); (s); (t); (u) in cases of non-compliance by a contractor or a sponsor; (w) provided that orders issued thereunder may be binding for not more than 30 days unless confirmed by a decision taken in accordance with subparagraph (d); article 162, paragraph 2, subparagraphs (x); (y); (z); article 163, paragraph 2; article 174, paragraph 3; Annex IV, article 11.

(d) Decisions on questions of substance arising under the following provisions shall be taken by consensus: article 162, paragraph 2(m) and (o); adoption of amendments to Part XI.

(e) For the purposes of subparagraphs (d), (f) and (g), "consensus" means the absence of any formal objection. Within 14 days of the submission of a proposal to the Council, the President of the Council shall determine whether there would be a formal objection to the adoption of the proposal. If the President determines that there would be such an objection, the President shall establish and convene, within three days following such determination, a conciliation committee consisting of not more than nine members of the Council, with the President as chairman, for the purpose of reconciling the differences and producing a proposal which can be adopted by consensus. The committee shall work expeditiously and report to the Council within 14 days following its establishment. If the committee is unable to recommend a proposal which can be adopted by consensus, it shall set out in its report the grounds on

which the proposal is being opposed.

(f) Decisions on questions not listed above which the Council is authorized to take by the rules, regulations and procedures of the Authority or otherwise shall be taken pursuant to the subparagraphs of this paragraph specified in the rules, regulations and procedures or, if not specified therein, then pursuant to the subparagraph determined by the Council if possible in advance, by consensus.

(g) When the issue arises as to whether a question is within subparagraph (a), (b), (c) or (d), the question shall be treated as being within the subparagraph requiring the higher or highest majority or consensus as the case may be, unless otherwise decided by the Council by the said majority or by consensus.

9. The Council shall establish a procedure whereby a member of the Authority not represented on the Council may send a representative to attend a meeting of the Council when a request is made by such member, or a matter particularly affecting it is under consideration. Such a representative shall be entitled to participate in the deliberations but not to vote.



Article 162

Powers and functions

1. The Council is the executive organ of the Authority. The Council shall have the power to establish, in conformity with this Convention and the general policies established by the Assembly, the specific policies to be pursued by the Authority on any question or matter within the competence of the Authority.

2. In addition, the Council shall:

(a) supervise and coordinate the implementation of the provisions of this Part on all questions and matters within the competence of the Authority and invite the attention of the Assembly to cases of non-compliance;

- (b) propose to the Assembly a list of candidates for the election of the Secretary-General;
- (c) recommend to the Assembly candidates for the election of the members of the Governing Board of the Enterprise and the Director-General of the Enterprise;
- (d) establish, as appropriate, and with due regard to economy and efficiency, such subsidiary organs as it finds necessary for the exercise of its functions in accordance with this Part. In the composition of subsidiary organs, emphasis shall be placed on the need for members qualified and competent in relevant technical matters dealt with by those organs provided that due account shall be taken of the principle of equitable geographical distribution and of special interests;
- (e) adopt its rules of procedure including the method of selecting its president;
- (f) enter into agreements with the United Nations or other international organizations on behalf of the Authority and within its competence, subject to approval by the Assembly;
- (g) consider the reports of the Enterprise and transmit them to the Assembly with its recommendations;
- (h) present to the Assembly annual reports and such special reports as the Assembly may request;
- (i) issue directives to the Enterprise in accordance with article 170;
- (j) approve plans of work in accordance with Annex III, article 6. The Council shall act upon each plan of work within 60 days of its submission by the Legal and Technical Commission at a session of the Council in accordance with the following procedures:

(i) if the Commission recommends the approval

of a plan of work, it shall be deemed to have been approved by the Council if no member of the Council submits in writing to the President within 14 days a specific objection alleging non-compliance with the requirements of Annex III, article 6. If there is an objection, the conciliation procedure set forth in article 161, paragraph 8(e), shall apply. If, at the end of the conciliation procedure, the objection is still maintained, the plan of work shall be deemed to have been approved by the Council unless the Council disapproves it by consensus among its members excluding any State or States making the application or sponsoring the applicant;

(ii) if the Commission recommends the disapproval of a plan of work or does not make a recommendation, the Council may approve the plan of work by a three-fourths majority of the members present and voting, provided that such majority includes a majority of the members participating in the session;

(k) approve plans of work submitted by the Enterprise in accordance with Annex IV, article 12, applying, *mutatis mutandis*, the procedures set forth in subparagraph (j);

(l) exercise control over activities in the Area in accordance with article 153, paragraph 4, and the rules, regulations and procedures of the Authority;

(m) take, upon the recommendation of the Economic Planning Commission, necessary and appropriate measures in accordance with article 150, subparagraph (h), to provide protection from the adverse economic effects specified therein;

(n) make recommendations to the Assembly, on the basis of advice from the Economic Planning Commission, for a system of compensation or other measures of economic adjustment assistance as provided in article 151, paragraph 10;

(o) (i) recommend to the Assembly rules, regulations and procedures on the equitable sharing of financial and other economic benefits derived from activities in the Area and the payments and contributions made pursuant to article 82, taking into particular consideration the interests and needs of the developing States and peoples who have not attained full independence or other self-governing status;

(ii) adopt and apply provisionally, pending approval by the Assembly, the rules, regulations and procedures of the Authority, and any amendments thereto, taking into account the recommendations of the Legal and Technical Commission or other subordinate organ concerned. These rules, regulations and procedures shall relate to prospecting, exploration and exploitation in the Area and the financial management and internal administration of the Authority. Priority shall be given to the adoption of rules, regulations and procedures for the exploration for and exploitation of polymetallic nodules. Rules, regulations and procedures for the exploration for and exploitation of any resource other than polymetallic nodules shall be adopted within three years from the date of a request to the Authority by any of its members to adopt such rules, regulations and procedures in respect of such resource. All rules, regulations and procedures shall remain in effect on a provisional basis until approved by the Assembly or until amended by the Council in the light of any views expressed by the Assembly;

(p) review the collection of all payments to be made by or to the Authority in connection with operations pursuant to this Part;

(q) make the selection from among applicants for

production authorizations pursuant to Annex III, article 7, where such selection is required by that provision;

(r) submit the proposed annual budget of the Authority to the Assembly for its approval;

(s) make recommendations to the Assembly concerning policies on any question or matter within the competence of the Authority;

(t) make recommendations to the Assembly concerning suspension of the exercise of the rights and privileges of membership pursuant to article 185;

(u) institute proceedings on behalf of the Authority before the Seabed Disputes Chamber in cases of non-compliance;

(v) notify the Assembly upon a decision by the Seabed Disputes Chamber in proceedings instituted under subparagraph (u), and make any recommendations which it may find appropriate with respect to measures to be taken;

(w) issue emergency orders, which may include orders for the suspension or adjustment of operations, to prevent serious harm to the marine environment arising out of activities in the Area;

(x) disapprove areas for exploitation by contractors or the Enterprise in cases where substantial evidence indicates the risk of serious harm to the marine environment;

(y) establish a subsidiary organ for the elaboration of draft financial rules, regulations and procedures relating to:

(i) financial management in accordance with articles 171 to 175; and

(ii) financial arrangements in accordance with Annex III, article 13 and article 17, paragraph 1(c);

(z) establish appropriate mechanisms for directing and supervising a staff of inspectors who shall inspect activities in the Area to determine whether this Part, the rules, regulations and procedures of the Authority, and the terms and conditions of any contract with the Authority are being complied with.



Article 163

Organs of the Council

1. There are hereby established the following organs of the Council:

(a) an Economic Planning Commission;

(b) a Legal and Technical Commission.

2. Each Commission shall be composed of 15 members, elected by the Council from among the candidates nominated by the States Parties. However, if necessary, the Council may decide to increase the size of either Commission having due regard to economy and efficiency.

3. Members of a Commission shall have appropriate qualifications in the area of competence of that Commission. States Parties shall nominate candidates of the highest standards of competence and integrity with qualifications in relevant fields so as to ensure the effective exercise of the functions of the Commissions.

4. In the election of members of the Commissions, due account shall be taken of the need for equitable geographical distribution and the representation of special interests.

5. No State Party may nominate more than one candidate for the same Commission. No person shall be elected to serve on more than one Commission.

6. Members of the Commissions shall hold office for a term of five years. They shall be eligible for re-election for a further term.

7. In the event of the death, incapacity or resignation of a member of a Commission prior to the expiration of the term of office, the Council shall elect for the remainder of the term, a member from the same geographical region or area of interest.

8. Members of Commissions shall have no financial interest in any activity relating to exploration and exploitation in the Area. Subject to their responsibilities to the Commissions upon which they serve, they shall not disclose, even after the termination of their functions, any industrial secret, proprietary data which are transferred to the Authority in accordance with Annex III, article 14, or any other confidential information coming to their knowledge by reason of their duties for the Authority.

9. Each Commission shall exercise its functions in accordance with such guidelines and directives as the Council may adopt.

10. Each Commission shall formulate and submit to the Council for approval such rules and regulations as may be necessary for the efficient conduct of the Commission's functions.

11. The decision-making procedures of the Commissions shall be established by the rules, regulations and procedures of the Authority. Recommendations to the Council shall, where necessary, be accompanied by a summary on the divergencies of opinion in the Commission.

12. Each Commission shall normally function at the seat of the Authority and shall meet as often as is required for the efficient exercise of its functions.

13. In the exercise of its functions, each Commission may, where appropriate, consult another commission, any competent organ of the United Nations or of its specialized agencies or any international organizations with competence in the subject-matter of such consultation.



Article 164

The Economic Planning Commission

1. Members of the Economic Planning Commission shall have appropriate qualifications such as those relevant to mining, management of mineral resource activities, international trade or international economics. The Council shall endeavour to ensure that the membership of the Commission reflects all appropriate qualifications. The Commission shall include at least two members from developing States whose exports of the categories of minerals to be derived from the Area have a substantial bearing upon their economies.

2. The Commission shall:

(a) propose, upon the request of the Council, measures to implement decisions relating to activities in the Area taken in accordance with this Convention;

(b) review the trends of and the factors affecting supply, demand and prices of minerals which may be derived from the Area, bearing in mind the interests of both importing and exporting countries, and in particular of the developing States among them;

(c) examine any situation likely to lead to the adverse effects referred to in article 150, subparagraph (h), brought to its attention by the State Party or States Parties concerned, and make appropriate recommendations to the Council;

(d) propose to the Council for submission to the Assembly, as provided in article 151, paragraph 10, a system of compensation or other measures of economic adjustment assistance for developing States which suffer adverse effects caused by activities in the Area. The Commission shall make the recommendations to the Council that are necessary for the application of the system or other measures adopted by the Assembly in specific cases.



Article 165

The Legal and Technical Commission

1. Members of the Legal and Technical Commission shall have appropriate qualifications such as those relevant to exploration for and exploitation and processing of mineral resources, oceanology, protection of the marine environment, or economic or legal matters relating to ocean mining and related fields of expertise. The Council shall endeavour to ensure that the membership of the Commission reflects all appropriate qualifications.

2. The Commission shall:

(a) make recommendations with regard to the exercise of the Authority's functions upon the request of the Council;

(b) review formal written plans of work for activities in the Area in accordance with article 153, paragraph 3, and submit appropriate recommendations to the Council. The Commission shall base its recommendations solely on the grounds stated in Annex III and shall report fully thereon to the Council;

(c) supervise, upon the request of the Council, activities in the Area, where appropriate, in consultation and collaboration with any entity carrying out such activities or State or States concerned and report to the Council;

(d) prepare assessments of the environmental implications of activities in the Area;

(e) make recommendations to the Council on the protection of the marine environment, taking into account the views of recognized experts in that field;

(f) formulate and submit to the Council the rules, regulations and procedures referred to in article 162, paragraph 2(o), taking into account all relevant factors including assessments of the environmental implications of activities in the Area;

(g) keep such rules, regulations and procedures under review and recommend to the Council from time to time such amendments thereto as it may deem

necessary or desirable;

(h) make recommendations to the Council regarding the establishment of a monitoring programme to observe, measure, evaluate and analyse, by recognized scientific methods, on a regular basis, the risks or effects of pollution of the marine environment resulting from activities in the Area, ensure that existing regulations are adequate and are complied with and coordinate the implementation of the monitoring programme approved by the Council;

(i) recommend to the Council that proceedings be instituted on behalf of the Authority before the Seabed Disputes Chamber, in accordance with this Part and the relevant Annexes taking into account particularly article 187;

(j) make recommendations to the Council with respect to measures to be taken, upon a decision by the Seabed Disputes Chamber in proceedings instituted in accordance with subparagraph (i);

(k) make recommendations to the Council to issue emergency orders, which may include orders for the suspension or adjustment of operations, to prevent serious harm to the marine environment arising out of activities in the Area. Such recommendations shall be taken up by the Council on a priority basis;

(l) make recommendations to the Council to disapprove areas for exploitation by contractors or the Enterprise in cases where substantial evidence indicates the risk of serious harm to the marine environment;

(m) make recommendations to the Council regarding the direction and supervision of a staff of inspectors who shall inspect activities in the Area to determine whether the provisions of this Part, the rules, regulations and procedures of the Authority, and the terms and conditions of any contract with the Authority are being complied with;

(n) calculate the production ceiling and issue production authorizations on behalf of the Authority pursuant to article 151, paragraphs 2 to 7, following any necessary selection among applicants for production authorizations by the Council in accordance with Annex III, article 7.

3. The members of the Commission shall, upon request by any State Party or other party concerned, be accompanied by a representative of such State or other party concerned when carrying out their function of supervision and inspection.

SUBSECTION D. THE SECRETARIAT



Article 166

The Secretariat

1. The Secretariat of the Authority shall comprise a Secretary-General and such staff as the Authority may require.
2. The Secretary-General shall be elected for four years by the Assembly from among the candidates proposed by the Council and may be re-elected.
3. The Secretary-General shall be the chief administrative officer of the Authority, and shall act in that capacity in all meetings of the Assembly, of the Council and of any subsidiary organ, and shall perform such other administrative functions as are entrusted to the Secretary-General by these organs.
4. The Secretary-General shall make an annual report to the Assembly on the work of the Authority.



Article 167

The staff of the Authority

1. The staff of the Authority shall consist of such qualified scientific and

technical and other personnel as may be required to fulfil the administrative functions of the Authority.

2. The paramount consideration in the recruitment and employment of the staff and in the determination of their conditions of service shall be the necessity of securing the highest standards of efficiency, competence and integrity. Subject to this consideration, due regard shall be paid to the importance of recruiting the staff on as wide a geographical basis as possible.

3. The staff shall be appointed by the Secretary-General. The terms and conditions on which they shall be appointed, remunerated and dismissed shall be in accordance with the rules, regulations and procedures of the Authority.



Article 168

International character of the Secretariat

1. In the performance of their duties the Secretary-General and the staff shall not seek or receive instructions from any government or from any other source external to the Authority. They shall refrain from any action which might reflect on their position as international officials responsible only to the Authority. Each State Party undertakes to respect the exclusively international character of the responsibilities of the Secretary-General and the staff and not to seek to influence them in the discharge of their responsibilities. Any violation of responsibilities by a staff member shall be submitted to the appropriate administrative tribunal as provided in the rules, regulations and procedures of the Authority.

2. The Secretary-General and the staff shall have no financial interest in any activity relating to exploration and exploitation in the Area. Subject to their responsibilities to the Authority, they shall not disclose, even after the termination of their functions, any industrial secret, proprietary data which are transferred to the Authority in accordance with Annex III, article 14, or any other confidential information coming to their knowledge by reason of their employment with the Authority.

3. Violations of the obligations of a staff member of the Authority set forth in paragraph 2 shall, on the request of a State Party affected by such violation, or a natural or juridical person, sponsored by a State Party as provided in

article 153, paragraph 2(b), and affected by such violation, be submitted by the Authority against the staff member concerned to a tribunal designated by the rules, regulations and procedures of the Authority. The Party affected shall have the right to take part in the proceedings. If the tribunal so recommends, the Secretary-General shall dismiss the staff member concerned.

4. The rules, regulations and procedures of the Authority shall contain such provisions as are necessary to implement this article.



Article 169

Consultation and cooperation with international

and non-governmental organizations

1. The Secretary-General shall, on matters within the competence of the Authority, make suitable arrangements, with the approval of the Council, for consultation and cooperation with international and non-governmental organizations recognized by the Economic and Social Council of the United Nations.

2. Any organization with which the Secretary-General has entered into an arrangement under paragraph 1 may designate representatives to attend meetings of the organs of the Authority as observers in accordance with the rules of procedure of these organs. Procedures shall be established for obtaining the views of such organizations in appropriate cases.

3. The Secretary-General may distribute to States Parties written reports submitted by the non-governmental organizations referred to in paragraph 1 on subjects in which they have special competence and which are related to the work of the Authority.

SUBSECTION E. THE ENTERPRISE



Article 170

The Enterprise

1. The Enterprise shall be the organ of the Authority which shall carry out activities in the Area directly, pursuant to article 153, paragraph 2(a), as well as the transporting, processing and marketing of minerals recovered from the Area.

2. The Enterprise shall, within the framework of the international legal personality of the Authority, have such legal capacity as is provided for in the Statute set forth in Annex IV. The Enterprise shall act in accordance with this Convention and the rules, regulations and procedures of the Authority, as well as the general policies established by the Assembly, and shall be subject to the directives and control of the Council.

3. The Enterprise shall have its principal place of business at the seat of the Authority.

4. The Enterprise shall, in accordance with article 173, paragraph 2, and Annex IV, article 11, be provided with such funds as it may require to carry out its functions, and shall receive technology as provided in article 144 and other relevant provisions of this Convention.

SUBSECTION F. FINANCIAL ARRANGEMENTS OF THE AUTHORITY



Article 171

Funds of the Authority

The funds of the Authority shall include:

- (a) assessed contributions made by members of the Authority in accordance with article 160, paragraph 2(e);
- (b) funds received by the Authority pursuant to Annex III, article 13, in connection with activities in the Area;
- (c) funds transferred from the Enterprise in accordance with Annex IV, article 10;
- (d) funds borrowed pursuant to article 174;

(e) voluntary contributions made by members or other entities;
and

(f) payments to a compensation fund, in accordance with article 151, paragraph 10, whose sources are to be recommended by the Economic Planning Commission.



Article 172

Annual budget of the Authority

The Secretary-General shall draft the proposed annual budget of the Authority and submit it to the Council. The Council shall consider the proposed annual budget and submit it to the Assembly, together with any recommendations thereon. The Assembly shall consider and approve the proposed annual budget in accordance with article 160, paragraph 2(h).



Article 173

Expenses of the Authority

1. The contributions referred to in article 171, subparagraph (a), shall be paid into a special account to meet the administrative expenses of the Authority until the Authority has sufficient funds from other sources to meet those expenses.

2. The administrative expenses of the Authority shall be a first call upon the funds of the Authority. Except for the assessed contributions referred to in article 171, subparagraph (a), the funds which remain after payment of administrative expenses may, *inter alia*:

(a) be shared in accordance with article 140 and article 160, paragraph 2(g);

(b) be used to provide the Enterprise with funds in accordance with article 170, paragraph 4;

(c) be used to compensate developing States in accordance with article 151, paragraph 10, and article 160, paragraph 2(1).



Article 174

Borrowing power of the Authority

1. The Authority shall have the power to borrow funds.
2. The Assembly shall prescribe the limits on the borrowing power of the Authority in the financial regulations adopted pursuant to article 160, paragraph 2(f).
3. The Council shall exercise the borrowing power of the Authority.
4. States Parties shall not be liable for the debts of the Authority.



Article 175

Annual audit

The records, books and accounts of the Authority, including its annual financial statements, shall be audited annually by an independent auditor appointed by the Assembly.

SUBSECTION G. LEGAL STATUS, PRIVILEGES AND IMMUNITIES



Article 176

Legal status

The Authority shall have international legal personality and such legal capacity as may be necessary for the exercise of its functions and the

fulfilment of its purposes.



Article 177

Privileges and immunities

To enable the Authority to exercise its functions, it shall enjoy in the territory of each State Party the privileges and immunities set forth in this subsection. The privileges and immunities relating to the Enterprise shall be those set forth in Annex IV, article 13.



Article 178

Immunity from legal process

The Authority, its property and assets, shall enjoy immunity from legal process except to the extent that the Authority expressly waives this immunity in a particular case.



Article 179

Immunity from search and any form of seizure

The property and assets of the Authority, wherever located and by whomsoever held, shall be immune from search, requisition, confiscation, expropriation or any other form of seizure by executive or legislative action.



Article 180

Exemption from restrictions, regulations, controls and moratoria

The property and assets of the Authority shall be exempt from restrictions, regulations, controls and moratoria of any nature.



Article 181

Archives and official communications of the Authority

1. The archives of the Authority, wherever located, shall be inviolable.
2. Proprietary data, industrial secrets or similar information and personnel records shall not be placed in archives which are open to public inspection.
3. With regard to its official communications, the Authority shall be accorded by each State Party treatment no less favourable than that accorded by that State to other international organizations.



Article 182

Privileges and immunities of certain persons connected with the Authority

Representatives of States Parties attending meetings of the Assembly, the Council or organs of the Assembly or the Council, and the Secretary-General and staff of the Authority, shall enjoy in the territory of each State Party:

(a) immunity from legal process with respect to acts performed by them in the exercise of their functions, except to the extent that the State which they represent or the Authority, as appropriate, expressly waives this immunity in a particular case;

(b) if they are not nationals of that State Party, the same exemptions from immigration restrictions, alien registration requirements and national service obligations, the same facilities as regards exchange restrictions and the same treatment in respect of travelling facilities as are accorded by that State to the representatives, officials and employees of comparable rank of other States Parties.



Article 183

Exemption from taxes and customs duties

1. Within the scope of its official activities, the Authority, its assets and property, its income, and its operations and transactions, authorized by this Convention, shall be exempt from all direct taxation and goods imported or exported for its official use shall be exempt from all customs duties. The Authority shall not claim exemption from taxes which are no more than charges for services rendered.
2. When purchases of goods or services of substantial value necessary for the official activities of the Authority are made by or on behalf of the Authority, and when the price of such goods or services includes taxes or duties, appropriate measures shall, to the extent practicable, be taken by States Parties to grant exemption from such taxes or duties or provide for their reimbursement. Goods imported or purchased under an exemption provided for in this article shall not be sold or otherwise disposed of in the territory of the State Party which granted the exemption, except under conditions agreed with that State Party.
3. No tax shall be levied by States Parties on or in respect of salaries and emoluments paid or any other form of payment made by the Authority to the Secretary-General and staff of the Authority, as well as experts performing missions for the Authority, who are not their nationals.

**SUBSECTION H. SUSPENSION OF THE EXERCISE OF RIGHTS
AND PRIVILEGES OF MEMBERS**



Article 184

Suspension of the exercise of voting rights

A State Party which is in arrears in the payment of its financial contributions to the Authority shall have no vote if the amount of its arrears equals or exceeds the amount of the contributions due from it for the preceding two full years. The Assembly may, nevertheless, permit such a member to vote if it is satisfied that the failure to pay is due to conditions beyond the control of the member.



Article 185

Suspension of exercise of rights and privileges of membership

1. A State Party which has grossly and persistently violated the provisions of this Part may be suspended from the exercise of the rights and privileges of membership by the Assembly upon the recommendation of the Council.

2. No action may be taken under paragraph 1 until the Seabed Disputes Chamber has found that a State Party has grossly and persistently violated the provisions of this Part.

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UNITED NATIONS CONVENTION ON THE LAW OF THE SEA

AGREEMENT RELATING TO THE IMPLEMENTATION OF PART XI OF THE CONVENTION

(Full texts)

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PART XI. SECTION 5.



SECTION 5. SETTLEMENT OF DISPUTES AND ADVISORY OPINIONS



Article 186

*Seabed Disputes Chamber of the
International Tribunal for the Law of the Sea*

The establishment of the Seabed Disputes Chamber and the manner in which it shall exercise its jurisdiction shall be governed by the provisions of this section, of Part XV and of Annex VI.



Article 187

Jurisdiction of the Seabed Disputes Chamber

The Seabed Disputes Chamber shall have jurisdiction under this Part and the Annexes relating thereto in disputes with respect to activities in the Area falling within the following categories:

(a) disputes between States Parties concerning the interpretation or application of this Part and the Annexes relating thereto;

(b) disputes between a State Party and the Authority

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concerning:

(i) acts or omissions of the Authority or of a State Party alleged to be in violation of this Part or the Annexes relating thereto or of rules, regulations and procedures of the Authority adopted in accordance therewith; or

(ii) acts of the Authority alleged to be in excess of jurisdiction or a misuse of power;

(c) disputes between parties to a contract, being States Parties, the Authority or the Enterprise, state enterprises and natural or juridical persons referred to in article 153, paragraph 2(b), concerning:

(i) the interpretation or application of a relevant contract or a plan of work; or

(ii) acts or omissions of a party to the contract relating to activities in the Area and directed to the other party or directly affecting its legitimate interests;

(d) disputes between the Authority and a prospective contractor who has been sponsored by a State as provided in article 153, paragraph 2(b), and has duly fulfilled the conditions referred to in Annex III, article 4, paragraph 6, and article 13, paragraph 2, concerning the refusal of a contract or a legal issue arising in the negotiation of the contract;

(e) disputes between the Authority and a State Party, a state enterprise or a natural or juridical person sponsored by a State Party as provided for in article 153, paragraph 2(b), where it is alleged that the Authority has incurred liability as provided in Annex III, article 22;

(f) any other disputes for which the jurisdiction of the Chamber is specifically provided in this Convention.



Article 188

*Submission of disputes to a special chamber of the
International Tribunal for the Law of the Sea
or an ad hoc chamber of the Seabed Disputes Chamber
or to binding commercial arbitration*

1. Disputes between States Parties referred to in article 187, subparagraph (a), may be submitted:

(a) at the request of the parties to the dispute, to a special chamber of the International Tribunal for the Law of the Sea to be formed in accordance with Annex VI, articles 15 and 17; or

(b) at the request of any party to the dispute, to an ad hoc chamber of the Seabed Disputes Chamber to be formed in accordance with Annex VI, article 36.

2. (a) Disputes concerning the interpretation or application of a contract referred to in article 187, subparagraph (c)(i), shall be submitted, at the request of any party to the dispute, to binding commercial arbitration, unless the parties otherwise agree. A commercial arbitral tribunal to which the dispute is submitted shall have no jurisdiction to decide any question of interpretation of this Convention. When the dispute also involves a question of the interpretation of Part XI and the Annexes relating thereto, with respect to activities in the Area, that question shall be referred to the Seabed Disputes Chamber for a ruling.

(b) If, at the commencement of or in the course of such arbitration, the arbitral tribunal determines, either at the request of any party to the dispute or *proprio motu*, that its decision depends upon a ruling of the Seabed Disputes Chamber, the arbitral tribunal shall refer such question to the Seabed Disputes Chamber for such ruling. The arbitral tribunal shall then proceed to render its award in conformity with the ruling of the Seabed Disputes Chamber.

(c) In the absence of a provision in the contract on the arbitration procedure to be applied in the dispute, the arbitration shall be conducted in accordance with the UNCITRAL Arbitration Rules or such other arbitration rules as may be prescribed in the rules, regulations and procedures of the Authority, unless the parties to the dispute otherwise agree.



Article 189

Limitation on jurisdiction

with regard to decisions of the Authority

The Seabed Disputes Chamber shall have no jurisdiction with regard to the exercise by the Authority of its discretionary powers in accordance with this Part; in no case shall it substitute its discretion for that of the Authority. Without prejudice to article 191, in exercising its jurisdiction pursuant to article 187, the Seabed Disputes Chamber shall not pronounce itself on the question of whether any rules, regulations and procedures of the Authority are in conformity with this Convention, nor declare invalid any such rules, regulations and procedures. Its jurisdiction in this regard shall be confined to deciding claims that the application of any rules, regulations and procedures of the Authority in individual cases would be in conflict with the contractual obligations of the parties to the dispute or their obligations under this Convention, claims concerning excess of jurisdiction or misuse of power, and to claims for damages to be paid or other remedy to be given to the party concerned for the failure of the other party to comply with its contractual obligations or its obligations under this Convention.



Article 190

Participation and appearance

of sponsoring States Parties in proceedings

1. If a natural or juridical person is a party to a dispute referred to in article 187, the sponsoring State shall be given notice thereof and shall have

the right to participate in the proceedings by submitting written or oral statements.

2. If an action is brought against a State Party by a natural or juridical person sponsored by another State Party in a dispute referred to in article 187, subparagraph (c), the respondent State may request the State sponsoring that person to appear in the proceedings on behalf of that person. Failing such appearance, the respondent State may arrange to be represented by a juridical person of its nationality.



Article 191

Advisory opinions

The Seabed Disputes Chamber shall give advisory opinions at the request of the Assembly or the Council on legal questions arising within the scope of their activities. Such opinions shall be given as a matter of urgency.

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UNITED NATIONS CONVENTION ON THE LAW OF THE SEA

AGREEMENT RELATING TO THE IMPLEMENTATION OF PART XI OF THE CONVENTION

(Full texts)

The Convention

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PART XII

PROTECTION AND PRESERVATION

OF THE MARINE ENVIRONMENT

SECTION 1. GENERAL PROVISIONS



Article 192

General obligation

States have the obligation to protect and preserve the marine environment.



Article 193

Sovereign right of States to exploit their natural resources

States have the sovereign right to exploit their natural resources pursuant to their environmental policies and in accordance with their duty to protect and preserve the marine environment.



Article 194

The Agreement on Part XI

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-

*Measures to prevent, reduce and control pollution**of the marine environment*

1. States shall take, individually or jointly as appropriate, all measures consistent with this Convention that are necessary to prevent, reduce and control pollution of the marine environment from any source, using for this purpose the best practicable means at their disposal and in accordance with their capabilities, and they shall endeavour to harmonize their policies in this connection.

2. States shall take all measures necessary to ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution to other States and their environment, and that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights in accordance with this Convention.

3. The measures taken pursuant to this Part shall deal with all sources of pollution of the marine environment. These measures shall include, *inter alia*, those designed to minimize to the fullest possible extent:
 - (a) the release of toxic, harmful or noxious substances, especially those which are persistent, from land-based sources, from or through the atmosphere or by dumping;

 - (b) pollution from vessels, in particular measures for preventing accidents and dealing with emergencies, ensuring the safety of operations at sea, preventing intentional and unintentional discharges, and regulating the design, construction, equipment, operation and manning of vessels;

 - (c) pollution from installations and devices used in exploration or exploitation of the natural resources of the seabed and subsoil, in particular measures for preventing accidents and dealing with emergencies, ensuring the safety of operations at sea, and regulating the design, construction, equipment, operation and manning of such installations or devices;

(d) pollution from other installations and devices operating in the marine environment, in particular measures for preventing accidents and dealing with emergencies, ensuring the safety of operations at sea, and regulating the design, construction, equipment, operation and manning of such installations or devices.

4. In taking measures to prevent, reduce or control pollution of the marine environment, States shall refrain from unjustifiable interference with activities carried out by other States in the exercise of their rights and in pursuance of their duties in conformity with this Convention.

5. The measures taken in accordance with this Part shall include those necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life.



Article 195

Duty not to transfer damage or hazards

or transform one type of pollution into another

In taking measures to prevent, reduce and control pollution of the marine environment, States shall act so as not to transfer, directly or indirectly, damage or hazards from one area to another or transform one type of pollution into another.



Article 196

Use of technologies or introduction of alien or new species

1. States shall take all measures necessary to prevent, reduce and control pollution of the marine environment resulting from the use of technologies under their jurisdiction or control, or the intentional or accidental introduction of species, alien or new, to a particular part of the marine environment, which may cause significant and harmful changes thereto.

2. This article does not affect the application of this Convention regarding the prevention, reduction and control of pollution of the marine environment.

SECTION 2. GLOBAL AND REGIONAL COOPERATION



Article 197

Cooperation on a global or regional basis

States shall cooperate on a global basis and, as appropriate, on a regional basis, directly or through competent international organizations, in formulating and elaborating international rules, standards and recommended practices and procedures consistent with this Convention, for the protection and preservation of the marine environment, taking into account characteristic regional features.



Article 198

Notification of imminent or actual damage

When a State becomes aware of cases in which the marine environment is in imminent danger of being damaged or has been damaged by pollution, it shall immediately notify other States it deems likely to be affected by such damage, as well as the competent international organizations.



Article 199

Contingency plans against pollution

In the cases referred to in article 198, States in the area affected, in accordance with their capabilities, and the competent international organizations shall cooperate, to the extent possible, in eliminating the effects of pollution and preventing or minimizing the damage. To this end, States shall jointly develop and promote contingency plans for responding to pollution incidents in the marine environment.



Article 200

Studies, research programmes and exchange of information and data

States shall cooperate, directly or through competent international organizations, for the purpose of promoting studies, undertaking programmes of scientific research and encouraging the exchange of information and data acquired about pollution of the marine environment. They shall endeavour to participate actively in regional and global programmes to acquire knowledge for the assessment of the nature and extent of pollution, exposure to it, and its pathways, risks and remedies.



Article 201

Scientific criteria for regulations

In the light of the information and data acquired pursuant to article 200, States shall cooperate, directly or through competent international organizations, in establishing appropriate scientific criteria for the formulation and elaboration of rules, standards and recommended practices and procedures for the prevention, reduction and control of pollution of the marine environment.

SECTION 3. TECHNICAL ASSISTANCE



Article 202

Scientific and technical assistance to developing States

States shall, directly or through competent international organizations:

- (a) promote programmes of scientific, educational, technical and other assistance to developing States for the protection and preservation of the marine environment and the prevention, reduction and control of marine pollution. Such assistance shall include, *inter alia*:

(i) training of their scientific and technical personnel;

(ii) facilitating their participation in relevant international programmes;

(iii) supplying them with necessary equipment and facilities;

(iv) enhancing their capacity to manufacture such equipment;

(v) advice on and developing facilities for research, monitoring, educational and other programmes;

(b) provide appropriate assistance, especially to developing States, for the minimization of the effects of major incidents which may cause serious pollution of the marine environment;

(c) provide appropriate assistance, especially to developing States, concerning the preparation of environmental assessments.



Article 203

Preferential treatment for developing States

Developing States shall, for the purposes of prevention, reduction and control of pollution of the marine environment or minimization of its effects, be granted preference by international organizations in:

(a) the allocation of appropriate funds and technical assistance;
and

(b) the utilization of their specialized services.

SECTION 4. MONITORING AND ENVIRONMENTAL ASSESSMENT



Article 204

Monitoring of the risks or effects of pollution

1. States shall, consistent with the rights of other States, endeavour, as far as practicable, directly or through the competent international organizations, to observe, measure, evaluate and analyse, by recognized scientific methods, the risks or effects of pollution of the marine environment.
2. In particular, States shall keep under surveillance the effects of any activities which they permit or in which they engage in order to determine whether these activities are likely to pollute the marine environment.



Article 205

Publication of reports

States shall publish reports of the results obtained pursuant to article 204 or provide such reports at appropriate intervals to the competent international organizations, which should make them available to all States.



Article 206

Assessment of potential effects of activities

When States have reasonable grounds for believing that planned activities under their jurisdiction or control may cause substantial pollution of or significant and harmful changes to the marine environment, they shall, as far as practicable, assess the potential effects of such activities on the marine environment and shall communicate reports of the results of such assessments in the manner provided in article 205.

**SECTION 5. INTERNATIONAL RULES AND NATIONAL
LEGISLATION**

TO PREVENT, REDUCE AND CONTROL

POLLUTION OF THE MARINE ENVIRONMENT



Article 207

Pollution from land-based sources

1. States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment from land-based sources, including rivers, estuaries, pipelines and outfall structures, taking into account internationally agreed rules, standards and recommended practices and procedures.
2. States shall take other measures as may be necessary to prevent, reduce and control such pollution.
3. States shall endeavour to harmonize their policies in this connection at the appropriate regional level.
4. States, acting especially through competent international organizations or diplomatic conference, shall endeavour to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control pollution of the marine environment from land-based sources, taking into account characteristic regional features, the economic capacity of developing States and their need for economic development. Such rules, standards and recommended practices and procedures shall be re-examined from time to time as necessary.
5. Laws, regulations, measures, rules, standards and recommended practices and procedures referred to in paragraphs 1, 2 and 4 shall include those designed to minimize, to the fullest extent possible, the release of toxic, harmful or noxious substances, especially those which are persistent, into the marine environment.



Article 208

Pollution from seabed activities subject to national jurisdiction

- 1 Coastal States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment arising from or in connection with seabed activities subject to their jurisdiction and from artificial islands,

installations and structures under their jurisdiction, pursuant to articles 60 and 80.

2. States shall take other measures as may be necessary to prevent, reduce and control such pollution.

3. Such laws, regulations and measures shall be no less effective than international rules, standards and recommended practices and procedures.

4. States shall endeavour to harmonize their policies in this connection at the appropriate regional level.

5. States, acting especially through competent international organizations or diplomatic conference, shall establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control pollution of the marine environment referred to in paragraph 1. Such rules, standards and recommended practices and procedures shall be re-examined from time to time as necessary.



Article 209

Pollution from activities in the Area

1. International rules, regulations and procedures shall be established in accordance with Part XI to prevent, reduce and control pollution of the marine environment from activities in the Area. Such rules, regulations and procedures shall be re-examined from time to time as necessary.

2. Subject to the relevant provisions of this section, States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment from activities in the Area undertaken by vessels, installations, structures and other devices flying their flag or of their registry or operating under their authority, as the case may be. The requirements of such laws and regulations shall be no less effective than the international rules, regulations and procedures referred to in paragraph 1.



Article 210

Pollution by dumping

1. States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment by dumping.
2. States shall take other measures as may be necessary to prevent, reduce and control such pollution.
3. Such laws, regulations and measures shall ensure that dumping is not carried out without the permission of the competent authorities of States.
4. States, acting especially through competent international organizations or diplomatic conference, shall endeavour to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control such pollution. Such rules, standards and recommended practices and procedures shall be re-examined from time to time as necessary.
5. Dumping within the territorial sea and the exclusive economic zone or onto the continental shelf shall not be carried out without the express prior approval of the coastal State, which has the right to permit, regulate and control such dumping after due consideration of the matter with other States which by reason of their geographical situation may be adversely affected thereby.
6. National laws, regulations and measures shall be no less effective in preventing, reducing and controlling such pollution than the global rules and standards.



Article 211

Pollution from vessels

1. States, acting through the competent international organization or general diplomatic conference, shall establish international rules and standards to prevent, reduce and control pollution of the marine environment from vessels and promote the adoption, in the same manner, wherever appropriate, of routing systems designed to minimize the threat of accidents which might cause pollution of the marine environment, including the coastline, and pollution damage to the related interests of coastal States. Such rules and standards shall, in the same manner, be re-examined from time to time as

necessary.

2. States shall adopt laws and regulations for the prevention, reduction and control of pollution of the marine environment from vessels flying their flag or of their registry. Such laws and regulations shall at least have the same effect as that of generally accepted international rules and standards established through the competent international organization or general diplomatic conference.

3. States which establish particular requirements for the prevention, reduction and control of pollution of the marine environment as a condition for the entry of foreign vessels into their ports or internal waters or for a call at their off-shore terminals shall give due publicity to such requirements and shall communicate them to the competent international organization. Whenever such requirements are established in identical form by two or more coastal States in an endeavour to harmonize policy, the communication shall indicate which States are participating in such cooperative arrangements. Every State shall require the master of a vessel flying its flag or of its registry, when navigating within the territorial sea of a State participating in such cooperative arrangements, to furnish, upon the request of that State, information as to whether it is proceeding to a State of the same region participating in such cooperative arrangements and, if so, to indicate whether it complies with the port entry requirements of that State. This article is without prejudice to the continued exercise by a vessel of its right of innocent passage or to the application of article 25, paragraph 2.

4. Coastal States may, in the exercise of their sovereignty within their territorial sea, adopt laws and regulations for the prevention, reduction and control of marine pollution from foreign vessels, including vessels exercising the right of innocent passage. Such laws and regulations shall, in accordance with Part II, section 3, not hamper innocent passage of foreign vessels.

5. Coastal States, for the purpose of enforcement as provided for in section 6, may in respect of their exclusive economic zones adopt laws and regulations for the prevention, reduction and control of pollution from vessels conforming to and giving effect to generally accepted international rules and standards established through the competent international organization or general diplomatic conference.

6. (a) Where the international rules and standards referred to in paragraph 1 are inadequate to meet special circumstances and coastal States have reasonable grounds for believing that a particular, clearly defined

area of their respective exclusive economic zones is an area where the adoption of special mandatory measures for the prevention of pollution from vessels is required for recognized technical reasons in relation to its oceanographical and ecological conditions, as well as its utilization or the protection of its resources and the particular character of its traffic, the coastal States, after appropriate consultations through the competent international organization with any other States concerned, may, for that area, direct a communication to that organization, submitting scientific and technical evidence in support and information on necessary reception facilities. Within 12 months after receiving such a communication, the organization shall determine whether the conditions in that area correspond to the requirements set out above. If the organization so determines, the coastal States may, for that area, adopt laws and regulations for the prevention, reduction and control of pollution from vessels implementing such international rules and standards or navigational practices as are made applicable, through the organization, for special areas. These laws and regulations shall not become applicable to foreign vessels until 15 months after the submission of the communication to the organization.

(b) The coastal States shall publish the limits of any such particular, clearly defined area.

(c) If the coastal States intend to adopt additional laws and regulations for the same area for the prevention, reduction and control of pollution from vessels, they shall, when submitting the aforesaid communication, at the same time notify the organization thereof. Such additional laws and regulations may relate to discharges or navigational practices but shall not require foreign vessels to observe design, construction, manning or equipment standards other than generally accepted international rules and standards; they shall become applicable to foreign vessels 15 months after the submission of the communication to the organization, provided that the organization agrees within 12 months after the submission of the communication.

7. The international rules and standards referred to in this article should include *inter alia* those relating to prompt notification to coastal States, whose coastline or related interests may be affected by incidents, including maritime casualties, which involve discharges or probability of discharges.



Article 212

Pollution from or through the atmosphere

1. States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment from or through the atmosphere, applicable to the air space under their sovereignty and to vessels flying their flag or vessels or aircraft of their registry, taking into account internationally agreed rules, standards and recommended practices and procedures and the safety of air navigation.
2. States shall take other measures as may be necessary to prevent, reduce and control such pollution.
3. States, acting especially through competent international organizations or diplomatic conference, shall endeavour to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control such pollution.

SECTION 6. ENFORCEMENT



Article 213

Enforcement with respect to pollution from land-based sources

States shall enforce their laws and regulations adopted in accordance with article 207 and shall adopt laws and regulations and take other measures necessary to implement applicable international rules and standards established through competent international organizations or diplomatic conference to prevent, reduce and control pollution of the marine environment from land-based sources.



Article 214

Enforcement with respect to pollution from seabed activities

States shall enforce their laws and regulations adopted in accordance with article 208 and shall adopt laws and regulations and take other measures necessary to implement applicable international rules and standards established through competent international organizations or diplomatic conference to prevent, reduce and control pollution of the marine environment arising from or in connection with seabed activities subject to their jurisdiction and from artificial islands, installations and structures under their jurisdiction, pursuant to articles 60 and 80.



Article 215

Enforcement with respect to pollution from activities in the Area

Enforcement of international rules, regulations and procedures established in accordance with Part XI to prevent, reduce and control pollution of the marine environment from activities in the Area shall be governed by that Part.



Article 216

Enforcement with respect to pollution by dumping

1. Laws and regulations adopted in accordance with this Convention and applicable international rules and standards established through competent international organizations or diplomatic conference for the prevention, reduction and control of pollution of the marine environment by dumping shall be enforced:

- (a) by the coastal State with regard to dumping within its territorial sea or its exclusive economic zone or onto its continental shelf;
- (b) by the flag State with regard to vessels flying its flag or vessels or aircraft of its registry;

(c) by any State with regard to acts of loading of wastes or other matter occurring within its territory or at its off-shore terminals.

2. No State shall be obliged by virtue of this article to institute proceedings when another State has already instituted proceedings in accordance with this article.



Article 217

Enforcement by flag States

1. States shall ensure compliance by vessels flying their flag or of their registry with applicable international rules and standards, established through the competent international organization or general diplomatic conference, and with their laws and regulations adopted in accordance with this Convention for the prevention, reduction and control of pollution of the marine environment from vessels and shall accordingly adopt laws and regulations and take other measures necessary for their implementation. Flag States shall provide for the effective enforcement of such rules, standards, laws and regulations, irrespective of where a violation occurs.

2. States shall, in particular, take appropriate measures in order to ensure that vessels flying their flag or of their registry are prohibited from sailing, until they can proceed to sea in compliance with the requirements of the international rules and standards referred to in paragraph 1, including requirements in respect of design, construction, equipment and manning of vessels.

3. States shall ensure that vessels flying their flag or of their registry carry on board certificates required by and issued pursuant to international rules and standards referred to in paragraph 1. States shall ensure that vessels flying their flag are periodically inspected in order to verify that such certificates are in conformity with the actual condition of the vessels. These certificates shall be accepted by other States as evidence of the condition of the vessels and shall be regarded as having the same force as certificates issued by them, unless there are clear grounds for believing that the condition of the vessel does not correspond substantially with the particulars of the certificates.

4. If a vessel commits a violation of rules and standards established through

the competent international organization or general diplomatic conference, the flag State, without prejudice to articles 218, 220 and 228, shall provide for immediate investigation and where appropriate institute proceedings in respect of the alleged violation irrespective of where the violation occurred or where the pollution caused by such violation has occurred or has been spotted.

5. Flag States conducting an investigation of the violation may request the assistance of any other State whose cooperation could be useful in clarifying the circumstances of the case. States shall endeavour to meet appropriate requests of flag States.

6. States shall, at the written request of any State, investigate any violation alleged to have been committed by vessels flying their flag. If satisfied that sufficient evidence is available to enable proceedings to be brought in respect of the alleged violation, flag States shall without delay institute such proceedings in accordance with their laws.

7. Flag States shall promptly inform the requesting State and the competent international organization of the action taken and its outcome. Such information shall be available to all States.

8. Penalties provided for by the laws and regulations of States for vessels flying their flag shall be adequate in severity to discourage violations wherever they occur.



Article 218

Enforcement by port States

1. When a vessel is voluntarily within a port or at an off-shore terminal of a State, that State may undertake investigations and, where the evidence so warrants, institute proceedings in respect of any discharge from that vessel outside the internal waters, territorial sea or exclusive economic zone of that State in violation of applicable international rules and standards established through the competent international organization or general diplomatic conference.

2. No proceedings pursuant to paragraph 1 shall be instituted in respect of a discharge violation in the internal waters, territorial sea or exclusive

economic zone of another State unless requested by that State, the flag State, or a State damaged or threatened by the discharge violation, or unless the violation has caused or is likely to cause pollution in the internal waters, territorial sea or exclusive economic zone of the State instituting the proceedings.

3. When a vessel is voluntarily within a port or at an off-shore terminal of a State, that State shall, as far as practicable, comply with requests from any State for investigation of a discharge violation referred to in paragraph 1, believed to have occurred in, caused, or threatened damage to the internal waters, territorial sea or exclusive economic zone of the requesting State. It shall likewise, as far as practicable, comply with requests from the flag State for investigation of such a violation, irrespective of where the violation occurred.

4. The records of the investigation carried out by a port State pursuant to this article shall be transmitted upon request to the flag State or to the coastal State. Any proceedings instituted by the port State on the basis of such an investigation may, subject to section 7, be suspended at the request of the coastal State when the violation has occurred within its internal waters, territorial sea or exclusive economic zone. The evidence and records of the case, together with any bond or other financial security posted with the authorities of the port State, shall in that event be transmitted to the coastal State. Such transmittal shall preclude the continuation of proceedings in the port State.



Article 219

Measures relating to seaworthiness of vessels to avoid pollution

Subject to section 7, States which, upon request or on their own initiative, have ascertained that a vessel within one of their ports or at one of their off-shore terminals is in violation of applicable international rules and standards relating to seaworthiness of vessels and thereby threatens damage to the marine environment shall, as far as practicable, take administrative measures to prevent the vessel from sailing. Such States may permit the vessel to proceed only to the nearest appropriate repair yard and, upon removal of the causes of the violation, shall permit the vessel to continue immediately.



*Article 220**Enforcement by coastal States*

1. When a vessel is voluntarily within a port or at an off-shore terminal of a State, that State may, subject to section 7, institute proceedings in respect of any violation of its laws and regulations adopted in accordance with this Convention or applicable international rules and standards for the prevention, reduction and control of pollution from vessels when the violation has occurred within the territorial sea or the exclusive economic zone of that State.
2. Where there are clear grounds for believing that a vessel navigating in the territorial sea of a State has, during its passage therein, violated laws and regulations of that State adopted in accordance with this Convention or applicable international rules and standards for the prevention, reduction and control of pollution from vessels, that State, without prejudice to the application of the relevant provisions of Part II, section 3, may undertake physical inspection of the vessel relating to the violation and may, where the evidence so warrants, institute proceedings, including detention of the vessel, in accordance with its laws, subject to the provisions of section 7.
3. Where there are clear grounds for believing that a vessel navigating in the exclusive economic zone or the territorial sea of a State has, in the exclusive economic zone, committed a violation of applicable international rules and standards for the prevention, reduction and control of pollution from vessels or laws and regulations of that State conforming and giving effect to such rules and standards, that State may require the vessel to give information regarding its identity and port of registry, its last and its next port of call and other relevant information required to establish whether a violation has occurred.
4. States shall adopt laws and regulations and take other measures so that vessels flying their flag comply with requests for information pursuant to paragraph 3.
5. Where there are clear grounds for believing that a vessel navigating in the exclusive economic zone or the territorial sea of a State has, in the exclusive economic zone, committed a violation referred to in paragraph 3 resulting in a substantial discharge causing or threatening significant pollution of the marine environment, that State may undertake physical inspection of the vessel for matters relating to the violation if the vessel has refused to give information or if the information supplied by the vessel is manifestly at

variance with the evident factual situation and if the circumstances of the case justify such inspection.

6. Where there is clear objective evidence that a vessel navigating in the exclusive economic zone or the territorial sea of a State has, in the exclusive economic zone, committed a violation referred to in paragraph 3 resulting in a discharge causing major damage or threat of major damage to the coastline or related interests of the coastal State, or to any resources of its territorial sea or exclusive economic zone, that State may, subject to section 7, provided that the evidence so warrants, institute proceedings, including detention of the vessel, in accordance with its laws.

7. Notwithstanding the provisions of paragraph 6, whenever appropriate procedures have been established, either through the competent international organization or as otherwise agreed, whereby compliance with requirements for bonding or other appropriate financial security has been assured, the coastal State if bound by such procedures shall allow the vessel to proceed.

8. The provisions of paragraphs 3, 4, 5, 6 and 7 also apply in respect of national laws and regulations adopted pursuant to article 211, paragraph 6.



Article 221

Measures to avoid pollution arising from maritime casualties

1. Nothing in this Part shall prejudice the right of States, pursuant to international law, both customary and conventional, to take and enforce measures beyond the territorial sea proportionate to the actual or threatened damage to protect their coastline or related interests, including fishing, from pollution or threat of pollution following upon a maritime casualty or acts relating to such a casualty, which may reasonably be expected to result in major harmful consequences.

2. For the purposes of this article, "maritime casualty" means a collision of vessels, stranding or other incident of navigation, or other occurrence on board a vessel or external to it resulting in material damage or imminent threat of material damage to a vessel or cargo.



Article 222

Enforcement with respect to pollution from or through the atmosphere

States shall enforce, within the air space under their sovereignty or with regard to vessels flying their flag or vessels or aircraft of their registry, their laws and regulations adopted in accordance with article 212, paragraph 1, and with other provisions of this Convention and shall adopt laws and regulations and take other measures necessary to implement applicable international rules and standards established through competent international organizations or diplomatic conference to prevent, reduce and control pollution of the marine environment from or through the atmosphere, in conformity with all relevant international rules and standards concerning the safety of air navigation.

SECTION 7. SAFEGUARDS*Article 223**Measures to facilitate proceedings*

In proceedings instituted pursuant to this Part, States shall take measures to facilitate the hearing of witnesses and the admission of evidence submitted by authorities of another State, or by the competent international organization, and shall facilitate the attendance at such proceedings of official representatives of the competent international organization, the flag State and any State affected by pollution arising out of any violation. The official representatives attending such proceedings shall have such rights and duties as may be provided under national laws and regulations or international law.

*Article 224**Exercise of powers of enforcement*

The powers of enforcement against foreign vessels under this Part may only be exercised by officials or by warships, military aircraft, or other ships or aircraft clearly marked and identifiable as being on government service and authorized to that effect.



Article 225

Duty to avoid adverse consequences

in the exercise of the powers of enforcement

In the exercise under this Convention of their powers of enforcement against foreign vessels, States shall not endanger the safety of navigation or otherwise create any hazard to a vessel, or bring it to an unsafe port or anchorage, or expose the marine environment to an unreasonable risk.



Article 226

Investigation of foreign vessels

1. (a) States shall not delay a foreign vessel longer than is essential for purposes of the investigations provided for in articles 216, 218 and 220. Any physical inspection of a foreign vessel shall be limited to an examination of such certificates, records or other documents as the vessel is required to carry by generally accepted international rules and standards or of any similar documents which it is carrying; further physical inspection of the vessel may be undertaken only after such an examination and only when:

(i) there are clear grounds for believing that the condition of the vessel or its equipment does not correspond substantially with the particulars of those documents;

(ii) the contents of such documents are not sufficient to confirm or verify a suspected violation; or

(iii) the vessel is not carrying valid certificates and records.

(b) If the investigation indicates a violation of applicable laws and regulations or international rules and standards for the protection and preservation of the marine environment, release shall be made promptly subject to reasonable procedures such as bonding or other appropriate financial security.

(c) Without prejudice to applicable international rules and standards relating to the seaworthiness of vessels, the release of a vessel may, whenever it would present an unreasonable threat of damage to the marine environment, be refused or made conditional upon proceeding to the nearest appropriate repair yard. Where release has been refused or made conditional, the flag State of the vessel must be promptly notified, and may seek release of the vessel in accordance with Part XV.

2. States shall cooperate to develop procedures for the avoidance of unnecessary physical inspection of vessels at sea.



Article 227

Non-discrimination with respect to foreign vessels

In exercising their rights and performing their duties under this Part, States shall not discriminate in form or in fact against vessels of any other State.



Article 228

Suspension and restrictions on institution of proceedings

1. Proceedings to impose penalties in respect of any violation of applicable laws and regulations or international rules and standards relating to the prevention, reduction and control of pollution from vessels committed by a foreign vessel beyond the territorial sea of the State instituting proceedings shall be suspended upon the taking of proceedings to impose penalties in respect of corresponding charges by the flag State within six months of the date on which proceedings were first instituted, unless those proceedings

relate to a case of major damage to the coastal State or the flag State in question has repeatedly disregarded its obligation to enforce effectively the applicable international rules and standards in respect of violations committed by its vessels. The flag State shall in due course make available to the State previously instituting proceedings a full dossier of the case and the records of the proceedings, whenever the flag State has requested the suspension of proceedings in accordance with this article. When proceedings instituted by the flag State have been brought to a conclusion, the suspended proceedings shall be terminated. Upon payment of costs incurred in respect of such proceedings, any bond posted or other financial security provided in connection with the suspended proceedings shall be released by the coastal State.

2. Proceedings to impose penalties on foreign vessels shall not be instituted after the expiry of three years from the date on which the violation was committed, and shall not be taken by any State in the event of proceedings having been instituted by another State subject to the provisions set out in paragraph 1.

3. The provisions of this article are without prejudice to the right of the flag State to take any measures, including proceedings to impose penalties, according to its laws irrespective of prior proceedings by another State.



Article 229

Institution of civil proceedings

Nothing in this Convention affects the institution of civil proceedings in respect of any claim for loss or damage resulting from pollution of the marine environment.



Article 230

Monetary penalties and the observance of recognized rights of the accused

1. Monetary penalties only may be imposed with respect to violations of national laws and regulations or applicable international rules and standards for the prevention, reduction and control of pollution of the marine environment, committed by foreign vessels beyond the territorial sea.

2. Monetary penalties only may be imposed with respect to violations of national laws and regulations or applicable international rules and standards for the prevention, reduction and control of pollution of the marine environment, committed by foreign vessels in the territorial sea, except in the case of a wilful and serious act of pollution in the territorial sea.

3. In the conduct of proceedings in respect of such violations committed by a foreign vessel which may result in the imposition of penalties, recognized rights of the accused shall be observed.



Article 231

Notification to the flag State and other States concerned

States shall promptly notify the flag State and any other State concerned of any measures taken pursuant to section 6 against foreign vessels, and shall submit to the flag State all official reports concerning such measures. However, with respect to violations committed in the territorial sea, the foregoing obligations of the coastal State apply only to such measures as are taken in proceedings. The diplomatic agents or consular officers and where possible the maritime authority of the flag State, shall be immediately informed of any such measures taken pursuant to section 6 against foreign vessels.



Article 232

Liability of States arising from enforcement measures

States shall be liable for damage or loss attributable to them arising from measures taken pursuant to section 6 when such measures are unlawful or exceed those reasonably required in the light of available information. States shall provide for recourse in their courts for actions in respect of such damage or loss.



Article 233

Safeguards with respect to straits used for international navigation

Nothing in sections 5, 6 and 7 affects the legal regime of straits used for international navigation. However, if a foreign ship other than those referred to in section 10 has committed a violation of the laws and regulations referred to in article 42, paragraph 1(a) and (b), causing or threatening major damage to the marine environment of the straits, the States bordering the straits may take appropriate enforcement measures and if so shall respect *mutatis mutandis* the provisions of this section.

SECTION 8. ICE-COVERED AREAS*Article 234**Ice-covered areas*

Coastal States have the right to adopt and enforce non-discriminatory laws and regulations for the prevention, reduction and control of marine pollution from vessels in ice-covered areas within the limits of the exclusive economic zone, where particularly severe climatic conditions and the presence of ice covering such areas for most of the year create obstructions or exceptional hazards to navigation, and pollution of the marine environment could cause major harm to or irreversible disturbance of the ecological balance. Such laws and regulations shall have due regard to navigation and the protection and preservation of the marine environment based on the best available scientific evidence.

SECTION 9. RESPONSIBILITY AND LIABILITY*Article 235**Responsibility and liability*

1. States are responsible for the fulfilment of their international obligations concerning the protection and preservation of the marine environment. They shall be liable in accordance with international law.

2. States shall ensure that recourse is available in accordance with their legal

systems for prompt and adequate compensation or other relief in respect of damage caused by pollution of the marine environment by natural or juridical persons under their jurisdiction.

3. With the objective of assuring prompt and adequate compensation in respect of all damage caused by pollution of the marine environment, States shall cooperate in the implementation of existing international law and the further development of international law relating to responsibility and liability for the assessment of and compensation for damage and the settlement of related disputes, as well as, where appropriate, development of criteria and procedures for payment of adequate compensation, such as compulsory insurance or compensation funds.

SECTION 10. SOVEREIGN IMMUNITY



Article 236

Sovereign immunity

The provisions of this Convention regarding the protection and preservation of the marine environment do not apply to any warship, naval auxiliary, other vessels or aircraft owned or operated by a State and used, for the time being, only on government non-commercial service. However, each State shall ensure, by the adoption of appropriate measures not impairing operations or operational capabilities of such vessels or aircraft owned or operated by it, that such vessels or aircraft act in a manner consistent, so far as is reasonable and practicable, with this Convention.

SECTION 11. OBLIGATIONS UNDER OTHER CONVENTIONS

ON THE PROTECTION AND PRESERVATION

OF THE MARINE ENVIRONMENT



Article 237

Obligations under other conventions on the

protection and preservation of the marine environment

1. The provisions of this Part are without prejudice to the specific obligations assumed by States under special conventions and agreements concluded previously which relate to the protection and preservation of the marine environment and to agreements which may be concluded in furtherance of the general principles set forth in this Convention.
2. Specific obligations assumed by States under special conventions, with respect to the protection and preservation of the marine environment, should be carried out in a manner consistent with the general principles and objectives of this Convention.

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PART XIII

MARINE SCIENTIFIC RESEARCH

SECTION 1. GENERAL PROVISIONS



Article 238

Right to conduct marine scientific research

All States, irrespective of their geographical location, and competent international organizations have the right to conduct marine scientific research subject to the rights and duties of other States as provided for in this Convention.



Article 239

Promotion of marine scientific research

States and competent international organizations shall promote and facilitate the development and conduct of marine scientific research in accordance with this Convention.



Article 240

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General principles for the conduct of marine scientific research

In the conduct of marine scientific research the following principles shall apply:

- (a) marine scientific research shall be conducted exclusively for peaceful purposes;
- (b) marine scientific research shall be conducted with appropriate scientific methods and means compatible with this Convention;
- (c) marine scientific research shall not unjustifiably interfere with other legitimate uses of the sea compatible with this Convention and shall be duly respected in the course of such uses;
- (d) marine scientific research shall be conducted in compliance with all relevant regulations adopted in conformity with this Convention including those for the protection and preservation of the marine environment.



Article 241

Non-recognition of marine scientific research activities

as the legal basis for claims

Marine scientific research activities shall not constitute the legal basis for any claim to any part of the marine environment or its resources.

SECTION 2. INTERNATIONAL COOPERATION



Article 242

Promotion of international cooperation

1. States and competent international organizations shall, in accordance with

the principle of respect for sovereignty and jurisdiction and on the basis of mutual benefit, promote international cooperation in marine scientific research for peaceful purposes.

2. In this context, without prejudice to the rights and duties of States under this Convention, a State, in the application of this Part, shall provide, as appropriate, other States with a reasonable opportunity to obtain from it, or with its cooperation, information necessary to prevent and control damage to the health and safety of persons and to the marine environment.



Article 243

Creation of favourable conditions

States and competent international organizations shall cooperate, through the conclusion of bilateral and multilateral agreements, to create favourable conditions for the conduct of marine scientific research in the marine environment and to integrate the efforts of scientists in studying the essence of phenomena and processes occurring in the marine environment and the interrelations between them.



Article 244

Publication and dissemination of information and knowledge

1. States and competent international organizations shall, in accordance with this Convention, make available by publication and dissemination through appropriate channels information on proposed major programmes and their objectives as well as knowledge resulting from marine scientific research.

2. For this purpose, States, both individually and in cooperation with other States and with competent international organizations, shall actively promote the flow of scientific data and information and the transfer of knowledge resulting from marine scientific research, especially to developing States, as well as the strengthening of the autonomous marine scientific research capabilities of developing States through, *inter alia*, programmes to provide adequate education and training of their technical and scientific personnel.

SECTION 3. CONDUCT AND PROMOTION OF MARINE SCIENTIFIC RESEARCH



Article 245

Marine scientific research in the territorial sea

Coastal States, in the exercise of their sovereignty, have the exclusive right to regulate, authorize and conduct marine scientific research in their territorial sea. Marine scientific research therein shall be conducted only with the express consent of and under the conditions set forth by the coastal State.



Article 246

Marine scientific research in the exclusive economic zone

and on the continental shelf

1. Coastal States, in the exercise of their jurisdiction, have the right to regulate, authorize and conduct marine scientific research in their exclusive economic zone and on their continental shelf in accordance with the relevant provisions of this Convention.
2. Marine scientific research in the exclusive economic zone and on the continental shelf shall be conducted with the consent of the coastal State.
3. Coastal States shall, in normal circumstances, grant their consent for marine scientific research projects by other States or competent international organizations in their exclusive economic zone or on their continental shelf to be carried out in accordance with this Convention exclusively for peaceful purposes and in order to increase scientific knowledge of the marine environment for the benefit of all mankind. To this end, coastal States shall establish rules and procedures ensuring that such consent will not be delayed or denied unreasonably.
4. For the purposes of applying paragraph 3, normal circumstances may exist in spite of the absence of diplomatic relations between the coastal State and

the researching State.

5. Coastal States may however in their discretion withhold their consent to the conduct of a marine scientific research project of another State or competent international organization in the exclusive economic zone or on the continental shelf of the coastal State if that project:

(a) is of direct significance for the exploration and exploitation of natural resources, whether living or non-living;

(b) involves drilling into the continental shelf, the use of explosives or the introduction of harmful substances into the marine environment;

(c) involves the construction, operation or use of artificial islands, installations and structures referred to in articles 60 and 80;

(d) contains information communicated pursuant to article 248 regarding the nature and objectives of the project which is inaccurate or if the researching State or competent international organization has outstanding obligations to the coastal State from a prior research project.

6. Notwithstanding the provisions of paragraph 5, coastal States may not exercise their discretion to withhold consent under subparagraph (a) of that paragraph in respect of marine scientific research projects to be undertaken in accordance with the provisions of this Part on the continental shelf, beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured, outside those specific areas which coastal States may at any time publicly designate as areas in which exploitation or detailed exploratory operations focused on those areas are occurring or will occur within a reasonable period of time. Coastal States shall give reasonable notice of the designation of such areas, as well as any modifications thereto, but shall not be obliged to give details of the operations therein.

7. The provisions of paragraph 6 are without prejudice to the rights of coastal States over the continental shelf as established in article 77.

8. Marine scientific research activities referred to in this article shall not

unjustifiably interfere with activities undertaken by coastal States in the exercise of their sovereign rights and jurisdiction provided for in this Convention.



Article 247

Marine scientific research projects undertaken

by or under the auspices of international organizations

A coastal State which is a member of or has a bilateral agreement with an international organization, and in whose exclusive economic zone or on whose continental shelf that organization wants to carry out a marine scientific research project, directly or under its auspices, shall be deemed to have authorized the project to be carried out in conformity with the agreed specifications if that State approved the detailed project when the decision was made by the organization for the undertaking of the project, or is willing to participate in it, and has not expressed any objection within four months of notification of the project by the organization to the coastal State.



Article 248

Duty to provide information to the coastal State

States and competent international organizations which intend to undertake marine scientific research in the exclusive economic zone or on the continental shelf of a coastal State shall, not less than six months in advance of the expected starting date of the marine scientific research project, provide that State with a full description of:

- (a) the nature and objectives of the project;
- (b) the method and means to be used, including name, tonnage, type and class of vessels and a description of scientific equipment;
- (c) the precise geographical areas in which the project is to be conducted;

(d) the expected date of first appearance and final departure of the research vessels, or deployment of the equipment and its removal, as appropriate;

(e) the name of the sponsoring institution, its director, and the person in charge of the project; and

(f) the extent to which it is considered that the coastal State should be able to participate or to be represented in the project.



Article 249

Duty to comply with certain conditions

1. States and competent international organizations when undertaking marine scientific research in the exclusive economic zone or on the continental shelf of a coastal State shall comply with the following conditions:

(a) ensure the right of the coastal State, if it so desires, to participate or be represented in the marine scientific research project, especially on board research vessels and other craft or scientific research installations, when practicable, without payment of any remuneration to the scientists of the coastal State and without obligation to contribute towards the costs of the project;

(b) provide the coastal State, at its request, with preliminary reports, as soon as practicable, and with the final results and conclusions after the completion of the research;

(c) undertake to provide access for the coastal State, at its request, to all data and samples derived from the marine scientific research project and likewise to furnish it with data which may be copied and samples which may be divided without detriment to their scientific value;

(d) if requested, provide the coastal State with an assessment of such data, samples and research results or

provide assistance in their assessment or interpretation;

(e) ensure, subject to paragraph 2, that the research results are made internationally available through appropriate national or international channels, as soon as practicable;

(f) inform the coastal State immediately of any major change in the research programme;

(g) unless otherwise agreed, remove the scientific research installations or equipment once the research is completed.

2. This article is without prejudice to the conditions established by the laws and regulations of the coastal State for the exercise of its discretion to grant or withhold consent pursuant to article 246, paragraph 5, including requiring prior agreement for making internationally available the research results of a project of direct significance for the exploration and exploitation of natural resources.



Article 250

Communications concerning marine scientific research projects

Communications concerning the marine scientific research projects shall be made through appropriate official channels, unless otherwise agreed.



Article 251

General criteria and guidelines

States shall seek to promote through competent international organizations the establishment of general criteria and guidelines to assist States in ascertaining the nature and implications of marine scientific research.



Article 252

Implied consent

States or competent international organizations may proceed with a marine scientific research project six months after the date upon which the information required pursuant to article 248 was provided to the coastal State unless within four months of the receipt of the communication containing such information the coastal State has informed the State or organization conducting the research that:

- (a) it has withheld its consent under the provisions of article 246; or
- (b) the information given by that State or competent international organization regarding the nature or objectives of the project does not conform to the manifestly evident facts; or
- (c) it requires supplementary information relevant to conditions and the information provided for under articles 248 and 249; or
- (d) outstanding obligations exist with respect to a previous marine scientific research project carried out by that State or organization, with regard to conditions established in article 249.



Article 253

Suspension or cessation of marine scientific research activities

1. A coastal State shall have the right to require the suspension of any marine scientific research activities in progress within its exclusive economic zone or on its continental shelf if:

- (a) the research activities are not being conducted in accordance with the information communicated as provided under article 248 upon which the consent of the coastal State was based; or

(b) the State or competent international organization conducting the research activities fails to comply with the provisions of article 249 concerning the rights of the coastal State with respect to the marine scientific research project.

2. A coastal State shall have the right to require the cessation of any marine scientific research activities in case of any non-compliance with the provisions of article 248 which amounts to a major change in the research project or the research activities.

3. A coastal State may also require cessation of marine scientific research activities if any of the situations contemplated in paragraph 1 are not rectified within a reasonable period of time.

4. Following notification by the coastal State of its decision to order suspension or cessation, States or competent international organizations authorized to conduct marine scientific research activities shall terminate the research activities that are the subject of such a notification.

5. An order of suspension under paragraph 1 shall be lifted by the coastal State and the marine scientific research activities allowed to continue once the researching State or competent international organization has complied with the conditions required under articles 248 and 249.



Article 254

Rights of neighbouring land-locked

and geographically disadvantaged States

1. States and competent international organizations which have submitted to a coastal State a project to undertake marine scientific research referred to in article 246, paragraph 3, shall give notice to the neighbouring land-locked and geographically disadvantaged States of the proposed research project, and shall notify the coastal State thereof.

2. After the consent has been given for the proposed marine scientific research project by the coastal State concerned, in accordance with article 246 and other relevant provisions of this Convention, States and

competent international organizations undertaking such a project shall provide to the neighbouring land-locked and geographically disadvantaged States, at their request and when appropriate, relevant information as specified in article 248 and article 249, paragraph 1(f).

3. The neighbouring land-locked and geographically disadvantaged States referred to above shall, at their request, be given the opportunity to participate, whenever feasible, in the proposed marine scientific research project through qualified experts appointed by them and not objected to by the coastal State, in accordance with the conditions agreed for the project, in conformity with the provisions of this Convention, between the coastal State concerned and the State or competent international organizations conducting the marine scientific research.

4. States and competent international organizations referred to in paragraph 1 shall provide to the above-mentioned land-locked and geographically disadvantaged States, at their request, the information and assistance specified in article 249, paragraph 1(d), subject to the provisions of article 249, paragraph 2.



Article 255

Measures to facilitate marine scientific research

and assist research vessels

States shall endeavour to adopt reasonable rules, regulations and procedures to promote and facilitate marine scientific research conducted in accordance with this Convention beyond their territorial sea and, as appropriate, to facilitate, subject to the provisions of their laws and regulations, access to their harbours and promote assistance for marine scientific research vessels which comply with the relevant provisions of this Part.



Article 256

Marine scientific research in the Area

All States, irrespective of their geographical location, and competent

international organizations have the right, in conformity with the provisions of Part XI, to conduct marine scientific research in the Area.



Article 257

Marine scientific research in the water column

beyond the exclusive economic zone

All States, irrespective of their geographical location, and competent international organizations have the right, in conformity with this Convention, to conduct marine scientific research in the water column beyond the limits of the exclusive economic zone.

**SECTION 4. SCIENTIFIC RESEARCH INSTALLATIONS OR
EQUIPMENT IN THE MARINE ENVIRONMENT**



Article 258

Deployment and use

The deployment and use of any type of scientific research installations or equipment in any area of the marine environment shall be subject to the same conditions as are prescribed in this Convention for the conduct of marine scientific research in any such area.



Article 259

Legal status

The installations or equipment referred to in this section do not possess the status of islands. They have no territorial sea of their own, and their presence does not affect the delimitation of the territorial sea, the exclusive economic zone or the continental shelf.



Article 260

Safety zones

Safety zones of a reasonable breadth not exceeding a distance of 500 metres may be created around scientific research installations in accordance with the relevant provisions of this Convention. All States shall ensure that such safety zones are respected by their vessels.



Article 261

Non-interference with shipping routes

The deployment and use of any type of scientific research installations or equipment shall not constitute an obstacle to established international shipping routes.



Article 262

Identification markings and warning signals

Installations or equipment referred to in this section shall bear identification markings indicating the State of registry or the international organization to which they belong and shall have adequate internationally agreed warning signals to ensure safety at sea and the safety of air navigation, taking into account rules and standards established by competent international organizations.

SECTION 5. RESPONSIBILITY AND LIABILITY



Article 263

Responsibility and liability

1. States and competent international organizations shall be responsible for ensuring that marine scientific research, whether undertaken by them or on

their behalf, is conducted in accordance with this Convention.

2. States and competent international organizations shall be responsible and liable for the measures they take in contravention of this Convention in respect of marine scientific research conducted by other States, their natural or juridical persons or by competent international organizations, and shall provide compensation for damage resulting from such measures.

3. States and competent international organizations shall be responsible and liable pursuant to article 235 for damage caused by pollution of the marine environment arising out of marine scientific research undertaken by them or on their behalf.

SECTION 6. SETTLEMENT OF DISPUTES

AND INTERIM MEASURES



Article 264

Settlement of disputes

Disputes concerning the interpretation or application of the provisions of this Convention with regard to marine scientific research shall be settled in accordance with Part XV, sections 2 and 3.



Article 265

Interim measures

Pending settlement of a dispute in accordance with Part XV, sections 2 and 3, the State or competent international organization authorized to conduct a marine scientific research project shall not allow research activities to commence or continue without the express consent of the coastal State concerned.

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PART XIV

DEVELOPMENT AND TRANSFER OF MARINE TECHNOLOGY

SECTION 1. GENERAL PROVISIONS



Article 266

Promotion of the development and transfer of marine technology

1. States, directly or through competent international organizations, shall cooperate in accordance with their capabilities to promote actively the development and transfer of marine science and marine technology on fair and reasonable terms and conditions.
2. States shall promote the development of the marine scientific and technological capacity of States which may need and request technical assistance in this field, particularly developing States, including land-locked and geographically disadvantaged States, with regard to the exploration, exploitation, conservation and management of marine resources, the protection and preservation of the marine environment, marine scientific research and other activities in the marine environment compatible with this Convention, with a view to accelerating the social and economic development of the developing States.
3. States shall endeavour to foster favourable economic and legal conditions for the transfer of marine technology for the benefit of all parties concerned

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on an equitable basis.



Article 267

Protection of legitimate interests

States, in promoting cooperation pursuant to article 266, shall have due regard for all legitimate interests including, *inter alia*, the rights and duties of holders, suppliers and recipients of marine technology.



Article 268

Basic objectives

States, directly or through competent international organizations, shall promote:

- (a) the acquisition, evaluation and dissemination of marine technological knowledge and facilitate access to such information and data;
- (b) the development of appropriate marine technology;
- (c) the development of the necessary technological infrastructure to facilitate the transfer of marine technology;
- (d) the development of human resources through training and education of nationals of developing States and countries and especially the nationals of the least developed among them;
- (e) international cooperation at all levels, particularly at the regional, subregional and bilateral levels.



Article 269

Measures to achieve the basic objectives

In order to achieve the objectives referred to in article 268, States, directly or through competent international organizations, shall endeavour, *inter alia*, to:

- (a) establish programmes of technical cooperation for the effective transfer of all kinds of marine technology to States which may need and request technical assistance in this field, particularly the developing land-locked and geographically disadvantaged States, as well as other developing States which have not been able either to establish or develop their own technological capacity in marine science and in the exploration and exploitation of marine resources or to develop the infrastructure of such technology;
- (b) promote favourable conditions for the conclusion of agreements, contracts and other similar arrangements, under equitable and reasonable conditions;
- (c) hold conferences, seminars and symposia on scientific and technological subjects, in particular on policies and methods for the transfer of marine technology;
- (d) promote the exchange of scientists and of technological and other experts;
- (e) undertake projects and promote joint ventures and other forms of bilateral and multilateral cooperation.

SECTION 2. INTERNATIONAL COOPERATION



Article 270

Ways and means of international cooperation

International cooperation for the development and transfer of marine technology shall be carried out, where feasible and appropriate, through existing bilateral, regional or multilateral programmes, and also through expanded and new programmes in order to facilitate marine scientific research, the transfer of marine technology, particularly in new fields, and appropriate international funding for ocean research and development.



Article 271

Guidelines, criteria and standards

States, directly or through competent international organizations, shall promote the establishment of generally accepted guidelines, criteria and standards for the transfer of marine technology on a bilateral basis or within the framework of international organizations and other fora, taking into account, in particular, the interests and needs of developing States.



Article 272

Coordination of international programmes

In the field of transfer of marine technology, States shall endeavour to ensure that competent international organizations coordinate their activities, including any regional or global programmes, taking into account the interests and needs of developing States, particularly land-locked and geographically disadvantaged States.



Article 273

Cooperation with international organizations and the Authority

States shall cooperate actively with competent international organizations and the Authority to encourage and facilitate the transfer to developing States, their nationals and the Enterprise of skills and marine technology with regard to activities in the Area.



Article 274

Objectives of the Authority

Subject to all legitimate interests including, *inter alia*, the rights and duties of

holders, suppliers and recipients of technology, the Authority, with regard to activities in the Area, shall ensure that:

(a) on the basis of the principle of equitable geographical distribution, nationals of developing States, whether coastal, land-locked or geographically disadvantaged, shall be taken on for the purposes of training as members of the managerial, research and technical staff constituted for its undertakings;

(b) the technical documentation on the relevant equipment, machinery, devices and processes is made available to all States, in particular developing States which may need and request technical assistance in this field;

(c) adequate provision is made by the Authority to facilitate the acquisition of technical assistance in the field of marine technology by States which may need and request it, in particular developing States, and the acquisition by their nationals of the necessary skills and know-how, including professional training;

(d) States which may need and request technical assistance in this field, in particular developing States, are assisted in the acquisition of necessary equipment, processes, plant and other technical know-how through any financial arrangements provided for in this Convention.

SECTION 3. NATIONAL AND REGIONAL MARINE SCIENTIFIC AND TECHNOLOGICAL CENTRES



Article 275

Establishment of national centres

1. States, directly or through competent international organizations and the Authority, shall promote the establishment, particularly in developing coastal States, of national marine scientific and technological research centres and the strengthening of existing national centres, in order to stimulate and advance the conduct of marine scientific research by developing coastal States and to enhance their national capabilities to utilize and preserve their marine resources for their economic benefit.

2. States, through competent international organizations and the Authority, shall give adequate support to facilitate the establishment and strengthening of such national centres so as to provide for advanced training facilities and necessary equipment, skills and know-how as well as technical experts to such States which may need and request such assistance.



Article 276

Establishment of regional centres

1. States, in coordination with the competent international organizations, the Authority and national marine scientific and technological research institutions, shall promote the establishment of regional marine scientific and technological research centres, particularly in developing States, in order to stimulate and advance the conduct of marine scientific research by developing States and foster the transfer of marine technology.

2. All States of a region shall cooperate with the regional centres therein to ensure the more effective achievement of their objectives.



Article 277

Functions of regional centres

The functions of such regional centres shall include, *inter alia*:

(a) training and educational programmes at all levels on various aspects of marine scientific and technological research, particularly marine biology, including conservation and management of living resources, oceanography, hydrography, engineering, geological exploration of the seabed, mining and desalination technologies;

(b) management studies;

(c) study programmes related to the protection and preservation of the marine environment and the prevention,

reduction and control of pollution;

(d) organization of regional conferences, seminars and symposia;

(e) acquisition and processing of marine scientific and technological data and information;

(f) prompt dissemination of results of marine scientific and technological research in readily available publications;

(g) publicizing national policies with regard to the transfer of marine technology and systematic comparative study of those policies;

(h) compilation and systematization of information on the marketing of technology and on contracts and other arrangements concerning patents;

(i) technical cooperation with other States of the region.

SECTION 4. COOPERATION AMONG INTERNATIONAL ORGANIZATIONS



Article 278

Cooperation among international organizations

The competent international organizations referred to in this Part and in Part XIII shall take all appropriate measures to ensure, either directly or in close cooperation among themselves, the effective discharge of their functions and responsibilities under this Part.

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PART XV

SETTLEMENT OF DISPUTES

SECTION 1. GENERAL PROVISIONS



Article 279

Obligation to settle disputes by peaceful means

States Parties shall settle any dispute between them concerning the interpretation or application of this Convention by peaceful means in accordance with Article 2, paragraph 3, of the Charter of the United Nations and, to this end, shall seek a solution by the means indicated in Article 33, paragraph 1, of the Charter.



Article 280

Settlement of disputes by any peaceful means chosen by the parties

Nothing in this Part impairs the right of any States Parties to agree at any time to settle a dispute between them concerning the interpretation or application of this Convention by any peaceful means of their own choice.



Article 281

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Procedure where no settlement has been reached by the parties

1. If the States Parties which are parties to a dispute concerning the interpretation or application of this Convention have agreed to seek settlement of the dispute by a peaceful means of their own choice, the procedures provided for in this Part apply only where no settlement has been reached by recourse to such means and the agreement between the parties does not exclude any further procedure.
2. If the parties have also agreed on a time-limit, paragraph 1 applies only upon the expiration of that time-limit.

*Article 282**Obligations under general, regional or bilateral agreements*

If the States Parties which are parties to a dispute concerning the interpretation or application of this Convention have agreed, through a general, regional or bilateral agreement or otherwise, that such dispute shall, at the request of any party to the dispute, be submitted to a procedure that entails a binding decision, that procedure shall apply in lieu of the procedures provided for in this Part, unless the parties to the dispute otherwise agree.

*Article 283**Obligation to exchange views*

1. When a dispute arises between States Parties concerning the interpretation or application of this Convention, the parties to the dispute shall proceed expeditiously to an exchange of views regarding its settlement by negotiation or other peaceful means.
2. The parties shall also proceed expeditiously to an exchange of views where a procedure for the settlement of such a dispute has been terminated without a settlement or where a settlement has been reached and the circumstances require consultation regarding the manner of implementing the settlement.



Article 284

Conciliation

1. A State Party which is a party to a dispute concerning the interpretation or application of this Convention may invite the other party or parties to submit the dispute to conciliation in accordance with the procedure under Annex V, section 1, or another conciliation procedure.
2. If the invitation is accepted and if the parties agree upon the conciliation procedure to be applied, any party may submit the dispute to that procedure.
3. If the invitation is not accepted or the parties do not agree upon the procedure, the conciliation proceedings shall be deemed to be terminated.
4. Unless the parties otherwise agree, when a dispute has been submitted to conciliation, the proceedings may be terminated only in accordance with the agreed conciliation procedure.



Article 285

Application of this section to disputes submitted pursuant to Part XI

This section applies to any dispute which pursuant to Part XI, section 5, is to be settled in accordance with procedures provided for in this Part. If an entity other than a State Party is a party to such a dispute, this section applies *mutatis mutandis*.

SECTION 2. COMPULSORY PROCEDURES ENTAILING BINDING DECISIONS



Article 286

Application of procedures under this section

Subject to section 3, any dispute concerning the interpretation or application

of this Convention shall, where no settlement has been reached by recourse to section 1, be submitted at the request of any party to the dispute to the court or tribunal having jurisdiction under this section.



Article 287

Choice of procedure

1. When signing, ratifying or acceding to this Convention or at any time thereafter, a State shall be free to choose, by means of a written declaration, one or more of the following means for the settlement of disputes concerning the interpretation or application of this Convention:

(a) the International Tribunal for the Law of the Sea established in accordance with Annex VI;

(b) the International Court of Justice;

(c) an arbitral tribunal constituted in accordance with Annex VII;

(d) a special arbitral tribunal constituted in accordance with Annex VIII for one or more of the categories of disputes specified therein.

2. A declaration made under paragraph 1 shall not affect or be affected by the obligation of a State Party to accept the jurisdiction of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea to the extent and in the manner provided for in Part XI, section 5.

3. A State Party, which is a party to a dispute not covered by a declaration in force, shall be deemed to have accepted arbitration in accordance with Annex VII.

4. If the parties to a dispute have accepted the same procedure for the settlement of the dispute, it may be submitted only to that procedure, unless the parties otherwise agree.

5. If the parties to a dispute have not accepted the same procedure for the settlement of the dispute, it may be submitted only to arbitration in

accordance with Annex VII, unless the parties otherwise agree.

6. A declaration made under paragraph 1 shall remain in force until three months after notice of revocation has been deposited with the Secretary-General of the United Nations.

7. A new declaration, a notice of revocation or the expiry of a declaration does not in any way affect proceedings pending before a court or tribunal having jurisdiction under this article, unless the parties otherwise agree.

8. Declarations and notices referred to in this article shall be deposited with the Secretary-General of the United Nations, who shall transmit copies thereof to the States Parties.



Article 288

Jurisdiction

1. A court or tribunal referred to in article 287 shall have jurisdiction over any dispute concerning the interpretation or application of this Convention which is submitted to it in accordance with this Part.

2. A court or tribunal referred to in article 287 shall also have jurisdiction over any dispute concerning the interpretation or application of an international agreement related to the purposes of this Convention, which is submitted to it in accordance with the agreement.

3. The Seabed Disputes Chamber of the International Tribunal for the Law of the Sea established in accordance with Annex VI, and any other chamber or arbitral tribunal referred to in Part XI, section 5, shall have jurisdiction in any matter which is submitted to it in accordance therewith.

4. In the event of a dispute as to whether a court or tribunal has jurisdiction, the matter shall be settled by decision of that court or tribunal.



Article 289

Experts

In any dispute involving scientific or technical matters, a court or tribunal exercising jurisdiction under this section may, at the request of a party or *proprio motu*, select in consultation with the parties no fewer than two scientific or technical experts chosen preferably from the relevant list prepared in accordance with Annex VIII, article 2, to sit with the court or tribunal but without the right to vote.



Article 290

Provisional measures

1. If a dispute has been duly submitted to a court or tribunal which considers that *prima facie* it has jurisdiction under this Part or Part XI, section 5, the court or tribunal may prescribe any provisional measures which it considers appropriate under the circumstances to preserve the respective rights of the parties to the dispute or to prevent serious harm to the marine environment, pending the final decision.
2. Provisional measures may be modified or revoked as soon as the circumstances justifying them have changed or ceased to exist.
3. Provisional measures may be prescribed, modified or revoked under this article only at the request of a party to the dispute and after the parties have been given an opportunity to be heard.
4. The court or tribunal shall forthwith give notice to the parties to the dispute, and to such other States Parties as it considers appropriate, of the prescription, modification or revocation of provisional measures.
5. Pending the constitution of an arbitral tribunal to which a dispute is being submitted under this section, any court or tribunal agreed upon by the parties or, failing such agreement within two weeks from the date of the request for provisional measures, the International Tribunal for the Law of the Sea or, with respect to activities in the Area, the Seabed Disputes Chamber, may prescribe, modify or revoke provisional measures in accordance with this article if it considers that *prima facie* the tribunal which is to be constituted would have jurisdiction and that the urgency of the situation so requires. Once constituted, the tribunal to which the dispute has been submitted may modify, revoke or affirm those provisional measures, acting in conformity with paragraphs 1 to 4.

6. The parties to the dispute shall comply promptly with any provisional measures prescribed under this article.



Article 291

Access

1. All the dispute settlement procedures specified in this Part shall be open to States Parties.
2. The dispute settlement procedures specified in this Part shall be open to entities other than States Parties only as specifically provided for in this Convention.



Article 292

Prompt release of vessels and crews

1. Where the authorities of a State Party have detained a vessel flying the flag of another State Party and it is alleged that the detaining State has not complied with the provisions of this Convention for the prompt release of the vessel or its crew upon the posting of a reasonable bond or other financial security, the question of release from detention may be submitted to any court or tribunal agreed upon by the parties or, failing such agreement within 10 days from the time of detention, to a court or tribunal accepted by the detaining State under article 287 or to the International Tribunal for the Law of the Sea, unless the parties otherwise agree.
2. The application for release may be made only by or on behalf of the flag State of the vessel.
3. The court or tribunal shall deal without delay with the application for release and shall deal only with the question of release, without prejudice to the merits of any case before the appropriate domestic forum against the vessel, its owner or its crew. The authorities of the detaining State remain competent to release the vessel or its crew at any time.
4. Upon the posting of the bond or other financial security determined by the

court or tribunal, the authorities of the detaining State shall comply promptly with the decision of the court or tribunal concerning the release of the vessel or its crew.



Article 293

Applicable law

1. A court or tribunal having jurisdiction under this section shall apply this Convention and other rules of international law not incompatible with this Convention.
2. Paragraph 1 does not prejudice the power of the court or tribunal having jurisdiction under this section to decide a case *ex aequo et bono*, if the parties so agree.



Article 294

Preliminary proceedings

1. A court or tribunal provided for in article 287 to which an application is made in respect of a dispute referred to in article 297 shall determine at the request of a party, or may determine *proprio motu*, whether the claim constitutes an abuse of legal process or whether *prima facie* it is well founded. If the court or tribunal determines that the claim constitutes an abuse of legal process or is *prima facie* unfounded, it shall take no further action in the case.
2. Upon receipt of the application, the court or tribunal shall immediately notify the other party or parties of the application, and shall fix a reasonable time-limit within which they may request it to make a determination in accordance with paragraph 1.
3. Nothing in this article affects the right of any party to a dispute to make preliminary objections in accordance with the applicable rules of procedure.



Article 295

Exhaustion of local remedies

Any dispute between States Parties concerning the interpretation or application of this Convention may be submitted to the procedures provided for in this section only after local remedies have been exhausted where this is required by international law.



Article 296

Finality and binding force of decisions

1. Any decision rendered by a court or tribunal having jurisdiction under this section shall be final and shall be complied with by all the parties to the dispute.
2. Any such decision shall have no binding force except between the parties and in respect of that particular dispute.

SECTION 3. LIMITATIONS AND EXCEPTIONS

TO APPLICABILITY OF SECTION 2



Article 297

Limitations on applicability of section 2

1. Disputes concerning the interpretation or application of this Convention with regard to the exercise by a coastal State of its sovereign rights or jurisdiction provided for in this Convention shall be subject to the procedures provided for in section 2 in the following cases:

- (a) when it is alleged that a coastal State has acted in contravention of the provisions of this Convention in regard to the freedoms and rights of navigation, overflight or the laying of submarine cables and pipelines, or in regard to other internationally lawful

uses of the sea specified in article 58;

(b) when it is alleged that a State in exercising the aforementioned freedoms, rights or uses has acted in contravention of this Convention or of laws or regulations adopted by the coastal State in conformity with this Convention and other rules of international law not incompatible with this Convention; or

(c) when it is alleged that a coastal State has acted in contravention of specified international rules and standards for the protection and preservation of the marine environment which are applicable to the coastal State and which have been established by this Convention or through a competent international organization or diplomatic conference in accordance with this Convention.

2. (a) Disputes concerning the interpretation or application of the provisions of this Convention with regard to marine scientific research shall be settled in accordance with section 2, except that the coastal State shall not be obliged to accept the submission to such settlement of any dispute arising out of:

(i) the exercise by the coastal State of a right or discretion in accordance with article 246; or

(ii) a decision by the coastal State to order suspension or cessation of a research project in accordance with article 253.

(b) A dispute arising from an allegation by the researching State that with respect to a specific project the coastal State is not exercising its rights under articles 246 and 253 in a manner compatible with this Convention shall be submitted, at the request of either party, to conciliation under Annex V, section 2, provided that the conciliation commission shall not call in question the exercise by the coastal State of its discretion to designate specific areas as referred to in article 246, paragraph 6, or of its discretion to withhold consent in accordance with article 246, paragraph 5.

3. (a) Disputes concerning the interpretation or application of the provisions of this Convention with regard to fisheries shall be settled in accordance with section 2, except that the coastal State shall not be obliged to accept the submission to such settlement of any dispute relating to its sovereign rights with respect to the living resources in the exclusive economic zone or their exercise, including its discretionary powers for determining the allowable catch, its harvesting capacity, the allocation of surpluses to other States and the terms and conditions established in its conservation and management laws and regulations.

(b) Where no settlement has been reached by recourse to section 1 of this Part, a dispute shall be submitted to conciliation under Annex V, section 2, at the request of any party to the dispute, when it is alleged that:

(i) a coastal State has manifestly failed to comply with its obligations to ensure through proper conservation and management measures that the maintenance of the living resources in the exclusive economic zone is not seriously endangered;

(ii) a coastal State has arbitrarily refused to determine, at the request of another State, the allowable catch and its capacity to harvest living resources with respect to stocks which that other State is interested in fishing; or

(iii) a coastal State has arbitrarily refused to allocate to any State, under articles 62, 69 and 70 and under the terms and conditions established by the coastal State consistent with this Convention, the whole or part of the surplus it has declared to exist.

(c) In no case shall the conciliation commission substitute its discretion for that of the coastal State.

(d) The report of the conciliation commission shall be

communicated to the appropriate international organizations.

(e) In negotiating agreements pursuant to articles 69 and 70, States Parties, unless they otherwise agree, shall include a clause on measures which they shall take in order to minimize the possibility of a disagreement concerning the interpretation or application of the agreement, and on how they should proceed if a disagreement nevertheless arises.



Article 298

Optional exceptions to applicability of section 2

1. When signing, ratifying or acceding to this Convention or at any time thereafter, a State may, without prejudice to the obligations arising under section 1, declare in writing that it does not accept any one or more of the procedures provided for in section 2 with respect to one or more of the following categories of disputes:

(a) (i) disputes concerning the interpretation or application of articles 15, 74 and 83 relating to sea boundary delimitations, or those involving historic bays or titles, provided that a State having made such a declaration shall, when such a dispute arises subsequent to the entry into force of this Convention and where no agreement within a reasonable period of time is reached in negotiations between the parties, at the request of any party to the dispute, accept submission of the matter to conciliation under Annex V, section 2; and provided further that any dispute that necessarily involves the concurrent consideration of any unsettled dispute concerning sovereignty or other rights over continental or insular land territory shall be excluded from such submission;

(ii) after the conciliation commission has presented its report, which shall state the reasons

on which it is based, the parties shall negotiate an agreement on the basis of that report; if these negotiations do not result in an agreement, the parties shall, by mutual consent, submit the question to one of the procedures provided for in section 2, unless the parties otherwise agree;

(iii) this subparagraph does not apply to any sea boundary dispute finally settled by an arrangement between the parties, or to any such dispute which is to be settled in accordance with a bilateral or multilateral agreement binding upon those parties;

(b) disputes concerning military activities, including military activities by government vessels and aircraft engaged in non-commercial service, and disputes concerning law enforcement activities in regard to the exercise of sovereign rights or jurisdiction excluded from the jurisdiction of a court or tribunal under article 297, paragraph 2 or 3;

(c) disputes in respect of which the Security Council of the United Nations is exercising the functions assigned to it by the Charter of the United Nations, unless the Security Council decides to remove the matter from its agenda or calls upon the parties to settle it by the means provided for in this Convention.

2. A State Party which has made a declaration under paragraph 1 may at any time withdraw it, or agree to submit a dispute excluded by such declaration to any procedure specified in this Convention.

3. A State Party which has made a declaration under paragraph 1 shall not be entitled to submit any dispute falling within the excepted category of disputes to any procedure in this Convention as against another State Party, without the consent of that party.

4. If one of the States Parties has made a declaration under paragraph 1(a), any other State Party may submit any dispute falling within an excepted category against the declarant party to the procedure specified in such declaration.

5. A new declaration, or the withdrawal of a declaration, does not in any way affect proceedings pending before a court or tribunal in accordance with this article, unless the parties otherwise agree.

6. Declarations and notices of withdrawal of declarations under this article shall be deposited with the Secretary-General of the United Nations, who shall transmit copies thereof to the States Parties.



Article 299

Right of the parties to agree upon a procedure

1. A dispute excluded under article 297 or excepted by a declaration made under article 298 from the dispute settlement procedures provided for in section 2 may be submitted to such procedures only by agreement of the parties to the dispute.

2. Nothing in this section impairs the right of the parties to the dispute to agree to some other procedure for the settlement of such dispute or to reach an amicable settlement.

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PART XVI

GENERAL PROVISIONS



Article 300

Good faith and abuse of rights

States Parties shall fulfil in good faith the obligations assumed under this Convention and shall exercise the rights, jurisdiction and freedoms recognized in this Convention in a manner which would not constitute an abuse of right.



Article 301

Peaceful uses of the seas

In exercising their rights and performing their duties under this Convention, States Parties shall refrain from any threat or use of force against the territorial integrity or political independence of any State, or in any other manner inconsistent with the principles of international law embodied in the Charter of the United Nations.



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*Article302**Disclosure of information*

Without prejudice to the right of a State Party to resort to the procedures for the settlement of disputes provided for in this Convention, nothing in this Convention shall be deemed to require a State Party, in the fulfilment of its obligations under this Convention, to supply information the disclosure of which is contrary to the essential interests of its security.

*Article303**Archaeological and historical objects found at sea*

1. States have the duty to protect objects of an archaeological and historical nature found at sea and shall cooperate for this purpose.
2. In order to control traffic in such objects, the coastal State may, in applying article 33, presume that their removal from the seabed in the zone referred to in that article without its approval would result in an infringement within its territory or territorial sea of the laws and regulations referred to in that article.
3. Nothing in this article affects the rights of identifiable owners, the law of salvage or other rules of admiralty, or laws and practices with respect to cultural exchanges.
4. This article is without prejudice to other international agreements and rules of international law regarding the protection of objects of an archaeological and historical nature.

*Article304**Responsibility and liability for damage*

The provisions of this Convention regarding responsibility and liability for damage are without prejudice to the application of existing rules and the development of further rules regarding responsibility and liability under

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PART XVII

FINAL PROVISIONS



Article 305

Signature

1. This Convention shall be open for signature by:

(a) all States;

(b) Namibia, represented by the United Nations Council for Namibia;

(c) all self-governing associated States which have chosen that status in an act of self-determination supervised and approved by the United Nations in accordance with General Assembly resolution 1514 (XV) and which have competence over the matters governed by this Convention, including the competence to enter into treaties in respect of those matters;

(d) all self-governing associated States which, in accordance with their respective instruments of association, have competence over the matters governed by this Convention, including the competence to enter into treaties in respect of those matters;

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(e) all territories which enjoy full internal self-government, recognized as such by the United Nations, but have not attained full independence in accordance with General Assembly resolution 1514 (XV) and which have competence over the matters governed by this Convention, including the competence to enter into treaties in respect of those matters;

(f) international organizations, in accordance with Annex IX.

2. This Convention shall remain open for signature until 9 December 1984 at the Ministry of Foreign Affairs of Jamaica and also, from 1 July 1983 until 9 December 1984, at United Nations Headquarters in New York.



Article 306

Ratification and formal confirmation

This Convention is subject to ratification by States and the other entities referred to in article 305, paragraph 1(b), (c), (d) and (e), and to formal confirmation, in accordance with Annex IX, by the entities referred to in article 305, paragraph 1(f). The instruments of ratification and of formal confirmation shall be deposited with the Secretary-General of the United Nations.



Article 307

Accession

This Convention shall remain open for accession by States and the other entities referred to in article 305. Accession by the entities referred to in article 305, paragraph 1(f), shall be in accordance with Annex IX. The instruments of accession shall be deposited with the Secretary-General of the United Nations.



Article308

Entry into force

1. This Convention shall enter into force 12 months after the date of deposit of the sixtieth instrument of ratification or accession.
2. For each State ratifying or acceding to this Convention after the deposit of the sixtieth instrument of ratification or accession, the Convention shall enter into force on the thirtieth day following the deposit of its instrument of ratification or accession, subject to paragraph 1.
3. The Assembly of the Authority shall meet on the date of entry into force of this Convention and shall elect the Council of the Authority. The first Council shall be constituted in a manner consistent with the purpose of article 161 if the provisions of that article cannot be strictly applied.
4. The rules, regulations and procedures drafted by the Preparatory Commission shall apply provisionally pending their formal adoption by the Authority in accordance with Part XI.
5. The Authority and its organs shall act in accordance with resolution II of the Third United Nations Conference on the Law of the Sea relating to preparatory investment and with decisions of the Preparatory Commission taken pursuant to that resolution.



Article309

Reservations and exceptions

No reservations or exceptions may be made to this Convention unless expressly permitted by other articles of this Convention.



Article310

Declarations and statements

Article 309 does not preclude a State, when signing, ratifying or acceding to

this Convention, from making declarations or statements, however phrased or named, with a view, *inter alia*, to the harmonization of its laws and regulations with the provisions of this Convention, provided that such declarations or statements do not purport to exclude or to modify the legal effect of the provisions of this Convention in their application to that State.



Article 311

Relation to other conventions and international agreements

1. This Convention shall prevail, as between States Parties, over the Geneva Conventions on the Law of the Sea of 29 April 1958.
2. This Convention shall not alter the rights and obligations of States Parties which arise from other agreements compatible with this Convention and which do not affect the enjoyment by other States Parties of their rights or the performance of their obligations under this Convention.
3. Two or more States Parties may conclude agreements modifying or suspending the operation of provisions of this Convention, applicable solely to the relations between them, provided that such agreements do not relate to a provision derogation from which is incompatible with the effective execution of the object and purpose of this Convention, and provided further that such agreements shall not affect the application of the basic principles embodied herein, and that the provisions of such agreements do not affect the enjoyment by other States Parties of their rights or the performance of their obligations under this Convention.
4. States Parties intending to conclude an agreement referred to in paragraph 3 shall notify the other States Parties through the depositary of this Convention of their intention to conclude the agreement and of the modification or suspension for which it provides.
5. This article does not affect international agreements expressly permitted or preserved by other articles of this Convention.
6. States Parties agree that there shall be no amendments to the basic principle relating to the common heritage of mankind set forth in article 136 and that they shall not be party to any agreement in derogation thereof.



Article 312

Amendment

1. After the expiry of a period of 10 years from the date of entry into force of this Convention, a State Party may, by written communication addressed to the Secretary-General of the United Nations, propose specific amendments to this Convention, other than those relating to activities in the Area, and request the convening of a conference to consider such proposed amendments. The Secretary-General shall circulate such communication to all States Parties. If, within 12 months from the date of the circulation of the communication, not less than one half of the States Parties reply favourably to the request, the Secretary-General shall convene the conference.
2. The decision-making procedure applicable at the amendment conference shall be the same as that applicable at the Third United Nations Conference on the Law of the Sea unless otherwise decided by the conference. The conference should make every effort to reach agreement on any amendments by way of consensus and there should be no voting on them until all efforts at consensus have been exhausted.



Article 313

Amendment by simplified procedure

1. A State Party may, by written communication addressed to the Secretary-General of the United Nations, propose an amendment to this Convention, other than an amendment relating to activities in the Area, to be adopted by the simplified procedure set forth in this article without convening a conference. The Secretary-General shall circulate the communication to all States Parties.
2. If, within a period of 12 months from the date of the circulation of the communication, a State Party objects to the proposed amendment or to the proposal for its adoption by the simplified procedure, the amendment shall be considered rejected. The Secretary-General shall immediately notify all States Parties accordingly.
3. If, 12 months from the date of the circulation of the communication, no

State Party has objected to the proposed amendment or to the proposal for its adoption by the simplified procedure, the proposed amendment shall be considered adopted. The Secretary-General shall notify all States Parties that the proposed amendment has been adopted.



Article 314

Amendments to the provisions of this Convention

relating exclusively to activities in the Area

1. A State Party may, by written communication addressed to the Secretary-General of the Authority, propose an amendment to the provisions of this Convention relating exclusively to activities in the Area, including Annex VI, section 4. The Secretary-General shall circulate such communication to all States Parties. The proposed amendment shall be subject to approval by the Assembly following its approval by the Council. Representatives of States Parties in those organs shall have full powers to consider and approve the proposed amendment. The proposed amendment as approved by the Council and the Assembly shall be considered adopted.
2. Before approving any amendment under paragraph 1, the Council and the Assembly shall ensure that it does not prejudice the system of exploration for and exploitation of the resources of the Area, pending the Review Conference in accordance with article 155.



Article 315

*Signature, ratification of, accession to
and authentic texts of amendments*

1. Once adopted, amendments to this Convention shall be open for signature by States Parties for 12 months from the date of adoption, at United Nations Headquarters in New York, unless otherwise provided in the amendment itself.
2. Articles 306, 307 and 320 apply to all amendments to this Convention.



Article 316

Entry into force of amendments

1. Amendments to this Convention, other than those referred to in paragraph 5, shall enter into force for the States Parties ratifying or acceding to them on the thirtieth day following the deposit of instruments of ratification or accession by two thirds of the States Parties or by 60 States Parties, whichever is greater. Such amendments shall not affect the enjoyment by other States Parties of their rights or the performance of their obligations under this Convention.
2. An amendment may provide that a larger number of ratifications or accessions shall be required for its entry into force than are required by this article.
3. For each State Party ratifying or acceding to an amendment referred to in paragraph 1 after the deposit of the required number of instruments of ratification or accession, the amendment shall enter into force on the thirtieth day following the deposit of its instrument of ratification or accession.
4. A State which becomes a Party to this Convention after the entry into force of an amendment in accordance with paragraph 1 shall, failing an expression of a different intention by that State:
 - (a) be considered as a Party to this Convention as so amended; and
 - (b) be considered as a Party to the unamended Convention in relation to any State Party not bound by the amendment.
5. Any amendment relating exclusively to activities in the Area and any amendment to Annex VI shall enter into force for all States Parties one year following the deposit of instruments of ratification or accession by three fourths of the States Parties.
6. A State which becomes a Party to this Convention after the entry into force of amendments in accordance with paragraph 5 shall be considered as a Party to this Convention as so amended.



Article 317

Denunciation

1. A State Party may, by written notification addressed to the Secretary-General of the United Nations, denounce this Convention and may indicate its reasons. Failure to indicate reasons shall not affect the validity of the denunciation. The denunciation shall take effect one year after the date of receipt of the notification, unless the notification specifies a later date.
2. A State shall not be discharged by reason of the denunciation from the financial and contractual obligations which accrued while it was a Party to this Convention, nor shall the denunciation affect any right, obligation or legal situation of that State created through the execution of this Convention prior to its termination for that State.
3. The denunciation shall not in any way affect the duty of any State Party to fulfil any obligation embodied in this Convention to which it would be subject under international law independently of this Convention.



Article 318

Status of Annexes

The Annexes form an integral part of this Convention and, unless expressly provided otherwise, a reference to this Convention or to one of its Parts includes a reference to the Annexes relating thereto.



Article 319

Depositary

1. The Secretary-General of the United Nations shall be the depositary of this Convention and amendments thereto.
2. In addition to his functions as depositary, the Secretary-General shall:

(a) report to all States Parties, the Authority and competent international organizations on issues of a general nature that have arisen with respect to this Convention;

(b) notify the Authority of ratifications and formal confirmations of and accessions to this Convention and amendments thereto, as well as of denunciations of this Convention;

(c) notify States Parties of agreements in accordance with article 311, paragraph 4;

(d) circulate amendments adopted in accordance with this Convention to States Parties for ratification or accession;

(e) convene necessary meetings of States Parties in accordance with this Convention.

3. (a) The Secretary-General shall also transmit to the observers referred to in article 156:

(i) reports referred to in paragraph 2(a);

(ii) notifications referred to in paragraph 2(b) and (c); and

(iii) texts of amendments referred to in paragraph 2(d), for their information.

(b) The Secretary-General shall also invite those observers to participate as observers at meetings of States Parties referred to in paragraph 2(e).



Article 320

Authentic texts

The original of this Convention, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall, subject to article 305, paragraph 2, be deposited with the Secretary-General of the United Nations.

IN WITNESS WHEREOF, the undersigned Plenipotentiaries, being duly authorized thereto, have signed this Convention.

DONE AT MONTEGO BAY, this tenth day of December, one thousand nine hundred and eighty-two.

United Nations Convention on the Law of the Sea - Part XVII

[ANNEX I](#)

[Agreement relating to the implementation of Part XI of the Convention](#)

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ANNEX I. HIGHLY MIGRATORY SPECIES

1. Albacore tuna: *Thunnus alalunga*.
2. Bluefin tuna: *Thunnus thynnus*.
3. Bigeye tuna: *Thunnus obesus*.
4. Skipjack tuna: *Katsuwonus pelamis*.
5. Yellowfin tuna: *Thunnus albacares*.
6. Blackfin tuna: *Thunnus atlanticus*.
7. Little tuna: *Euthynnus alletteratus*; *Euthynnus affinis*.
8. Southern bluefin tuna: *Thunnus maccoyii*.
9. Frigate mackerel: *Auxis thazard*; *Auxis rochei*.
10. Pomfrets: Family *Bramidae*.
11. Marlins: *Tetrapturus angustirostris*; *Tetrapturus belone*; *Tetrapturus pfluegeri*; *Tetrapturus albidus*; *Tetrapturus audax*; *Tetrapturus georgei*; *Makaira mazara*; *Makaira indica*; *Makaira nigricans*.
12. Sail-fishes: *Istiophorus platypterus*; *Istiophorus albicans*.
13. Swordfish: *Xiphias gladius*.
14. Sauries: *Scomberesox saurus*; *Cololabis saira*; *Cololabis adocetus*; *Scomberesox saurus scombroides*.
15. Dolphin: *Coryphaena hippurus*; *Coryphaena equiselis*.
16. Oceanic sharks: *Hexanchus griseus*; *Cetorhinus maximus*; Family *Alopiidae*; *Rhincodon typus*; Family *Carcharhinidae*; Family *Sphyrnidae*; Family *Isurida*.
17. Cetaceans: Family *Physeteridae*; Family *Balaenopteridae*; Family *Balaenidae*; Family *Eschrichtiidae*; Family *Monodontidae*; Family *Ziphiidae*; Family *Delphinidae*.

ANNEX II. COMMISSION ON THE LIMITS OF THE CONTINENTAL SHELF



Article 1

In accordance with the provisions of article 76, a Commission on the Limits of the Continental Shelf beyond 200 nautical miles shall be established in conformity with the following articles.



Article 2

1. The Commission shall consist of 21 members who shall be experts in the field of geology, geophysics or hydrography, elected by States Parties to this Convention from among their nationals, having due regard to the need to ensure equitable geographical representation, who shall serve in their personal capacities.
2. The initial election shall be held as soon as possible but in any case within 18 months after the date of entry into force of this Convention. At least three months before the date of each election, the Secretary-General of the United Nations shall address a letter to the States Parties, inviting the submission of nominations, after appropriate regional consultations, within three months. The Secretary-General shall prepare a list in alphabetical order of all persons thus nominated and shall submit it to all the States Parties.
3. Elections of the members of the Commission shall be held at a meeting of States Parties convened by the Secretary-General at United Nations Headquarters. At that meeting, for which two thirds of the States Parties shall constitute a quorum, the persons elected to the Commission shall be those nominees who obtain a two-thirds majority of the votes of the representatives of States Parties present and voting. Not less than three members shall be elected from each geographical region.
4. The members of the Commission shall be elected for a term of five years. They shall be eligible for re-election.
5. The State Party which submitted the nomination of a member of the Commission shall defray the expenses of that member while in performance of Commission duties. The coastal State concerned shall defray the expenses incurred in respect of the advice referred to in article 3, paragraph 1(b), of this Annex. The secretariat of the Commission shall be provided by the Secretary-General of the United Nations.



Article 3

1. The functions of the Commission shall be:

(a) to consider the data and other material submitted by coastal States concerning the outer limits of the continental shelf in areas where those limits extend beyond 200 nautical miles, and to make recommendations in accordance with article 76 and the Statement of Understanding adopted on 29 August 1980 by the Third United Nations Conference on the Law of the Sea;

(b) to provide scientific and technical advice, if requested by the coastal State concerned during the preparation of the data referred to in subparagraph (a).

2. The Commission may cooperate, to the extent considered necessary and useful, with the Intergovernmental Oceanographic Commission of UNESCO, the International Hydrographic Organization and other competent international organizations with a view to exchanging scientific and technical information which might be of assistance in discharging the Commission's responsibilities.



Article 4

Where a coastal State intends to establish, in accordance with article 76, the outer limits of its continental shelf beyond 200 nautical miles, it shall submit particulars of such limits to the Commission along with supporting scientific and technical data as soon as possible but in any case within 10 years of the entry into force of this Convention for that State. The coastal State shall at the same time give the names of any Commission members who have provided it with scientific and technical advice.



Article 5

Unless the Commission decides otherwise, the Commission shall function by way of sub-commissions composed of seven members, appointed in a balanced manner taking into account the specific elements of each submission by a coastal State. Nationals of the coastal State making the submission who are members of the Commission and any Commission member who has assisted a coastal State by providing scientific and technical advice with respect to the delineation shall not be a member of the sub-commission dealing with that submission but has the right to participate as a member in the proceedings of the Commission concerning the said submission. The coastal State which has made a submission to

the Commission may send its representatives to participate in the relevant proceedings without the right to vote.



Article 6

1. The sub-commission shall submit its recommendations to the Commission.
2. Approval by the Commission of the recommendations of the sub-commission shall be by a majority of two thirds of Commission members present and voting.
3. The recommendations of the Commission shall be submitted in writing to the coastal State which made the submission and to the Secretary-General of the United Nations.



Article 7

Coastal States shall establish the outer limits of the continental shelf in conformity with the provisions of article 76, paragraph 8, and in accordance with the appropriate national procedures.



Article 8

In the case of disagreement by the coastal State with the recommendations of the Commission, the coastal State shall, within a reasonable time, make a revised or new submission to the Commission.



Article 9

The actions of the Commission shall not prejudice matters relating to delimitation of boundaries between States with opposite or adjacent coasts.

ANNEX III. BASIC CONDITIONS OF PROSPECTING, EXPLORATION AND EXPLOITATION



Article 1

Title to minerals

Title to minerals shall pass upon recovery in accordance with this Convention.



Article 2

Prospecting

1. (a) The Authority shall encourage prospecting in the Area.

(b) Prospecting shall be conducted only after the Authority has received a satisfactory written undertaking that the proposed prospector will comply with this Convention and the relevant rules, regulations and procedures of the Authority concerning cooperation in the training programmes referred to in articles 143 and 144 and the protection of the marine environment, and will accept verification by the Authority of compliance therewith. The proposed prospector shall, at the same time, notify the Authority of the approximate area or areas in which prospecting is to be conducted.

(c) Prospecting may be conducted simultaneously by more than one prospector in the same area or areas.

2. Prospecting shall not confer on the prospector any rights with respect to resources. A prospector may, however, recover a reasonable quantity of minerals to be used for testing.



Article 3

Exploration and exploitation

1. The Enterprise, States Parties, and the other entities referred to in article 153, paragraph 2(b), may apply to the Authority for approval of plans of work for activities in the Area.
2. The Enterprise may apply with respect to any part of the Area, but applications by others with respect to reserved areas are subject to the additional requirements of article 9 of this Annex.
3. Exploration and exploitation shall be carried out only in areas specified in plans of work referred to in article 153, paragraph 3, and approved by the Authority in accordance with this Convention and the relevant rules, regulations and procedures of the Authority.
4. Every approved plan of work shall:
 - (a) be in conformity with this Convention and the rules, regulations and procedures of the Authority;
 - (b) provide for control by the Authority of activities in the Area in accordance with article 153, paragraph 4;
 - (c) confer on the operator, in accordance with the rules, regulations and procedures of the Authority, the exclusive right to explore for and exploit the specified categories of resources in the area covered by the plan of work. If, however, the applicant presents for approval a plan of work covering only the stage of exploration or the stage of exploitation, the approved plan of work shall confer such exclusive right with respect to that stage only.
5. Upon its approval by the Authority, every plan of work, except those presented by the Enterprise, shall be in the form of a contract concluded between the Authority and the applicant or applicants.



Article 4

Qualifications of applicants

1. Applicants, other than the Enterprise, shall be qualified if they have the nationality or control and sponsorship required by article 153, paragraph 2(b), and if they follow the procedures and meet the qualification standards set forth in the rules, regulations and procedures of the Authority.
2. Except as provided in paragraph 6, such qualification standards shall relate to the financial and technical capabilities of the applicant and his performance under any previous contracts with the Authority.

3. Each applicant shall be sponsored by the State Party of which it is a national unless the applicant has more than one nationality, as in the case of a partnership or consortium of entities from several States, in which event all States Parties involved shall sponsor the application, or unless the applicant is effectively controlled by another State Party or its nationals, in which event both States Parties shall sponsor the application. The criteria and procedures for implementation of the sponsorship requirements shall be set forth in the rules, regulations and procedures of the Authority.

4. The sponsoring State or States shall, pursuant to article 139, have the responsibility to ensure, within their legal systems, that a contractor so sponsored shall carry out activities in the Area in conformity with the terms of its contract and its obligations under this Convention. A sponsoring State shall not, however, be liable for damage caused by any failure of a contractor sponsored by it to comply with its obligations if that State Party has adopted laws and regulations and taken administrative measures which are, within the framework of its legal system, reasonably appropriate for securing compliance by persons under its jurisdiction.

5. The procedures for assessing the qualifications of States Parties which are applicants shall take into account their character as States.

6. The qualification standards shall require that every applicant, without exception, shall as part of his application undertake:

(a) to accept as enforceable and comply with the applicable obligations created by the provisions of Part XI, the rules, regulations and procedures of the Authority, the decisions of the organs of the Authority and terms of his contracts with the Authority;

(b) to accept control by the Authority of activities in the Area, as authorized by this Convention;

(c) to provide the Authority with a written assurance that his obligations under the contract will be fulfilled in good faith;

(d) to comply with the provisions on the transfer of technology set forth in article 5 of this Annex.



Article 5

Transfer of technology

1. When submitting a plan of work, every applicant shall make available to the Authority a general

description of the equipment and methods to be used in carrying out activities in the Area, and other relevant non-proprietary information about the characteristics of such technology and information as to where such technology is available.

2. Every operator shall inform the Authority of revisions in the description and information made available pursuant to paragraph 1 whenever a substantial technological change or innovation is introduced.

3. Every contract for carrying out activities in the Area shall contain the following undertakings by the contractor:

(a) to make available to the Enterprise on fair and reasonable commercial terms and conditions, whenever the Authority so requests, the technology which he uses in carrying out activities in the Area under the contract, which the contractor is legally entitled to transfer. This shall be done by means of licences or other appropriate arrangements which the contractor shall negotiate with the Enterprise and which shall be set forth in a specific agreement supplementary to the contract. This undertaking may be invoked only if the Enterprise finds that it is unable to obtain the same or equally efficient and useful technology on the open market on fair and reasonable commercial terms and conditions;

(b) to obtain a written assurance from the owner of any technology used in carrying out activities in the Area under the contract, which is not generally available on the open market and which is not covered by subparagraph (a), that the owner will, whenever the Authority so requests, make that technology available to the Enterprise under licence or other appropriate arrangements and on fair and reasonable commercial terms and conditions, to the same extent as made available to the contractor. If this assurance is not obtained, the technology in question shall not be used by the contractor in carrying out activities in the Area;

(c) to acquire from the owner by means of an enforceable contract, upon the request of the Enterprise and if it is possible to do so without substantial cost to the contractor, the legal right to transfer to the Enterprise any technology used by the contractor, in carrying out activities in the Area under the contract, which the contractor is otherwise not legally entitled to transfer and which is not generally available on the open market. In cases where there is a substantial corporate relationship between the contractor and the owner of the technology, the closeness of this relationship and the degree of control or influence shall be relevant to the determination whether all feasible measures have been taken to acquire such a right. In cases where the contractor exercises effective control over the owner, failure to acquire from the owner the legal right shall be considered relevant to the contractor's qualification for any subsequent application for approval of a plan of

work;

(d) to facilitate, upon the request of the Enterprise, the acquisition by the Enterprise of any technology covered by subparagraph (b), under licence or other appropriate arrangements and on fair and reasonable commercial terms and conditions, if the Enterprise decides to negotiate directly with the owner of the technology;

(e) to take the same measures as are prescribed in subparagraphs (a), (b), (c) and (d) for the benefit of a developing State or group of developing States which has applied for a contract under article 9 of this Annex, provided that these measures shall be limited to the exploitation of the part of the area proposed by the contractor which has been reserved pursuant to article 8 of this Annex and provided that activities under the contract sought by the developing State or group of developing States would not involve transfer of technology to a third State or the nationals of a third State. The obligation under this provision shall only apply with respect to any given contractor where technology has not been requested by the Enterprise or transferred by that contractor to the Enterprise.

4. Disputes concerning undertakings required by paragraph 3, like other provisions of the contracts, shall be subject to compulsory settlement in accordance with Part XI and, in cases of violation of these undertakings, suspension or termination of the contract or monetary penalties may be ordered in accordance with article 18 of this Annex. Disputes as to whether offers made by the contractor are within the range of fair and reasonable commercial terms and conditions may be submitted by either party to binding commercial arbitration in accordance with the UNCITRAL Arbitration Rules or such other arbitration rules as may be prescribed in the rules, regulations and procedures of the Authority. If the finding is that the offer made by the contractor is not within the range of fair and reasonable commercial terms and conditions, the contractor shall be given 45 days to revise his offer to bring it within that range before the Authority takes any action in accordance with article 18 of this Annex.

5. If the Enterprise is unable to obtain on fair and reasonable commercial terms and conditions appropriate technology to enable it to commence in a timely manner the recovery and processing of minerals from the Area, either the Council or the Assembly may convene a group of States Parties composed of those which are engaged in activities in the Area, those which have sponsored entities which are engaged in activities in the Area and other States Parties having access to such technology. This group shall consult together and shall take effective measures to ensure that such technology is made available to the Enterprise on fair and reasonable commercial terms and conditions. Each such State Party shall take all feasible measures to this end within its own legal system.

6. In the case of joint ventures with the Enterprise, transfer of technology will be in accordance with the terms of the joint venture agreement.

7. The undertakings required by paragraph 3 shall be included in each contract for the carrying out of

activities in the Area until 10 years after the commencement of commercial production by the Enterprise, and may be invoked during that period.

8. For the purposes of this article, "technology" means the specialized equipment and technical know-how, including manuals, designs, operating instructions, training and technical advice and assistance, necessary to assemble, maintain and operate a viable system and the legal right to use these items for that purpose on a non-exclusive basis.



Article 6

Approval of plans of work

1. Six months after the entry into force of this Convention, and thereafter each fourth month, the Authority shall take up for consideration proposed plans of work.

2. When considering an application for approval of a plan of work in the form of a contract, the Authority shall first ascertain whether:

(a) the applicant has complied with the procedures established for applications in accordance with article 4 of this Annex and has given the Authority the undertakings and assurances required by that article. In cases of non-compliance with these procedures or in the absence of any of these undertakings and assurances, the applicant shall be given 45 days to remedy these defects;

(b) the applicant possesses the requisite qualifications provided for in article 4 of this Annex.

3. All proposed plans of work shall be taken up in the order in which they are received. The proposed plans of work shall comply with and be governed by the relevant provisions of this Convention and the rules, regulations and procedures of the Authority, including those on operational requirements, financial contributions and the undertakings concerning the transfer of technology. If the proposed plans of work conform to these requirements, the Authority shall approve them provided that they are in accordance with the uniform and non-discriminatory requirements set forth in the rules, regulations and procedures of the Authority, unless:

(a) part or all of the area covered by the proposed plan of work is included in an approved plan of work or a previously submitted proposed plan of work which has not yet been finally acted on by the Authority;

(b) part or all of the area covered by the proposed plan of work is disapproved by

the Authority pursuant to article 162, paragraph 2(x); or

(c) the proposed plan of work has been submitted or sponsored by a State Party which already holds:

(i) plans of work for exploration and exploitation of polymetallic nodules in non-reserved areas that, together with either part of the area covered by the application for a plan of work, exceed in size 30 per cent of a circular area of 400,000 square kilometres surrounding the centre of either part of the area covered by the proposed plan of work;

(ii) plans of work for the exploration and exploitation of polymetallic nodules in non-reserved areas which, taken together, constitute 2 per cent of the total seabed area which is not reserved or disapproved for exploitation pursuant to article 162, paragraph (2)(x).

4. For the purpose of the standard set forth in paragraph 3(c), a plan of work submitted by a partnership or consortium shall be counted on a *pro rata* basis among the sponsoring States Parties involved in accordance with article 4, paragraph 3, of this Annex. The Authority may approve plans of work covered by paragraph 3(c) if it determines that such approval would not permit a State Party or entities sponsored by it to monopolize the conduct of activities in the Area or to preclude other States Parties from activities in the Area.

5. Notwithstanding paragraph 3(a), after the end of the interim period specified in article 151, paragraph 3, the Authority may adopt by means of rules, regulations and procedures other procedures and criteria consistent with this Convention for deciding which applicants shall have plans of work approved in cases of selection among applicants for a proposed area. These procedures and criteria shall ensure approval of plans of work on an equitable and non-discriminatory basis.



Article 7

Selection among applicants for production authorizations

1. Six months after the entry into force of this Convention, and thereafter each fourth month, the Authority shall take up for consideration applications for production authorizations submitted during the immediately preceding period. The Authority shall issue the authorizations applied for if all such applications can be approved without exceeding the production limitation or contravening the obligations of the Authority under a commodity agreement or arrangement to which it has become a party, as provided in article 151.

2. When a selection must be made among applicants for production authorizations because of the production limitation set forth in article 151, paragraphs 2 to 7, or because of the obligations of the Authority under a commodity agreement or arrangement to which it has become a party, as provided for in article 151, paragraph 1, the Authority shall make the selection on the basis of objective and non-discriminatory standards set forth in its rules, regulations and procedures.
3. In the application of paragraph 2, the Authority shall give priority to those applicants which:
 - (a) give better assurance of performance, taking into account their financial and technical qualifications and their performance, if any, under previously approved plans of work;
 - (b) provide earlier prospective financial benefits to the Authority, taking into account when commercial production is scheduled to begin;
 - (c) have already invested the most resources and effort in prospecting or exploration.
4. Applicants which are not selected in any period shall have priority in subsequent periods until they receive a production authorization.
5. Selection shall be made taking into account the need to enhance opportunities for all States Parties, irrespective of their social and economic systems or geographical locations so as to avoid discrimination against any State or system, to participate in activities in the Area and to prevent monopolization of those activities.
6. Whenever fewer reserved areas than non-reserved areas are under exploitation, applications for production authorizations with respect to reserved areas shall have priority.
7. The decisions referred to in this article shall be taken as soon as possible after the close of each period.



Article 8

Reservation of areas

Each application, other than those submitted by the Enterprise or by any other entities for reserved areas, shall cover a total area, which need not be a single continuous area, sufficiently large and of sufficient estimated commercial value to allow two mining operations. The applicant shall indicate the coordinates dividing the area into two parts of equal estimated commercial value and submit all the data obtained by him with respect to both parts. Without prejudice to the powers of the Authority pursuant to article 17 of

this Annex, the data to be submitted concerning polymetallic nodules shall relate to mapping, sampling, the abundance of nodules, and their metal content. Within 45 days of receiving such data, the Authority shall designate which part is to be reserved solely for the conduct of activities by the Authority through the Enterprise or in association with developing States. This designation may be deferred for a further period of 45 days if the Authority requests an independent expert to assess whether all data required by this article has been submitted. The area designated shall become a reserved area as soon as the plan of work for the non-reserved area is approved and the contract is signed.



Article 9

Activities in reserved areas

1. The Enterprise shall be given an opportunity to decide whether it intends to carry out activities in each reserved area. This decision may be taken at any time, unless a notification pursuant to paragraph 4 is received by the Authority, in which event the Enterprise shall take its decision within a reasonable time. The Enterprise may decide to exploit such areas in joint ventures with the interested State or entity.
2. The Enterprise may conclude contracts for the execution of part of its activities in accordance with Annex IV, article 12. It may also enter into joint ventures for the conduct of such activities with any entities which are eligible to carry out activities in the Area pursuant to article 153, paragraph 2(b). When considering such joint ventures, the Enterprise shall offer to States Parties which are developing States and their nationals the opportunity of effective participation.
3. The Authority may prescribe, in its rules, regulations and procedures, substantive and procedural requirements and conditions with respect to such contracts and joint ventures.
4. Any State Party which is a developing State or any natural or juridical person sponsored by it and effectively controlled by it or by other developing State which is a qualified applicant, or any group of the foregoing, may notify the Authority that it wishes to submit a plan of work pursuant to article 6 of this Annex with respect to a reserved area. The plan of work shall be considered if the Enterprise decides, pursuant to paragraph 1, that it does not intend to carry out activities in that area.



Article 10

Preference and priority among applicants

An operator who has an approved plan of work for exploration only, as provided in article 3, paragraph 4(c), of this Annex shall have a preference and a priority among applicants for a plan of work

covering exploitation of the same area and resources. However, such preference or priority may be withdrawn if the operator's performance has not been satisfactory.



Article 11

Joint arrangements

1. Contracts may provide for joint arrangements between the contractor and the Authority through the Enterprise, in the form of joint ventures or production sharing, as well as any other form of joint arrangement, which shall have the same protection against revision, suspension or termination as contracts with the Authority.
2. Contractors entering into such joint arrangements with the Enterprise may receive financial incentives as provided for in article 13 of this Annex.
3. Partners in joint ventures with the Enterprise shall be liable for the payments required by article 13 of this Annex to the extent of their share in the joint ventures, subject to financial incentives as provided for in that article.



Article 12

Activities carried out by the Enterprise

1. Activities in the Area carried out by the Enterprise pursuant to article 153, paragraph 2(a), shall be governed by Part XI, the rules, regulations and procedures of the Authority and its relevant decisions.
2. Any plan of work submitted by the Enterprise shall be accompanied by evidence supporting its financial and technical capabilities.



Article 13

Financial terms of contracts

1. In adopting rules, regulations and procedures concerning the financial terms of a contract between the Authority and the entities referred to in article 153, paragraph 2(b), and in negotiating those financial terms in accordance with Part XI and those rules, regulations and procedures, the Authority shall be

guided by the following objectives:

(a) to ensure optimum revenues for the Authority from the proceeds of commercial production;

(b) to attract investments and technology to the exploration and exploitation of the Area;

(c) to ensure equality of financial treatment and comparable financial obligations for contractors;

(d) to provide incentives on a uniform and non-discriminatory basis for contractors to undertake joint arrangements with the Enterprise and developing States or their nationals, to stimulate the transfer of technology thereto, and to train the personnel of the Authority and of developing States;

(e) to enable the Enterprise to engage in seabed mining effectively at the same time as the entities referred to in article 153, paragraph 2(b); and

(f) to ensure that, as a result of the financial incentives provided to contractors under paragraph 14, under the terms of contracts reviewed in accordance with article 19 of this Annex or under the provisions of article 11 of this Annex with respect to joint ventures, contractors are not subsidized so as to be given an artificial competitive advantage with respect to land-based miners.

2. A fee shall be levied for the administrative cost of processing an application for approval of a plan of work in the form of a contract and shall be fixed at an amount of \$US 500,000 per application. The amount of the fee shall be reviewed from time to time by the Council in order to ensure that it covers the administrative cost incurred. If such administrative cost incurred by the Authority in processing an application is less than the fixed amount, the Authority shall refund the difference to the applicant.

3. A contractor shall pay an annual fixed fee of \$US 1 million from the date of entry into force of the contract. If the approved date of commencement of commercial production is postponed because of a delay in issuing the production authorization, in accordance with article 151, the annual fixed fee shall be waived for the period of postponement. From the date of commencement of commercial production, the contractor shall pay either the production charge or the annual fixed fee, whichever is greater.

4. Within a year of the date of commencement of commercial production, in conformity with paragraph 3, a contractor shall choose to make his financial contribution to the Authority by either:

(a) paying a production charge only; or

(b) paying a combination of a production charge and a share of net proceeds.

5. (a) If a contractor chooses to make his financial contribution to the Authority by paying a production charge only, it shall be fixed at a percentage of the market value of the processed metals produced from the polymetallic nodules recovered from the area covered by the contract. This percentage shall be fixed as follows:

(i) years 1-10 of commercial production 5 per cent

(ii) years 11 to the end of commercial production 12 per cent

(b) The said market value shall be the product of the quantity of the processed metals produced from the polymetallic nodules extracted from the area covered by the contract and the average price for those metals during the relevant accounting year, as defined in paragraphs 7 and 8.

6. If a contractor chooses to make his financial contribution to the Authority by paying a combination of a production charge and a share of net proceeds, such payments shall be determined as follows:

(a) The production charge shall be fixed at a percentage of the market value, determined in accordance with subpara-graph (b), of the processed metals produced from the polymetallic nodules recovered from the area covered by the contract. This percentage shall be fixed as follows:

(i) first period of commercial production 2 per cent

(ii) second period of commercial production 4 per cent

If, in the second period of commercial production, as defined in subparagraph (d), the return on investment in any accounting year as defined in subparagraph (m) falls below 15 per cent as a result of the payment of the production charge at 4 per cent, the production charge shall be 2 per cent instead of 4 per cent in that accounting year.

(b) The said market value shall be the product of the quantity of the processed metals produced from the polymetallic nodules recovered from the area covered by the contract and the average price for those metals during the relevant accounting year as defined in paragraphs 7 and 8.

(c) (i) The Authority's share of net proceeds shall be taken out of that portion of the contractor's net proceeds which is attributable to the mining of the resources of the area covered by the contract, referred to hereinafter as

attributable net proceeds.

(ii) The Authority's share of attributable net proceeds shall be determined in accordance with the following incremental schedule:

<i>Portion of attributable net proceeds</i>	<i>Share of the Authority</i>	
	<i>First period of commercial production</i>	<i>Second period of commercial production</i>
	35 per cent	40 per cent
That portion representing a return on investment which is greater than 0 per cent, but less than 10 per cent		
	42.5 per cent	50 per cent
That portion representing a return on investment which is 10 per cent or greater, but less than 20 per cent		
	50 per cent	70 per cent
That portion representing a return on investment which is 20 per cent or greater		

(d) (i) The first period of commercial production referred to in subparagraphs (a) and (c) shall commence in the first accounting year of commercial production and terminate in the accounting year in which the contractor's development costs with interest on the unrecovered portion thereof are fully recovered by his cash surplus, as follows:

In the first accounting year during which development costs are incurred, unrecovered development costs shall equal the development costs less cash surplus in that year. In each subsequent accounting year, unrecovered development costs shall equal the unrecovered development costs at the end of the preceding accounting year, plus interest thereon at the rate of

10 per cent per annum, plus development costs incurred in the current accounting year and less contractor's cash surplus in the current accounting year. The accounting year in which unrecovered development costs become zero for the first time shall be the accounting year in which the contractor's development costs with interest on the unrecovered portion thereof are fully recovered by his cash surplus. The contractor's cash surplus in any accounting year shall be his gross proceeds less his operating costs and less his payments to the Authority under subparagraph (c).

(ii) The second period of commercial production shall commence in the accounting year following the termination of the first period of commercial production and shall continue until the end of the contract.

(e) "Attributable net proceeds" means the product of the contractor's net proceeds and the ratio of the development costs in the mining sector to the contractor's development costs. If the contractor engages in mining, transporting polymetallic nodules and production primarily of three processed metals, namely, cobalt, copper and nickel, the amount of attributable net proceeds shall not be less than 25 per cent of the contractor's net proceeds. Subject to subparagraph (n), in all other cases, including those where the contractor engages in mining, transporting polymetallic nodules, and production primarily of four processed metals, namely, cobalt, copper, manganese and nickel, the Authority may, in its rules, regulations and procedures, prescribe appropriate floors which shall bear the same relationship to each case as the 25 per cent floor does to the three-metal case.

(f) "Contractor's net proceeds" means the contractor's gross proceeds less his operating costs and less the recovery of his development costs as set out in subparagraph (j).

(g) (i) If the contractor engages in mining, transporting polymetallic nodules and production of processed metals, "contractor's gross proceeds" means the gross revenues from the sale of the processed metals and any other monies deemed reasonably attributable to operations under the contract in accordance with the financial rules, regulations and procedures of the Authority.

(ii) In all cases other than those specified in subparagraphs (g)(i) and (n)(iii), "contractor's gross proceeds" means the gross revenues from the sale of the semi-processed metals from the polymetallic nodules recovered from the area covered by the contract, and any other monies deemed reasonably attributable to operations under the contract in accordance with the financial rules, regulations and procedures of the Authority.

(h) "Contractor's development costs" means:

(i) all expenditures incurred prior to the commencement of commercial production which are directly related to the development of the productive capacity of the area covered by the contract and the activities related thereto for operations under the contract in all cases other than that specified in subparagraph (n), in conformity with generally recognized accounting principles, including, *inter alia*, costs of machinery, equipment, ships, processing plant, construction, buildings, land, roads, prospecting and exploration of the area covered by the contract, research and development, interest, required leases, licences and fees; and

(ii) expenditures similar to those set forth in (i) above incurred subsequent to the commencement of commercial production and necessary to carry out the plan of work, except those chargeable to operating costs.

(i) The proceeds from the disposal of capital assets and the market value of those capital assets which are no longer required for operations under the contract and which are not sold shall be deducted from the contractor's development costs during the relevant accounting year. When these deductions exceed the contractor's development costs the excess shall be added to the contractor's gross proceeds.

(j) The contractor's development costs incurred prior to the commencement of commercial production referred to in subparagraphs (h)(i) and (n)(iv) shall be recovered in 10 equal annual instalments from the date of commencement of commercial production. The contractor's development costs incurred subsequent to the commencement of commercial production referred to in subparagraphs (h)(ii) and (n)(iv) shall be recovered in 10 or fewer equal annual instalments so as to ensure their complete recovery by the end of the contract.

(k) "Contractor's operating costs" means all expenditures incurred after the commencement of commercial production in the operation of the productive capacity of the area covered by the contract and the activities related thereto for operations under the contract, in conformity with generally recognized accounting principles, including, *inter alia*, the annual fixed fee or the production charge, whichever is greater, expenditures for wages, salaries, employee benefits, materials, services, transporting, processing and marketing costs, interest, utilities, preservation of the marine environment, overhead and administrative costs specifically related to operations under the contract, and any net operating losses carried forward or backward as specified herein. Net operating losses may be carried forward for two consecutive years except in the last two years of the contract in which case they may be carried backward to the two preceding years.

(l) If the contractor engages in mining, transporting of polymetallic nodules, and production of processed and semi-processed metals, "development costs of the mining sector" means the portion of the contractor's development costs which is directly related to the mining of the resources of the area covered by the contract, in conformity with generally recognized accounting principles, and the financial rules, regulations and procedures of the Authority, including, *inter alia*, application fee, annual fixed fee and, where applicable, costs of prospecting and exploration of the area covered by the contract, and a portion of research and development costs.

(m) "Return on investment" in any accounting year means the ratio of attributable net proceeds in that year to the development costs of the mining sector. For the purpose of computing this ratio the development costs of the mining sector shall include expenditures on new or replacement equipment in the mining sector less the original cost of the equipment replaced.

(n) If the contractor engages in mining only:

(i) "attributable net proceeds" means the whole of the contractor's net proceeds;

(ii) "contractor's net proceeds" shall be as defined in subparagraph (f);

(iii) "contractor's gross proceeds" means the gross revenues from the sale of the polymetallic nodules, and any other monies deemed reasonably attributable to operations under the contract in accordance with the financial rules, regulations and procedures of the Authority;

(iv) "contractor's development costs" means all expenditures incurred prior to the commencement of commercial production as set forth in subparagraph (h)(i), and all expenditures incurred subsequent to the commencement of commercial production as set forth in subparagraph (h)(ii), which are directly related to the mining of the resources of the area covered by the contract, in conformity with generally recognized accounting principles;

(v) "contractor's operating costs" means the contractor's operating costs as in subparagraph (k) which are directly related to the mining of the resources of the area covered by the contract in conformity with generally recognized accounting principles;

(vi) "return on investment" in any accounting year means the ratio of the contractor's net proceeds in that year to the contractor's development costs.

For the purpose of computing this ratio, the contractor's development costs shall include expenditures on new or replacement equipment less the original cost of the equipment replaced.

(o) The costs referred to in subparagraphs (h), (k), (l) and (n) in respect of interest paid by the contractor shall be allowed to the extent that, in all the circumstances, the Authority approves, pursuant to article 4, paragraph 1, of this Annex, the debt-equity ratio and the rates of interest as reasonable, having regard to existing commercial practice.

(p) The costs referred to in this paragraph shall not be interpreted as including payments of corporate income taxes or similar charges levied by States in respect of the operations of the contractor.

7. (a) "Processed metals", referred to in paragraphs 5 and 6, means the metals in the most basic form in which they are customarily traded on international terminal markets. For this purpose, the Authority shall specify, in its financial rules, regulations and procedures, the relevant international terminal market. For the metals which are not traded on such markets, "processed metals" means the metals in the most basic form in which they are customarily traded in representative arm's length transactions.

(b) If the Authority cannot otherwise determine the quantity of the processed metals produced from the polymetallic nodules recovered from the area covered by the contract referred to in paragraphs 5(b) and 6(b), the quantity shall be determined on the basis of the metal content of the nodules, processing recovery efficiency and other relevant factors, in accordance with the rules, regulations and procedures of the Authority and in conformity with generally recognized accounting principles.

8. If an international terminal market provides a representative pricing mechanism for processed metals, polymetallic nodules and semi-processed metals from the nodules, the average price on that market shall be used. In all other cases, the Authority shall, after consulting the contractor, determine a fair price for the said products in accordance with paragraph 9.

9. (a) All costs, expenditures, proceeds and revenues and all determinations of price and value referred to in this article shall be the result of free market or arm's length transactions. In the absence thereof, they shall be determined by the Authority, after consulting the contractor, as though they were the result of free market or arm's length transactions, taking into account relevant transactions in other markets.

(b) In order to ensure compliance with and enforcement of the provisions of this paragraph, the Authority shall be guided by the principles adopted for, and the

interpretation given to, arm's length transactions by the Commission on Transnational Corporations of the United Nations, the Group of Experts on Tax Treaties between Developing and Developed Countries and other international organizations, and shall, in its rules, regulations and procedures, specify uniform and internationally acceptable accounting rules and procedures, and the means of selection by the contractor of certified independent accountants acceptable to the Authority for the purpose of carrying out auditing in compliance with those rules, regulations and procedures.

10. The contractor shall make available to the accountants, in accordance with the financial rules, regulations and procedures of the Authority, such financial data as are required to determine compliance with this article.

11. All costs, expenditures, proceeds and revenues, and all prices and values referred to in this article, shall be determined in accordance with generally recognized accounting principles and the financial rules, regulations and procedures of the Authority.

12. Payments to the Authority under paragraphs 5 and 6 shall be made in freely usable currencies or currencies which are freely available and effectively usable on the major foreign exchange markets or, at the contractor's option, in the equivalents of processed metals at market value. The market value shall be determined in accordance with paragraph 5(b). The freely usable currencies and currencies which are freely available and effectively usable on the major foreign exchange markets shall be defined in the rules, regulations and procedures of the Authority in accordance with prevailing international monetary practice.

13. All financial obligations of the contractor to the Authority, as well as all his fees, costs, expenditures, proceeds and revenues referred to in this article, shall be adjusted by expressing them in constant terms relative to a base year.

14. The Authority may, taking into account any recommendations of the Economic Planning Commission and the Legal and Technical Commission, adopt rules, regulations and procedures that provide for incentives, on a uniform and non-discriminatory basis, to contractors to further the objectives set out in paragraph 1.

15. In the event of a dispute between the Authority and a contractor over the interpretation or application of the financial terms of a contract, either party may submit the dispute to binding commercial arbitration, unless both parties agree to settle the dispute by other means, in accordance with article 188, paragraph 2.



Article 14

Transfer of data

1. The operator shall transfer to the Authority, in accordance with its rules, regulations and procedures and the terms and conditions of the plan of work, at time intervals determined by the Authority all data which are both necessary for and relevant to the effective exercise of the powers and functions of the principal organs of the Authority in respect of the area covered by the plan of work.
2. Transferred data in respect of the area covered by the plan of work, deemed proprietary, may only be used for the purposes set forth in this article. Data necessary for the formulation by the Authority of rules, regulations and procedures concerning protection of the marine environment and safety, other than equipment design data, shall not be deemed proprietary.
3. Data transferred to the Authority by prospectors, applicants for contracts or contractors, deemed proprietary, shall not be disclosed by the Authority to the Enterprise or to anyone external to the Authority, but data on the reserved areas may be disclosed to the Enterprise. Such data transferred by such persons to the Enterprise shall not be disclosed by the Enterprise to the Authority or to anyone external to the Authority.



Article 15

Training programmes

The contractor shall draw up practical programmes for the training of personnel of the Authority and developing States, including the participation of such personnel in all activities in the Area which are covered by the contract, in accordance with article 144, paragraph 2.



Article 16

Exclusive right to explore and exploit

The Authority shall, pursuant to Part XI and its rules, regulations and procedures, accord the operator the exclusive right to explore and exploit the area covered by the plan of work in respect of a specified category of resources and shall ensure that no other entity operates in the same area for a different category of resources in a manner which might interfere with the operations of the operator. The operator shall have security of tenure in accordance with article 153, paragraph 6.



Article 17

Rules, regulations and procedures of the Authority

1. The Authority shall adopt and uniformly apply rules, regulations and procedures in accordance with article 160, paragraph 2(f)(ii), and article 162, paragraph 2(o)(ii), for the exercise of its functions as set forth in Part XI on, *inter alia*, the following matters:

(a) administrative procedures relating to prospecting, exploration and exploitation in the Area;

(b) operations:

(i) size of area;

(ii) duration of operations;

(iii) performance requirements including assurances pursuant to article 4, paragraph 6(c), of this Annex;

(iv) categories of resources;

(v) renunciation of areas;

(vi) progress reports;

(vii) submission of data;

(viii) inspection and supervision of operations;

(ix) prevention of interference with other activities in the marine environment;

(x) transfer of rights and obligations by a contractor;

(xi) procedures for transfer of technology to developing States in accordance with article 144 and for their direct participation;

(xii) mining standards and practices, including those relating to operational safety, conservation of the resources and the protection of the marine environment;

(xiii) definition of commercial production;

(xiv) qualification standards for applicants;

(c) financial matters:

(i) establishment of uniform and non-discriminatory costing and accounting rules and the method of selection of auditors;

(ii) apportionment of proceeds of operations;

(iii) the incentives referred to in article 13 of this Annex;

(d) implementation of decisions taken pursuant to article 151, paragraph 10, and article 164, paragraph 2(d).

2. Rules, regulations and procedures on the following items shall fully reflect the objective criteria set out below:

(a) Size of areas:

The Authority shall determine the appropriate size of areas for exploration which may be up to twice as large as those for exploitation in order to permit intensive exploration operations. The size of area shall be calculated to satisfy the requirements of article 8 of this Annex on reservation of areas as well as stated production requirements consistent with article 151 in accordance with the terms of the contract taking into account the state of the art of technology then available for seabed mining and the relevant physical characteristics of the areas. Areas shall be neither smaller nor larger than are necessary to satisfy this objective.

(b) Duration of operations:

(i) Prospecting shall be without time-limit;

(ii) Exploration should be of sufficient duration to permit a thorough survey of the specific area, the design and construction of mining equipment for the area and the design and construction of small and medium-size processing plants for the purpose of testing mining and processing systems;

(iii) The duration of exploitation should be related to the economic life of the mining project, taking into consideration such factors as the depletion of the

ore, the useful life of mining equipment and processing facilities and commercial viability. Exploitation should be of sufficient duration to permit commercial extraction of minerals of the area and should include a reasonable time period for construction of commercial-scale mining and processing systems, during which period commercial production should not be required. The total duration of exploitation, however, should also be short enough to give the Authority an opportunity to amend the terms and conditions of the plan of work at the time it considers renewal in accordance with rules, regulations and procedures which it has adopted subsequent to approving the plan of work.

(c) Performance requirements:

The Authority shall require that during the exploration stage periodic expenditures be made by the operator which are reasonably related to the size of the area covered by the plan of work and the expenditures which would be expected of a *bona fide* operator who intended to bring the area into commercial production within the time-limits established by the Authority. The required expenditures should not be established at a level which would discourage prospective operators with less costly technology than is prevalently in use. The Authority shall establish a maximum time interval, after the exploration stage is completed and the exploitation stage begins, to achieve commercial production. To determine this interval, the Authority should take into consideration that construction of large-scale mining and processing systems cannot be initiated until after the termination of the exploration stage and the commencement of the exploitation stage. Accordingly, the interval to bring an area into commercial production should take into account the time necessary for this construction after the completion of the exploration stage and reasonable allowance should be made for unavoidable delays in the construction schedule. Once commercial production is achieved, the Authority shall within reasonable limits and taking into consideration all relevant factors require the operator to maintain commercial production throughout the period of the plan of work.

(d) Categories of resources:

In determining the category of resources in respect of which a plan of work may be approved, the Authority shall give emphasis *inter alia* to the following characteristics:

- (i) that certain resources require the use of similar mining methods; and
- (ii) that some resources can be developed simultaneously without undue

interference between operators developing different resources in the same area.

Nothing in this subparagraph shall preclude the Authority from approving a plan of work with respect to more than one category of resources in the same area to the same applicant.

(e) Renunciation of areas:

The operator shall have the right at any time to renounce without penalty the whole or part of his rights in the area covered by a plan of work.

(f) Protection of the marine environment:

Rules, regulations and procedures shall be drawn up in order to secure effective protection of the marine environment from harmful effects directly resulting from activities in the Area or from shipboard processing immediately above a mine site of minerals derived from that mine site, taking into account the extent to which such harmful effects may directly result from drilling, dredging, coring and excavation and from disposal, dumping and discharge into the marine environment of sediment, wastes or other effluents.

(g) Commercial production:

Commercial production shall be deemed to have begun if an operator engages in sustained large-scale recovery operations which yield a quantity of materials sufficient to indicate clearly that the principal purpose is large-scale production rather than production intended for information gathering, analysis or the testing of equipment or plant.



Article 18

Penalties

1. A contractor's rights under the contract may be suspended or terminated only in the following cases:

(a) if, in spite of warnings by the Authority, the contractor has conducted his activities in such a way as to result in serious, persistent and wilful violations of the fundamental terms of the contract, Part XI and the rules, regulations and procedures of the Authority; or

(b) if the contractor has failed to comply with a final binding decision of the dispute settlement body applicable to him.

2. In the case of any violation of the contract not covered by paragraph 1(a), or in lieu of suspension or termination under paragraph 1(a), the Authority may impose upon the contractor monetary penalties proportionate to the seriousness of the violation.

3. Except for emergency orders under article 162, paragraph 2(w), the Authority may not execute a decision involving monetary penalties, suspension or termination until the contractor has been accorded a reasonable opportunity to exhaust the judicial remedies available to him pursuant to Part XI, section 5.



Article 19

Revision of contract

1. When circumstances have arisen or are likely to arise which, in the opinion of either party, would render the contract inequitable or make it impracticable or impossible to achieve the objectives set out in the contract or in Part XI, the parties shall enter into negotiations to revise it accordingly.

2. Any contract entered into in accordance with article 153, paragraph 3, may be revised only with the consent of the parties.



Article 20

Transfer of rights and obligations

The rights and obligations arising under a contract may be transferred only with the consent of the Authority, and in accordance with its rules, regulations and procedures. The Authority shall not unreasonably withhold consent to the transfer if the proposed transferee is in all respects a qualified applicant and assumes all of the obligations of the transferor and if the transfer does not confer to the transferee a plan of work, the approval of which would be forbidden by article 6, paragraph 3(c), of this Annex.



Article 21

Applicable law

1. The contract shall be governed by the terms of the contract, the rules, regulations and procedures of the Authority, Part XI and other rules of international law not incompatible with this Convention.
2. Any final decision rendered by a court or tribunal having jurisdiction under this Convention relating to the rights and obligations of the Authority and of the contractor shall be enforceable in the territory of each State Party.
3. No State Party may impose conditions on a contractor that are inconsistent with Part XI. However, the application by a State Party to contractors sponsored by it, or to ships flying its flag, of environmental or other laws and regulations more stringent than those in the rules, regulations and procedures of the Authority adopted pursuant to article 17, paragraph 2(f), of this Annex shall not be deemed inconsistent with Part XI.



Article 22

Responsibility

The contractor shall have responsibility or liability for any damage arising out of wrongful acts in the conduct of its operations, account being taken of contributory acts or omissions by the Authority. Similarly, the Authority shall have responsibility or liability for any damage arising out of wrongful acts in the exercise of its powers and functions, including violations under article 168, paragraph 2, account being taken of contributory acts or omissions by the contractor. Liability in every case shall be for the actual amount of damage.

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ANNEX IV. STATUTE OF THE ENTERPRISE



Article 1

Purposes

1. The Enterprise is the organ of the Authority which shall carry out activities in the Area directly, pursuant to article 153, paragraph 2 (a), as well as the transporting, processing and marketing of minerals recovered from the Area.
2. In carrying out its purposes and in the exercise of its functions, the Enterprise shall act in accordance with this Convention and the rules, regulations and procedures of the Authority.
3. In developing the resources of the Area pursuant to paragraph 1, the Enterprise shall, subject to this Convention, operate in accordance with sound commercial principles.



Article 2

Relationship to the Authority

1. Pursuant to article 170, the Enterprise shall act in accordance with the general policies of the Assembly and the directives of the Council.
2. Subject to paragraph 1, the Enterprise shall enjoy autonomy in the conduct of its operations.
3. Nothing in this Convention shall make the Enterprise liable for the acts or obligations of the Authority, or make the Authority liable for the acts or obligations of the Enterprise.



Article 3

Limitation of liability

Without prejudice to article 11, paragraph 3, of this Annex, no member of the Authority shall be liable by reason only of its membership for the acts or obligations of the Enterprise.



Article 4

Structure

The Enterprise shall have a Governing Board, a Director-General and the staff necessary for the exercise of its functions.



Article 5

Governing Board

1. The Governing Board shall be composed of 15 members elected by the Assembly in accordance with article 160, paragraph 2(c). In the election of the members of the Board, due regard shall be paid to the principle of equitable geographical distribution. In submitting nominations of candidates for election to the Board, members of the Authority shall bear in mind the need to nominate candidates of the highest standard of competence, with qualifications in relevant fields, so as to ensure the viability and success of the Enterprise.

2. Members of the Board shall be elected for four years and may be re-elected; and due regard shall be paid to the principle of rotation of membership.

3. Members of the Board shall continue in office until their successors are elected. If the office of a member of the Board becomes vacant, the Assembly shall, in accordance with article 160, paragraph 2(c), elect a new member for the remainder of his predecessor's term.

4. Members of the Board shall act in their personal capacity. In the performance of their duties they shall not seek or receive instructions from any government or from any other source. Each member of the Authority shall respect the independent character of the members of the Board and shall refrain from all attempts to influence any of them in the discharge of their duties.

5. Each member of the Board shall receive remuneration to be paid out of the funds of the Enterprise. The amount of remuneration shall be fixed by the Assembly, upon the recommendation of the Council.

6. The Board shall normally function at the principal office of the Enterprise and shall meet as often as the business of the Enterprise may require.

7. Two thirds of the members of the Board shall constitute a quorum.

8. Each member of the Board shall have one vote. All matters before the Board shall be decided by a majority of its members. If a member has a conflict of interest on a matter before the Board he shall refrain from voting on that matter.

9. Any member of the Authority may ask the Board for information in respect of its operations which particularly affect that member. The Board shall endeavour to provide such information.



Article 6

Powers and functions of the Governing Board

The Governing Board shall direct the operations of the Enterprise. Subject to this Convention, the Governing Board shall exercise the powers necessary to fulfil the purposes of the Enterprise, including powers:

- (a) to elect a Chairman from among its members;
- (b) to adopt its rules of procedure;
- (c) to draw up and submit formal written plans of work to the Council in accordance with article 153, paragraph 3, and article 162, paragraph 2(j);
- (d) to develop plans of work and programmes for carrying out the activities specified in article 170;
- (e) to prepare and submit to the Council applications for production authorizations in accordance with article 151, paragraphs 2 to 7;
- (f) to authorize negotiations concerning the acquisition of technology, including those provided for in Annex III, article 5, paragraph 3(a), (c) and (d), and to approve the results of those negotiations;
- (g) to establish terms and conditions, and to authorize negotiations, concerning joint ventures and other forms of joint arrangements referred to in Annex III, articles 9 and 11, and to approve the results of such negotiations;
- (h) to recommend to the Assembly what portion of the net income of the Enterprise should be retained as its reserves in accordance with article 160, paragraph 2(f), and article 10 of this Annex;

- (i) to approve the annual budget of the Enterprise;
- (j) to authorize the procurement of goods and services in accordance with article 12, paragraph 3, of this Annex;
- (k) to submit an annual report to the Council in accordance with article 9 of this Annex;
- (l) to submit to the Council for the approval of the Assembly draft rules in respect of the organization, management, appointment and dismissal of the staff of the Enterprise and to adopt regulations to give effect to such rules;
- (m) to borrow funds and to furnish such collateral or other security as it may determine in accordance with article 11, paragraph 2, of this Annex;
- (n) to enter into any legal proceedings, agreements and transactions and to take any other actions in accordance with article 13 of this Annex;
- (o) to delegate, subject to the approval of the Council, any non-discretionary powers to the Director-General and to its committees.



Article 7

Director-General and staff of the Enterprise

1. The Assembly shall, upon the recommendation of the Council and the nomination of the Governing Board, elect the Director-General of the Enterprise who shall not be a member of the Board. The Director-General shall hold office for a fixed term, not exceeding five years, and may be re-elected for further terms.
2. The Director-General shall be the legal representative and chief executive of the Enterprise and shall be directly responsible to the Board for the conduct of the operations of the Enterprise. He shall be responsible for the organization, management, appointment and dismissal of the staff of the Enterprise in accordance with the rules and regulations referred to in article 6, subparagraph (l), of this Annex. He shall participate, without the right to vote, in the meetings of the Board and may participate, without the right to vote, in the meetings of the Assembly and the Council when these organs are dealing with matters concerning the Enterprise.
3. The paramount consideration in the recruitment and employment of the staff and in the determination of their conditions of service shall be the necessity of securing the highest standards of efficiency and of technical competence. Subject to this consideration, due regard shall be paid to the importance of

recruiting the staff on an equitable geographical basis.

4. In the performance of their duties the Director-General and the staff shall not seek or receive instructions from any government or from any other source external to the Enterprise. They shall refrain from any action which might reflect on their position as international officials of the Enterprise responsible only to the Enterprise. Each State Party undertakes to respect the exclusively international character of the responsibilities of the Director-General and the staff and not to seek to influence them in the discharge of their responsibilities.

5. The responsibilities set forth in article 168, paragraph 2, are equally applicable to the staff of the Enterprise.



Article 8

Location

The Enterprise shall have its principal office at the seat of the Authority. The Enterprise may establish other offices and facilities in the territory of any State Party with the consent of that State Party.



Article 9

Reports and financial statements

1. The Enterprise shall, not later than three months after the end of each financial year, submit to the Council for its consideration an annual report containing an audited statement of its accounts and shall transmit to the Council at appropriate intervals a summary statement of its financial position and a profit and loss statement showing the results of its operations.

2. The Enterprise shall publish its annual report and such other reports as it finds appropriate.

3. All reports and financial statements referred to in this article shall be distributed to the members of the Authority.



Article 10

Allocation of net income

1. Subject to paragraph 3, the Enterprise shall make payments to the Authority under Annex III, article 13, or their equivalent.
2. The Assembly shall, upon the recommendation of the Governing Board, determine what portion of the net income of the Enterprise shall be retained as reserves of the Enterprise. The remainder shall be transferred to the Authority.
3. During an initial period required for the Enterprise to become self-supporting, which shall not exceed 10 years from the commencement of commercial production by it, the Assembly shall exempt the Enterprise from the payments referred to in paragraph 1, and shall leave all of the net income of the Enterprise in its reserves.



Article 11

Finances

1. The funds of the Enterprise shall include:
 - (a) amounts received from the Authority in accordance with article 173, paragraph 2(b);
 - (b) voluntary contributions made by States Parties for the purpose of financing activities of the Enterprise;
 - (c) amounts borrowed by the Enterprise in accordance with paragraphs 2 and 3;
 - (d) income of the Enterprise from its operations;
 - (e) other funds made available to the Enterprise to enable it to commence operations as soon as possible and to carry out its functions.
2. (a) The Enterprise shall have the power to borrow funds and to furnish such collateral or other security as it may determine. Before making a public sale of its obligations in the financial markets or currency of a State Party, the Enterprise shall obtain the approval of that State Party. The total amount of borrowings shall be approved by the Council upon the recommendation of the Governing Board.
 - (b) States Parties shall make every reasonable effort to support applications by the Enterprise for loans on capital markets and from international financial institutions.

3. (a) The Enterprise shall be provided with the funds necessary to explore and exploit one mine site, and to transport, process and market the minerals recovered therefrom and the nickel, copper, cobalt and manganese obtained, and to meet its initial administrative expenses. The amount of the said funds, and the criteria and factors for its adjustment, shall be included by the Preparatory Commission in the draft rules, regulations and procedures of the Authority.

(b) All States Parties shall make available to the Enterprise an amount equivalent to one half of the funds referred to in subparagraph (a) by way of long-term interest-free loans in accordance with the scale of assessments for the United Nations regular budget in force at the time when the assessments are made, adjusted to take into account the States which are not members of the United Nations. Debts incurred by the Enterprise in raising the other half of the funds shall be guaranteed by all States Parties in accordance with the same scale.

(c) If the sum of the financial contributions of States Parties is less than the funds to be provided to the Enterprise under subparagraph (a), the Assembly shall, at its first session, consider the extent of the shortfall and adopt by consensus measures for dealing with this shortfall, taking into account the obligation of States Parties under subparagraphs (a) and (b) and any recommendations of the Preparatory Commission.

(d) (i) Each State Party shall, within 60 days after the entry into force of this Convention, or within 30 days after the deposit of its instrument of ratification or accession, whichever is later, deposit with the Enterprise irrevocable, non-negotiable, non-interest-bearing promissory notes in the amount of the share of such State Party of interest-free loans pursuant to subparagraph (b).

(ii) The Board shall prepare, at the earliest practicable date after this Convention enters into force, and thereafter at annual or other appropriate intervals, a schedule of the magnitude and timing of its requirements for the funding of its administrative expenses and for activities carried out by the Enterprise in accordance with article 170 and article 12 of this Annex.

(iii) The States Parties shall, thereupon, be notified by the Enterprise, through the Authority, of their respective shares of the funds in accordance with subparagraph (b), required for such expenses. The Enterprise shall encash such amounts of the promissory notes as may be required to meet the expenditure referred to in the schedule with respect to interest-free loans.

(iv) States Parties shall, upon receipt of the notification, make available their

respective shares of debt guarantees for the Enterprise in accordance with subparagraph (b).

(e) (i) If the Enterprise so requests, State Parties may provide debt guarantees in addition to those provided in accordance with the scale referred to in subparagraph (b).

(ii) In lieu of debt guarantees, a State Party may make a voluntary contribution to the Enterprise in an amount equivalent to that portion of the debts which it would otherwise be liable to guarantee.

(f) Repayment of the interest-bearing loans shall have priority over the repayment of the interest-free loans. Repayment of interest-free loans shall be in accordance with a schedule adopted by the Assembly, upon the recommendation of the Council and the advice of the Board. In the exercise of this function the Board shall be guided by the relevant provisions of the rules, regulations and procedures of the Authority, which shall take into account the paramount importance of ensuring the effective functioning of the Enterprise and, in particular, ensuring its financial independence.

(g) Funds made available to the Enterprise shall be in freely usable currencies or currencies which are freely available and effectively usable in the major foreign exchange markets. These currencies shall be defined in the rules, regulations and procedures of the Authority in accordance with prevailing international monetary practice. Except as provided in paragraph 2, no State Party shall maintain or impose restrictions on the holding, use or exchange by the Enterprise of these funds.

(h) "Debt guarantee" means a promise of a State Party to creditors of the Enterprise to pay, *pro rata* in accordance with the appropriate scale, the financial obligations of the Enterprise covered by the guarantee following notice by the creditors to the State Party of a default by the Enterprise. Procedures for the payment of those obligations shall be in conformity with the rules, regulations and procedures of the Authority.

4. The funds, assets and expenses of the Enterprise shall be kept separate from those of the Authority. This article shall not prevent the Enterprise from making arrangements with the Authority regarding facilities, personnel and services and arrangements for reimbursement of administrative expenses paid by either on behalf of the other.

5. The records, books and accounts of the Enterprise, including its annual financial statements, shall be audited annually by an independent auditor appointed by the Council.



Article 12

Operations

1. The Enterprise shall propose to the Council projects for carrying out activities in accordance with article 170. Such proposals shall include a formal written plan of work for activities in the Area in accordance with article 153, paragraph 3, and all such other information and data as may be required from time to time for its appraisal by the Legal and Technical Commission and approval by the Council.
2. Upon approval by the Council, the Enterprise shall execute the project on the basis of the formal written plan of work referred to in paragraph 1.
 3. (a) If the Enterprise does not possess the goods and services required for its operations it may procure them. For that purpose, it shall issue invitations to tender and award contracts to bidders offering the best combination of quality, price and delivery time.
 - (b) If there is more than one bid offering such a combination, the contract shall be awarded in accordance with:
 - (i) the principle of non-discrimination on the basis of political or other considerations not relevant to the carrying out of operations with due diligence and efficiency; and
 - (ii) guidelines approved by the Council with regard to the preferences to be accorded to goods and services originating in developing States, including the land-locked and geographically disadvantaged among them.
 - (c) The Governing Board may adopt rules determining the special circumstances in which the requirement of invitations to bid may, in the best interests of the Enterprise, be dispensed with.
4. The Enterprise shall have title to all minerals and processed substances produced by it.
5. The Enterprise shall sell its products on a non-discriminatory basis. It shall not give non-commercial discounts.
6. Without prejudice to any general or special power conferred on the Enterprise under any other provision of this Convention, the Enterprise shall exercise such powers incidental to its business as shall be necessary.
7. The Enterprise shall not interfere in the political affairs of any State Party; nor shall it be influenced in

its decisions by the political character of the State Party concerned. Only commercial considerations shall be relevant to its decisions, and these considerations shall be weighed impartially in order to carry out the purposes specified in article 1 of this Annex.



Article 13

Legal status, privileges and immunities

1. To enable the Enterprise to exercise its functions, the status, privileges and immunities set forth in this article shall be accorded to the Enterprise in the territories of States Parties. To give effect to this principle the Enterprise and States Parties may, where necessary, enter into special agreements.
2. The Enterprise shall have such legal capacity as is necessary for the exercise of its functions and the fulfilment of its purposes and, in particular, the capacity:
 - (a) to enter into contracts, joint arrangements or other arrangements, including agreements with States and international organizations;
 - (b) to acquire, lease, hold and dispose of immovable and movable property;
 - (c) to be a party to legal proceedings.
3. (a) Actions may be brought against the Enterprise only in a court of competent jurisdiction in the territory of a State Party in which the Enterprise:
 - (i) has an office or facility;
 - (ii) has appointed an agent for the purpose of accepting service or notice of process;
 - (iii) has entered into a contract for goods or services;
 - (iv) has issued securities; or
 - (v) is otherwise engaged in commercial activity.
- (b) The property and assets of the Enterprise, wherever located and by whomsoever held, shall be immune from all forms of seizure, attachment or execution before the delivery of final judgment against the Enterprise.

4. (a) The property and assets of the Enterprise, wherever located and by whomsoever held, shall be immune from requisition, confiscation, expropriation or any other form of seizure by executive or legislative action.

(b) The property and assets of the Enterprise, wherever located and by whomsoever held, shall be free from discriminatory restrictions, regulations, controls and moratoria of any nature.

(c) The Enterprise and its employees shall respect local laws and regulations in any State or territory in which the Enterprise or its employees may do business or otherwise act.

(d) States Parties shall ensure that the Enterprise enjoys all rights, privileges and immunities accorded by them to entities conducting commercial activities in their territories. These rights, privileges and immunities shall be accorded to the Enterprise on no less favourable a basis than that on which they are accorded to entities engaged in similar commercial activities. If special privileges are provided by States Parties for developing States or their commercial entities, the Enterprise shall enjoy those privileges on a similarly preferential basis.

(e) States Parties may provide special incentives, rights, privileges and immunities to the Enterprise without the obligation to provide such incentives, rights, privileges and immunities to other commercial entities.

5. The Enterprise shall negotiate with the host countries in which its offices and facilities are located for exemption from direct and indirect taxation.

6. Each State Party shall take such action as is necessary for giving effect in terms of its own law to the principles set forth in this Annex and shall inform the Enterprise of the specific action which it has taken.

7. The Enterprise may waive any of the privileges and immunities conferred under this article or in the special agreements referred to in paragraph 1 to such extent and upon such conditions as it may determine.

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ANNEX V. CONCILIATION

SECTION 1. CONCILIATION PROCEDURE

PURSUANT TO SECTION 1 OF PART XV



Article 1

Institution of proceedings

If the parties to a dispute have agreed, in accordance with article 284, to submit it to conciliation under this section, any such party may institute the proceedings by written notification addressed to the other party or parties to the dispute.



Article 2

List of conciliators

A list of conciliators shall be drawn up and maintained by the Secretary-General of the United Nations. Every State Party shall be entitled to nominate four conciliators, each of whom shall be a person enjoying the highest reputation for fairness, competence and integrity. The names of the persons so nominated shall constitute the list. If at any time the conciliators nominated by a State Party in the list so constituted shall be fewer than four, that State Party shall be entitled to make further nominations as necessary. The name of a conciliator shall remain on the list until withdrawn by the State Party which made the nomination, provided that such conciliator shall continue to serve on any conciliation commission to which that conciliator has been appointed until the completion of the proceedings before that commission.



Article 3

Constitution of conciliation commission

The conciliation commission shall, unless the parties otherwise agree, be constituted as follows:

(a) Subject to subparagraph (g), the conciliation commission shall consist of five members.

(b) The party instituting the proceedings shall appoint two conciliators to be chosen preferably from the list referred to in article 2 of this Annex, one of whom may be its national, unless the parties otherwise agree. Such appointments shall be included in the notification referred to in article 1 of this Annex.

(c) The other party to the dispute shall appoint two conciliators in the manner set forth in subparagraph (b) within 21 days of receipt of the notification referred to in article 1 of this Annex. If the appointments are not made within that period, the party instituting the proceedings may, within one week of the expiration of that period, either terminate the proceedings by notification addressed to the other party or request the Secretary-General of the United Nations to make the appointments in accordance with subparagraph (e).

(d) Within 30 days after all four conciliators have been appointed, they shall appoint a fifth conciliator chosen from the list referred to in article 2 of this Annex, who shall be chairman. If the appointment is not made within that period, either party may, within one week of the expiration of that period, request the Secretary-General of the United Nations to make the appointment in accordance with subparagraph (e).

(e) Within 30 days of the receipt of a request under subparagraph (c) or (d), the Secretary-General of the United Nations shall make the necessary appointments from the list referred to in article 2 of this Annex in consultation with the parties to the dispute.

(f) Any vacancy shall be filled in the manner prescribed for the initial appointment.

(g) Two or more parties which determine by agreement that they are in the same interest shall appoint two conciliators jointly. Where two or more parties have separate interests or there is a disagreement as to whether they are of the same interest, they shall appoint conciliators separately.

(h) In disputes involving more than two parties having separate interests, or where there is disagreement as to whether they are of the same interest, the parties shall apply subparagraphs (a) to (f) in so far as possible.



Article 4

Procedure

The conciliation commission shall, unless the parties otherwise agree, determine its own procedure. The

commission may, with the consent of the parties to the dispute, invite any State Party to submit to it its views orally or in writing. Decisions of the commission regarding procedural matters, the report and recommendations shall be made by a majority vote of its members.



Article 5

Amicable settlement

The commission may draw the attention of the parties to any measures which might facilitate an amicable settlement of the dispute.



Article 6

Functions of the commission

The commission shall hear the parties, examine their claims and objections, and make proposals to the parties with a view to reaching an amicable settlement.



Article 7

Report

1. The commission shall report within 12 months of its constitution. Its report shall record any agreements reached and, failing agreement, its conclusions on all questions of fact or law relevant to the matter in dispute and such recommendations as the commission may deem appropriate for an amicable settlement. The report shall be deposited with the Secretary-General of the United Nations and shall immediately be transmitted by him to the parties to the dispute.

2. The report of the commission, including its conclusions or recommendations, shall not be binding upon the parties.



Article 8

Termination

The conciliation proceedings are terminated when a settlement has been reached, when the parties have accepted or one party has rejected the recommendations of the report by written notification addressed to the Secretary-General of the United Nations, or when a period of three months has expired from the date of transmission of the report to the parties.



Article 9

Fees and expenses

The fees and expenses of the commission shall be borne by the parties to the dispute.



Article 10

Right of parties to modify procedure

The parties to the dispute may by agreement applicable solely to that dispute modify any provision of this Annex.

**SECTION 2. COMPULSORY SUBMISSION
TO CONCILIATION PROCEDURE
PURSUANT TO SECTION 3 OF PART XV**



Article 11

Institution of proceedings

1. Any party to a dispute which, in accordance with Part XV, section 3, may be submitted to conciliation under this section, may institute the proceedings by written notification addressed to the other party or parties to the dispute.

2. Any party to the dispute, notified under paragraph 1, shall be obliged to submit to such proceedings.



Article 12

Failure to reply or to submit to conciliation

The failure of a party or parties to the dispute to reply to notification of institution of proceedings or to submit to such proceedings shall not constitute a bar to the proceedings.



Article 13

Competence

A disagreement as to whether a conciliation commission acting under this section has competence shall be decided by the commission.



Article 14

Application of section 1

Articles 2 to 10 of section 1 of this Annex apply subject to this section.

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ANNEX VI. STATUTE OF THE INTERNATIONAL TRIBUNAL FOR THE LAW OF THE SEA



Article 1

General provisions

1. The International Tribunal for the Law of the Sea is constituted and shall function in accordance with the provisions of this Convention and this Statute.
2. The seat of the Tribunal shall be in the Free and Hanseatic City of Hamburg in the Federal Republic of Germany.
3. The Tribunal may sit and exercise its functions elsewhere whenever it considers this desirable.
4. A reference of a dispute to the Tribunal shall be governed by the provisions of Parts XI and XV.

SECTION 1. ORGANIZATION OF THE TRIBUNAL



Article 2

Composition

1. The Tribunal shall be composed of a body of 21 independent members, elected from among persons enjoying the highest reputation for fairness and integrity and of recognized competence in the field of the law of the sea.
2. In the Tribunal as a whole the representation of the principal legal systems of the world and equitable geographical distribution shall be assured.



Article 3

Membership

1. No two members of the Tribunal may be nationals of the same State. A person who for the purposes of membership in the Tribunal could be regarded as a national of more than one State shall be deemed to be a national of the one in which he ordinarily exercises civil and political rights.
2. There shall be no fewer than three members from each geographical group as established by the General Assembly of the United Nations.



Article 4

Nominations and elections

1. Each State Party may nominate not more than two persons having the qualifications prescribed in article 2 of this Annex. The members of the Tribunal shall be elected from the list of persons thus nominated.
2. At least three months before the date of the election, the Secretary-General of the United Nations in the case of the first election and the Registrar of the Tribunal in the case of subsequent elections shall address a written invitation to the States Parties to submit their nominations for members of the Tribunal within two months. He shall prepare a list in alphabetical order of all the persons thus nominated, with an indication of the States Parties which have nominated them, and shall submit it to the States Parties before the seventh day of the last month before the date of each election.
3. The first election shall be held within six months of the date of entry into force of this Convention.
4. The members of the Tribunal shall be elected by secret ballot. Elections shall be held at a meeting of the States Parties convened by the Secretary-General of the United Nations in the case of the first election and by a procedure agreed to by the States Parties in the case of subsequent elections. Two thirds of the States Parties shall constitute a quorum at that meeting. The persons elected to the Tribunal shall be those nominees who obtain the largest number of votes and a two-thirds majority of the States Parties present and voting, provided that such majority includes a majority of the States Parties.



Article 5

Term of office

1. The members of the Tribunal shall be elected for nine years and may be re-elected; provided, however, that of the members elected at the first election, the terms of seven members shall expire at the end of

three years and the terms of seven more members shall expire at the end of six years.

2. The members of the Tribunal whose terms are to expire at the end of the above-mentioned initial periods of three and six years shall be chosen by lot to be drawn by the Secretary-General of the United Nations immediately after the first election.

3. The members of the Tribunal shall continue to discharge their duties until their places have been filled. Though replaced, they shall finish any proceedings which they may have begun before the date of their replacement.

4. In the case of the resignation of a member of the Tribunal, the letter of resignation shall be addressed to the President of the Tribunal. The place becomes vacant on the receipt of that letter.



Article 6

Vacancies

1. Vacancies shall be filled by the same method as that laid down for the first election, subject to the following provision: the Registrar shall, within one month of the occurrence of the vacancy, proceed to issue the invitations provided for in article 4 of this Annex, and the date of the election shall be fixed by the President of the Tribunal after consultation with the States Parties.

2. A member of the Tribunal elected to replace a member whose term of office has not expired shall hold office for the remainder of his predecessor's term.



Article 7

Incompatible activities

1. No member of the Tribunal may exercise any political or administrative function, or associate actively with or be financially interested in any of the operations of any enterprise concerned with the exploration for or exploitation of the resources of the sea or the seabed or other commercial use of the sea or the seabed.

2. No member of the Tribunal may act as agent, counsel or advocate in any case.

3. Any doubt on these points shall be resolved by decision of the majority of the other members of the Tribunal present.



Article 8

Conditions relating to participation of members in a particular case

1. No member of the Tribunal may participate in the decision of any case in which he has previously taken part as agent, counsel or advocate for one of the parties, or as a member of a national or international court or tribunal, or in any other capacity.
2. If, for some special reason, a member of the Tribunal considers that he should not take part in the decision of a particular case, he shall so inform the President of the Tribunal.
3. If the President considers that for some special reason one of the members of the Tribunal should not sit in a particular case, he shall give him notice accordingly.
4. Any doubt on these points shall be resolved by decision of the majority of the other members of the Tribunal present.



Article 9

Consequence of ceasing to fulfil required conditions

If, in the unanimous opinion of the other members of the Tribunal, a member has ceased to fulfil the required conditions, the President of the Tribunal shall declare the seat vacant.



Article 10

Privileges and immunities

The members of the Tribunal, when engaged on the business of the Tribunal, shall enjoy diplomatic privileges and immunities.



Article 11

Solemn declaration by members

Every member of the Tribunal shall, before taking up his duties, make a solemn declaration in open session that he will exercise his powers impartially and conscientiously.



Article 12

President, Vice-President and Registrar

1. The Tribunal shall elect its President and Vice-President for three years; they may be re-elected.
2. The Tribunal shall appoint its Registrar and may provide for the appointment of such other officers as may be necessary.
3. The President and the Registrar shall reside at the seat of the Tribunal.



Article 13

Quorum

1. All available members of the Tribunal shall sit; a quorum of 11 elected members shall be required to constitute the Tribunal.
2. Subject to article 17 of this Annex, the Tribunal shall determine which members are available to constitute the Tribunal for the consideration of a particular dispute, having regard to the effective functioning of the chambers as provided for in articles 14 and 15 of this Annex.
3. All disputes and applications submitted to the Tribunal shall be heard and determined by the Tribunal, unless article 14 of this Annex applies, or the parties request that it shall be dealt with in accordance with article 15 of this Annex.



Article 14

Seabed Disputes Chamber

A Seabed Disputes Chamber shall be established in accordance with the provisions of section 4 of this

Annex. Its jurisdiction, powers and functions shall be as provided for in Part XI, section 5.



Article 15

Special chambers

1. The Tribunal may form such chambers, composed of three or more of its elected members, as it considers necessary for dealing with particular categories of disputes.
2. The Tribunal shall form a chamber for dealing with a particular dispute submitted to it if the parties so request. The composition of such a chamber shall be determined by the Tribunal with the approval of the parties.
3. With a view to the speedy dispatch of business, the Tribunal shall form annually a chamber composed of five of its elected members which may hear and determine disputes by summary procedure. Two alternative members shall be selected for the purpose of replacing members who are unable to participate in a particular proceeding.
4. Disputes shall be heard and determined by the chambers provided for in this article if the parties so request.
5. A judgment given by any of the chambers provided for in this article and in article 14 of this Annex shall be considered as rendered by the Tribunal.



Article 16

Rules of the Tribunal

The Tribunal shall frame rules for carrying out its functions. In particular it shall lay down rules of procedure.



Article 17

Nationality of members

1. Members of the Tribunal of the nationality of any of the parties to a dispute shall retain their right to

participate as members of the Tribunal.

2. If the Tribunal, when hearing a dispute, includes upon the bench a member of the nationality of one of the parties, any other party may choose a person to participate as a member of the Tribunal.

3. If the Tribunal, when hearing a dispute, does not include upon the bench a member of the nationality of the parties, each of those parties may choose a person to participate as a member of the Tribunal.

4. This article applies to the chambers referred to in articles 14 and 15 of this Annex. In such cases, the President, in consultation with the parties, shall request specified members of the Tribunal forming the chamber, as many as necessary, to give place to the members of the Tribunal of the nationality of the parties concerned, and, failing such, or if they are unable to be present, to the members specially chosen by the parties.

5. Should there be several parties in the same interest, they shall, for the purpose of the preceding provisions, be considered as one party only. Any doubt on this point shall be settled by the decision of the Tribunal.

6. Members chosen in accordance with paragraphs 2, 3 and 4 shall fulfil the conditions required by articles 2, 8 and 11 of this Annex. They shall participate in the decision on terms of complete equality with their colleagues.



Article 18

Remuneration of members

1. Each elected member of the Tribunal shall receive an annual allowance and, for each day on which he exercises his functions, a special allowance, provided that in any year the total sum payable to any member as special allowance shall not exceed the amount of the annual allowance.

2. The President shall receive a special annual allowance.

3. The Vice-President shall receive a special allowance for each day on which he acts as President.

4. The members chosen under article 17 of this Annex, other than elected members of the Tribunal, shall receive compensation for each day on which they exercise their functions.

5. The salaries, allowances and compensation shall be determined from time to time at meetings of the States Parties, taking into account the workload of the Tribunal. They may not be decreased during the term of office.

6. The salary of the Registrar shall be determined at meetings of the States Parties, on the proposal of the Tribunal.
7. Regulations adopted at meetings of the States Parties shall determine the conditions under which retirement pensions may be given to members of the Tribunal and to the Registrar, and the conditions under which members of the Tribunal and Registrar shall have their travelling expenses refunded.
8. The salaries, allowances, and compensation shall be free of all taxation.



Article 19

Expenses of the Tribunal

1. The expenses of the Tribunal shall be borne by the States Parties and by the Authority on such terms and in such a manner as shall be decided at meetings of the States Parties.
2. When an entity other than a State Party or the Authority is a party to a case submitted to it, the Tribunal shall fix the amount which that party is to contribute towards the expenses of the Tribunal.

SECTION 2. COMPETENCE



Article 20

Access to the Tribunal

1. The Tribunal shall be open to States Parties.
2. The Tribunal shall be open to entities other than States Parties in any case expressly provided for in Part XI or in any case submitted pursuant to any other agreement conferring jurisdiction on the Tribunal which is accepted by all the parties to that case.



Article 21

Jurisdiction

The jurisdiction of the Tribunal comprises all disputes and all applications submitted to it in accordance with this Convention and all matters specifically provided for in any other agreement which confers jurisdiction on the Tribunal.



Article 22

Reference of disputes subject to other agreements

If all the parties to a treaty or convention already in force and concerning the subject-matter covered by this Convention so agree, any disputes concerning the interpretation or application of such treaty or convention may, in accordance with such agreement, be submitted to the Tribunal.



Article 23

Applicable law

The Tribunal shall decide all disputes and applications in accordance with article 293.

SECTION 3. PROCEDURE



Article 24

Institution of proceedings

1. Disputes are submitted to the Tribunal, as the case may be, either by notification of a special agreement or by written application, addressed to the Registrar. In either case, the subject of the dispute and the parties shall be indicated.
2. The Registrar shall forthwith notify the special agreement or the application to all concerned.
3. The Registrar shall also notify all States Parties.



Article 25

Provisional measures

1. In accordance with article 290, the Tribunal and its Seabed Disputes Chamber shall have the power to prescribe provisional measures.
2. If the Tribunal is not in session or a sufficient number of members is not available to constitute a quorum, the provisional measures shall be prescribed by the chamber of summary procedure formed under article 15, paragraph 3, of this Annex. Notwithstanding article 15, paragraph 4, of this Annex, such provisional measures may be adopted at the request of any party to the dispute. They shall be subject to review and revision by the Tribunal.



Article 26

Hearing

1. The hearing shall be under the control of the President or, if he is unable to preside, of the Vice-President. If neither is able to preside, the senior judge present of the Tribunal shall preside.
2. The hearing shall be public, unless the Tribunal decides otherwise or unless the parties demand that the public be not admitted.



Article 27

Conduct of case

The Tribunal shall make orders for the conduct of the case, decide the form and time in which each party must conclude its arguments, and make all arrangements connected with the taking of evidence.



Article 28

Default

When one of the parties does not appear before the Tribunal or fails to defend its case, the other party may request the Tribunal to continue the proceedings and make its decision. Absence of a party or failure of a party to defend its case shall not constitute a bar to the proceedings. Before making its decision, the Tribunal must satisfy itself not only that it has jurisdiction over the dispute, but also that the claim is well

founded in fact and law.



Article 29

Majority for decision

1. All questions shall be decided by a majority of the members of the Tribunal who are present.
2. In the event of an equality of votes, the President or the member of the Tribunal who acts in his place shall have a casting vote.



Article 30

Judgment

1. The judgment shall state the reasons on which it is based.
2. It shall contain the names of the members of the Tribunal who have taken part in the decision.
3. If the judgment does not represent in whole or in part the unanimous opinion of the members of the Tribunal, any member shall be entitled to deliver a separate opinion.
4. The judgment shall be signed by the President and by the Registrar. It shall be read in open court, due notice having been given to the parties to the dispute.



Article 31

Request to intervene

1. Should a State Party consider that it has an interest of a legal nature which may be affected by the decision in any dispute, it may submit a request to the Tribunal to be permitted to intervene.
2. It shall be for the Tribunal to decide upon this request.
3. If a request to intervene is granted, the decision of the Tribunal in respect of the dispute shall be

binding upon the intervening State Party in so far as it relates to matters in respect of which that State Party intervened.



Article 32

Right to intervene in cases of interpretation or application

1. Whenever the interpretation or application of this Convention is in question, the Registrar shall notify all States Parties forthwith.
2. Whenever pursuant to article 21 or 22 of this Annex the interpretation or application of an international agreement is in question, the Registrar shall notify all the parties to the agreement.
3. Every party referred to in paragraphs 1 and 2 has the right to intervene in the proceedings; if it uses this right, the interpretation given by the judgment will be equally binding upon it.



Article 33

Finality and binding force of decisions

1. The decision of the Tribunal is final and shall be complied with by all the parties to the dispute.
2. The decision shall have no binding force except between the parties in respect of that particular dispute.
3. In the event of dispute as to the meaning or scope of the decision, the Tribunal shall construe it upon the request of any party.



Article 34

Costs

Unless otherwise decided by the Tribunal, each party shall bear its own costs.

SECTION 4. SEABED DISPUTES CHAMBER



Article 35

Composition

1. The Seabed Disputes Chamber referred to in article 14 of this Annex shall be composed of 11 members, selected by a majority of the elected members of the Tribunal from among them.
2. In the selection of the members of the Chamber, the representation of the principal legal systems of the world and equitable geographical distribution shall be assured. The Assembly of the Authority may adopt recommendations of a general nature relating to such representation and distribution.
3. The members of the Chamber shall be selected every three years and may be selected for a second term.
4. The Chamber shall elect its President from among its members, who shall serve for the term for which the Chamber has been selected.
5. If any proceedings are still pending at the end of any three-year period for which the Chamber has been selected, the Chamber shall complete the proceedings in its original composition.
6. If a vacancy occurs in the Chamber, the Tribunal shall select a successor from among its elected members, who shall hold office for the remainder of his predecessor's term.
7. A quorum of seven of the members selected by the Tribunal shall be required to constitute the Chamber.



Article 36

Ad hoc chambers

1. The Seabed Disputes Chamber shall form an ad hoc chamber, composed of three of its members, for dealing with a particular dispute submitted to it in accordance with article 188, paragraph 1(b). The composition of such a chamber shall be determined by the Seabed Disputes Chamber with the approval of the parties.
2. If the parties do not agree on the composition of an ad hoc chamber, each party to the dispute shall appoint one member, and the third member shall be appointed by them in agreement. If they disagree, or if any party fails to make an appointment, the President of the Seabed Disputes Chamber shall promptly

make the appointment or appointments from among its members, after consultation with the parties.

3. Members of the ad hoc chamber must not be in the service of, or nationals of, any of the parties to the dispute.



Article 37

Access

The Chamber shall be open to the States Parties, the Authority and the other entities referred to in Part XI, section 5.



Article 38

Applicable law

In addition to the provisions of article 293, the Chamber shall apply:

(a) the rules, regulations and procedures of the Authority adopted in accordance with this Convention; and

(b) the terms of contracts concerning activities in the Area in matters relating to those contracts.



Article 39

Enforcement of decisions of the Chamber

The decisions of the Chamber shall be enforceable in the territories of the States Parties in the same manner as judgments or orders of the highest court of the State Party in whose territory the enforcement is sought.



Article 40

Applicability of other sections of this Annex

1. The other sections of this Annex which are not incompatible with this section apply to the Chamber.
2. In the exercise of its functions relating to advisory opinions, the Chamber shall be guided by the provisions of this Annex relating to procedure before the Tribunal to the extent to which it recognizes them to be applicable.

SECTION 5. AMENDMENTS



Article 41

Amendments

1. Amendments to this Annex, other than amendments to section 4, may be adopted only in accordance with article 313 or by consensus at a conference convened in accordance with this Convention.
2. Amendments to section 4 may be adopted only in accordance with article 314.
3. The Tribunal may propose such amendments to this Statute as it may consider necessary, by written communications to the States Parties for their consideration in conformity with paragraphs 1 and 2.

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ANNEX VII. ARBITRATION



Article 1

Institution of proceedings

Subject to the provisions of Part XV, any party to a dispute may submit the dispute to the arbitral procedure provided for in this Annex by written notification addressed to the other party or parties to the dispute. The notification shall be accompanied by a statement of the claim and the grounds on which it is based.



Article 2

List of arbitrators

1. A list of arbitrators shall be drawn up and maintained by the Secretary-General of the United Nations. Every State Party shall be entitled to nominate four arbitrators, each of whom shall be a person experienced in maritime affairs and enjoying the highest reputation for fairness, competence and integrity. The names of the persons so nominated shall constitute the list.
2. If at any time the arbitrators nominated by a State Party in the list so constituted shall be fewer than four, that State Party shall be entitled to make further nominations as necessary.
3. The name of an arbitrator shall remain on the list until withdrawn by the State Party which made the nomination, provided that such arbitrator shall continue to serve on any arbitral tribunal to which that arbitrator has been appointed until the completion of the proceedings before that arbitral tribunal.



Article 3

Constitution of arbitral tribunal

For the purpose of proceedings under this Annex, the arbitral tribunal shall, unless the parties otherwise agree, be constituted as follows:

(a) Subject to subparagraph (g), the arbitral tribunal shall consist of five members.

(b) The party instituting the proceedings shall appoint one member to be chosen preferably from the list referred to in article 2 of this Annex, who may be its national. The appointment shall be included in the notification referred to in article 1 of this Annex.

(c) The other party to the dispute shall, within 30 days of receipt of the notification referred to in article 1 of this Annex, appoint one member to be chosen preferably from the list, who may be its national. If the appointment is not made within that period, the party instituting the proceedings may, within two weeks of the expiration of that period, request that the appointment be made in accordance with subparagraph (e).

(d) The other three members shall be appointed by agreement between the parties. They shall be chosen preferably from the list and shall be nationals of third States unless the parties otherwise agree. The parties to the dispute shall appoint the President of the arbitral tribunal from among those three members. If, within 60 days of receipt of the notification referred to in article 1 of this Annex, the parties are unable to reach agreement on the appointment of one or more of the members of the tribunal to be appointed by agreement, or on the appointment of the President, the remaining appointment or appointments shall be made in accordance with subparagraph (e), at the request of a party to the dispute. Such request shall be made within two weeks of the expiration of the aforementioned 60-day period.

(e) Unless the parties agree that any appointment under subparagraphs (c) and (d) be made by a person or a third State chosen by the parties, the President of the International Tribunal for the Law of the Sea shall make the necessary appointments. If the President is unable to act under this subparagraph or is a national of one of the parties to the dispute, the appointment shall be made by the next senior member of the International Tribunal for the Law of the Sea who is available and is not a national of one of the parties. The appointments referred to in this subparagraph shall be made from the list referred to in article 2 of this Annex within a period of 30 days of the receipt of the request and in consultation with the parties. The members so appointed shall be of different nationalities and may not be in the service of, ordinarily resident in the territory of, or nationals of, any of the parties to the dispute.

(f) Any vacancy shall be filled in the manner prescribed for the initial appointment.

(g) Parties in the same interest shall appoint one member of the tribunal jointly by agreement. Where there are several parties having separate interests or where there is disagreement as to whether they are of the same interest, each of them shall appoint one member of the tribunal. The number of members of the tribunal appointed separately by the parties shall always be smaller by one than the number of members of the tribunal to be

appointed jointly by the parties.

(h) In disputes involving more than two parties, the provisions of subparagraphs (a) to (f) shall apply to the maximum extent possible.



Article 4

Functions of arbitral tribunal

An arbitral tribunal constituted under article 3 of this Annex shall function in accordance with this Annex and the other provisions of this Convention.



Article 5

Procedure

Unless the parties to the dispute otherwise agree, the arbitral tribunal shall determine its own procedure, assuring to each party a full opportunity to be heard and to present its case.



Article 6

Duties of parties to a dispute

The parties to the dispute shall facilitate the work of the arbitral tribunal and, in particular, in accordance with their law and using all means at their disposal, shall:

(a) provide it with all relevant documents, facilities and information; and

(b) enable it when necessary to call witnesses or experts and receive their evidence and to visit the localities to which the case relates.



Article 7

Expenses

Unless the arbitral tribunal decides otherwise because of the particular circumstances of the case, the expenses of the tribunal, including the remuneration of its members, shall be borne by the parties to the dispute in equal shares.



Article 8

Required majority for decisions

Decisions of the arbitral tribunal shall be taken by a majority vote of its members. The absence or abstention of less than half of the members shall not constitute a bar to the tribunal reaching a decision. In the event of an equality of votes, the President shall have a casting vote.



Article 9

Default of appearance

If one of the parties to the dispute does not appear before the arbitral tribunal or fails to defend its case, the other party may request the tribunal to continue the proceedings and to make its award. Absence of a party or failure of a party to defend its case shall not constitute a bar to the proceedings. Before making its award, the arbitral tribunal must satisfy itself not only that it has jurisdiction over the dispute but also that the claim is well founded in fact and law.



Article 10

Award

The award of the arbitral tribunal shall be confined to the subject-matter of the dispute and state the reasons on which it is based. It shall contain the names of the members who have participated and the date of the award. Any member of the tribunal may attach a separate or dissenting opinion to the award.



Article 11

Finality of award

The award shall be final and without appeal, unless the parties to the dispute have agreed in advance to an appellate procedure. It shall be complied with by the parties to the dispute.



Article 12

Interpretation or implementation of award

1. Any controversy which may arise between the parties to the dispute as regards the interpretation or manner of implementation of the award may be submitted by either party for decision to the arbitral tribunal which made the award. For this purpose, any vacancy in the tribunal shall be filled in the manner provided for in the original appointments of the members of the tribunal.

2. Any such controversy may be submitted to another court or tribunal under article 287 by agreement of all the parties to the dispute.



Article 13

Application to entities other than States Parties

The provisions of this Annex shall apply *mutatis mutandis* to any dispute involving entities other than States Parties.

ANNEX VIII. SPECIAL ARBITRATION



Article 1

Institution of proceedings

Subject to Part XV, any party to a dispute concerning the interpretation or application of the articles of this Convention relating to (1) fisheries, (2) protection and preservation of the marine environment, (3) marine scientific research, or (4) navigation, including pollution from vessels and by dumping, may submit the dispute to the special arbitral procedure provided for in this Annex by written notification addressed to the other party or parties to the dispute. The notification shall be accompanied by a statement of the claim and the grounds on which it is based.



Article 2

Lists of experts

1. A list of experts shall be established and maintained in respect of each of the fields of (1) fisheries, (2) protection and preservation of the marine environment, (3) marine scientific research, and (4) navigation, including pollution from vessels and by dumping.

2. The lists of experts shall be drawn up and maintained, in the field of fisheries by the Food and Agriculture Organization of the United Nations, in the field of protection and preservation of the marine environment by the United Nations Environment Programme, in the field of marine scientific research by the Intergovernmental Oceanographic Commission, in the field of navigation, including pollution from vessels and by dumping, by the International Maritime Organization, or in each case by the appropriate subsidiary body concerned to which such organization, programme or commission has delegated this function.

3. Every State Party shall be entitled to nominate two experts in each field whose competence in the legal, scientific or technical aspects of such field is established and generally recognized and who enjoy the highest reputation for fairness and integrity. The names of the persons so nominated in each field shall constitute the appropriate list.

4. If at any time the experts nominated by a State Party in the list so constituted shall be fewer than two, that State Party shall be entitled to make further nominations as necessary.

5. The name of an expert shall remain on the list until withdrawn by the State Party which made the nomination, provided that such expert shall continue to serve on any special arbitral tribunal to which that expert has been appointed until the completion of the proceedings before that special arbitral tribunal.



Article 3

Constitution of special arbitral tribunal

For the purpose of proceedings under this Annex, the special arbitral tribunal shall, unless the parties otherwise agree, be constituted as follows:

(a) Subject to subparagraph (g), the special arbitral tribunal shall consist of five members.

(b) The party instituting the proceedings shall appoint two members to be chosen preferably from the appropriate list or lists referred to in article 2 of this Annex relating to the matters in dispute, one of whom may be its national. The appointments shall be included in the notification referred to in article 1 of this Annex.

(c) The other party to the dispute shall, within 30 days of receipt of the notification referred to in article 1 of this Annex, appoint two members to be chosen preferably from the appropriate list or lists relating to the matters in dispute, one of whom may be its national. If the appointments are not made within that period, the party instituting the proceedings may, within two weeks of the expiration of that period, request that the appointments be made in accordance with subparagraph (e).

(d) The parties to the dispute shall by agreement appoint the President of the special arbitral tribunal, chosen preferably from the appropriate list, who shall be a national of a third State, unless the parties otherwise agree. If, within 30 days of receipt of the notification referred to in article 1 of this Annex, the parties are unable to reach agreement on the appointment of the President, the appointment shall be made in accordance with subparagraph (e), at the request of a party to the dispute. Such request shall be made within two weeks of the expiration of the aforementioned 30-day period.

(e) Unless the parties agree that the appointment be made by a person or a third State chosen by the parties, the Secretary-General of the United Nations shall make the necessary appointments within 30 days of receipt of a request under subparagraphs (c) and (d). The appointments referred to in this subparagraph shall be made from the appropriate list or lists of experts referred to in article 2 of this Annex and in consultation with the parties to the dispute and the appropriate international organization. The members

so appointed shall be of different nationalities and may not be in the service of, ordinarily resident in the territory of, or nationals of, any of the parties to the dispute.

(f) Any vacancy shall be filled in the manner prescribed for the initial appointment.

(g) Parties in the same interest shall appoint two members of the tribunal jointly by agreement. Where there are several parties having separate interests or where there is disagreement as to whether they are of the same interest, each of them shall appoint one member of the tribunal.

(h) In disputes involving more than two parties, the provisions of subparagraphs (a) to (f) shall apply to the maximum extent possible.



Article 4

General provisions

Annex VII, articles 4 to 13, apply *mutatis mutandis* to the special arbitration proceedings in accordance with this Annex.



Article 5

Fact finding

1. The parties to a dispute concerning the interpretation or application of the provisions of this Convention relating to (1) fisheries, (2) protection and preservation of the marine environment, (3) marine scientific research, or (4) navigation, including pollution from vessels and by dumping, may at any time agree to request a special arbitral tribunal constituted in accordance with article 3 of this Annex to carry out an inquiry and establish the facts giving rise to the dispute.

2. Unless the parties otherwise agree, the findings of fact of the special arbitral tribunal acting in accordance with paragraph 1, shall be considered as conclusive as between the parties.

3. If all the parties to the dispute so request, the special arbitral tribunal may formulate recommendations which, without having the force of a decision, shall only constitute the basis for a review by the parties of the questions giving rise to the dispute.

4. Subject to paragraph 2, the special arbitral tribunal shall act in accordance with the provisions of this

ANNEX IX. PARTICIPATION BY INTERNATIONAL ORGANIZATIONS



Article 1

Use of terms

For the purposes of article 305 and of this Annex, "international organization" means an intergovernmental organization constituted by States to which its member States have transferred competence over matters governed by this Convention, including the competence to enter into treaties in respect of those matters.



Article 2

Signature

An international organization may sign this Convention if a majority of its member States are signatories of this Convention. At the time of signature an international organization shall make a declaration specifying the matters governed by this Convention in respect of which competence has been transferred to that organization by its member States which are signatories, and the nature and extent of that competence.



Article 3

Formal confirmation and accession

1. An international organization may deposit its instrument of formal confirmation or of accession if a majority of its member States deposit or have deposited their instruments of ratification or accession.
2. The instruments deposited by the international organization shall contain the undertakings and declarations required by articles 4 and 5 of this Annex.



Article 4

Extent of participation and rights and obligations

1. The instrument of formal confirmation or of accession of an international organization shall contain an undertaking to accept the rights and obligations of States under this Convention in respect of matters relating to which competence has been transferred to it by its member States which are Parties to this Convention.
2. An international organization shall be a Party to this Convention to the extent that it has competence in accordance with the declarations, communications of information or notifications referred to in article 5 of this Annex.
3. Such an international organization shall exercise the rights and perform the obligations which its member States which are Parties would otherwise have under this Convention, on matters relating to which competence has been transferred to it by those member States. The member States of that international organization shall not exercise competence which they have transferred to it.
4. Participation of such an international organization shall in no case entail an increase of the representation to which its member States which are States Parties would otherwise be entitled, including rights in decision-making.
5. Participation of such an international organization shall in no case confer any rights under this Convention on member States of the organization which are not States Parties to this Convention.
6. In the event of a conflict between the obligations of an international organization under this Convention and its obligations under the agreement establishing the organization or any acts relating to it, the obligations under this Convention shall prevail.



Article 5

Declarations, notifications and communications

1. The instrument of formal confirmation or of accession of an international organization shall contain a declaration specifying the matters governed by this Convention in respect of which competence has been transferred to the organization by its member States which are Parties to this Convention.
2. A member State of an international organization shall, at the time it ratifies or accedes to this Convention or at the time when the organization deposits its instrument of formal confirmation or of accession, whichever is later, make a declaration specifying the matters governed by this Convention in

respect of which it has transferred competence to the organization.

3. States Parties which are member States of an international organization which is a Party to this Convention shall be presumed to have competence over all matters governed by this Convention in respect of which transfers of competence to the organization have not been specifically declared, notified or communicated by those States under this article.

4. The international organization and its member States which are States Parties shall promptly notify the depositary of this Convention of any changes to the distribution of competence, including new transfers of competence, specified in the declarations under paragraphs 1 and 2.

5. Any State Party may request an international organization and its member States which are States Parties to provide information as to which, as between the organization and its member States, has competence in respect of any specific question which has arisen. The organization and the member States concerned shall provide this information within a reasonable time. The international organization and the member States may also, on their own initiative, provide this information.

6. Declarations, notifications and communications of information under this article shall specify the nature and extent of the competence transferred.



Article 6

Responsibility and liability

1. Parties which have competence under article 5 of this Annex shall have responsibility for failure to comply with obligations or for any other violation of this Convention.

2. Any State Party may request an international organization or its member States which are States Parties for information as to who has responsibility in respect of any specific matter. The organization and the member States concerned shall provide this information. Failure to provide this information within a reasonable time or the provision of contradictory information shall result in joint and several liability.



Article 7

Settlement of disputes

1. At the time of deposit of its instrument of formal confirmation or of accession, or at any time

thereafter, an international organization shall be free to choose, by means of a written declaration, one or more of the means for the settlement of disputes concerning the interpretation or application of this Convention, referred to in article 287, paragraph 1(a), (c) or (d).

2. Part XV applies *mutatis mutandis* to any dispute between Parties to this Convention, one or more of which are international organizations.

3. When an international organization and one or more of its member States are joint parties to a dispute, or parties in the same interest, the organization shall be deemed to have accepted the same procedures for the settlement of disputes as the member States; when, however, a member State has chosen only the International Court of Justice under article 287, the organization and the member State concerned shall be deemed to have accepted arbitration in accordance with Annex VII, unless the parties to the dispute otherwise agree.



Article 8

Applicability of Part XVII

Part XVII applies *mutatis mutandis* to an international organization, except in respect of the following:

(a) the instrument of formal confirmation or of accession of an international organization shall not be taken into account in the application of article 308, paragraph 1;

(b) (i) an international organization shall have exclusive capacity with respect to the application of articles 312 to 315, to the extent that it has competence under article 5 of this Annex over the entire subject-matter of the amendment;

(ii) the instrument of formal confirmation or of accession of an international organization to an amendment, the entire subject-matter over which the international organization has competence under article 5 of this Annex, shall be considered to be the instrument of ratification or accession of each of the member States which are States Parties, for the purposes of applying article 316, paragraphs 1, 2 and 3;

(iii) the instrument of formal confirmation or of accession of the international organization shall not be taken into account in the application of article 316, paragraphs 1 and 2, with regard to all other amendments;

(c) (i) an international organization may not denounce this Convention in accordance with article 317 if any of its member States is a State Party and if it

continues to fulfil the qualifications specified in article 1 of this Annex;

(ii) an international organization shall denounce this Convention when none of its member States is a State Party or if the international organization no longer fulfils the qualifications specified in article 1 of this Annex. Such denunciation shall take effect immediately.

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Agreement relating to the Implementation of Part XI

of the United Nations Convention on

the Law of the Sea of 10 December 1982



The States Parties to this Agreement,

Recognizing the important contribution of the United Nations Convention on the Law of the Sea of 10 December 1982 (hereinafter referred to as "the Convention") to the maintenance of peace, justice and progress for all peoples of the world,

Reaffirming that the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction (hereinafter referred to as "the Area"), as well as the resources of the Area, are the common heritage of mankind,

Mindful of the importance of the Convention for the protection and preservation of the marine environment and of the growing concern for the global environment,

Having considered the report of the Secretary-General of the United Nations on the results of the informal consultations among States held from 1990 to 1994 on outstanding issues relating to Part XI and related provisions of the Convention (hereinafter referred to as "Part XI"),

Noting the political and economic changes, including market-oriented approaches, affecting the implementation of Part XI,

Wishing to facilitate universal participation in the Convention,

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Considering that an agreement relating to the implementation of Part XI would best meet that objective,

Have agreed as follows:



Article 1

Implementation of Part XI

1. The States Parties to this Agreement undertake to implement Part XI in accordance with this Agreement.
2. The Annex forms an integral part of this Agreement.



Article 2

Relationship between this Agreement and Part XI

1. The provisions of this Agreement and Part XI shall be interpreted and applied together as a single instrument. In the event of any inconsistency between this Agreement and Part XI, the provisions of this Agreement shall prevail.
2. Articles 309 to 319 of the Convention shall apply to this Agreement as they apply to the Convention.



Article 3

Signature

This Agreement shall remain open for signature at United Nations Headquarters by the States and entities referred to in article 305, paragraph 1(a), (c), (d), (e) and (f), of the Convention for 12 months from the date of its adoption.



Article 4

Consent to be bound

1. After the adoption of this Agreement, any instrument of ratification or formal confirmation of or accession to the Convention shall also represent consent to be bound by this Agreement.
2. No State or entity may establish its consent to be bound by this Agreement unless it has previously established or establishes at the same time its consent to be bound by the Convention.
3. A State or entity referred to in article 3 may express its consent to be bound by this Agreement by:
 - (a) Signature not subject to ratification, formal confirmation or the procedure set out in article 5;
 - (b) Signature subject to ratification or formal confirmation, followed by ratification or formal confirmation;
 - (c) Signature subject to the procedure set out in article 5; or
 - (d) Accession.
4. Formal confirmation by the entities referred to in article 305, paragraph 1(f), of the Convention shall be in accordance with Annex IX of the Convention.
5. The instruments of ratification, formal confirmation or accession shall be deposited with the Secretary-General of the United Nations.



Article 5

Simplified procedure

1. A State or entity which has deposited before the date of the adoption of this Agreement an instrument of ratification or formal confirmation of or accession to the Convention and which has signed this Agreement in accordance with article 4, paragraph 3(c), shall be considered to have established its consent to be bound by this Agreement 12 months after the date of its adoption, unless that State or entity notifies the depositary in writing before that date that it is not availing itself of the simplified procedure set out in this article.

2. In the event of such notification, consent to be bound by this Agreement shall be established in accordance with article 4, paragraph 3(b).



Article 6

Entry into force

1. This Agreement shall enter into force 30 days after the date on which 40 States have established their consent to be bound in accordance with articles 4 and 5, provided that such States include at least seven of the States referred to in paragraph 1(a) of resolution II of the Third United Nations Conference on the Law of the Sea (hereinafter referred to as "resolution II") and that at least five of those States are developed States. If these conditions for entry into force are fulfilled before 16 November 1994, this Agreement shall enter into force on 16 November 1994.

2. For each State or entity establishing its consent to be bound by this Agreement after the requirements set out in paragraph 1 have been fulfilled, this Agreement shall enter into force on the thirtieth day following the date of establishment of its consent to be bound.



Article 7

Provisional application

1. If on 16 November 1994 this Agreement has not entered into force, it shall be applied provisionally pending its entry into force by:

(a) States which have consented to its adoption in the

General Assembly of the United Nations, except any such State which before 16 November 1994 notifies the depositary in writing either that it will not so apply this Agreement or that it will consent to such application only upon subsequent signature or notification in writing;

(b) States and entities which sign this Agreement, except any such State or entity which notifies the depositary in writing at the time of signature that it will not so apply this Agreement;

(c) States and entities which consent to its provisional application by so notifying the depositary in writing;

(d) States which accede to this Agreement.

2. All such States and entities shall apply this Agreement provisionally in accordance with their national or internal laws and regulations, with effect from 16 November 1994 or the date of signature, notification of consent or accession, if later.

3. Provisional application shall terminate upon the date of entry into force of this Agreement. In any event, provisional application shall terminate on 16 November 1998 if at that date the requirement in article 6, paragraph 1, of consent to be bound by this Agreement by at least seven of the States (of which at least five must be developed States) referred to in paragraph 1(a) of resolution II has not been fulfilled.



Article 8

States Parties

1. For the purposes of this Agreement, "States Parties" means States which have consented to be bound by this Agreement and for which this Agreement is in force.

2. This Agreement applies *mutatis mutandis* to the entities referred to in article 305, paragraph 1(c), (d), (e) and (f), of the Convention which become Parties to this Agreement in accordance with the conditions relevant to each,

and to that extent "States Parties" refers to those entities.



Article 9

Depositary

The Secretary-General of the United Nations shall be the depositary of this Agreement.



Article 10

Authentic texts

The original of this Agreement, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

IN WITNESS WHEREOF, the undersigned Plenipotentiaries, being duly authorized thereto, have signed this Agreement.

DONE AT NEW YORK, this twenty-eighth day of July, one thousand nine hundred and ninety-four.

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SECTION 1. COSTS TO STATES PARTIES

AND INSTITUTIONAL ARRANGEMENTS

1. The International Seabed Authority (hereinafter referred to as "the Authority") is the organization through which States Parties to the Convention shall, in accordance with the regime for the Area established in Part XI and this Agreement, organize and control activities in the Area, particularly with a view to administering the resources of the Area. The powers and functions of the Authority shall be those expressly conferred upon it by the Convention. The Authority shall have such incidental powers, consistent with the Convention, as are implicit in, and necessary for, the exercise of those powers and functions with respect to activities in the Area.

2. In order to minimize costs to States Parties, all organs and subsidiary bodies to be established under the Convention and this Agreement shall be cost-effective. This principle shall also apply to the frequency, duration and scheduling of meetings.

3. The setting up and the functioning of the organs and subsidiary bodies of the Authority shall be based on an evolutionary approach, taking into account the functional needs of the organs and subsidiary bodies concerned in order that they may discharge effectively their respective responsibilities at various stages of the development of activities in the Area.

4. The early functions of the Authority upon entry into force of the Convention shall be carried out by the Assembly, the Council, the Secretariat, the Legal and Technical Commission and the Finance

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Committee. The functions of the Economic Planning Commission shall be performed by the Legal and Technical Commission until such time as the Council decides otherwise or until the approval of the first plan of work for exploitation.

5. Between the entry into force of the Convention and the approval of the first plan of work for exploitation, the Authority shall concentrate on:

- (a) Processing of applications for approval of plans of work for exploration in accordance with Part XI and this Agreement;
- (b) Implementation of decisions of the Preparatory Commission for the International Seabed Authority and for the International Tribunal for the Law of the Sea (hereinafter referred to as "the Preparatory Commission") relating to the registered pioneer investors and their certifying States, including their rights and obligations, in accordance with article 308, paragraph 5, of the Convention and resolution II, paragraph 13;
- (c) Monitoring of compliance with plans of work for exploration approved in the form of contracts;
- (d) Monitoring and review of trends and developments relating to deep seabed mining activities, including regular analysis of world metal market conditions and metal prices, trends and prospects;
- (e) Study of the potential impact of mineral production from the Area on the economies of developing land-based producers of those minerals which are likely to be most seriously affected, with a view to minimizing their difficulties and assisting them in their economic adjustment, taking into account the work done in this regard by the Preparatory Commission;
- (f) Adoption of rules, regulations and procedures necessary for the conduct of activities in the Area as they progress. Notwithstanding the provisions of Annex III, article 17, paragraph 2(b) and (c), of the Convention, such rules, regulations and procedures

shall take into account the terms of this Agreement, the prolonged delay in commercial deep seabed mining and the likely pace of activities in the Area;

(g) Adoption of rules, regulations and procedures incorporating applicable standards for the protection and preservation of the marine environment;

(h) Promotion and encouragement of the conduct of marine scientific research with respect to activities in the Area and the collection and dissemination of the results of such research and analysis, when available, with particular emphasis on research related to the environmental impact of activities in the Area;

(i) Acquisition of scientific knowledge and monitoring of the development of marine technology relevant to activities in the Area, in particular technology relating to the protection and preservation of the marine environment;

(j) Assessment of available data relating to prospecting and exploration;

(k) Timely elaboration of rules, regulations and procedures for exploitation, including those relating to the protection and preservation of the marine environment.

6. (a) An application for approval of a plan of work for exploration shall be considered by the Council following the receipt of a recommendation on the application from the Legal and Technical Commission. The processing of an application for approval of a plan of work for exploration shall be in accordance with the provisions of the Convention, including Annex III thereof, and this Agreement, and subject to the following:

(i) A plan of work for exploration submitted on behalf of a State or entity, or any component of such entity, referred to in resolution II,

paragraph 1(a)(ii) or (iii), other than a registered pioneer investor, which had already undertaken substantial activities in the Area prior to the entry into force of the Convention, or its successor in interest, shall be considered to have met the financial and technical qualifications necessary for approval of a plan of work if the sponsoring State or States certify that the applicant has expended an amount equivalent to at least US\$ 30 million in research and exploration activities and has expended no less than 10 per cent of that amount in the location, survey and evaluation of the area referred to in the plan of work. If the plan of work otherwise satisfies the requirements of the Convention and any rules, regulations and procedures adopted pursuant thereto, it shall be approved by the Council in the form of a contract. The provisions of section 3, paragraph 11, of this Annex shall be interpreted and applied accordingly;

(ii) Notwithstanding the provisions of resolution II, paragraph 8(a), a registered pioneer investor may request approval of a plan of work for exploration within 36 months of the entry into force of the Convention. The plan of work for exploration shall consist of documents, reports and other data submitted to the Preparatory Commission both before and after registration and shall be accompanied by a certificate of compliance, consisting of a factual report describing the status of fulfilment of obligations under the pioneer investor regime, issued by the Preparatory Commission in accordance with resolution II, paragraph 11(a). Such a plan of work shall be considered to be approved. Such an approved plan of work shall be in the form of a contract concluded between the Authority and the registered pioneer investor in accordance with Part XI and this Agreement. The fee of US\$ 250,000 paid pursuant to resolution II, paragraph 7(a), shall be deemed to be the fee relating to the exploration phase

pursuant to section 8, paragraph 3, of this Annex. Section 3, paragraph 11, of this Annex shall be interpreted and applied accordingly;

(iii) In accordance with the principle of non-discrimination, a contract with a State or entity or any component of such entity referred to in subparagraph (a)(i) shall include arrangements which shall be similar to and no less favourable than those agreed with any registered pioneer investor referred to in subparagraph (a)(ii). If any of the States or entities or any components of such entities referred to in subparagraph (a)(i) are granted more favourable arrangements, the Council shall make similar and no less favourable arrangements with regard to the rights and obligations assumed by the registered pioneer investors referred to in subparagraph (a)(ii), provided that such arrangements do not affect or prejudice the interests of the Authority;

(iv) A State sponsoring an application for a plan of work pursuant to the provisions of subparagraph (a)(i) or (ii) may be a State Party or a State which is applying this Agreement provisionally in accordance with article 7, or a State which is a member of the Authority on a provisional basis in accordance with paragraph 12;

(v) Resolution II, paragraph 8(c), shall be interpreted and applied in accordance with subparagraph (a)(iv).

(b) The approval of a plan of work for exploration shall be in accordance with article 153, paragraph 3, of the Convention.

7. An application for approval of a plan of work shall be accompanied by an assessment of the potential environmental impacts of the proposed activities and by a description of a programme for oceanographic and baseline environmental studies in accordance with the rules, regulations and

procedures adopted by the Authority.

8. An application for approval of a plan of work for exploration, subject to paragraph 6(a)(i) or (ii), shall be processed in accordance with the procedures set out in section 3, paragraph 11, of this Annex.

9. A plan of work for exploration shall be approved for a period of 15 years. Upon the expiration of a plan of work for exploration, the contractor shall apply for a plan of work for exploitation unless the contractor has already done so or has obtained an extension for the plan of work for exploration. Contractors may apply for such extensions for periods of not more than five years each. Such extensions shall be approved if the contractor has made efforts in good faith to comply with the requirements of the plan of work but for reasons beyond the contractor's control has been unable to complete the necessary preparatory work for proceeding to the exploitation stage or if the prevailing economic circumstances do not justify proceeding to the exploitation stage.

10. Designation of a reserved area for the Authority in accordance with Annex III, article 8, of the Convention shall take place in connection with approval of an application for a plan of work for exploration or approval of an application for a plan of work for exploration and exploitation.

11. Notwithstanding the provisions of paragraph 9, an approved plan of work for exploration which is sponsored by at least one State provisionally applying this Agreement shall terminate if such a State ceases to apply this Agreement provisionally and has not become a member on a provisional basis in accordance with paragraph 12 or has not become a State Party.

12. Upon the entry into force of this Agreement, States and entities referred to in article 3 of this Agreement which have been applying it provisionally in accordance with article 7 and for which it is not in force may continue to be members of the Authority on a provisional basis pending its entry into force for such States and entities, in accordance with the following subparagraphs:

(a) If this Agreement enters into force before 16 November 1996, such States and entities shall be entitled to continue to participate as members of the Authority on a provisional basis upon notification to the depositary of the Agreement by such a State or entity of its intention to participate as a member on a provisional basis. Such membership shall terminate either on 16 November 1996 or upon the entry into force of this

Agreement and the Convention for such member, whichever is earlier. The Council may, upon the request of the State or entity concerned, extend such membership beyond 16 November 1996 for a further period or periods not exceeding a total of two years provided that the Council is satisfied that the State or entity concerned has been making efforts in good faith to become a party to the Agreement and the Convention;

(b) If this Agreement enters into force after 15 November 1996, such States and entities may request the Council to grant continued membership in the Authority on a provisional basis for a period or periods not extending beyond 16 November 1998. The Council shall grant such membership with effect from the date of the request if it is satisfied that the State or entity has been making efforts in good faith to become a party to the Agreement and the Convention;

(c) States and entities which are members of the Authority on a provisional basis in accordance with subparagraph (a) or (b) shall apply the terms of Part XI and this Agreement in accordance with their national or internal laws, regulations and annual budgetary appropriations and shall have the same rights and obligations as other members, including:

(i) The obligation to contribute to the administrative budget of the Authority in accordance with the scale of assessed contributions;

(ii) The right to sponsor an application for approval of a plan of work for exploration. In the case of entities whose components are natural or juridical persons possessing the nationality of more than one State, a plan of work for exploration shall not be approved unless all the States whose natural or juridical persons comprise those entities are States Parties or members on a provisional basis;

(d) Notwithstanding the provisions of paragraph 9, an approved plan of work in the form of a contract for exploration which was sponsored pursuant to subparagraph (c)(ii) by a State which was a member on a provisional basis shall terminate if such membership ceases and the State or entity has not become a State Party;

(e) If such a member has failed to make its assessed contributions or otherwise failed to comply with its obligations in accordance with this paragraph, its membership on a provisional basis shall be terminated.

13. The reference in Annex III, article 10, of the Convention to performance which has not been satisfactory shall be interpreted to mean that the contractor has failed to comply with the requirements of an approved plan of work in spite of a written warning or warnings from the Authority to the contractor to comply therewith.

14. The Authority shall have its own budget. Until the end of the year following the year during which this Agreement enters into force, the administrative expenses of the Authority shall be met through the budget of the United Nations. Thereafter, the administrative expenses of the Authority shall be met by assessed contributions of its members, including any members on a provisional basis, in accordance with articles 171, subparagraph (a), and 173 of the Convention and this Agreement, until the Authority has sufficient funds from other sources to meet those expenses. The Authority shall not exercise the power referred to in article 174, paragraph 1, of the Convention to borrow funds to finance its administrative budget.

15. The Authority shall elaborate and adopt, in accordance with article 162, paragraph 2(o)(ii), of the Convention, rules, regulations and procedures based on the principles contained in sections 2, 5, 6, 7 and 8 of this Annex, as well as any additional rules, regulations and procedures necessary to facilitate the approval of plans of work for exploration or exploitation, in accordance with the following subparagraphs:

(a) The Council may undertake such elaboration any time it deems that all or any of such rules, regulations or procedures are required for the conduct of activities in the Area, or when it determines that commercial exploitation is imminent, or at the request of a State

whose national intends to apply for approval of a plan of work for exploitation;

(b) If a request is made by a State referred to in subparagraph (a) the Council shall, in accordance with article 162, paragraph 2(o), of the Convention, complete the adoption of such rules, regulations and procedures within two years of the request;

(c) If the Council has not completed the elaboration of the rules, regulations and procedures relating to exploitation within the prescribed time and an application for approval of a plan of work for exploitation is pending, it shall none the less consider and provisionally approve such plan of work based on the provisions of the Convention and any rules, regulations and procedures that the Council may have adopted provisionally, or on the basis of the norms contained in the Convention and the terms and principles contained in this Annex as well as the principle of non-discrimination among contractors.

16. The draft rules, regulations and procedures and any recommendations relating to the provisions of Part XI, as contained in the reports and recommendations of the Preparatory Commission, shall be taken into account by the Authority in the adoption of rules, regulations and procedures in accordance with Part XI and this Agreement.

17. The relevant provisions of Part XI, section 4, of the Convention shall be interpreted and applied in accordance with this Agreement.

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SECTION 2. THE ENTERPRISE

1. The Secretariat of the Authority shall perform the functions of the Enterprise until it begins to operate independently of the Secretariat. The Secretary-General of the Authority shall appoint from within the staff of the Authority an interim Director-General to oversee the performance of these functions by the Secretariat.

These functions shall be:

- (a) Monitoring and review of trends and developments relating to deep seabed mining activities, including regular analysis of world metal market conditions and metal prices, trends and prospects;
- (b) Assessment of the results of the conduct of marine scientific research with respect to activities in the Area, with particular emphasis on research related to the environmental impact of activities in the Area;
- (c) Assessment of available data relating to prospecting and exploration, including the criteria for such activities;
- (d) Assessment of technological developments relevant to activities in the Area, in particular technology relating to the protection and preservation of the marine environment;

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- (e) Evaluation of information and data relating to areas reserved for the Authority;
- (f) Assessment of approaches to joint-venture operations;
- (g) Collection of information on the availability of trained manpower;
- (h) Study of managerial policy options for the administration of the Enterprise at different stages of its operations.

2. The Enterprise shall conduct its initial deep seabed mining operations through joint ventures. Upon the approval of a plan of work for exploitation for an entity other than the Enterprise, or upon receipt by the Council of an application for a joint-venture operation with the Enterprise, the Council shall take up the issue of the functioning of the Enterprise independently of the Secretariat of the Authority. If joint-venture operations with the Enterprise accord with sound commercial principles, the Council shall issue a directive pursuant to article 170, paragraph 2, of the Convention providing for such independent functioning.

3. The obligation of States Parties to fund one mine site of the Enterprise as provided for in Annex IV, article 11, paragraph 3, of the Convention shall not apply and States Parties shall be under no obligation to finance any of the operations in any mine site of the Enterprise or under its joint-venture arrangements.

4. The obligations applicable to contractors shall apply to the Enterprise. Notwithstanding the provisions of article 153, paragraph 3, and Annex III, article 3, paragraph 5, of the Convention, a plan of work for the Enterprise upon its approval shall be in the form of a contract concluded between the Authority and the Enterprise.

5. A contractor which has contributed a particular area to the Authority as a reserved area has the right of first refusal to enter into a joint-venture arrangement with the Enterprise for exploration and exploitation of that area. If the Enterprise does not submit an application for a plan of work for activities in respect of such a reserved area within 15 years of the commencement of its functions independent of the Secretariat of the Authority or within 15 years of the date on which that area is reserved for the

Authority, whichever is the later, the contractor which contributed the area shall be entitled to apply for a plan of work for that area provided it offers in good faith to include the Enterprise as a joint-venture partner.

6. Article 170, paragraph 4, Annex IV and other provisions of the Convention relating to the Enterprise shall be interpreted and applied in accordance with this section.

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SECTION 3. DECISION-MAKING

1. The general policies of the Authority shall be established by the Assembly in collaboration with the Council.
2. As a general rule, decision-making in the organs of the Authority should be by consensus.
3. If all efforts to reach a decision by consensus have been exhausted, decisions by voting in the Assembly on questions of procedure shall be taken by a majority of members present and voting, and decisions on questions of substance shall be taken by a two-thirds majority of members present and voting, as provided for in article 159, paragraph 8, of the Convention.
4. Decisions of the Assembly on any matter for which the Council also has competence or on any administrative, budgetary or financial matter shall be based on the recommendations of the Council. If the Assembly does not accept the recommendation of the Council on any matter, it shall return the matter to the Council for further consideration. The Council shall reconsider the matter in the light of the views expressed by the Assembly.
5. If all efforts to reach a decision by consensus have been exhausted, decisions by voting in the Council on questions of procedure shall be taken by a majority of members present and voting, and decisions on questions of substance, except where the Convention provides for decisions by consensus in the Council, shall be taken by a two-thirds majority of members present and voting, provided that such decisions are not opposed by a majority in any one of the chambers referred to in paragraph 9. In taking decisions the

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Council shall seek to promote the interests of all the members of the Authority.

6. The Council may defer the taking of a decision in order to facilitate further negotiation whenever it appears that all efforts at achieving consensus on a question have not been exhausted.
7. Decisions by the Assembly or the Council having financial or budgetary implications shall be based on the recommendations of the Finance Committee.
8. The provisions of article 161, paragraph 8(b) and (c), of the Convention shall not apply.
 9. (a) Each group of States elected under paragraph 15(a) to (c) shall be treated as a chamber for the purposes of voting in the Council. The developing States elected under paragraph 15(d) and (e) shall be treated as a single chamber for the purposes of voting in the Council.
 - (b) Before electing the members of the Council, the Assembly shall establish lists of countries fulfilling the criteria for membership in the groups of States in paragraph 15(a) to (d). If a State fulfils the criteria for membership in more than one group, it may only be proposed by one group for election to the Council and it shall represent only that group in voting in the Council.
10. Each group of States in paragraph 15(a) to (d) shall be represented in the Council by those members nominated by that group. Each group shall nominate only as many candidates as the number of seats required to be filled by that group. When the number of potential candidates in each of the groups referred to in paragraph 15(a) to (e) exceeds the number of seats available in each of those respective groups, as a general rule, the principle of rotation shall apply. States members of each of those groups shall determine how this principle shall apply in those groups.
11. (a) The Council shall approve a recommendation by the Legal and Technical Commission for approval of a plan of work unless by a two-thirds majority of its members present and voting, including a majority of members present and voting in each of the chambers of

the Council, the Council decides to disapprove a plan of work. If the Council does not take a decision on a recommendation for approval of a plan of work within a prescribed period, the recommendation shall be deemed to have been approved by the Council at the end of that period. The prescribed period shall normally be 60 days unless the Council decides to provide for a longer period. If the Commission recommends the disapproval of a plan of work or does not make a recommendation, the Council may nevertheless approve the plan of work in accordance with its rules of procedure for decision-making on questions of substance.

(b) The provisions of article 162, paragraph 2(j), of the Convention shall not apply.

12. Where a dispute arises relating to the disapproval of a plan of work, such dispute shall be submitted to the dispute settlement procedures set out in the Convention.

13. Decisions by voting in the Legal and Technical Commission shall be by a majority of members present and voting.

14. Part XI, section 4, subsections B and C, of the Convention shall be interpreted and applied in accordance with this section.

15. The Council shall consist of 36 members of the Authority elected by the Assembly in the following order:

(a) Four members from among those States Parties which, during the last five years for which statistics are available, have either consumed more than 2 per cent in value terms of total world consumption or have had net imports of more than 2 per cent in value terms of total world imports of the commodities produced from the categories of minerals to be derived from the Area, provided that the four members shall include one State from the Eastern European region having the largest economy in that region in terms of gross domestic product and the State, on the date of entry into force of the Convention, having the largest economy in terms of gross domestic product, if such States wish to be

represented in this group;

- (b) Four members from among the eight States Parties which have made the largest investments in preparation for and in the conduct of activities in the Area, either directly or through their nationals;
- (c) Four members from among States Parties which, on the basis of production in areas under their jurisdiction, are major net exporters of the categories of minerals to be derived from the Area, including at least two developing States whose exports of such minerals have a substantial bearing upon their economies;
- (d) Six members from among developing States Parties, representing special interests. The special interests to be represented shall include those of States with large populations, States which are land-locked or geographically disadvantaged, island States, States which are major importers of the categories of minerals to be derived from the Area, States which are potential producers of such minerals and least developed States;
- (e) Eighteen members elected according to the principle of ensuring an equitable geographical distribution of seats in the Council as a whole, provided that each geographical region shall have at least one member elected under this subparagraph. For this purpose, the geographical regions shall be Africa, Asia, Eastern Europe, Latin America and the Caribbean and Western Europe and Others.

16. The provisions of article 161, paragraph 1, of the Convention shall not apply.

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SECTION 4. REVIEW CONFERENCE

The provisions relating to the Review Conference in article 155, paragraphs 1, 3 and 4, of the Convention shall not apply. Notwithstanding the provisions of article 314, paragraph 2, of the Convention, the Assembly, on the recommendation of the Council, may undertake at any time a review of the matters referred to in article 155, paragraph 1, of the Convention. Amendments relating to this Agreement and Part XI shall be subject to the procedures contained in articles 314, 315 and 316 of the Convention, provided that the principles, regime and other terms referred to in article 155, paragraph 2, of the Convention shall be maintained and the rights referred to in paragraph 5 of that article shall not be affected.

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SECTION 5. TRANSFER OF TECHNOLOGY

1. In addition to the provisions of article 144 of the Convention, transfer of technology for the purposes of Part XI shall be governed by the following principles:

(a) The Enterprise, and developing States wishing to obtain deep seabed mining technology, shall seek to obtain such technology on fair and reasonable commercial terms and conditions on the open market, or through joint-venture arrangements;

(b) If the Enterprise or developing States are unable to obtain deep seabed mining technology, the Authority may request all or any of the contractors and their respective sponsoring State or States to cooperate with it in facilitating the acquisition of deep seabed mining technology by the Enterprise or its joint venture, or by a developing State or States seeking to acquire such technology on fair and reasonable commercial terms and conditions, consistent with the effective protection of intellectual property rights. States Parties undertake to cooperate fully and effectively with the Authority for this purpose and to ensure that contractors sponsored by them also cooperate fully with the Authority;

(c) As a general rule, States Parties shall promote international technical and scientific cooperation with

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SECTION 6. PRODUCTION POLICY

1. The production policy of the Authority shall be based on the following principles:

(a) Development of the resources of the Area shall take place in accordance with sound commercial principles;

(b) The provisions of the General Agreement on Tariffs and Trade, its relevant codes and successor or superseding agreements shall apply with respect to activities in the Area;

(c) In particular, there shall be no subsidization of activities in the Area except as may be permitted under the agreements referred to in subparagraph (b). Subsidization for the purpose of these principles shall be defined in terms of the agreements referred to in subparagraph (b);

(d) There shall be no discrimination between minerals derived from the Area and from other sources. There shall be no preferential access to markets for such minerals or for imports of commodities produced from such minerals, in particular:

(i) By the use of tariff or non-tariff barriers; and

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(ii) Given by States Parties to such minerals or commodities produced by their state enterprises or by natural or juridical persons which possess their nationality or are controlled by them or their nationals;

(e) The plan of work for exploitation approved by the Authority in respect of each mining area shall indicate an anticipated production schedule which shall include the estimated maximum amounts of minerals that would be produced per year under the plan of work;

(f) The following shall apply to the settlement of disputes concerning the provisions of the agreements referred to in subparagraph (b):

(i) Where the States Parties concerned are parties to such agreements, they shall have recourse to the dispute settlement procedures of those agreements;

(ii) Where one or more of the States Parties concerned are not parties to such agreements, they shall have recourse to the dispute settlement procedures set out in the Convention;

(g) In circumstances where a determination is made under the agreements referred to in subparagraph (b) that a State Party has engaged in subsidization which is prohibited or has resulted in adverse effects on the interests of another State Party and appropriate steps have not been taken by the relevant State Party or States Parties, a State Party may request the Council to take appropriate measures.

2. The principles contained in paragraph 1 shall not affect the rights and obligations under any provision of the agreements referred to in paragraph 1(b), as well as the relevant free trade and customs union agreements, in relations between States Parties which are parties to such agreements.

3. The acceptance by a contractor of subsidies other than those which may be permitted under the agreements referred to in paragraph 1(b) shall constitute

- a violation of the fundamental terms of the contract forming a plan of work for the carrying out of activities in the Area.
4. Any State Party which has reason to believe that there has been a breach of the requirements of paragraphs 1(b) to (d) or 3 may initiate dispute settlement procedures in conformity with paragraph 1(f) or (g).
 5. A State Party may at any time bring to the attention of the Council activities which in its view are inconsistent with the requirements of paragraph 1(b) to (d).
 6. The Authority shall develop rules, regulations and procedures which ensure the implementation of the provisions of this section, including relevant rules, regulations and procedures governing the approval of plans of work.
 7. The provisions of article 151, paragraphs 1 to 7 and 9, article 162, paragraph 2(q), article 165, paragraph 2(n), and Annex III, article 6, paragraph 5, and article 7, of the Convention shall not apply.

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SECTION 7. ECONOMIC ASSISTANCE

1. The policy of the Authority of assisting developing countries which suffer serious adverse effects on their export earnings or economies resulting from a reduction in the price of an affected mineral or in the volume of exports of that mineral, to the extent that such reduction is caused by activities in the Area, shall be based on the following principles:

(a) The Authority shall establish an economic assistance fund from a portion of the funds of the Authority which exceeds those necessary to cover the administrative expenses of the Authority. The amount set aside for this purpose shall be determined by the Council from time to time, upon the recommendation of the Finance Committee. Only funds from payments received from contractors, including the Enterprise, and voluntary contributions shall be used for the establishment of the economic assistance fund;

(b) Developing land-based producer States whose economies have been determined to be seriously affected by the production of minerals from the deep seabed shall be assisted from the economic assistance fund of the Authority;

(c) The Authority shall provide assistance from the fund to affected developing land-based producer States, where appropriate, in cooperation with existing global

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or regional development institutions which have the infrastructure and expertise to carry out such assistance programmes;

(d) The extent and period of such assistance shall be determined on a case-by-case basis. In doing so, due consideration shall be given to the nature and magnitude of the problems encountered by affected developing land-based producer States.

2. Article 151, paragraph 10, of the Convention shall be implemented by means of measures of economic assistance referred to in paragraph 1.

Article 160, paragraph 2(l), article 162, paragraph 2(n), article 164, paragraph 2(d), article 171, subparagraph (f), and article 173, paragraph 2(c), of the Convention shall be interpreted accordingly.

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SECTION 8. FINANCIAL TERMS OF CONTRACTS

1. The following principles shall provide the basis for establishing rules, regulations and procedures for financial terms of contracts:

(a) The system of payments to the Authority shall be fair both to the contractor and to the Authority and shall provide adequate means of determining compliance by the contractor with such system;

(b) The rates of payments under the system shall be within the range of those prevailing in respect of land-based mining of the same or similar minerals in order to avoid giving deep seabed miners an artificial competitive advantage or imposing on them a competitive disadvantage;

(c) The system should not be complicated and should not impose major administrative costs on the Authority or on a contractor. Consideration should be given to the adoption of a royalty system or a combination of a royalty and profit-sharing system. If alternative systems are decided upon, the contractor has the right to choose the system applicable to its contract. Any subsequent change in choice between alternative systems, however, shall be made by agreement between the Authority and the contractor;

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(d) An annual fixed fee shall be payable from the date of commencement of commercial production. This fee may be credited against other payments due under the system adopted in accordance with subparagraph (c).

The amount of the fee shall be established by the
Council;

(e) The system of payments may be revised periodically in the light of changing circumstances. Any changes shall be applied in a non-discriminatory manner. Such changes may apply to existing contracts only at the election of the contractor. Any subsequent change in choice between alternative systems shall be made by agreement between the Authority and the contractor;

(f) Disputes concerning the interpretation or application of the rules and regulations based on these principles shall be subject to the dispute settlement procedures set out in the Convention.

2. The provisions of Annex III, article 13, paragraphs 3 to 10, of the Convention shall not apply.

3. With regard to the implementation of Annex III, article 13, paragraph 2, of the Convention, the fee for processing applications for approval of a plan of work limited to one phase, either the exploration phase or the exploitation phase, shall be US\$ 250,000.

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SECTION 9. THE FINANCE COMMITTEE

1. There is hereby established a Finance Committee. The Committee shall be composed of 15 members with appropriate qualifications relevant to financial matters. States Parties shall nominate candidates of the highest standards of competence and integrity.
2. No two members of the Finance Committee shall be nationals of the same State Party.
3. Members of the Finance Committee shall be elected by the Assembly and due account shall be taken of the need for equitable geographical distribution and the representation of special interests. Each group of States referred to in section 3, paragraph 15(a), (b), (c) and (d), of this Annex shall be represented on the Committee by at least one member. Until the Authority has sufficient funds other than assessed contributions to meet its administrative expenses, the membership of the Committee shall include representatives of the five largest financial contributors to the administrative budget of the Authority. Thereafter, the election of one member from each group shall be on the basis of nomination by the members of the respective group, without prejudice to the possibility of further members being elected from each group.
4. Members of the Finance Committee shall hold office for a term of five years. They shall be eligible for re-election for a further term.
5. In the event of the death, incapacity or resignation of a member of the Finance Committee prior to the expiration of the term of office, the Assembly shall elect for the remainder of the term a member from the same

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geographical region or group of States.

6. Members of the Finance Committee shall have no financial interest in any activity relating to matters upon which the Committee has the responsibility to make recommendations. They shall not disclose, even after the termination of their functions, any confidential information coming to their knowledge by reason of their duties for the Authority.

7. Decisions by the Assembly and the Council on the following issues shall take into account recommendations of the Finance Committee:

(a) Draft financial rules, regulations and procedures of the organs of the Authority and the financial management and internal financial administration of the Authority;

(b) Assessment of contributions of members to the administrative budget of the Authority in accordance with article 160, paragraph 2(e), of the Convention;

(c) All relevant financial matters, including the proposed annual budget prepared by the Secretary-General of the Authority in accordance with article 172 of the Convention and the financial aspects of the implementation of the programmes of work of the Secretariat;

(d) The administrative budget;

(e) Financial obligations of States Parties arising from the implementation of this Agreement and Part XI as well as the administrative and budgetary implications of proposals and recommendations involving expenditure from the funds of the Authority;

(f) Rules, regulations and procedures on the equitable sharing of financial and other economic benefits derived from activities in the Area and the decisions to be made thereon.

8. Decisions in the Finance Committee on questions of procedure shall be taken by a majority of members present and voting. Decisions on questions

of substance shall be taken by consensus.

9. The requirement of article 162, paragraph 2(y), of the Convention to establish a subsidiary organ to deal with financial matters shall be deemed to have been fulfilled by the establishment of the Finance Committee in accordance with this section.

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137.	Madagascar (22 August 2001)
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88.	Saudi Arabia (24 April 1996)
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84.	Republic of Korea (29 January 1996)
83.	Nauru (23 January 1996)
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80.	Samoa (14 August 1995)
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78.	Greece (21 July 1995)
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76.	India (29 June 1995)
75.	Slovenia (16 June 1995)
74.	Bolivia (28 April 1995)
73.	Croatia (5 April 1995)
72.	Cook Islands (15 February 1995)
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67.	Mauritius (4 November 1994)
66.	Germany (14 October 1994)
65.	Australia (5 October 1994)
64.	The former Yugoslav Republic of Macedonia (19 August 1994)
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62.	Sri Lanka (19 July 1994)
61.	Comoros (21 June 1994)
60.	Bosnia and Herzegovina (12 January 1994)
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47.	Marshall Islands (9 August 1991)
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44.	Angola (5 December 1990)
43.	Uganda (9 November 1990)
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40.	Somalia (24 July 1989)
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105.	Tunisia (24 May 2002)
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78.	Mozambique (13 March 1997)
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76.	Pakistan (26 February 1997)
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31.	United Kingdom on behalf of Pitcairn, Henderson, Ducie and Oeno Islands, Falkland Islands, South Georgia and South Sandwich Islands, Bermuda, Turks and Caicos Islands, British Indian Ocean Territory, British Virgin Islands and Anguilla (10 December 2001)
30.	Malta (11 November 2001)
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19.	Maldives (30 December 1998)
18.	Iran (Islamic Republic of) (17 April 1998)
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15.	Russian Federation (4 August 1997)
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9.	Bahamas (16 January 1997)
8.	Nauru (10 January 1997)
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5.	Samoa (25 October 1996)
4.	Sri Lanka (24 October 1996)
3.	United States of America (21 August 1996)
2.	Saint Lucia (9 August 1996)
1.	Tonga (31 July 1996)

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Appendix GCC
London Convention 1972 and the 1996 Protocol Thereto

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Ref. T5/5.01

LC.2/Circ.380
12 March 1997

**CONVENTION ON THE PREVENTION OF MARINE POLLUTION
BY DUMPING OF WASTES AND OTHER MATTER
(LONDON CONVENTION 1972)**

**Compilation of the full texts of the London Convention 1972
and of the 1996 Protocol thereto**

Shown in the following pages is a compilation of the full text of the London Convention 1972 and that of the 1996 Protocol thereto. The corresponding provisions of the two instruments are presented on facing pages.

**COMPILATION OF THE FULL TEXTS
OF THE LONDON CONVENTION 1972
AND OF THE 1996 PROTOCOL THERETO**

**CONVENTION ON THE PREVENTION OF MARINE POLLUTION
BY DUMPING OF WASTES AND OTHER MATTER, 1972**

THE CONTRACTING PARTIES TO THIS CONVENTION,

RECOGNIZING that the marine environment and the living organisms which it supports are of vital importance to humanity, and all people have an interest in assuring that it is so managed that its quality and resources are not impaired;

RECOGNIZING that the capacity of the sea to assimilate wastes and render them harmless, and its ability to regenerate natural resources, is not unlimited;

RECOGNIZING that States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction;

RECALLING resolution 2749(XXV) of the General Assembly of the United Nations on the principles governing the sea-bed and the ocean floor and the subsoil thereof, beyond the limits of national jurisdiction;

NOTING that marine pollution originates in many sources, such as dumping and discharges through the atmosphere, rivers, estuaries, outfalls and pipelines, and that it is important that States use the best practicable means to prevent such pollution and develop products and processes which will reduce the amount of harmful wastes to be disposed of;

BEING CONVINCED that international action to control the pollution of the sea by dumping can and must be taken without delay but that this action should not preclude discussion of measures to control other sources of marine pollution as soon as possible; and

WISHING to improve protection of the marine environment by encouraging States with a common interest in particular geographical areas to enter into appropriate agreements supplementary to this Convention;

HAVE AGREED as follows:

**1996 PROTOCOL TO THE CONVENTION ON THE PREVENTION OF
MARINE POLLUTION BY DUMPING OF WASTES AND OTHER MATTER, 1972**

THE CONTRACTING PARTIES TO THIS PROTOCOL,

STRESSING the need to protect the marine environment and to promote the sustainable use and conservation of marine resources,

NOTING in this regard the achievements within the framework of the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 and especially the evolution towards approaches based on precaution and prevention,

NOTING FURTHER the contribution in this regard by complementary regional and national instruments which aim to protect the marine environment and which take account of specific circumstances and needs of those regions and States,

REAFFIRMING the value of a global approach to these matters and in particular the importance of continuing co-operation and collaboration between Contracting Parties in implementing the Convention and the Protocol,

RECOGNIZING that it may be desirable to adopt, on a national or regional level, more stringent measures with respect to prevention and elimination of pollution of the marine environment from dumping at sea than are provided for in international conventions or other types of agreements with a global scope,

TAKING INTO ACCOUNT relevant international agreements and actions, especially the United Nations Convention on the Law of the Sea, 1982, the Rio Declaration on Environment and Development and Agenda 21,

RECOGNIZING ALSO the interests and capacities of developing States and in particular small island developing States,

BEING CONVINCED that further international action to prevent, reduce and where practicable eliminate pollution of the sea caused by dumping can and must be taken without delay to protect and preserve the marine environment and to manage human activities in such a manner that the marine ecosystem will continue to sustain the legitimate uses of the sea and will continue to meet the needs of present and future generations,

HAVE AGREED as follows:

LONDON CONVENTION 1972**Article III**

For the purposes of this Convention:

- 1 (a) "Dumping" means:
 - (i) any deliberate disposal at sea of wastes or other matter from vessels, aircraft, platforms or other man-made structures at sea;
 - (ii) any deliberate disposal at sea of vessels, aircraft, platforms or other man-made structures at sea.

- (b) "Dumping" does not include:
 - (i) the disposal at sea of wastes or other matter incidental to, or derived from the normal operations of vessels, aircraft, platforms or other man-made structures at sea and their equipment, other than wastes or other matter transported by or to vessels, aircraft, platforms or other man-made structures at sea, operating for the purpose of disposal of such matter or derived from the treatment of such wastes or other matter on such vessels, aircraft, platforms or structures;
 - (ii) placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of this Convention.

- (c) The disposal of wastes or other matter directly arising from, or related to the exploration, exploitation and associated off-shore processing of sea-bed mineral resources will not be covered by the provisions of this Convention.

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ARTICLE 1

DEFINITIONS

For the purposes of this Protocol:

- 1 "Convention" means the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972, as amended.
- 2 "Organization" means the International Maritime Organization.
- 3 "Secretary-General" means the Secretary-General of the Organization.
- 4 .1 "Dumping" means:
 - .1 any deliberate disposal into the sea of wastes or other matter from vessels, aircraft, platforms or other man-made structures at sea;
 - .2 any deliberate disposal into the sea of vessels, aircraft, platforms or other man-made structures at sea;
 - .3 any storage of wastes or other matter in the seabed and the subsoil thereof from vessels, aircraft, platforms or other man-made structures at sea; and
 - .4 any abandonment or toppling at site of platforms or other man-made structures at sea, for the sole purpose of deliberate disposal.
- .2 "Dumping" does not include:
 - .1 the disposal into the sea of wastes or other matter incidental to, or derived from the normal operations of vessels, aircraft, platforms or other man-made structures at sea and their equipment, other than wastes or other matter transported by or to vessels, aircraft, platforms or other man-made structures at sea, operating for the purpose of disposal of such matter or derived from the treatment of such wastes or other matter on such vessels, aircraft, platforms or other man-made structures;
 - .2 placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of this Protocol; and
 - .3 notwithstanding paragraph 4.1.4, abandonment in the sea of matter (e.g., cables, pipelines and marine research devices) placed for a purpose other than the mere disposal thereof.
- .3 The disposal or storage of wastes or other matter directly arising from, or related to the exploration, exploitation and associated off-shore processing of seabed mineral resources is not covered by the provisions of this Protocol.

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(Additional definitions provided in Annex I, paragraph 10(d), to the Convention.)

- (i) "Marine incineration facility" means a vessel, platform, or other man-made structure operating for the purpose of incineration at sea.
- (ii) "Incineration at sea" means the deliberate combustion of wastes or other matter on marine incineration facilities for the purpose of their thermal destruction. Activities incidental to the normal operation of vessels, platforms or other man-made structures are excluded from the scope of this definition.

(Article III continued)

- 2 "Vessels and aircraft" means waterborne or airborne craft of any type whatsoever. This expression includes air cushioned craft and floating craft, whether self-propelled or not.
- 3 "Sea" means all marine waters other than the internal waters of States.
- 4 "Wastes or other matter" means material and substance of any kind, form or description.
- 5 "Special permit" means permission granted specifically on application in advance and in accordance with Annex II and Annex III.
- 6 "General permit" means permission granted in advance and in accordance with Annex III.
- 7 "The Organization" means the Organization designated by the Contracting Parties in accordance with article XIV(2).

Article I

Contracting Parties shall individually and collectively promote the effective control of all sources of pollution of the marine environment, and pledge themselves especially to take all practicable steps to prevent the pollution of the sea by the dumping of waste and other matter that is liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea.

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(Article 1 continued)

- 5 .1 "Incineration at sea" means the combustion on board a vessel, platform or other man-made structure at sea of wastes or other matter for the purpose of their deliberate disposal by thermal destruction.
- .2 "Incineration at sea" does not include the incineration of wastes or other matter on board a vessel, platform, or other man-made structure at sea if such wastes or other matter were generated during the normal operation of that vessel, platform or other man-made structure at sea.
- 6 "Vessels and aircraft" means waterborne or airborne craft of any type whatsoever. This expression includes air-cushioned craft and floating craft, whether self-propelled or not.
- 7 "Sea" means all marine waters other than the internal waters of States, as well as the seabed and the subsoil thereof; it does not include sub-seabed repositories accessed only from land.
- 8 "Wastes or other matter" means material and substance of any kind, form or description.
- 9 "Permit" means permission granted in advance and in accordance with relevant measures adopted pursuant to article 4.1.2 or 8.2.
- 10 "Pollution" means the introduction, directly or indirectly, by human activity, of wastes or other matter into the sea which results or is likely to result in such deleterious effects as harm to living resources and marine ecosystems, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities.

ARTICLE 2

OBJECTIVES

Contracting Parties shall individually and collectively protect and preserve the marine environment from all sources of pollution and take effective measures, according to their scientific, technical and economic capabilities, to prevent, reduce and where practicable eliminate pollution caused by dumping or incineration at sea of wastes or other matter. Where appropriate, they shall harmonize their policies in this regard.

LONDON CONVENTION 1972**Article II**

Contracting Parties shall, as provided for in the following articles, take effective measures individually, according to their scientific, technical and economic capabilities, and collectively, to prevent marine pollution caused by dumping and shall harmonize their policies in this regard.

Article IV

- 1 In accordance with the provisions of this Convention Contracting Parties shall prohibit the dumping of any wastes or other matter in whatever form or condition except as otherwise specified below:
 - (a) the dumping of wastes or other matter listed in Annex I is prohibited;
 - (b) the dumping of wastes or other matter listed in Annex II requires a prior special permit;
 - (c) the dumping of all other wastes or matter requires a prior general permit.
- 2 Any permit shall be issued only after careful consideration of all the factors set forth in Annex III, including prior studies of the characteristics of the dumping site, as set forth in sections B and C of that Annex.
- 3 No provision of this Convention is to be interpreted as preventing a Contracting Party from prohibiting, insofar as that Party is concerned, the dumping of wastes or other matter not mentioned in Annex I. That Party shall notify such measures to the Organization.

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ARTICLE 3

GENERAL OBLIGATIONS

- 1 In implementing this Protocol, Contracting Parties shall apply a precautionary approach to environmental protection from dumping of wastes or other matter whereby appropriate preventative measures are taken when there is reason to believe that wastes or other matter introduced into the marine environment are likely to cause harm even when there is no conclusive evidence to prove a causal relation between inputs and their effects.
- 2 Taking into account the approach that the polluter should, in principle, bear the cost of pollution, each Contracting Party shall endeavour to promote practices whereby those it has authorized to engage in dumping or incineration at sea bear the cost of meeting the pollution prevention and control requirements for the authorized activities, having due regard to the public interest.
- 3 In implementing the provisions of this Protocol, Contracting Parties shall act so as not to transfer, directly or indirectly, damage or likelihood of damage from one part of the environment to another or transform one type of pollution into another.
- 4 No provision of this Protocol shall be interpreted as preventing Contracting Parties from taking, individually or jointly, more stringent measures in accordance with international law with respect to the prevention, reduction and where practicable elimination of pollution.

ARTICLE 4

DUMPING OF WASTES OR OTHER MATTER

- 1
 - .1 Contracting Parties shall prohibit the dumping of any wastes or other matter with the exception of those listed in Annex 1.
 - .2 The dumping of wastes or other matter listed in Annex 1 shall require a permit. Contracting Parties shall adopt administrative or legislative measures to ensure that issuance of permits and permit conditions comply with provisions of Annex 2. Particular attention shall be paid to opportunities to avoid dumping in favour of environmentally preferable alternatives.
- 2 No provision of this Protocol shall be interpreted as preventing a Contracting Party from prohibiting, insofar as that Contracting Party is concerned, the dumping of wastes or other matter mentioned in Annex 1. That Contracting Party shall notify the Organization of such measures.

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ARTICLE 5

INCINERATION AT SEA

Contracting Parties shall prohibit incineration at sea of wastes or other matter.

ARTICLE 6

EXPORT OF WASTES OR OTHER MATTER

Contracting Parties shall not allow the export of wastes or other matter to other countries for dumping or incineration at sea.

ARTICLE 7

INTERNAL WATERS

- 1 Notwithstanding any other provision of this Protocol, this Protocol shall relate to internal waters only to the extent provided for in paragraphs 2 and 3.
- 2 Each Contracting Party shall at its discretion either apply the provisions of this Protocol or adopt other effective permitting and regulatory measures to control the deliberate disposal of wastes or other matter in marine internal waters where such disposal would be "dumping" or "incineration at sea" within the meaning of article 1, if conducted at sea.
- 3 Each Contracting Party should provide the Organization with information on legislation and institutional mechanisms regarding implementation, compliance and enforcement in marine internal waters. Contracting Parties should also use their best efforts to provide on a voluntary basis summary reports on the type and nature of the materials dumped in marine internal waters.

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Article V

- 1 The provisions of article IV shall not apply when it is necessary to secure the safety of human life or of vessels, aircraft, platforms or other man-made structures at sea in cases of force majeure caused by stress of weather, or in any case which constitutes a danger to human life or a real threat to vessels, aircraft, platforms or other man-made structures at sea, if dumping appears to be the only way of averting the threat and if there is every probability that the damage consequent upon such dumping will be less than would otherwise occur. Such dumping shall be so conducted as to minimize the likelihood of damage to human or marine life and shall be reported forthwith to the Organization.
- 2 A Contracting Party may issue a special permit as an exception to article IV(1)(a), in emergencies, posing unacceptable risk relating to human health and admitting no other feasible solution. Before doing so the Party shall consult any other country or countries that are likely to be affected and the Organization which, after consulting other Parties, and international organizations as appropriate, shall, in accordance with article XIV promptly recommend to the Party the most appropriate procedures to adopt. The Party shall follow these recommendations to the maximum extent feasible consistent with the time within which action must be taken and with the general obligation to avoid damage to the marine environment and shall inform the Organization of the action it takes. The Parties pledge themselves to assist one another in such situations.
- 3 Any Contracting Party may waive its rights under paragraph (2) at the time of, or subsequent to ratification of, or accession to this Convention.

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ARTICLE 8

EXCEPTIONS

- 1 The provisions of articles 4.1 and 5 shall not apply when it is necessary to secure the safety of human life or of vessels, aircraft, platforms or other man-made structures at sea in cases of force majeure caused by stress of weather, or in any case which constitutes a danger to human life or a real threat to vessels, aircraft, platforms or other man-made structures at sea, if dumping or incineration at sea appears to be the only way of averting the threat and if there is every probability that the damage consequent upon such dumping or incineration at sea will be less than would otherwise occur. Such dumping or incineration at sea shall be conducted so as to minimize the likelihood of damage to human or marine life and shall be reported forthwith to the Organization.
- 2 A Contracting Party may issue a permit as an exception to articles 4.1 and 5, in emergencies posing an unacceptable threat to human health, safety, or the marine environment and admitting of no other feasible solution. Before doing so the Contracting Party shall consult any other country or countries that are likely to be affected and the Organization which, after consulting other Contracting Parties, and competent international organizations as appropriate, shall, in accordance with article 18.6 promptly recommend to the Contracting Party the most appropriate procedures to adopt. The Contracting Party shall follow these recommendations to the maximum extent feasible consistent with the time within which action must be taken and with the general obligation to avoid damage to the marine environment and shall inform the Organization of the action it takes. The Contracting Parties pledge themselves to assist one another in such situations.
- 3 Any Contracting Party may waive its rights under paragraph 2 at the time of, or subsequent to ratification of, or accession to this Protocol.

LONDON CONVENTION 1972

Article VI

- 1 Each Contracting Party shall designate an appropriate authority or authorities to:
 - (a) issue special permits which shall be required prior to, and for, the dumping of matter listed in Annex II and in the circumstances provided for in article V(2);
 - (b) issue general permits which shall be required prior to, and for, the dumping of all other matter;
 - (c) keep records of the nature and quantities of all matter permitted to be dumped and the location, time and method of dumping;
 - (d) monitor individually, or in collaboration with other Parties and competent international organizations, the condition of the seas for the purposes of this Convention.

- 2 The appropriate authority or authorities of a contracting Party shall issue prior special or general permits in accordance with paragraph (1) in respect of matter intended for dumping:
 - (a) loaded in its territory;
 - (b) loaded by a vessel or aircraft registered in its territory or flying its flag, when the loading occurs in the territory of a State not party to this Convention.

- 3 In issuing permits under sub-paragraphs (1)(a) and (b) above, the appropriate authority or authorities shall comply with Annex III, together with such additional criteria, measures and requirements as they may consider relevant.

- 4 Each Contracting Party, directly or through a Secretariat established under a regional agreement, shall report to the Organization, and where appropriate to other Parties, the information specified in sub-paragraphs(c) and (d) of paragraph (1) above, and the criteria, measures and requirements it adopts in accordance with paragraph (3) above. The procedure to be followed and the nature of such reports shall be agreed by the Parties in consultation.

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ARTICLE 9

ISSUANCE OF PERMITS AND REPORTING

- 1 Each Contracting Party shall designate an appropriate authority or authorities to:
 - .1 issue permits in accordance with this Protocol;
 - .2 keep records of the nature and quantities of all wastes or other matter for which dumping permits have been issued and where practicable the quantities actually dumped and the location, time and method of dumping; and
 - .3 monitor individually, or in collaboration with other Contracting Parties and competent international organizations, the condition of the sea for the purposes of this Protocol.

- 2 The appropriate authority or authorities of a Contracting Party shall issue permits in accordance with this Protocol in respect of wastes or other matter intended for dumping or, as provided for in article 8.2, incineration at sea:
 - .1 loaded in its territory; and
 - .2 loaded onto a vessel or aircraft registered in its territory or flying its flag, when the loading occurs in the territory of a State not a Contracting Party to this Protocol.

- 3 In issuing permits, the appropriate authority or authorities shall comply with the requirements of article 4, together with such additional criteria, measures and requirements as they may consider relevant.

- 4 Each Contracting Party, directly or through a secretariat established under a regional agreement, shall report to the Organization and where appropriate to other Contracting Parties:
 - .1 the information specified in paragraphs 1.2 and 1.3;
 - .2 the administrative and legislative measures taken to implement the provisions of this Protocol, including a summary of enforcement measures; and
 - .3 the effectiveness of the measures referred to in paragraph 4.2 and any problems encountered in their application.

The information referred to in paragraphs 1.2 and 1.3 shall be submitted on an annual basis. The information referred to in paragraphs 4.2 and 4.3 shall be submitted on a regular basis.

- 5 Reports submitted under paragraphs 4.2 and 4.3 shall be evaluated by an appropriate subsidiary body as determined by the Meeting of Contracting Parties. This body will report its conclusions to an appropriate Meeting or Special Meeting of Contracting Parties.

LONDON CONVENTION 1972

Article VII

- 1 Each Contracting Party shall apply the measures required to implement the present Convention to all:
 - (a) vessels and aircraft registered in its territory or flying its flag;
 - (b) vessels and aircraft loading in its territory or territorial seas matter which is to be dumped;
 - (c) vessels and aircraft and fixed or floating platforms under its jurisdiction believed to be engaged in dumping.
- 2 Each Party shall take in its territory appropriate measures to prevent and punish conduct in contravention of the provisions of this Convention.
- 3 The Parties agree to co-operate in the development of procedures for the effective application of this Convention particularly on the high seas, including procedures for the reporting of vessels and aircraft observed dumping in contravention of the Convention.
- 4 This Convention shall not apply to those vessels and aircraft entitled to sovereign immunity under international law. However, each Party shall ensure by the adoption of appropriate measures that such vessels and aircraft owned or operated by it act in a manner consistent with the object and purpose of this Convention, and shall inform the Organization accordingly.
- 5 Nothing in this Convention shall affect the right of each Party to adopt other measures, in accordance with the principles of international law, to prevent dumping at sea.

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ARTICLE 10

APPLICATION AND ENFORCEMENT

- 1 Each Contracting Party shall apply the measures required to implement this Protocol to all:
 - .1 vessels and aircraft registered in its territory or flying its flag;
 - .2 vessels and aircraft loading in its territory the wastes or other matter which are to be dumped or incinerated at sea; and
 - .3 vessels, aircraft and platforms or other man-made structures believed to be engaged in dumping or incineration at sea in areas within which it is entitled to exercise jurisdiction in accordance with international law.
- 2 Each Contracting Party shall take appropriate measures in accordance with international law to prevent and if necessary punish acts contrary to the provisions of this Protocol.
- 3 Contracting Parties agree to co-operate in the development of procedures for the effective application of this Protocol in areas beyond the jurisdiction of any State, including procedures for the reporting of vessels and aircraft observed dumping or incinerating at sea in contravention of this Protocol.
- 4 This Protocol shall not apply to those vessels and aircraft entitled to sovereign immunity under international law. However, each Contracting Party shall ensure by the adoption of appropriate measures that such vessels and aircraft owned or operated by it act in a manner consistent with the object and purpose of this Protocol and shall inform the Organization accordingly.
- 5 A State may, at the time it expresses its consent to be bound by this Protocol, or at any time thereafter, declare that it shall apply the provisions of this Protocol to its vessels and aircraft referred to in paragraph 4, recognising that only that State may enforce those provisions against such vessels and aircraft.

LONDON CONVENTION 1972

Article VIII

In order to further the objectives of this Convention, the Contracting Parties with common interests to protect the marine environment in a given geographical area shall endeavour, taking into account characteristic regional features, to enter into regional agreements consistent with this Convention for the prevention of pollution, especially by dumping. The Contracting Parties to the present Convention shall endeavour to act consistently with the objectives and provisions of such regional agreements, which shall be notified to them by the Organization. Contracting Parties shall seek to co-operate with the Parties to regional agreements in order to develop harmonized procedures to be followed by Contracting Parties to the different conventions concerned. Special attention shall be given to co-operation in the field of monitoring and scientific research.

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ARTICLE 11

COMPLIANCE PROCEDURES

- 1 No later than two years after the entry into force of this Protocol, the Meeting of Contracting Parties shall establish those procedures and mechanisms necessary to assess and promote compliance with this Protocol. Such procedures and mechanisms shall be developed with a view to allowing for the full and open exchange of information, in a constructive manner.
- 2 After full consideration of any information submitted pursuant to this Protocol and any recommendations made through procedures or mechanisms established under paragraph 1, the Meeting of Contracting Parties may offer advice, assistance or co-operation to Contracting Parties and non-Contracting Parties.

ARTICLE 12

REGIONAL CO-OPERATION

In order to further the objectives of this Protocol, Contracting Parties with common interests to protect the marine environment in a given geographical area shall endeavour, taking into account characteristic regional features, to enhance regional co-operation including the conclusion of regional agreements consistent with this Protocol for the prevention, reduction and where practicable elimination of pollution caused by dumping or incineration at sea of wastes or other matter. Contracting Parties shall seek to co-operate with the parties to regional agreements in order to develop harmonized procedures to be followed by Contracting Parties to the different conventions concerned.

LONDON CONVENTION 1972

Article IX

The Contracting Parties shall promote, through collaboration within the Organization and other international bodies, support for those Parties which request it for:

- (a) the training of scientific and technical personnel;
- (b) the supply of necessary equipment and facilities for research and monitoring;
- (c) the disposal and treatment of waste and other measures to prevent or mitigate pollution caused by dumping;

preferably within the countries concerned, so furthering the aims and purposes of this Convention.

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ARTICLE 13

TECHNICAL CO-OPERATION AND ASSISTANCE

- 1 Contracting Parties shall, through collaboration within the Organization and in co-ordination with other competent international organizations, promote bilateral and multilateral support for the prevention, reduction and where practicable elimination of pollution caused by dumping as provided for in this Protocol to those Contracting Parties that request it for:
 - .1 training of scientific and technical personnel for research, monitoring and enforcement, including as appropriate the supply of necessary equipment and facilities, with a view to strengthening national capabilities;
 - .2 advice on implementation of this Protocol;
 - .3 information and technical co-operation relating to waste minimization and clean production processes;
 - .4 information and technical co-operation relating to the disposal and treatment of waste and other measures to prevent, reduce and where practicable eliminate pollution caused by dumping; and
 - .5 access to and transfer of environmentally sound technologies and corresponding know-how, in particular to developing countries and countries in transition to market economies, on favourable terms, including on concessional and preferential terms, as mutually agreed, taking into account the need to protect intellectual property rights as well as the special needs of developing countries and countries in transition to market economies.
- 2 The Organization shall perform the following functions:
 - .1 forward requests from Contracting Parties for technical co-operation to other Contracting Parties, taking into account such factors as technical capabilities;
 - .2 co-ordinate requests for assistance with other competent international organizations, as appropriate; and
 - .3 subject to the availability of adequate resources, assist developing countries and those in transition to market economies, which have declared their intention to become Contracting Parties to this Protocol, to examine the means necessary to achieve full implementation.

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Article X

In accordance with the principles of international law regarding State responsibility for damage to the environment of other States or to any other area of the environment, caused by dumping of wastes and other matter of all kinds, the Contracting Parties undertake to develop procedures for the assessment of liability and the settlement of disputes regarding dumping.

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ARTICLE 14

SCIENTIFIC AND TECHNICAL RESEARCH

- 1 Contracting Parties shall take appropriate measures to promote and facilitate scientific and technical research on the prevention, reduction and where practicable elimination of pollution by dumping and other sources of marine pollution relevant to this Protocol. In particular, such research should include observation, measurement, evaluation and analysis of pollution by scientific methods.
- 2 Contracting Parties shall, to achieve the objectives of this Protocol, promote the availability of relevant information to other Contracting Parties who request it on:
 - .1 scientific and technical activities and measures undertaken in accordance with this Protocol;
 - .2 marine scientific and technological programmes and their objectives; and
 - .3 the impacts observed from the monitoring and assessment conducted pursuant to article 9.1.3.

ARTICLE 15

RESPONSIBILITY AND LIABILITY

In accordance with the principles of international law regarding State responsibility for damage to the environment of other States or to any other area of the environment, the Contracting Parties undertake to develop procedures regarding liability arising from the dumping or incineration at sea of wastes or other matter.

LONDON CONVENTION 1972**Article XI**

The Contracting Parties shall at their first consultative meeting consider procedures for the settlement of disputes concerning the interpretation and application of this Convention.

Article XII

The Contracting Parties pledge themselves to promote, within the competent specialized agencies and other international bodies, measures to protect the marine environment against pollution caused by:

- (a) hydrocarbons, including oil and their wastes;
- (b) other noxious or hazardous matter transported by vessels for purposes other than dumping;
- (c) wastes generated in the course of operation of vessels, aircraft, platforms and other man-made structures at sea;
- (d) radio-active pollutants from all sources, including vessels;
- (e) agents of chemical and biological warfare;
- (f) wastes or other matter directly arising from, or related to the exploration, exploitation and associated off-shore processing of sea-bed mineral resources.

The Parties will also promote, within the appropriate international organization, the codification of signals to be used by vessels engaged in dumping.

Article XIII

Nothing in this Convention shall prejudice the codification and development of the law of the sea by the United Nations Conference on the Law of the Sea convened pursuant to resolution 2750 C(XXV) of the General Assembly of the United Nations nor the present or future claims and legal views of any State concerning the law of the sea and the nature and extent of coastal and flag State jurisdiction. The Contracting Parties agree to consult at a meeting to be convened by the Organization after the Law of the Sea Conference, and in any case not later than 1976, with a view to defining the nature and extent of the right and the responsibility of a coastal State to apply the Convention in a zone adjacent to its coast.

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ARTICLE 16

SETTLEMENT OF DISPUTES

- 1 Any disputes regarding the interpretation or application of this Protocol shall be resolved in the first instance through negotiation, mediation or conciliation, or other peaceful means chosen by parties to the dispute.
- 2 If no resolution is possible within twelve months after one Contracting Party has notified another that a dispute exists between them, the dispute shall be settled, at the request of a party to the dispute, by means of the Arbitral Procedure set forth in Annex 3, unless the parties to the dispute agree to use one of the procedures listed in paragraph 1 of Article 287 of the 1982 United Nations Convention on the Law of the Sea. The parties to the dispute may so agree, whether or not they are also States Parties to the 1982 United Nations Convention on the Law of the Sea.
- 3 In the event an agreement to use one of the procedures listed in paragraph 1 of Article 287 of the 1982 United Nations Convention on the Law of the Sea is reached, the provisions set forth in Part XV of that Convention that are related to the chosen procedure would also apply, *mutatis mutandis*.
- 4 The twelve month period referred to in paragraph 2 may be extended for another twelve months by mutual consent of the parties concerned.
- 5 Notwithstanding paragraph 2, any State may, at the time it expresses its consent to be bound by this Protocol, notify the Secretary-General that, when it is a party to a dispute about the interpretation or application of article 3.1 or 3.2, its consent will be required before the dispute may be settled by means of the Arbitral Procedure set forth in Annex 3.

ARTICLE 17

INTERNATIONAL CO-OPERATION

Contracting Parties shall promote the objectives of this Protocol within the competent international organizations.

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Article XIV

- 1 The Government of the United Kingdom of Great Britain and Northern Ireland as a depositary shall call a meeting of the Contracting Parties not later than three months after the entry into force of this Convention to decide on organizational matters.
- 2 The Contracting Parties shall designate a competent Organization existing at the time of that meeting to be responsible for secretariat duties in relation to this Convention. Any Party to this Convention not being a member of this Organization shall make an appropriate contribution to the expenses incurred by the Organization in performing these duties.
- 3 (see on page 30 of this document.)
- 4 Consultative or special meetings of the Contracting Parties shall keep under continuing review the implementation of this Convention and may, inter alia:
 - (a) review and adopt amendments to this Convention and its Annexes in accordance with article XV;
 - (b) invite the appropriate scientific body or bodies to collaborate with and to advise the Parties or the Organization on any scientific or technical aspect relevant to this Convention, including particularly the content of the Annexes;
 - (c) receive and consider reports made pursuant to article VI(4);
 - (d) promote co-operation with and between regional organizations concerned with the prevention of marine pollution;
 - (e) develop or adopt, in consultation with appropriate International Organizations, procedures referred to in article V(2), including basic criteria for determining exceptional and emergency situations, and procedures for consultative advice and the safe disposal of matter in such circumstances, including the designation of appropriate dumping areas, and recommend accordingly;
 - (f) consider any additional action that may be required.
- 5 The Contracting Parties at their first consultative meeting shall establish rules of procedure as necessary.

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ARTICLE 18

MEETINGS OF CONTRACTING PARTIES

- 1 Meetings of Contracting Parties or Special Meetings of Contracting Parties shall keep under continuing review the implementation of this Protocol and evaluate its effectiveness with a view to identifying means of strengthening action, where necessary, to prevent, reduce and where practicable eliminate pollution caused by dumping and incineration at sea of wastes or other matter. To these ends, Meetings of Contracting Parties or Special Meetings of Contracting Parties may:
 - .1 review and adopt amendments to this Protocol in accordance with articles 21 and 22;
 - .2 establish subsidiary bodies, as required, to consider any matter with a view to facilitating the effective implementation of this Protocol;
 - .3 invite appropriate expert bodies to advise the Contracting Parties or the Organization on matters relevant to this Protocol;
 - .4 promote co-operation with competent international organizations concerned with the prevention and control of pollution;
 - .5 consider the information made available pursuant to article 9.4;
 - .6 develop or adopt, in consultation with competent international organizations, procedures referred to in article 8.2, including basic criteria for determining exceptional and emergency situations, and procedures for consultative advice and the safe disposal of matter at sea in such circumstances;
 - .7 consider and adopt resolutions; and
 - .8 consider any additional action that may be required.
- 2 The Contracting Parties at their first Meeting shall establish rules of procedure as necessary.

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(Article XIV continued)

- 3 The Secretariat duties of the Organization shall include:
- (a) the convening of consultative meetings of the Contracting Parties not less frequently than once every two years and of special meetings of the Parties at any time on the request of two thirds of the Parties;
 - (b) preparing and assisting, in consultation with the Contracting Parties and appropriate International Organizations, in the development and implementation of procedures referred to in sub-paragraph (4)(e) of this article;
 - (c) considering enquiries by, and information from the Contracting Parties, consulting with them and with the appropriate International Organizations, and providing recommendations to the Parties on questions related to, but not specifically covered by the Convention;
 - (d) conveying to the Parties concerned all notifications received by the Organization in accordance with articles IV(3), V(1) and (2), VI(4), XV, XX and XXI.

Prior to the designation of the Organization these functions shall, as necessary, be performed by the depositary, who for this purpose shall be the Government of the United Kingdom of Great Britain and Northern Ireland.

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ARTICLE 19

DUTIES OF THE ORGANIZATION

- 1 The Organization shall be responsible for Secretariat duties in relation to this Protocol. Any Contracting Party to this Protocol not being a member of this Organization shall make an appropriate contribution to the expenses incurred by the Organization in performing these duties.
- 2 Secretariat duties necessary for the administration of this Protocol include:
 - .1 convening Meetings of Contracting Parties once per year, unless otherwise decided by Contracting Parties, and Special Meetings of Contracting Parties at any time on the request of two-thirds of the Contracting Parties;
 - .2 providing advice on request on the implementation of this Protocol and on guidance and procedures developed thereunder;
 - .3 considering enquiries by, and information from Contracting Parties, consulting with them and with the competent international organizations, and providing recommendations to Contracting Parties on questions related to, but not specifically covered by, this Protocol;
 - .4 preparing and assisting, in consultation with Contracting Parties and the competent international organizations, in the development and implementation of procedures referred to in article 18.6.;
 - .5 conveying to the Contracting Parties concerned all notifications received by the Organization in accordance with this Protocol; and
 - .6 preparing, every two years, a budget and a financial account for the administration of this Protocol which shall be distributed to all Contracting Parties.
- 3 The Organization shall, subject to the availability of adequate resources, in addition to the requirements set out in article 13.2.3.
 - .1 collaborate in assessments of the state of the marine environment; and
 - .2 co-operate with competent international organizations concerned with the prevention and control of pollution.

ARTICLE 20

ANNEXES

Annexes to this Protocol form an integral part of this Protocol.

LONDON CONVENTION 1972

Article XV

- 1 (a) At meetings of the Contracting Parties called in accordance with article XIV amendments to this Convention may be adopted by a two-thirds majority of those present. An amendment shall enter into force for the Parties which have accepted it on the sixtieth day after two thirds of the Parties shall have deposited an instrument of acceptance of the amendment with the Organization. Thereafter the amendment shall enter into force for any other Party 30 days after that Party deposits its instrument of acceptance of the amendment.
- (b) The Organization shall inform all Contracting Parties of any request made for a special meeting under article XIV and of any amendments adopted at meetings of the Parties and of the date on which each such amendment enters into force for each Party.
- 2 Amendments to the Annexes will be based on scientific or technical considerations. Amendments to the annexes approved by a two-thirds majority of those present at a meeting called in accordance with article XIV shall enter into force for each Contracting Party immediately on notification of its acceptance to the Organization and 100 days after approval by the meeting for all other Parties except for those which before the end of the 100 days make a declaration that they are not able to accept the amendment at that time. Parties should endeavour to signify their acceptance of an amendment to the Organization as soon as possible after approval at a meeting. A Party may at any time substitute an acceptance for a previous declaration of objection and the amendment previously objected to shall thereupon enter into force for that Party.
- 3 An acceptance or declaration of objection under this article shall be made by the deposit of an instrument with the Organization. The Organization shall notify all Contracting Parties of the receipt of such instruments.
- 4 Prior to the designation of the Organization, the Secretarial functions herein attributed to it shall be performed temporarily by the Government of the United Kingdom of Great Britain and Northern Ireland, as one of the depositaries of this Convention.

1996 PROTOCOL

ARTICLE 21

AMENDMENT OF THE PROTOCOL

- 1 Any Contracting Party may propose amendments to the articles of this Protocol. The text of a proposed amendment shall be communicated to Contracting Parties by the Organization at least six months prior to its consideration at a Meeting of Contracting Parties or a Special Meeting of Contracting Parties.
- 2 Amendments to the articles of this Protocol shall be adopted by a two-thirds majority vote of the Contracting Parties which are present and voting at the Meeting of Contracting Parties or Special Meeting of Contracting Parties designated for this purpose.
- 3 An amendment shall enter into force for the Contracting Parties which have accepted it on the sixtieth day after two-thirds of the Contracting Parties shall have deposited an instrument of acceptance of the amendment with the Organization. Thereafter the amendment shall enter into force for any other Contracting Party on the sixtieth day after the date on which that Contracting Party has deposited its instrument of acceptance of the amendment.
- 4 The Secretary-General shall inform Contracting Parties of any amendments adopted at Meetings of Contracting Parties and of the date on which such amendments enter into force generally and for each Contracting Party.
- 5 After entry into force of an amendment to this Protocol, any State that becomes a Contracting Party to this Protocol shall become a Contracting Party to this Protocol as amended, unless two-thirds of the Contracting Parties present and voting at the Meeting or Special Meeting of Contracting Parties adopting the amendment agree otherwise.

LONDON CONVENTION 1972

1996 PROTOCOL

ARTICLE 22

AMENDMENT OF THE ANNEXES

- 1 Any Contracting Party may propose amendments to the Annexes to this Protocol. The text of a proposed amendment shall be communicated to Contracting Parties by the Organization at least six months prior to its consideration at a Meeting of Contracting Parties or Special Meeting of Contracting Parties.
- 2 Amendments to the Annexes other than Annex 3 will be based on scientific or technical considerations and may take into account legal, social and economic factors as appropriate. Such amendments shall be adopted by a two-thirds majority vote of the Contracting Parties present and voting at a Meeting of Contracting Parties or Special Meeting of Contracting Parties designated for this purpose.
- 3 The Organization shall without delay communicate to Contracting Parties amendments to the Annexes that have been adopted at a Meeting of Contracting Parties or Special Meeting of Contracting Parties.
- 4 Except as provided in paragraph 7, amendments to the Annexes shall enter into force for each Contracting Party immediately on notification of its acceptance to the Organization or 100 days after the date of their adoption at a Meeting of Contracting Parties, if that is later, except for those Contracting Parties which before the end of the 100 days make a declaration that they are not able to accept the amendment at that time. A Contracting Party may at any time substitute an acceptance for a previous declaration of objection and the amendment previously objected to shall thereupon enter into force for that Contracting Party.
- 5 The Secretary-General shall without delay notify Contracting Parties of instruments of acceptance or objection deposited with the Organization.
- 6 A new Annex or an amendment to an Annex which is related to an amendment to the articles of this Protocol shall not enter into force until such time as the amendment to the articles of this Protocol enters into force.
- 7 With regard to amendments to Annex 3 concerning the Arbitral Procedure and with regard to the adoption and entry into force of new Annexes the procedures on amendments to the articles of this Protocol shall apply.

ARTICLE 23

RELATIONSHIP BETWEEN THE PROTOCOL AND THE CONVENTION

This Protocol will supersede the Convention as between Contracting Parties to this Protocol which are also Parties to the Convention.

LONDON CONVENTION 1972

Article XVI

This Convention shall be open for signature by any State at London, Mexico City, Moscow and Washington from 29 December 1972 until 31 December 1973.

Article XVII

This Convention shall be subject to ratification. The instruments of ratification shall be deposited with the Governments of Mexico, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America.

Article XVIII

After 31 December 1973, this Convention shall be open for accession by any State. The instruments of accession shall be deposited with the Governments of Mexico, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America.

Article XIX

- 1 This Convention shall enter into force on the thirtieth day following the date of deposit of the fifteenth instrument of ratification or accession.
- 2 For each Contracting Party ratifying or acceding to the Convention after the deposit of the fifteenth instrument of ratification or accession, the Convention shall enter into force on the thirtieth day after deposit by such Party of its instrument of ratification or accession.

1996 PROTOCOL

ARTICLE 24

SIGNATURE, RATIFICATION, ACCEPTANCE, APPROVAL AND ACCESSION

- 1 This Protocol shall be open for signature by any State at the Headquarters of the Organization from 1 April 1997 to 31 March 1998 and shall thereafter remain open for accession by any State.
- 2 States may become Contracting Parties to this Protocol by:
 - .1 signature not subject to ratification, acceptance or approval; or
 - .2 signature subject to ratification, acceptance or approval, followed by ratification, acceptance or approval; or
 - .3 accession.
- 3 Ratification, acceptance, approval or accession shall be effected by the deposit of an instrument to that effect with the Secretary-General.

ARTICLE 25

ENTRY INTO FORCE

- 1 This Protocol shall enter into force on the thirtieth day following the date on which:
 - .1 at least 26 States have expressed their consent to be bound by this Protocol in accordance with article 24; and
 - .2 at least 15 Contracting Parties to the Convention are included in the number of States referred to in paragraph 1.1.
- 2 For each State that has expressed its consent to be bound by this Protocol in accordance with article 24 following the date referred to in paragraph 1, this Protocol shall enter into force on the thirtieth day after the date on which such State expressed its consent.

LONDON CONVENTION 1972

1996 PROTOCOL

ARTICLE 26

TRANSITIONAL PERIOD

- 1 Any State that was not a Contracting Party to the Convention before 31 December 1996 and that expresses its consent to be bound by this Protocol prior to its entry into force or within five years after its entry into force may, at the time it expresses its consent, notify the Secretary-General that, for reasons described in the notification, it will not be able to comply with specific provisions of this Protocol other than those provided in paragraph 2, for a transitional period that shall not exceed that described in paragraph 4.
- 2 No notification made under paragraph 1 shall affect the obligations of a Contracting Party to this Protocol with respect to incineration at sea or the dumping of radioactive wastes or other radioactive matter.
- 3 Any Contracting Party to this Protocol that has notified the Secretary-General under paragraph 1 that, for the specified transitional period, it will not be able to comply, in part or in whole, with article 4.1 or article 9 shall nonetheless during that period prohibit the dumping of wastes or other matter for which it has not issued a permit, use its best efforts to adopt administrative or legislative measures to ensure that issuance of permits and permit conditions comply with the provisions of Annex 2, and notify the Secretary-General of any permits issued.
- 4 Any transitional period specified in a notification made under paragraph 1 shall not extend beyond five years after such notification is submitted.
- 5 Contracting Parties that have made a notification under paragraph 1 shall submit to the first Meeting of Contracting Parties occurring after deposit of their instrument of ratification, acceptance, approval or accession a programme and timetable to achieve full compliance with this Protocol, together with any requests for relevant technical co-operation and assistance in accordance with article 13 of this Protocol.
- 6 Contracting Parties that have made a notification under paragraph 1 shall establish procedures and mechanisms for the transitional period to implement and monitor submitted programmes designed to achieve full compliance with this Protocol. A report on progress toward compliance shall be submitted by such Contracting Parties to each Meeting of Contracting Parties held during their transitional period for appropriate action.

LONDON CONVENTION 1972

Article XXI

Any Contracting Party may withdraw from this Convention by giving six months' notice in writing to a depositary, which shall promptly inform all Parties of such notice.

Article XX

The depositaries shall inform Contracting Parties:

- (a) of signatures to this Convention and of the deposit of instruments of ratification, accession or withdrawal, in accordance with articles XVI, XVII, XVIII and XXI, and
- (b) of the date on which this Convention will enter into force, in accordance with article XIX.

1996 PROTOCOL

ARTICLE 27

WITHDRAWAL

- 1 Any Contracting Party may withdraw from this Protocol at any time after the expiry of two years from the date on which this Protocol enters into force for that Contracting Party.
- 2 Withdrawal shall be effected by the deposit of an instrument of withdrawal with the Secretary-General.
- 3 A withdrawal shall take effect one year after receipt by the Secretary-General of the instrument of withdrawal or such longer period as may be specified in that instrument.

ARTICLE 28

DEPOSITARY

- 1 This Protocol shall be deposited with the Secretary-General.
- 2 In addition to the functions specified in articles 10.5, 16.5, 21.4, 22.5 and 26.5, the Secretary-General shall:
 - .1 inform all States which have signed this Protocol or acceded thereto of:
 - .1 each new signature or deposit of an instrument of ratification, acceptance, approval or accession, together with the date thereof;
 - .2 the date of entry into force of this Protocol; and
 - .3 the deposit of any instrument of withdrawal from this Protocol together with the date on which it was received and the date on which the withdrawal takes effect.
 - .2 transmit certified copies of this Protocol to all States which have signed this Protocol or acceded thereto.
- 3 As soon as this Protocol enters into force, a certified true copy thereof shall be transmitted by the Secretary-General to the Secretariat of the United Nations for registration and publication in accordance with Article 102 of the Charter of the United Nations.

LONDON CONVENTION 1972

Article XXII

The original of this Convention of which the English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Governments of Mexico, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland and the United States of America who shall send certified copies thereof to all States.

IN WITNESS WHEREOF the undersigned Plenipotentiaries, being duly authorized thereto by their respective Governments, have signed the present Convention.*

DONE in quadruplicate at London, Mexico City, Moscow and Washington, this twenty-ninth day of December, 1972.

1996 PROTOCOL

ARTICLE 29

AUTHENTIC TEXTS

This Protocol is established in a single original in the Arabic, Chinese, English, French, Russian and Spanish languages, each text being equally authentic.

IN WITNESS WHEREOF the undersigned being duly authorized by their respective Governments for that purpose have signed this Protocol.

LONDON CONVENTION 1972

ANNEX I

- 1 Organohalogen compounds.
- 2 Mercury and mercury compounds.
- 3 Cadmium and cadmium compounds.
- 4 Persistent plastics and other persistent synthetic materials, for example, netting and ropes, which may float or may remain in suspension in the sea in such a manner as to interfere materially with fishing, navigation or other legitimate uses of the sea.
- 5 Crude oil and its wastes, refined petroleum products, petroleum, distillate residues, and any mixtures containing any of these, taken on board for the purpose of dumping.
- 6 Radioactive wastes or other radioactive matter.
- 7 Materials in whatever form (e.g. solids, liquids, semi-liquids, gases or in a living state) produced for biological and chemical warfare.
- 8 With the exception of paragraph 6 above, the preceding paragraphs of this Annex do not apply to substances which are rapidly rendered harmless by physical, chemical or biological processes in the sea provided they do not:
 - (i) make edible marine organisms unpalatable, or
 - (ii) endanger human health or that of domestic animals.

The consultative procedure provided for under Article XIV should be followed by a Party if there is doubt about the harmlessness of the substance.

- 9 Except for industrial waste as defined in paragraph 11 below, this Annex does not apply to wastes or other materials (e.g. sewage sludge and dredged material) containing the matters referred to in paragraphs 1 - 5 above as trace contaminants. Such wastes shall be subject to the provisions of Annexes II and III as appropriate.

Paragraph 6 does not apply to wastes or other materials (e.g. sewage sludge and dredged material) containing de minimis (exempt) levels of radioactivity as defined by the IAEA and adopted by the Contracting Parties. Unless otherwise prohibited by Annex I, such wastes shall be subject to the provisions of Annexes II and III as appropriate.

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(Annex I continued)

- 10 (a) Incineration at sea of industrial waste, as defined in paragraph 11 below, and sewage sludge is prohibited.
- (b) The incineration at sea of any other wastes or other matter requires the issue of a special permit.
- (c) In the issue of special permits for incineration at sea Contracting Parties shall apply regulations as are developed under this Convention¹.
- (d) (The contents of this indent is reflected in page 8 of this document in comparison with article 1.5 of the Protocol.)
- 11 Industrial waste as from 1 January 1996.

For the purposes of this Annex:

"Industrial waste" means waste materials generated by manufacturing or processing operations and does not apply to:

- (a) dredged material;
- (b) sewage sludge;
- (c) fish waste, or organic materials resulting from industrial fish processing operations;
- (d) vessels and platforms or other man-made structures at sea, provided that material capable of creating floating debris or otherwise contributing to pollution of the marine environment has been removed to the maximum extent;
- (e) uncontaminated inert geological materials the chemical constituents of which are unlikely to be released into the marine environment;
- (f) uncontaminated organic materials of natural origin.

Dumping of wastes and other matter specified in subparagraphs (a) - (f) above shall be subject to all other provisions of Annex I, and to the provisions of Annexes II and III.

This paragraph shall not apply to the radioactive wastes or any other radioactive matter referred to in paragraph 6 of this Annex.

- 12 Within 25 years from the date on which the amendment to paragraph 6 enters into force and at each 25 year interval thereafter, the Contracting Parties shall complete a scientific study relating to all radioactive wastes and other radioactive matter other than high level wastes or matter, taking into account such other factors as the Contracting Parties consider appropriate, and shall review the position of such substances on Annex I in accordance with the procedures set forth in Article XV.

¹

Regulations for the Control of Incineration of Wastes and Other Matter at Sea, as adopted in 1978, have not been reproduced in this document.

1996 PROTOCOL

ANNEX 1

WASTES OR OTHER MATTER THAT MAY BE CONSIDERED FOR DUMPING

- 1 The following wastes or other matter are those that may be considered for dumping being mindful of the Objectives and General Obligations of this Protocol set out in articles 2 and 3:
 - .1 dredged material;
 - .2 sewage sludge;
 - .3 fish waste, or material resulting from industrial fish processing operations;
 - .4 vessels and platforms or other man-made structures at sea;
 - .5 inert, inorganic geological material;
 - .6 organic material of natural origin; and
 - .7 bulky items primarily comprising iron, steel, concrete and similarly unarmful materials for which the concern is physical impact, and limited to those circumstances where such wastes are generated at locations, such as small islands with isolated communities, having no practicable access to disposal options other than dumping.
- 2 The wastes or other matter listed in paragraphs 1.4 and 1.7 may be considered for dumping, provided that material capable of creating floating debris or otherwise contributing to pollution of the marine environment has been removed to the maximum extent and provided that the material dumped poses no serious obstacle to fishing or navigation.
- 3 Notwithstanding the above, materials listed in paragraphs 1.1 to 1.7 containing levels of radioactivity greater than *de minimis* (exempt) concentrations as defined by the IAEA and adopted by Contracting Parties, shall not be considered eligible for dumping; provided further that within 25 years of 20 February 1994, and at each 25 year interval thereafter, Contracting Parties shall complete a scientific study relating to all radioactive wastes and other radioactive matter other than high level wastes or matter, taking into account such other factors as Contracting Parties consider appropriate and shall review the prohibition on dumping of such substances in accordance with the procedures set forth in article 22.

LONDON CONVENTION 1972

ANNEX II

The following substances and materials requiring special care are listed for the purposes of Article VI(1)(a).

A Wastes containing significant amounts of the matters listed below:

arsenic)
beryllium)
chromium)
copper) and their compounds
lead)
nickel)
vanadium)
zinc)
organosilicon compounds
cyanides
fluorides
pesticides and their by-products not covered in Annex I.

B Containers, scrap metal and other bulky wastes liable to sink to the sea bottom which may present a serious obstacle to fishing or navigation.

C In the issue of special permits for the incineration of substances and materials listed in this Annex, the Contracting Parties shall apply the Regulations for the Control of Incineration of Wastes and Other Matter at Sea set forth in the Addendum to Annex I and take full account of the Technical Guidelines on the Control of Incineration of Wastes and Other Matter at Sea adopted by the Contracting Parties in consultation, to the extent specified in these Regulations and Guidelines.

D Materials which, though of a non-toxic nature, may become harmful due to the quantities in which they are dumped, or which are liable to seriously reduce amenities.

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ANNEX III

Provisions to be considered in establishing criteria governing the issue of permits for the dumping of matter at sea, taking into account article IV(2), include:

A - Characteristics and composition of the matter

- 1 Total amount and average composition of matter dumped (e.g. per year).
- 2 Form, e.g. solid, sludge, liquid, or gaseous.
- 3 Properties: physical (e.g. solubility and density), chemical and biochemical (e.g. oxygen demand, nutrients) and biological (e.g. presence of viruses, bacteria, yeasts, parasites).
- 4 Toxicity.
- 5 Persistence: physical, chemical and biological.
- 6 Accumulation and biotransformation in biological materials or sediments.
- 7 Susceptibility to physical, chemical and biochemical changes and interaction in the aquatic environment with other dissolved organic and inorganic materials.
- 8 Probability of production of taints or other changes reducing marketability of resources (fish, shellfish, etc.).
- 9 In issuing a permit for dumping, Contracting Parties should consider whether an adequate scientific basis exists concerning characteristics and composition of the matter to be dumped to assess the impact of the matter on marine life and on human health.

B - Characteristics of dumping site and method of deposit

- 1 Location (e.g. co-ordinates of the dumping area, depth and distance from the coast), location in relation to other areas (e.g. amenity areas, spawning, nursery and fishing areas and exploitable resources).
- 2 Rate of disposal per specific period (e.g. quantity per day, per week, per month).
- 3 Methods of packaging and containment, if any.
- 4 Initial dilution achieved by proposed method of release.
- 5 Dispersal characteristics (e.g. effects of currents, tides and wind on horizontal transport and vertical mixing).
- 6 Water characteristics (e.g. temperature, pH, salinity, stratification, oxygen indices of pollution-dissolved oxygen (DO), chemical oxygen demand (COD), biochemical oxygen demand (BOD) - nitrogen present in organic and mineral form including ammonia, suspended matter, other nutrients and productivity).
- 7 Bottom characteristics (e.g. topography, geochemical and geological characteristics and biological productivity).
- 8 Existence and effects of other dumpings which have been made in the dumping area (e.g. heavy metal background reading and organic carbon content).
- 9 In issuing a permit for dumping, Contracting Parties should consider whether an adequate scientific basis exists for assessing the consequences of such dumping, as outlined in this Annex, taking into account seasonal variations.

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ANNEX 2

ASSESSMENT OF WASTES OR OTHER MATTER THAT MAY BE CONSIDERED FOR DUMPING

GENERAL

- 1 The acceptance of dumping under certain circumstances shall not remove the obligations under this Annex to make further attempts to reduce the necessity for dumping.

WASTE PREVENTION AUDIT

- 2 The initial stages in assessing alternatives to dumping should, as appropriate, include an evaluation of:
 - .1 types, amounts and relative hazard of wastes generated;
 - .2 details of the production process and the sources of wastes within that process; and
 - .3 feasibility of the following waste reduction/prevention techniques:
 - .1 product reformulation;
 - .2 clean production technologies;
 - .3 process modification;
 - .4 input substitution; and
 - .5 on-site, closed-loop recycling.
- 3 In general terms, if the required audit reveals that opportunities exist for waste prevention at source, an applicant is expected to formulate and implement a waste prevention strategy, in collaboration with relevant local and national agencies, which includes specific waste reduction targets and provision for further waste prevention audits to ensure that these targets are being met. Permit issuance or renewal decisions shall assure compliance with any resulting waste reduction and prevention requirements.
- 4 For dredged material and sewage sludge, the goal of waste management should be to identify and control the sources of contamination. This should be achieved through implementation of waste prevention strategies and requires collaboration between the relevant local and national agencies involved with the control of point and non-point sources of pollution. Until this objective is met, the problems of contaminated dredged material may be addressed by using disposal management techniques at sea or on land.

LONDON CONVENTION 1972

(Annex III continued)

C - General considerations and conditions

- 1 Possible effects on amenities (e.g. presence of floating or stranded material, turbidity, objectionable odour, discolouration and foaming).
- 2 Possible effects on marine life, fish and shellfish culture, fish stocks and fisheries, seaweed harvesting and culture.
- 3 Possible effects on other uses of the sea (e.g. impairment of water quality for industrial use, underwater corrosion of structures, interference with ship operations from floating materials, interference with fishing or navigation through deposit of waste or solid objects on the sea floor and protection of areas of special importance for scientific or conservation purposes).
- 4 The practical availability of alternative land-based methods of treatment, disposal or elimination, or of treatment to render the matter less harmful for dumping at sea.

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(Annex 2 continued)

CONSIDERATION OF WASTE MANAGEMENT OPTIONS

- 5 Applications to dump wastes or other matter shall demonstrate that appropriate consideration has been given to the following hierarchy of waste management options, which implies an order of increasing environmental impact:
- .1 re-use;
 - .2 off-site recycling;
 - .3 destruction of hazardous constituents;
 - .4 treatment to reduce or remove the hazardous constituents; and
 - .5 disposal on land, into air and in water.
- 6 A permit to dump wastes or other matter shall be refused if the permitting authority determines that appropriate opportunities exist to re-use, recycle or treat the waste without undue risks to human health or the environment or disproportionate costs. The practical availability of other means of disposal should be considered in the light of a comparative risk assessment involving both dumping and the alternatives.

CHEMICAL, PHYSICAL AND BIOLOGICAL PROPERTIES

- 7 A detailed description and characterization of the waste is an essential precondition for the consideration of alternatives and the basis for a decision as to whether a waste may be dumped. If a waste is so poorly characterized that proper assessment cannot be made of its potential impacts on human health and the environment, that waste shall not be dumped.
- 8 Characterization of the wastes and their constituents shall take into account:
- .1 origin, total amount, form and average composition;
 - .2 properties: physical, chemical, biochemical and biological;
 - .3 toxicity;
 - .4 persistence: physical, chemical and biological; and
 - .5 accumulation and biotransformation in biological materials or sediments.

ACTION LIST

- 9 Each Contracting Party shall develop a national Action List to provide a mechanism for screening candidate wastes and their constituents on the basis of their potential effects on human health and the marine environment. In selecting substances for consideration in an Action List, priority shall be given to toxic, persistent and bioaccumulative substances from anthropogenic sources (e.g., cadmium, mercury, organohalogens, petroleum hydrocarbons, and, whenever relevant, arsenic, lead, copper, zinc, beryllium, chromium, nickel and vanadium, organosilicon compounds, cyanides, fluorides and pesticides or their by-products other than organohalogens). An Action List can also be used as a trigger mechanism for further waste prevention considerations.

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(Annex 2 continued)

- 10 An Action List shall specify an upper level and may also specify a lower level. The upper level should be set so as to avoid acute or chronic effects on human health or on sensitive marine organisms representative of the marine ecosystem. Application of an Action List will result in three possible categories of waste:
- .1 wastes which contain specified substances, or which cause biological responses, exceeding the relevant upper level shall not be dumped, unless made acceptable for dumping through the use of management techniques or processes;
 - .2 wastes which contain specified substances, or which cause biological responses, below the relevant lower levels should be considered to be of little environmental concern in relation to dumping; and
 - .3 wastes which contain specified substances, or which cause biological responses, below the upper level but above the lower level require more detailed assessment before their suitability for dumping can be determined.

DUMP-SITE SELECTION

- 11 Information required to select a dump-site shall include:
- .1 physical, chemical and biological characteristics of the water-column and the seabed;
 - .2 location of amenities, values and other uses of the sea in the area under consideration;
 - .3 assessment of the constituent fluxes associated with dumping in relation to existing fluxes of substances in the marine environment; and
 - .4 economic and operational feasibility.

ASSESSMENT OF POTENTIAL EFFECTS

- 12 Assessment of potential effects should lead to a concise statement of the expected consequences of the sea or land disposal options, i.e., the "Impact Hypothesis". It provides a basis for deciding whether to approve or reject the proposed disposal option and for defining environmental monitoring requirements.
- 13 The assessment for dumping should integrate information on waste characteristics, conditions at the proposed dump-site(s), fluxes, and proposed disposal techniques and specify the potential effects on human health, living resources, amenities and other legitimate uses of the sea. It should define the nature, temporal and spatial scales and duration of expected impacts based on reasonably conservative assumptions.
- 14 An analysis of each disposal option should be considered in the light of a comparative assessment of the following concerns: human health risks, environmental costs, hazards, (including accidents), economics and exclusion of future uses. If this assessment reveals that adequate information is not available to determine the likely effects of the proposed disposal option then this option should not be considered further. In addition, if the interpretation of the comparative assessment shows the dumping option to be less preferable, a permit for dumping should not be given.

LONDON CONVENTION 1972

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(Annex 2 continued)

- 15 Each assessment should conclude with a statement supporting a decision to issue or refuse a permit for dumping.

MONITORING

- 16 Monitoring is used to verify that permit conditions are met - compliance monitoring - and that the assumptions made during the permit review and site selection process were correct and sufficient to protect the environment and human health - field monitoring. It is essential that such monitoring programmes have clearly defined objectives.

PERMIT AND PERMIT CONDITIONS

- 17 A decision to issue a permit should only be made if all impact evaluations are completed and the monitoring requirements are determined. The provisions of the permit shall ensure, as far as practicable, that environmental disturbance and detriment are minimized and the benefits maximized. Any permit issued shall contain data and information specifying:
- .1 the types and sources of materials to be dumped;
 - .2 the location of the dump-site(s);
 - .3 the method of dumping; and
 - .4 monitoring and reporting requirements.
- 18 Permits should be reviewed at regular intervals, taking into account the results of monitoring and the objectives of monitoring programmes. Review of monitoring results will indicate whether field programmes need to be continued, revised or terminated and will contribute to informed decisions regarding the continuance, modification or revocation of permits. This provides an important feedback mechanism for the protection of human health and the marine environment.

LONDON CONVENTION 1972

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ANNEX 3

ARBITRAL PROCEDURE

Article 1

- 1 An Arbitral Tribunal (hereinafter referred to as the "Tribunal") shall be established upon the request of a Contracting Party addressed to another Contracting Party in application of article 16 of this Protocol. The request for arbitration shall consist of a statement of the case together with any supporting documents.
- 2 The requesting Contracting Party shall inform the Secretary-General of:
 - .1 its request for arbitration; and
 - .2 the provisions of this Protocol the interpretation or application of which is, in its opinion, the subject of disagreement.
- 3 The Secretary-General shall transmit this information to all Contracting States.

Article 2

- 1 The Tribunal shall consist of a single arbitrator if so agreed between the parties to the dispute within 30 days from the date of receipt of the request for arbitration.
- 2 In the case of the death, disability or default of the arbitrator, the parties to a dispute may agree upon a replacement within 30 days of such death, disability or default.

Article 3

- 1 Where the parties to a dispute do not agree upon a Tribunal in accordance with article 2 of this Annex, the Tribunal shall consist of three members:
 - .1 one arbitrator nominated by each party to the dispute; and
 - .2 a third arbitrator who shall be nominated by agreement between the two first named and who shall act as its Chairman.
- 2 If the Chairman of a Tribunal is not nominated within 30 days of nomination of the second arbitrator, the parties to a dispute shall, upon the request of one party, submit to the Secretary-General within a further period of 30 days an agreed list of qualified persons. The Secretary-General shall select the Chairman from such list as soon as possible. He shall not select a Chairman who is or has been a national of one party to the dispute except with the consent of the other party to the dispute.

LONDON CONVENTION 1972

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(Annex 3, Article 3 continued)

- 3 If one party to a dispute fails to nominate an arbitrator as provided in paragraph 1.1 within 60 days from the date of receipt of the request for arbitration, the other party may request the submission to the Secretary-General within a period of 30 days of an agreed list of qualified persons. The Secretary-General shall select the Chairman of the Tribunal from such list as soon as possible. The Chairman shall then request the party which has not nominated an arbitrator to do so. If this party does not nominate an arbitrator within 15 days of such request, the Secretary-General shall, upon request of the Chairman, nominate the arbitrator from the agreed list of qualified persons.
- 4 In the case of the death, disability or default of an arbitrator, the party to the dispute who nominated him shall nominate a replacement within 30 days of such death, disability or default. If the party does not nominate a replacement, the arbitration shall proceed with the remaining arbitrators. In the case of the death, disability or default of the Chairman, a replacement shall be nominated in accordance with the provision of paragraphs 1.2 and 2 within 90 days of such death, disability or default.
- 5 A list of arbitrators shall be maintained by the Secretary-General and composed of qualified persons nominated by the Contracting Parties. Each Contracting Party may designate for inclusion in the list four persons who shall not necessarily be its nationals. If the parties to the dispute have failed within the specified time limits to submit to the Secretary-General an agreed list of qualified persons as provided for in paragraphs 2, 3 and 4, the Secretary-General shall select from the list maintained by him the arbitrator or arbitrators not yet nominated.

Article 4

The Tribunal may hear and determine counter-claims arising directly out of the subject matter of the dispute.

Article 5

Each party to the dispute shall be responsible for the costs entailed by the preparation of its own case. The remuneration of the members of the Tribunal and of all general expenses incurred by the arbitration shall be borne equally by the parties to the dispute. The Tribunal shall keep a record of all its expenses and shall furnish a final statement thereof to the parties.

Article 6

Any Contracting Party which has an interest of a legal nature which may be affected by the decision in the case may, after giving written notice to the parties to the dispute which have originally initiated the procedure, intervene in the arbitration procedure with the consent of the Tribunal and at its own expense. Any such intervenor shall have the right to present evidence, briefs and oral argument on the matters giving rise to its intervention, in accordance with procedures established pursuant to article 7 of this Annex, but shall have no rights with respect to the composition of the Tribunal.

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(Annex 3 continued)

Article 7

A Tribunal established under the provisions of this Annex shall decide its own rules of procedure.

Article 8

- 1 Unless a Tribunal consists of a single arbitrator, decisions of the Tribunal as to its procedure, its place of meeting, and any question related to the dispute laid before it, shall be taken by majority vote of its members. However, the absence or abstention of any member of the Tribunal who was nominated by a party to the dispute shall not constitute an impediment to the Tribunal reaching a decision. In case of equal voting, the vote of the Chairman shall be decisive.
- 2 The parties to the dispute shall facilitate the work of the Tribunal and in particular shall, in accordance with their legislation and using all means at their disposal:
 - .1 provide the Tribunal with all necessary documents and information; and
 - .2 enable the Tribunal to enter their territory, to hear witnesses or experts, and to visit the scene.
- 3 The failure of a party to the dispute to comply with the provisions of paragraph 2 shall not preclude the Tribunal from reaching a decision and rendering an award.

Article 9

The Tribunal shall render its award within five months from the time it is established unless it finds it necessary to extend that time limit for a period not to exceed five months. The award of the Tribunal shall be accompanied by a statement of reasons for the decision. It shall be final and without appeal and shall be communicated to the Secretary-General who shall inform the Contracting Parties. The parties to the dispute shall immediately comply with the award.

Appendix GCD

Dumping at sea: The evolution of the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (LC)



July 1997

Dumping at sea

The evolution of the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (LC), 1972

Background

For hundreds of years, the seas have been used as a place to dispose of wastes resulting from human activity. The sea was seen as a place for getting rid of rubbish that was beginning to pile up on land, such as the sludge resulting from the dredging of ports and rivers, sewage treatment operations, tailings left over from mining, residues from the chemical industry, ash from power stations, and other unwanted wastes.

The ability of the oceans to cope was taken for granted, providing that the wastes were dumped sufficiently far from land. By the early 1970s many millions of tonnes of waste were being dumped into the oceans each year, and there seemed to be very few controls over how it was carried out.

In many countries concern began to grow about the wisdom of using the sea as an uncontrolled rubbish dump. It was widely felt that something should be done not only to assess the problem but also to control it - and it had to be done at an international level.

In 1972 the general interest in the importance of the environment resulted in the holding of the United Nations Conference on the Human Environment in Stockholm, Sweden. As part of the preparatory process for the conference an Inter-Governmental Working Group on Marine Pollution held its first meeting in London in 1971 and the Stockholm conference recommended that Governments ensure that "ocean dumping by their nationals anywhere, or by any person in areas under their jurisdiction, is controlled and the Governments continue to work towards the completion of and bringing into force

as soon as possible of an over-all instrument for the control of ocean dumping...".

In response to this recommendation the United Kingdom convened a conference which met in London from 30 October to 13 November 1972, and adopted the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (the London Convention). The Convention entered into force on 30 August 1975 and the first meeting of Contracting Parties in December that year agreed to designate IMO to be responsible for the Secretariat duties in relation to the Convention.

The Convention's purpose is to control all sources of marine pollution and prevent pollution of the sea through regulation of dumping into the sea of waste materials. It covers materials transported to sea for the purpose of dumping.

The 1972 Convention defines dumping as "any deliberate disposal at sea of material and substances of any kind, form or description from vessels, aircraft, platforms, or other man-made structures, as well as the deliberate disposal of vessels, aircraft, platforms or other man-made structures themselves".

What materials have been dumped at sea?

Dredged material: dredging accounts for about 80-90% of all material dumped at sea and amounts to hundreds of millions of tons a year. The majority of dredging is for navigation to keep harbours, rivers and other waterways open and is directly related to the

economy of seafaring nations. The ocean disposal of dredged material represents only 20-22% of the total dredged and the remainder is mostly dumped in internal waters, or placed on land for disposal or productive purposes.

Approximately 10% of dredged sediments are heavily contaminated with toxic metals and petroleum compounds, organochlorines such as pesticides and nutrients such as nitrogen and phosphorous. These sediments are rigorously controlled through the Convention's regulatory guidelines for dredged material. For the vast majority of the "clean" dredged material the Convention encourages productive or beneficial use of the sediments (e.g. land development, marsh creation, fishery enhancement). Following stringent Convention guidelines these clean materials may also be disposed of at sea in an environmentally acceptable manner. "Clean" dredged material is merely soil (sand, silt or clay) eroded from land.

Unregulated disposal of dredged material can, however, cause major physical impacts if not properly placed. Gravel, for example, is required by spawning fish such as herring and is the natural habitat of crustacea such as lobsters. Both will be adversely affected if the gravel is covered by other types of sediment.

Industrial wastes: Ocean dumping of industrial wastes was, until recently, an accepted waste disposal option in many regions of the world. In the 1970s the quantity of industrial wastes dumped at sea rose from 11 million tons to 17 million. During the 1980s the total fell and stabilized at around 8 million tons.

Sewage sludge: the sludge resulting from municipal sewage treatment operations can be used beneficially as fertilizer on agricultural land or for land reclamation, particularly if it is not contaminated with high levels of metals, oils and organic chemicals from industrial sources. However, in some cases, it can be economically and environmentally preferable to dispose of it at sea rather than on land.

Municipal sewage sludge normally does not contain contaminants in large quantities, but inconsiderate dumping may still have harmful effects such as eutrophication and human health risks from the presence of

pathogens. After reaching a peak of about 17 million tonnes in 1980 sewage dumping has declined to 12 million tonnes in the early 1990s, reflecting the phasing out of this practice by several countries. Currently only Ireland, Japan, Republic of Korea and the United Kingdom dump sewage sludge at sea.

These three groups comprise most of the waste material that has traditionally been dumped at sea. The potential environmental problems associated with unregulated or uncontrolled disposal are:

- * human health risks from the presence of pathogens;
- * eutrophication due to nutrients and organics;
- * toxic effects on marine organisms and/or man, caused by various chemicals; and
- * resource-use conflicts with other legitimate uses of the sea such as fishing (including aquaculture), and recreation.

How widespread is the problem?

It would be a mistake to assume that dumping at sea is, or ever has been widespread. According to a study carried out by the United Nations Group of Experts on the Scientific Aspects of Marine Environment Protection (GESAMP) in 1990, wastes dumped into the sea from ships contributed only 10% or less of the pollutants that enter the sea each year. Land-based sources contribute 44%, 33% comes via the atmosphere, originating also from the land, 12% from maritime transportation and the remaining 1% from offshore production. Nevertheless dumping activities tend to be concentrated in certain marine areas, so its impact locally can be considerable.

Wastes considered for disposal at sea are classified by means of a number of technical Annexes and are graded into three categories according to the danger they present to the environment.

The "black list" (Annex I) consists of the materials that are most dangerous to the environment and their dumping is prohibited. The list contained in the original Convention is as follows:

1. Organohalogen compounds.
2. Mercury and mercury compounds.
3. Cadmium and cadmium compounds.
4. Persistent plastics and other persistent synthetic materials.
5. Crude oil and petroleum products.
6. High-level radioactive wastes.
7. Materials produced for biological and chemical warfare.

The "grey list" (Annex II) consists of less harmful materials that can only be dumped into the sea after a special permit has been issued, such as wastes containing significant amounts of arsenic, lead, copper, zinc, organosilicon compounds, cyanides, fluorides, pesticides and their by-products.

In the issue of dumping permits, consideration must be given to the "grey list" substances which include containers, scrap metal and other bulky wastes which may present a serious obstacle to fishing or navigation; low-level radioactive wastes; and substances which may become harmful due to the quantities in which they are dumped, or which are liable to seriously reduce amenities.

All other substances or materials can be dumped after a general permit has been issued.

Criteria establishment

Annex III of the Convention describes the conditions and waste characteristics that must be met before a disposal site is located and dumping is approved. This Annex describes the general and specific provisions that member nations must consider in establishing their domestic criteria prior to approving sea disposal of acceptable materials. Annex III is further supplemented with detailed technical guidelines for specific wastes and situations. These "rules of the road" ensure maximum protection of the marine environment.

The Convention requires Contracting Parties to establish appropriate administrative authorities for enforcing its provisions and

encourages the creation of regional arrangements for preventing pollution by dumping.

Emergency Dumping

In some cases, dumping may be unavoidable only because of a danger to human life. Article V allows this to be done "if dumping appears to be the only way of averting the threat" and lays down procedures for dumping in emergencies.

Administration

The necessity to issue permits for dumping means that some form of administrative control is required in each country which ratifies the London Convention. Article VI therefore requires the designation of "an appropriate authority or authorities" to issue permits, keep records and monitor the condition of the sea. Contracting Parties are required to inform IMO of the permits issued and other relevant details such as monitoring information.

Enforcement

The provisions set out in Article VII of the Convention cover a wide range of measures for enforcement of the Convention. However, the basic thrust of these provisions is that coastal States have a duty to enforce the Convention within their jurisdiction. Enforcement on the high seas lies primarily with the flag State of the dumping vessel.

International Co-operation

In order to further the objectives of the Convention, Contracting Parties are encouraged, under Article VIII, to form regional agreements to prevent pollution by dumping. Monitoring and scientific research is also encouraged. The theme of co-operation is continued in Article IX which says that Contracting Parties shall promote support for Parties requesting assistance in training, the supply of equipment, and the disposal and treatment of wastes.

Liability

Under Article X the responsibility and liability of a State for damage to the environment of other States or to any other area of the environment is recognized in accordance with the principles of international law. Contracting Parties are required to develop procedures for the assessment of liability and the settlement of disputes regarding dumping.

Settlement of Disputes

Article XI provides that the "Contracting Parties shall at their first consultative meeting consider procedures for the settlement of disputes concerning the interpretation and application of this Convention".

The development of the 1972 London Convention

The Convention is a *living* document that responds to new information, pollution issues and environmental concerns through a process of consultative meeting, scientific and legal debates, consensus building and the addition of new member nations. Past amendments and proposed future actions to the Convention reflect our growing knowledge of or different approaches to waste management or of the potential harm from certain substances or processes.

The implementation of the Convention is conducted through a Consultative Meeting of Contracting Parties which normally meets once a year. One of its main tasks is to keep the content of the Convention under review and to amend it when necessary.

The Convention was first amended in 1978. The first set of amendments affected Annex I and introduced measures to permit the incineration of wastes at sea. These amendments entered into force on 11 March 1979. The second group introduced new procedures for settling disputes. Because they affected the articles of the Convention rather than the Annexes the tacit acceptance procedure does not apply and the amendments will enter into force 60 days after being accepted by two-thirds of Contracting Parties. To date they have been accepted by only 19 Parties, well under the number required.

In 1981 further amendments were made to the Annexes and were concerned with incineration and the substances which require special care when being incinerated. They entered into force on 11 March 1981. Further changes were made in 1989 when the procedures to be followed when issuing permits under Annex III were modified. The amendments, which entered into force on 19 May 1990 require that consideration be given to whether there is sufficient scientific information available to assess the impact of dumping before any permits are issued.

The note of caution implicit in this amendment is indicative of the way attitudes

towards the use of the sea for dumping purposes were changing. In the early 1970s it was generally assumed that dumping at sea was a permissible waste disposal option providing certain safeguards were met. By the 1980s some authorities - and Contracting Parties to the Convention itself - were beginning to doubt the wisdom of using the oceans in this way.

Incineration at sea

An example of this is the growth of opposition to the idea of incineration of noxious liquid wastes at sea. Incineration was first used in 1969 as a means of destructing certain chemical by-products which are particularly hazardous, and was therefore still a very new method of disposing of waste when the London Dumping Convention was drafted. Consequently it was not considered for inclusion in the original Convention.

By 1978, however, incineration had become much more widespread - between 1980 and 1985 reports to IMO showed that an average of 100,000 tonnes of hazardous wastes were incinerated at sea annually, mainly in the North Sea - and at the Third Consultative Meeting of Contracting Parties an addendum was adopted to Annex I containing Regulations for the Control of Incineration of Wastes and Other Matter At Sea.

The addendum contains technical provisions concerning the approval and survey of the incineration system (among other requirements, the destruction efficiency of the incinerator must be in excess of 99.99 per cent); wastes requiring special studies; operational requirements; recording devices and records; control over the nature of wastes incinerated; incineration sites; and notification.

The regulations make it clear that incineration at sea is regarded only as an alternative to other means of disposal; Contracting Parties shall "first consider the practical availability of alternative land-based methods of treatment, disposal or elimination, or of treatment to render the wastes or other matter less harmful, before issuing a permit for incineration at sea in accordance with these regulations". The regulations go on to state that: "Incineration at sea shall in no way be interpreted as discouraging progress towards environmentally better solutions including the development of new techniques".

Numerous evaluations of incineration of

liquid hazardous wastes at sea over the past 19 years have addressed various issues, ranging from the effectiveness and safety of this practice to opposition in principle based on the view that it is merely an inexpensive option which detracts from pollution control at the source. Key concerns expressed about incineration at sea include the effects of organic emissions, the risks of accidental spills and the waste management role for incineration at sea.

A joint LC/Oslo Commission Group of Experts on Incineration at Sea met in April 1987 to examine the safety and environmental acceptability of this practice. As a result of the work undertaken by this Group of Experts and in the light of additional debate by the Scientific Group established under the Convention, it was proposed that further research on certain aspects of incineration at sea should be encouraged, including:

- .1 concepts for evaluating destruction efficiency of marine incinerators;
- .2 the effects on marine ecosystems due to possible impacts with the sea-surface microlayer; and
- .3 the collection of more data on the composition, persistence, toxicity and levels of organic emissions.

The probability of releases of cargo from incineration vessels was considered low - on the basis of incineration activities in the North Sea the incidence was estimated by an IMO consultant as 1 spill in 68,000 voyages.

By the late 1980s, however, opinion was moving steadily against incineration as a means of waste disposal. Ministers representing countries bordering the North Sea met in 1987 and agreed to reduce incineration by 54% by 1991. In June 1988 the Contracting Parties to the Oslo Convention - which regulates waste disposal in the North East Atlantic - agreed to end the practice by the end of 1994. Then in October 1988 the LC Contracting Parties held their 11th Consultative meeting and adopted a resolution in which they agreed "to take all steps possible to minimize or substantially reduce the use of marine incineration of noxious liquid wastes by 1 January 1991". They further agreed

to re-evaluate incineration as early as possible in 1992 with a view of eliminating it by the end of 1994.

But in practice opposition to incineration at sea had become so strong that at the end of 1989 the only company still engaged in ocean incineration announced that it was selling its two remaining incineration vessels. The practice ended with the de-commissioning of the last incineration vessel in February 1991.

Radioactive wastes

Radioactive wastes are divided in the London Convention into high-level and low-level. High-level wastes, as defined for the Convention by the International Atomic Energy Agency (IAEA), are included in Annex I (the "black list") and their disposal at sea is completely banned. The high-level wastes include materials resulting from fuel processing, irradiated fuel and irradiated fuel cladding. Low-level radioactive wastes appear in Annex II (the "grey list") of the Convention and may therefore be dumped at sea under certain conditions.

The first operations involving sea disposal of radioactive wastes took place in 1946 in the north-east Pacific. Since then 13 countries have dumped radioactive wastes at sea. About two-thirds of the radioactivity of all waste disposed at sea is associated with six submarine reactors and the shielding assembly from a nuclear icebreaker reactor together with damaged fuel dumped in the Kara Sea by the former Soviet Union. The remainder consists of packaged solid low-level wastes dumped in the north-east Atlantic by eight European states, primarily the United Kingdom.

The dumped wastes came from activities related to nuclear power production and from industrial, medical and research uses of radioisotopes. The type of waste involved was similar to that arising in non-nuclear parts of an industrial economy (including items such as broken machinery and old clothing), but with the difference that it is contaminated by radioactivity and so required special handling, treatment and disposal. The waste was typically incorporated into concrete-filled drums designed to provide shielding and containment of the waste prior to dumping and to ensure that the waste reached the seafloor intact.

The total amount of radioactivity dumped in the ocean, some 84,000 TBq, is less than the approximately 200 million TBq that

were added to the oceans as a result of the atmospheric testing of nuclear weapons between 1954 and 1962. This, in turn, represented only 1% of the 20 billion TBq that exists naturally in the ocean. However, the mix of radioisotopes involved is different in each case and radioisotopes vary widely in the extent to which they can affect marine organisms and man, so that the total radioactivity is only a very rough guide to the risk.¹

Despite assurances that the dumping of low-level radioactive wastes into the sea was perfectly safe, a number of countries were strongly opposed to the practice and brought these concerns to the Seventh Consultative Meeting in 1983. After considerable discussion, the meeting adopted a moratorium on further dumping pending a review, by an independent panel of experts, of the relevant scientific and technical considerations.

This panel, established by the London Convention and with members nominated by the IAEA and the non-governmental International Council of Scientific Unions (ICSU), produced its report in time for the Ninth Consultative Meeting in September 1985. The main conclusions of this report can be summarized as follows².

- "The present and future risk to individuals from past ocean dumping of radioactive wastes at the North East Atlantic dumpsite is extremely small. The risk (of developing a fatal cancer or severe hereditary defect) is predicted to peak about 200 years from now at a level of less than 10^{-9} or one chance in a billion per year.

¹ Figures supplied by IAEA. One TBq = one trillion (10^{12}) Bq, where one Bq (Becquerel) is the amount of radioactivity arising from one nuclear disintegration per second.

² IMO, Expanded Panel Report on the Review of Scientific and Technical Considerations Relevant to the Proposal for the Amendment of the Annexes to the London Dumping Convention Related to the Dumping of Radioactive Wastes.

The most potentially-exposed individuals would be those consuming shellfish harvested in Antarctic waters.

Notwithstanding the very small risk to individuals, the aggregate exposure to the global population from long-lived components of the dumped waste imply that the total casualties resulting from past dumping may be up to about 1,000 spread over the next 10,000 years or so. The dominant pathway for this exposure would not be via shellfish consumption, but associated with the consumption of food produced on land. The reason for this is that the main contributor to these casualties (or to the collective dose commitment, as it is known technically) is the isotope carbon-14 which has a half-life (i.e. time required for its radioactivity to decrease by a factor of two) of 5,700 years. In such time much of the carbon-14 would escape from the ocean as gaseous carbon dioxide and spread throughout the world. If the carbon-14, and a few other long-lived radionuclides, were to be removed from the waste before disposal in the ocean, the collective dose commitment from future dumping operations would be very much reduced, although it should be appreciated that other means of disposal of the carbon-14 might carry risks comparable to those associated with sea dumping.

The incremental dose from past dumping to individual marine organisms on the seafloor at the dumpsite, or nearby, will be significantly less than the dose that the organisms receive from naturally-occurring radioactivity and hence it is not expected to cause any detectable effects on

populations of organisms. A resumption of dumping at a rate an order of magnitude higher than previously might cause damage to individual organisms, but would still not be expected to affect a whole population significantly".

At the Ninth Consultative Meeting there was general agreement that the scientific report had not shown that the dumping of low-level radioactive wastes at sea was environmentally dangerous. On the other hand, it was agreed that the report had not proved that dumping was harmless. Since the scientific evidence was inconclusive, it was realized that solving the problem rested more in the political, legal, social and economic domains.

A resolution was adopted at this Meeting which requested Contracting Parties to suspend radioactive dumping pending completion of additional scientific and technical studies and assessments and, more importantly, additional studies on the wider political, legal, economic and social aspects of radioactive waste dumping. In October 1986 the Tenth Consultative Meeting adopted a further resolution establishing an Inter-Governmental Panel of Experts from Contracting Parties to consider these topics.

The Panel worked on this subject during the next few years, during which the tide of public opinion turned steadily against the use of the sea as a dump for any sort of radioactive materials, however harmless they might appear to be from the scientific point of view.

In 1993 the Panel issued a final statement. It generally acknowledged "that there has been a sustained development of international law in the past 20 years, with a trend towards, first, restricting and controlling, second, prohibiting sea disposal of radioactive wastes on a regional basis, and later challenging the legitimacy of States' use of the high seas and the oceans' floors beyond their national jurisdiction for activities that might result in the pollution of the marine environment."

The Panel noted sea disposal of wastes had several characteristics that are different from other options. These include the diffusibility of waste radionuclides in sea water which could result in their transboundary transfer.

Industrial waste

The dumping into the sea of industrial waste declined steadily during the 1980s. Nevertheless, many Governments regarded the practice as so unacceptable that they feel it should be banned completely.

In 1990 the 13th Consultative Meeting debated this issue and the result was the adoption of a resolution calling for the dumping of industrial wastes to be stopped by 31 December 1995 - or if possible before. It was further agreed that an evaluation of the consequences of this decision would be carried out by 1992 to see if there were any difficulties involved in adopting different technologies. The resolution also emphasized the importance of making appropriate technology available to developing countries.

Industrial wastes are defined in the resolution as waste materials generated by manufacturing or processing operations. The term does not include inert materials and uncontaminated organic materials or natural origin.

The resolution says the banning of industrial waste dumping at sea "should not result in unacceptable environmental effects elsewhere " but to ensure that this is the case the resolution says that it should be applied " in a manner that prevents any additional pollution of other parts of the environment. Furthermore, wastes currently being dumped must not be discharged into the sea via a pipeline, or from the shore, or via rivers and estuaries".

Implementing the LC Convention

In the early days of the Convention, guidance for interpretation of certain provisions was developed on a piece-meal and *ad hoc* basis as the need arose. This worked well, enabling experience to be gained in implementing the Convention.

By the late 1980s, however, Parties wished to improve the effectiveness of the Convention in a broader context and to eliminate some of the inconsistencies and ambiguities that had emerged - such as defining the expression 'trace elements' and agreeing when they were rendered harmless at sea. As a result it was agreed that a review of existing guidance should be carried out, a review that led to the development of the 'Waste Assessment Framework (WAF)'. This is a regulatory mechanism for waste evaluation in a logical step-by-step sequence. It embodies a

precautionary approach and places emphasis on continual review of processes giving rise to wastes. If sea disposal turns out to be the favoured option after going through this process, the WAF offers advice on how to carry it out and monitor it.

The survey began in 1991 and was completed four years later. It provides a unique mine of information on industrial and hazardous waste management practices around the world and facilitates a "broad brush" assessment of the state of waste management in 102 countries. Pilot National Waste Management Profiles have been prepared which present more detailed information from a selected cross-section of 18 countries.

The Final Report concluded that the stockpiling of industrial waste is akin to open dumping in many developing and newly industrialized countries, and has reached catastrophic proportions in some regions. Moreover, there were no apparent strategies or actions for controlling or avoiding such practices.

The report focused on industrial and hazardous waste management as defined and practised in different countries and regions of the world, and assessed the relative impact that a global ban on ocean dumping of industrial waste would have in those countries and regions.

It said there was a striking contrast between the developed world and the developing and newly industrialized world in dealing with waste. Countries that were members of the Organization for Economic and Cultural Development (OECD), such as Canada, the Netherlands, Germany and Japan, introduced legislation to control industrial and hazardous wastes in the late 1960s and early 1970s.

These countries gradually evolved their controls, tightened their standards and developed land-based treatment and disposal facilities over a period of 20 to 25 years. Most countries in the rest of the world are just in the process of initiating the journey, with actions concentrated over the last five to seven years.

Uncontrolled waste disposal, water pollution and stockpiling of wastes emerged as three priority pollution problems which are widespread among non-OECD countries, the report said. Contaminated sites i.e. sites contaminated by industrial operations, accidental spillages of hazardous material,

uncontrolled waste disposal etc., emerged as the most frequently identified national waste management issue among OECD countries responding to the Global Waste Inventory.

The study showed that countries in developing and newly industrialized regions had a deep concern for environmental and human health effects as a consequence of inadequate management of industrial and hazardous wastes. The report said: "However, available evidence of specific damage is generally anecdotal, comprising of individual case histories. There is limited causal evidence to link industrial and hazardous waste management practices to the state of environment or the health of the public."

For developing and newly industrialized countries, there were several common impediments to developing and implementing improved land-based waste management systems, according to the report. Some of the common issues were:

- inappropriate, incomplete or diffuse waste management legislation and regulations;
- inadequate enforcement of existing regulations and limited monitoring capability;
- data on existing waste generation, treatment and disposal are limited or scattered among a number of institutions and organizations;
- insufficient or inadequate waste management facilities and services, including poor operation and maintenance of existing facilities and services;
- lack of skilled human resources and equipment in the public and private sectors;
- access to and affordability of appropriate technologies, processes and practices; and
- a significant portion of the country's industrial waste is generated by a large number of small and medium-sized enterprises. These enterprises

do not have the finances nor the technical know-how to manage their waste properly.

Illegal or uncontrolled ocean dumping of waste was recognized, but undocumented, in some developing and newly industrialized countries, the report said. It was evident that, as national waste management programmes evolve, the need for land-based facilities would require greater investment of financial and human resources, by both the public and private sectors in these countries. Reluctance, hesitation or inability on the part of governments or industry to make such commitments could lead to increasing occurrences of illegal or uncontrolled ocean dumping of industrial waste over the short-to-medium term.

When it comes to managing wastes, 64 of 101 countries identified that they did not have land-based facilities to manage industrial hazardous waste. Seventeen of the 37 countries that did were OECD member States.

The inventory showed that basic sewage and sanitation facilities and services were being provided to only a small portion of the population in developing and newly industrialized countries. Some medium-to-large sized industries in developing and newly industrialized countries pre-treated their wastes prior to disposal. Reuse, recycling and recovery of waste was primarily occurring within the municipal sector of developing and newly industrialized countries, as a consequence of scavenging by the urban poor.

The report said capacity building initiatives and financial mechanisms were needed to support developing and newly industrialized countries with the development, implementation and sustainment of viable waste prevention and management programmes over the long-term.

Enforcement and compliance programmes were a major weakness in many national waste management programmes in developing and newly industrialized countries, the report said. A common cause was the impracticality of the regulations themselves, which, in many cases, had been copied from mature industrialized countries. Little consideration had been given to the infrastructure required to administer and enforce such regulations, to the facilities and services which were necessary to allow industry to comply with regulations, or to the scientific,

technical and legal framework that was needed in the country in order to effectively implement regulations.

The report said that Contracting Parties to the London Convention had a wealth of experience and expertise that could accelerate the waste management/marine pollution prevention and management programmes in developing and newly industrialized countries. The Global Waste Survey had laid the groundwork for future technical assistance and technical co-operation initiatives.

The report concluded: "The elimination of ocean dumping of industrial waste will not happen simply as a result of a global ban. It will occur only when governments and industry have practical and cost-effective waste prevention and management programmes, and associated land-based facilities and operations, in place."

It emerged that there were two main points of view concerning the WAF. One group of countries favoured a system of controlled dumping based on assumptions of the assimilative capacity of the oceans while others favoured approaches based on precaution and prevention. Despite this, in 1992 Parties agreed on the scientific and technical validity of the WAF and adopted it on a provisional basis. In November 1996 it was incorporated into the Protocol to the Convention as Annex 2 (see below).

The Global Waste Survey showed that waste treatment and disposal is still a serious problem in many parts of the world, and restricting the use of the sea for disposal purposes will do nothing to reduce the amount of wastes that have to be disposed of. The danger is that sea dumping may be carried out illegally in some areas as waste accumulates and no alternative disposal option seems to be viable, or is being developed.

The 1993 amendments

When the 16th Consultative Meeting met in 1993, it was in a position to take action on several of these issues. In addition to banning the dumping of low-level radioactive wastes the Contracting Parties also adopted amendments to:

- phase out the dumping of industrial waste by 31 December 1995, and
- ban the incineration at sea of industrial waste and sewage sludge.

The amendments entered into force 100 days later, on 21 February 1994.

The 1993 amendments brought to an end a long and controversial period and in a sense marked a turning point in the history of the Convention, which was symbolized by the decision of the Consultative Meeting to change the short title of the Convention from the London Dumping Convention to the London Convention. By dropping the word "dumping" they were able to show that in future the aim would be not simply to regulate the dumping of wastes into the sea but to introduce still more restrictions and encourage the adoption of alternative disposal. By removing this urgent pressure at an early stage of a full review of the Convention, Parties were able to carry out the rest of this review with the necessary reflection and detailed consideration and with appropriate input from all Parties involved.

The sea-bed disposal of high-level radioactive wastes

This form of disposal was not technically feasible in the early 1970s and consequently was not considered when the Convention was adopted in 1972.

By the 1980s, however, the emplacement of encapsulated materials into the sea-bed was being seriously considered as a future means of disposal. Some Governments were concerned about this possibility. After considerable discussion, in 1986 it was agreed by a majority that no disposal into the sea-bed should take place until it is proved to be technically and environmentally acceptable, including a determination that such wastes can be effectively isolated from the marine environment and a regulatory mechanism is elaborated under the Convention.

Transboundary movements of wastes for disposal

The problem of the movement of wastes across boundaries has been considered by a number of international organizations during the last few years. In October 1986 the Tenth Consultative Meeting resolved that Contracting Parties should not export wastes for sea disposal "unless there are both compelling reasons for such export and clear evidence that the wastes would be disposed of in compliance with the requirements of the LC" The

export of such wastes has now been banned by Article 6 of the 1996 Protocol (see below).

In 1989 international concern about this subject culminated in the adoption of the (Basel) Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

The 1996 Protocol

The adoption of the 1996 Protocol on 7 November, 1996, was the culmination of a process initiated by Parties in the mid-1980s to determine the long-term strategy and objectives of the London Convention, to enhance the effective implementation of the Convention, to consider future directions concerning dumping issues and to increase the membership of the Convention.

There had been a marked evolution towards approaches based on precaution and prevention with Parties agreeing to move from controlled dispersal at sea of a variety of wastes towards integrated land-based solutions for most. Agenda 21, adopted at the Rio conference in 1992, encouraged this new orientation and in 1993 the Parties agreed to carry out a detailed review to incorporate the proposed changes.

The 1996 conference was attended by 59 countries and the Protocol will enter into force 30 days after ratification by 26 countries, 15 of whom must be Contracting Parties to the 1972 treaty.

The Protocol represents a major change of approach to the question of how to regulate the use of the sea as a depository for waste materials. One major change is the introduction (in Article 3) of what is known as the "precautionary approach", which had first been enunciated in a resolution adopted by the Consultative Meeting in 1991. The text of the 1996 Protocol, however, is rather stronger. Instead of saying that Parties to the LC shall be "guided by" the precautionary approach, its application is made mandatory.

Article 3.1 says: "...Parties shall apply a precautionary approach to environmental protection from dumping of wastes or other matter whereby appropriate preventative measures are taken when there is reason to believe that wastes or other matter introduced into the marine environment are likely to cause harm even when there is no conclusive evidence to prove a causal relation between inputs and their effects." This Article,

in effect, shifts the burden of proof by making it necessary for those wishing to carry out a dumping operation to prove that it is safe, not for those opposing it to prove that it is unsafe.

The article also states that "the polluter should, in principle, bear the cost of pollution" and it emphasizes that Contracting Parties should ensure that the Protocol should not simply result in pollution being transferred from one part of the environment to another.

The 1972 Convention permits dumping to be carried out provided certain conditions are met. The severity of these conditions varies according to the danger to the environment presented by the materials themselves and there is a "black list" containing materials which may not be dumped at all.

The Protocol is much more restrictive. It states (in Article 4) that Contracting Parties "shall prohibit the dumping of any wastes or other matter with the exception of those listed in Annex 1." These include:

1. Dredged material
2. Sewage sludge
3. Fish waste, or material resulting from industrial fish processing operations
4. Vessels and platforms or other man-made structures at sea
5. Inert, inorganic geological material
6. Organic material of natural origin
7. Bulky items primarily comprising iron, steel, concrete and similarly unarmful materials for which the concern is physical impact and limited to those circumstances, where such wastes are generated at locations, such as small islands with isolated communities, having no practicable access to disposal options other than dumping.

The only exceptions to this are contained in Article 8 which permits dumping to be carried out "in cases of *force majeure* caused by stress of weather, or in any case which constitutes a danger to human life or a real threat to vessels..."

Incineration of wastes at sea is specifically prohibited by article 5 of the Protocol. Article 6 states that "Contracting Parties shall not allow the export of wastes or other matter to other countries for dumping or

incineration at sea."

Article 9 requires Contracting Parties to designate an appropriate authority or authorities to issue permits in accordance with the Protocol. The Protocol recognizes the importance of implementation and Article 11 details compliance procedures under which, no later than two years after the entry into force of the Protocol, the Meeting of Contracting Parties "shall establish those procedures and mechanisms necessary to assess and promote compliance..."

A key provision is the so-called transitional period (Article 26) which allows new Contracting Parties to phase in compliance with the Protocol over a period of five years. This provision is supported (in Article 13) by extended technical assistance provisions.

The duties of IMO as the Secretariat in relation to the Protocol are set out in Article 19. IMO also carries out this function in relation to the 1972 Convention. Other Articles contain procedures for settling disputes (Article 16) and amendments. Amendments to the Articles shall enter into force "on the 60th day after two-thirds of Contracting Parties shall have deposited an instrument of acceptance of the amendment with the Organization" (meaning IMO).

The Protocol contains three annexes. Annex 1 is described above and the other two deal with assessment of wastes, replacing Annex III of the Convention, and arbitral procedures.

The future

Since it entered into force, the London Convention has proved to be a valuable instrument for controlling the dumping of wastes into the sea and subsequent global protection of the marine environment. Membership in the Convention has grown from 25 to 76 countries, with others considering joining. The regular Consultative Meetings have proved to be equally useful in global environmental consensus building and have made many major decisions on controlling or prohibiting harmful effects on the sea.

In the closing years of the 20th

century, attitudes towards the environment have changed. Many governments are now doubtful about the wisdom of using the oceans as a dumping ground for harmful wastes and this concern has been reflected in actions taken by the Convention. Despite this, waste disposal remains a major problem.

Even though 76 countries have ratified the Convention, it is still possible for uncontrolled dumping operation to continue by non-Contracting Parties - to the detriment not only of their own environment but that of neighbouring countries as well. An immediate priority is to encourage countries, especially in the developing world, to ratify the Protocol and to provide the technical assistance to them that will enable them implement it effectively.

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13 February 1997

Appendix GCE
Vienna Convention on the Law of Treaties



Vienna Convention on the Law of Treaties*

The States Parties to the present Convention,

Considering the fundamental role of treaties in the history of international relations,

Recognizing the ever-increasing importance of treaties as a source of international law and as a means of developing peaceful co-operation among nations, whatever their constitutional and social systems,

Noting that the principles of free consent and of good faith and the *pacta sunt servanda* rule are universally recognized,

Affirming that disputes concerning treaties, like other international disputes, should be settled by peaceful means and in conformity with the principles of justice and international law,

Recalling the determination of the peoples of the United Nations to establish conditions under which justice and respect for the obligations arising from treaties can be maintained,

Having in mind the principles of international law embodied in the Charter of the United Nations, such as the principles of the equal rights and self-determination of peoples, of the sovereign equality and independence of all States, of non-interference in the domestic affairs of States, of the prohibition of the threat or use of force and of universal respect for, and observance of, human rights and fundamental freedoms for all,

Believing that the codification and progressive development of the law of treaties achieved in the present Convention will promote the purposes of the United Nations set forth in the Charter, namely, the maintenance of international peace and security, the development of friendly relations and the achievement of co-operation among nations,

Affirming that the rules of customary international law will continue to govern questions not regulated by the provisions of the present Convention,

Have agreed as follows:

PART I INTRODUCTION

Article 1 Scope of the present Convention

The present Convention applies to treaties between States.

Article 2

Use of terms

1. For the purposes of the present Convention:

- (a) “treaty” means an international agreement concluded between States in written form and governed by international law, whether embodied in a single instrument or in two or more related instruments and whatever its particular designation;
- (b) “ratification”, “acceptance”, “approval” and “accession” mean in each case the international act so named whereby a State establishes on the international plane its consent to be bound by a treaty;
- (c) “full powers” means a document emanating from the competent authority of a State designating a person or persons to represent the State for negotiating, adopting or authenticating the text of a treaty, for expressing the consent of the State to be bound by a treaty, or for accomplishing any other act with respect to a treaty;
- (d) “reservation” means a unilateral statement, however phrased or named, made by a State, when signing, ratifying, accepting, approving or acceding to a treaty, whereby it purports to exclude or to modify the legal effect of certain provisions of the treaty in their application to that State;
- (e) “negotiating State” means a State which took part in the drawing up and adoption of the text of the treaty;
- (f) “contracting State” means a State which has consented to be bound by the treaty, whether or not the treaty has entered into force;
- (g) “party” means a State which has consented to be bound by the treaty and for which the treaty is in force;
- (h) “third State” means a State not a party to the treaty;
- (i) “international organization” means an intergovernmental organization.

2. The provisions of paragraph 1 regarding the use of terms in the present Convention are without prejudice to the use of those terms or to the meanings which may be given to them in the internal law of any State.

Article 3

International agreements not within the scope of the present Convention

The fact that the present Convention does not apply to international agreements concluded between States and other subjects of international law or between such other subjects of international law, or to international agreements not in written form, shall not affect:

- (a) the legal force of such agreements;
- (b) the application to them of any of the rules set forth in the present Convention to which they would be subject under international law independently of the Convention;
- (c) the application of the Convention to the relations of States as between themselves under international agreements to which other subjects of international law are also parties.

Article 4
Non-retroactivity of the present Convention

Without prejudice to the application of any rules set forth in the present Convention to which treaties would be subject under international law independently of the Convention, the Convention applies only to treaties which are concluded by States after the entry into force of the present Convention with regard to such States.

Article 5
Treaties constituting international organizations and treaties adopted within an international organization

The present Convention applies to any treaty which is the constituent instrument of an international organization and to any treaty adopted within an international organization without prejudice to any relevant rules of the organization.

PART II
CONCLUSION AND ENTRY INTO FORCE OF TREATIES

SECTION 1. CONCLUSION OF TREATIES

Article 6
Capacity of States to conclude treaties

Every State possesses capacity to conclude treaties.

Article 7
Full powers

1. A person is considered as representing a State for the purpose of adopting or authenticating the text of a treaty or for the purpose of expressing the consent of the State to be bound by a treaty if:

- (a) he produces appropriate full powers; or
- (b) it appears from the practice of the States concerned or from other circumstances that their intention was to consider that person as representing the State for such purposes and to dispense with full powers.

2. In virtue of their functions and without having to produce full powers, the following are considered as representing their State:

- (a) Heads of State, Heads of Government and Ministers for Foreign Affairs, for the purpose of performing all acts relating to the conclusion of a treaty;
- (b) heads of diplomatic missions, for the purpose of adopting the text of a treaty between the accrediting State and the State to which they are accredited;
- (c) representatives accredited by States to an international conference or to an international organization or one of its organs, for the purpose of adopting the text of a treaty in that conference, organization or organ.

Article 8

Subsequent confirmation of an act performed without authorization

An act relating to the conclusion of a treaty performed by a person who cannot be considered under article 7 as authorized to represent a State for that purpose is without legal effect unless afterwards confirmed by that State.

Article 9

Adoption of the text

1. The adoption of the text of a treaty takes place by the consent of all the States participating in its drawing up except as provided in paragraph 2.
2. The adoption of the text of a treaty at an international conference takes place by the vote of two-thirds of the States present and voting, unless by the same majority they shall decide to apply a different rule.

Article 10

Authentication of the text

The text of a treaty is established as authentic and definitive:

- (a) by such procedure as may be provided for in the text or agreed upon by the States participating in its drawing up; or
- (b) failing such procedure, by the signature, signature *ad referendum* or initialling by the representatives of those States of the text of the treaty or of the Final Act of a conference incorporating the text.

Article 11

Means of expressing consent to be bound by a treaty

The consent of a State to be bound by a treaty may be expressed by signature, exchange of instruments constituting a

treaty, ratification, acceptance, approval or accession, or by any other means if so agreed.

Article 12
Consent to be bound by a treaty expressed by signature

1. The consent of a State to be bound by a treaty is expressed by the signature of its representative when:

- (a) the treaty provides that signature shall have that effect;
- (b) it is otherwise established that the negotiating States were agreed that signature should have that effect; or
- (c) the intention of the State to give that effect to the signature appears from the full powers of its representative or was expressed during the negotiation.

2. For the purposes of paragraph 1:

- (a) the initialling of a text constitutes a signature of the treaty when it is established that the negotiating States so agreed;
- (b) the signature *ad referendum* of a treaty by a representative, if confirmed by his State, constitutes a full signature of the treaty.

Article 13
Consent to be bound by a treaty expressed by an exchange of instruments constituting a treaty

The consent of States to be bound by a treaty constituted by instruments exchanged between them is expressed by that exchange when:

- (a) the instruments provide that their exchange shall have that effect; or
- (b) it is otherwise established that those States were agreed that the exchange of instruments should have that effect.

Article 14
Consent to be bound by a treaty expressed by ratification, acceptance or approval

1. The consent of a State to be bound by a treaty is expressed by ratification when:

- (a) the treaty provides for such consent to be expressed by means of ratification;
- (b) it is otherwise established that the negotiating States were agreed that ratification should be required;

(c) the representative of the State has signed the treaty subject to ratification; or

(d) the intention of the State to sign the treaty subject to ratification appears from the full powers of its representative or was expressed during the negotiation.

2. The consent of a State to be bound by a treaty is expressed by acceptance or approval under conditions similar to those which apply to ratification.

Article 15 **Consent to be bound by a treaty expressed by accession**

The consent of a State to be bound by a treaty is expressed by accession when:

(a) the treaty provides that such consent may be expressed by that State by means of accession;

(b) it is otherwise established that the negotiating States were agreed that such consent may be expressed by that State by means of accession; or

(c) all the parties have subsequently agreed that such consent may be expressed by that State by means of accession.

Article 16 **Exchange or deposit of instruments of ratification, acceptance, approval or accession**

Unless the treaty otherwise provides, instruments of ratification, acceptance, approval or accession establish the consent of a State to be bound by a treaty upon:

(a) their exchange between the contracting States;

(b) their deposit with the depositary; or

(c) their notification to the contracting States or to the depositary, if so agreed.

Article 17 **Consent to be bound by part of a treaty and choice of differing provisions**

1. Without prejudice to articles 19 to 23, the consent of a State to be bound by part of a treaty is effective only if the treaty so permits or the other contracting States so agree.

2. The consent of a State to be bound by a treaty which permits a choice between differing provisions is effective only if it is made clear to which of the provisions the consent relates.

Article 18

Obligation not to defeat the object and purpose of a treaty prior to its entry into force

A State is obliged to refrain from acts which would defeat the object and purpose of a treaty when:

- (a) it has signed the treaty or has exchanged instruments constituting the treaty subject to ratification, acceptance or approval, until it shall have made its intention clear not to become a party to the treaty; or
- (b) it has expressed its consent to be bound by the treaty, pending the entry into force of the treaty and provided that such entry into force is not unduly delayed.

SECTION 2. RESERVATIONS

Article 19

Formulation of reservations

A State may, when signing, ratifying, accepting, approving or acceding to a treaty, formulate a reservation unless:

- (a) the reservation is prohibited by the treaty;
- (b) the treaty provides that only specified reservations, which do not include the reservation in question, may be made; or
- (c) in cases not falling under sub-paragraphs (a) and (b), the reservation is incompatible with the object and purpose of the treaty.

Article 20

Acceptance of and objection to reservations

1. A reservation expressly authorized by a treaty does not require any subsequent acceptance by the other contracting States unless the treaty so provides.
2. When it appears from the limited number of the negotiating States and the object and purpose of a treaty that the application of the treaty in its entirety between all the parties is an essential condition of the consent of each one to be bound by the treaty, a reservation requires acceptance by all the parties.
3. When a treaty is a constituent instrument of an international organization and unless it otherwise provides, a reservation requires the acceptance of the competent organ of that organization.
4. In cases not falling under the preceding paragraphs and unless the treaty otherwise provides:
 - (a) acceptance by another contracting State of a reservation constitutes the reserving State a party to the treaty in relation to that other State if or when the treaty is in force for those States;
 - (b) an objection by another contracting State to a reservation does not preclude the entry into force of

the treaty as between the objecting and reserving States unless a contrary intention is definitely expressed by the objecting State;

(c) an act expressing a State's consent to be bound by the treaty and containing a reservation is effective as soon as at least one other contracting State has accepted the reservation.

5. For the purposes of paragraphs 2 and 4 and unless the treaty otherwise provides, a reservation is considered to have been accepted by a State if it shall have raised no objection to the reservation by the end of a period of twelve months after it was notified of the reservation or by the date on which it expressed its consent to be bound by the treaty, whichever is later.

Article 21

Legal effects of reservations and of objections to reservations

1. A reservation established with regard to another party in accordance with articles 19, 20 and 23:

(a) modifies for the reserving State in its relations with that other party the provisions of the treaty to which the reservation relates to the extent of the reservation; and

(b) modifies those provisions to the same extent for that other party in its relations with the reserving State.

2. The reservation does not modify the provisions of the treaty for the other parties to the treaty *inter se*.

3. When a State objecting to a reservation has not opposed the entry into force of the treaty between itself and the reserving State, the provisions to which the reservation relates do not apply as between the two States to the extent of the reservation.

Article 22

Withdrawal of reservations and of objections to reservations

1. Unless the treaty otherwise provides, a reservation may be withdrawn at any time and the consent of a State which has accepted the reservation is not required for its withdrawal.

2. Unless the treaty otherwise provides, an objection to a reservation may be withdrawn at any time.

3. Unless the treaty otherwise provides, or it is otherwise agreed:

(a) the withdrawal of a reservation becomes operative in relation to another contracting State only when notice of it has been received by that State;

(b) the withdrawal of an objection to a reservation becomes operative only when notice of it has been received by the State which formulated the reservation.

Article 23

Procedure regarding reservations

1. A reservation, an express acceptance of a reservation and an objection to a reservation must be formulated in writing and communicated to the contracting States and other States entitled to become parties to the treaty.
2. If formulated when signing the treaty subject to ratification, acceptance or approval, a reservation must be formally confirmed by the reserving State when expressing its consent to be bound by the treaty. In such a case the reservation shall be considered as having been made on the date of its confirmation.
3. An express acceptance of, or an objection to, a reservation made previously to confirmation of the reservation does not itself require confirmation.
4. The withdrawal of a reservation or of an objection to a reservation must be formulated in writing.

SECTION 3. ENTRY INTO FORCE AND PROVISIONAL APPLICATION OF TREATIES

Article 24 Entry into force

1. A treaty enters into force in such manner and upon such date as it may provide or as the negotiating States may agree.
2. Failing any such provision or agreement, a treaty enters into force as soon as consent to be bound by the treaty has been established for all the negotiating States.
3. When the consent of a State to be bound by a treaty is established on a date after the treaty has come into force, the treaty enters into force for that State on that date, unless the treaty otherwise provides.
4. The provisions of a treaty regulating the authentication of its text, the establishment of the consent of States to be bound by the treaty, the manner or date of its entry into force, reservations, the functions of the depositary and other matters arising necessarily before the entry into force of the treaty apply from the time of the adoption of its text.

Article 25 Provisional application

1. A treaty or a part of a treaty is applied provisionally pending its entry into force if:
 - (a) the treaty itself so provides; or
 - (b) the negotiating States have in some other manner so agreed.
2. Unless the treaty otherwise provides or the negotiating States have otherwise agreed, the provisional application of a treaty or a part of a treaty with respect to a State shall be terminated if that State notifies the other States between which the treaty is being applied provisionally of its intention not to become a party to the treaty.

PART III

OBSERVANCE, APPLICATION AND INTERPRETATION OF TREATIES

SECTION 1. OBSERVANCE OF TREATIES

Article 26

Pacta sunt servanda

Every treaty in force is binding upon the parties to it and must be performed by them in good faith.

Article 27

Internal law and observance of treaties

A party may not invoke the provisions of its internal law as justification for its failure to perform a treaty. This rule is without prejudice to article 46.

SECTION 2. APPLICATION OF TREATIES

Article 28

Non-retroactivity of treaties

Unless a different intention appears from the treaty or is otherwise established, its provisions do not bind a party in relation to any act or fact which took place or any situation which ceased to exist before the date of the entry into force of the treaty with respect to that party.

Article 29

Territorial scope of treaties

Unless a different intention appears from the treaty or is otherwise established, a treaty is binding upon each party in respect of its entire territory.

Article 30

Application of successive treaties relating to the same subject-matter

1. Subject to Article 103 of the Charter of the United Nations, the rights and obligations of States parties to successive treaties relating to the same subject-matter shall be determined in accordance with the following paragraphs.
2. When a treaty specifies that it is subject to, or that it is not to be considered as incompatible with, an earlier or later treaty, the provisions of that other treaty prevail.
3. When all the parties to the earlier treaty are parties also to the later treaty but the earlier treaty is not terminated or suspended in operation under article 59, the earlier treaty applies only to the extent that its provisions are compatible with those of the latter treaty.
4. When the parties to the later treaty do not include all the parties to the earlier one:

(a) as between States parties to both treaties the same rule applies as in paragraph 3;

(b) as between a State party to both treaties and a State party to only one of the treaties, the treaty to which both States are parties governs their mutual rights and obligations.

5. Paragraph 4 is without prejudice to article 41, or to any question of the termination or suspension of the operation of a treaty under article 60 or to any question of responsibility which may arise for a State from the conclusion or application of a treaty the provisions of which are incompatible with its obligations towards another State under another treaty.

SECTION 3. INTERPRETATION OF TREATIES

Article 31

General rule of interpretation

1. A treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose.

2. The context for the purpose of the interpretation of a treaty shall comprise, in addition to the text, including its preamble and annexes:

(a) any agreement relating to the treaty which was made between all the parties in connection with the conclusion of the treaty;

(b) any instrument which was made by one or more parties in connection with the conclusion of the treaty and accepted by the other parties as an instrument related to the treaty.

3. There shall be taken into account, together with the context:

(a) any subsequent agreement between the parties regarding the interpretation of the treaty or the application of its provisions;

(b) any subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation;

(c) any relevant rules of international law applicable in the relations between the parties.

4. A special meaning shall be given to a term if it is established that the parties so intended.

Article 32

Supplementary means of interpretation

Recourse may be had to supplementary means of interpretation, including the preparatory work of the treaty and the circumstances of its conclusion, in order to confirm the meaning resulting from the application of article 31, or to

determine the meaning when the interpretation according to article 31:

- (a) leaves the meaning ambiguous or obscure; or
- (b) leads to a result which is manifestly absurd or unreasonable.

Article 33
Interpretation of treaties authenticated in two or more languages

1. When a treaty has been authenticated in two or more languages, the text is equally authoritative in each language, unless the treaty provides or the parties agree that, in case of divergence, a particular text shall prevail.
2. A version of the treaty in a language other than one of those in which the text was authenticated shall be considered an authentic text only if the treaty so provides or the parties so agree.
3. The terms of the treaty are presumed to have the same meaning in each authentic text.
4. Except where a particular text prevails in accordance with paragraph 1, when a comparison of the authentic texts discloses a difference of meaning which the application of articles 31 and 32 does not remove, the meaning which best reconciles the texts, having regard to the object and purpose of the treaty, shall be adopted.

SECTION 4. TREATIES AND THIRD STATES

Article 34
General rule regarding third States

A treaty does not create either obligations or rights for a third State without its consent.

Article 35
Treaties providing for obligations for third States

An obligation arises for a third State from a provision of a treaty if the parties to the treaty intend the provision to be the means of establishing the obligation and the third State expressly accepts that obligation in writing.

Article 36
Treaties providing for rights for third States

1. A right arises for a third State from a provision of a treaty if the parties to the treaty intend the provision to accord that right either to the third State, or to a group of States to which it belongs, or to all States, and the third State assents thereto. Its assent shall be presumed so long as the contrary is not indicated, unless the treaty otherwise provides.
2. A State exercising a right in accordance with paragraph 1 shall comply with the conditions for its exercise provided for in the treaty or established in conformity with the treaty.

Article 37

Revocation or modification of obligations or rights of third States

1. When an obligation has arisen for a third State in conformity with article 35, the obligation may be revoked or modified only with the consent of the parties to the treaty and of the third State, unless it is established that they had otherwise agreed.
2. When a right has arisen for a third State in conformity with article 36, the right may not be revoked or modified by the parties if it is established that the right was intended not to be revocable or subject to modification without the consent of the third State.

Article 38

Rules in a treaty becoming binding on third States through international custom

Nothing in articles 34 to 37 precludes a rule set forth in a treaty from becoming binding upon a third State as a customary rule of international law, recognized as such.

PART IV

AMENDMENT AND MODIFICATION OF TREATIES

Article 39

General rule regarding the amendment of treaties

A treaty may be amended by agreement between the parties. The rules laid down in Part II apply to such an agreement except in so far as the treaty may otherwise provide.

Article 40

Amendment of multilateral treaties

1. Unless the treaty otherwise provides, the amendment of multilateral treaties shall be governed by the following paragraphs.
2. Any proposal to amend a multilateral treaty as between all the parties must be notified to all the contracting States, each one of which shall have the right to take part in:
 - (a) the decision as to the action to be taken in regard to such proposal;
 - (b) the negotiation and conclusion of any agreement for the amendment of the treaty.
3. Every State entitled to become a party to the treaty shall also be entitled to become a party to the treaty as amended.
4. The amending agreement does not bind any State already a party to the treaty which does not become a party to the amending agreement; article 30, paragraph 4(b), applies in relation to such State.

5. Any State which becomes a party to the treaty after the entry into force of the amending agreement shall, failing an expression of a different intention by that State:

- (a) be considered as a party to the treaty as amended; and
- (b) be considered as a party to the unamended treaty in relation to any party to the treaty not bound by the amending agreement.

Article 41

Agreements to modify multilateral treaties between certain of the parties only

1. Two or more of the parties to a multilateral treaty may conclude an agreement to modify the treaty as between themselves alone if:

- (a) the possibility of such a modification is provided for by the treaty; or
- (b) the modification in question is not prohibited by the treaty and:
 - (i) does not affect the enjoyment by the other parties of their rights under the treaty or the performance of their obligations;
 - (ii) does not relate to a provision, derogation from which is incompatible with the effective execution of the object and purpose of the treaty as a whole.

2. Unless in a case falling under paragraph 1(a) the treaty otherwise provides, the parties in question shall notify the other parties of their intention to conclude the agreement and of the modification to the treaty for which it provides.

PART V

INVALIDITY, TERMINATION AND SUSPENSION OF THE OPERATION OF TREATIES

SECTION 1. GENERAL PROVISIONS

Article 42

Validity and continuance in force of treaties

1. The validity of a treaty or of the consent of a State to be bound by a treaty may be impeached only through the application of the present Convention.

2. The termination of a treaty, its denunciation or the withdrawal of a party, may take place only as a result of the application of the provisions of the treaty or of the present Convention. The same rule applies to suspension of the operation of a treaty.

Article 43

Obligations imposed by international law independently of a treaty

The invalidity, termination or denunciation of a treaty, the withdrawal of a party from it, or the suspension of its operation, as a result of the application of the present Convention or of the provisions of the treaty, shall not in any way impair the duty of any State to fulfil any obligation embodied in the treaty to which it would be subject under international law independently of the treaty.

Article 44 **Separability of treaty provisions**

1. A right of a party, provided for in a treaty or arising under article 56, to denounce, withdraw from or suspend the operation of the treaty may be exercised only with respect to the whole treaty unless the treaty otherwise provides or the parties otherwise agree.
2. A ground for invalidating, terminating, withdrawing from or suspending the operation of a treaty recognized in the present Convention may be invoked only with respect to the whole treaty except as provided in the following paragraphs or in article 60.
3. If the ground relates solely to particular clauses, it may be invoked only with respect to those clauses where:
 - (a) the said clauses are separable from the remainder of the treaty with regard to their application;
 - (b) it appears from the treaty or is otherwise established that acceptance of those clauses was not an essential basis of the consent of the other party or parties to be bound by the treaty as a whole; and
 - (c) continued performance of the remainder of the treaty would not be unjust.
4. In cases falling under articles 49 and 50 the State entitled to invoke the fraud or corruption may do so with respect either to the whole treaty or, subject to paragraph 3, to the particular clauses alone.
5. In cases falling under articles 51, 52 and 53, no separation of the provisions of the treaty is permitted.

Article 45

Loss of a right to invoke a ground for invalidating, terminating, withdrawing from or suspending the operation of a treaty

A State may no longer invoke a ground for invalidating, terminating, withdrawing from or suspending the operation of a treaty under articles 46 to 50 or articles 60 and 62 if, after becoming aware of the facts:

- (a) it shall have expressly agreed that the treaty is valid or remains in force or continues in operation, as the case may be; or
- (b) it must by reason of its conduct be considered as having acquiesced in the validity of the treaty or in its maintenance in force or in operation, as the case may be.

SECTION 2. INVALIDITY OF TREATIES

Article 46

Provisions of internal law regarding competence to conclude treaties

1. A State may not invoke the fact that its consent to be bound by a treaty has been expressed in violation of a provision of its internal law regarding competence to conclude treaties as invalidating its consent unless that violation was manifest and concerned a rule of its internal law of fundamental importance.
2. A violation is manifest if it would be objectively evident to any State conducting itself in the matter in accordance with normal practice and in good faith.

Article 47

Specific restrictions on authority to express the consent of a State

If the authority of a representative to express the consent of a State to be bound by a particular treaty has been made subject to a specific restriction, his omission to observe that restriction may not be invoked as invalidating the consent expressed by him unless the restriction was notified to the other negotiating States prior to his expressing such consent.

Article 48

Error

1. A State may invoke an error in a treaty as invalidating its consent to be bound by the treaty if the error relates to a fact or situation which was assumed by that State to exist at the time when the treaty was concluded and formed an essential basis of its consent to be bound by the treaty.
2. Paragraph 1 shall not apply if the State in question contributed by its own conduct to the error or if the circumstances were such as to put that State on notice of a possible error.
3. An error relating only to the wording of the text of a treaty does not affect its validity; article 79 then applies.

Article 49

Fraud

If a State has been induced to conclude a treaty by the fraudulent conduct of another negotiating State, the State may invoke the fraud as invalidating its consent to be bound by the treaty.

Article 50

Corruption of a representative of a State

If the expression of a State's consent to be bound by a treaty has been procured through the corruption of its representative directly or indirectly by another negotiating State, the State may invoke such corruption as invalidating its consent to be bound by the treaty.

Article 51
Coercion of a representative of a State

The expression of a State's consent to be bound by a treaty which has been procured by the coercion of its representative through acts or threats directed against him shall be without any legal effect.

Article 52
Coercion of a State by the threat or use of force

A treaty is void if its conclusion has been procured by the threat or use of force in violation of the principles of international law embodied in the Charter of the United Nations.

Article 53
Treaties conflicting with a peremptory norm of general international law (*jus cogens*)

A treaty is void if, at the time of its conclusion, it conflicts with a peremptory norm of general international law. For the purposes of the present Convention, a peremptory norm of general international law is a norm accepted and recognized by the international community of States as a whole as a norm from which no derogation is permitted and which can be modified only by a subsequent norm of general international law having the same character.

SECTION 3. TERMINATION AND SUSPENSION OF THE OPERATION OF TREATIES

Article 54
Termination of or withdrawal from a treaty under its provisions or by consent of the parties

The termination of a treaty or the withdrawal of a party may take place:

- (a) in conformity with the provisions of the treaty; or
- (b) at any time by consent of all the parties after consultation with the other contracting States.

Article 55
Reduction of the parties to a multilateral treaty below the number necessary for its entry into force

Unless the treaty otherwise provides, a multilateral treaty does not terminate by reason only of the fact that the number of the parties falls below the number necessary for its entry into force.

Article 56
Denunciation of or withdrawal from a treaty containing no provision regarding termination, denunciation or withdrawal

1. A treaty which contains no provision regarding its termination and which does not provide for denunciation or withdrawal is not subject to denunciation or withdrawal unless:

- (a) it is established that the parties intended to admit the possibility of denunciation or withdrawal; or
- (b) a right of denunciation or withdrawal may be implied by the nature of the treaty.

2. A party shall give not less than twelve months' notice of its intention to denounce or withdraw from a treaty under paragraph 1.

Article 57

Suspension of the operation of a treaty under its provisions or by consent of the parties

The operation of a treaty in regard to all the parties or to a particular party may be suspended:

- (a) in conformity with the provisions of the treaty; or
- (b) at any time by consent of all the parties after consultation with the other contracting States.

Article 58

Suspension of the operation of a multilateral treaty by agreement between certain of the parties only

1. Two or more parties to a multilateral treaty may conclude an agreement to suspend the operation of provisions of the treaty, temporarily and as between themselves alone, if:

- (a) the possibility of such a suspension is provided for by the treaty; or
- (b) the suspension in question is not prohibited by the treaty and:
 - (i) does not affect the enjoyment by the other parties of their rights under the treaty or the performance of their obligations;
 - (ii) is not incompatible with the object and purpose of the treaty.

2. Unless in a case falling under paragraph 1(a) the treaty otherwise provides, the parties in question shall notify the other parties of their intention to conclude the agreement and of those provisions of the treaty the operation of which they intend to suspend.

Article 59

Termination or suspension of the operation of a treaty implied by conclusion of a later treaty

1. A treaty shall be considered as terminated if all the parties to it conclude a later treaty relating to the same subject-

matter and:

(a) it appears from the later treaty or is otherwise established that the parties intended that the matter should be governed by that treaty; or

(b) the provisions of the later treaty are so far incompatible with those of the earlier one that the two treaties are not capable of being applied at the same time.

2. The earlier treaty shall be considered as only suspended in operation if it appears from the later treaty or is otherwise established that such was the intention of the parties.

Article 60

Termination or suspension of the operation of a treaty as a consequence of its breach

1. A material breach of a bilateral treaty by one of the parties entitles the other to invoke the breach as a ground for terminating the treaty or suspending its operation in whole or in part.

2. A material breach of a multilateral treaty by one of the parties entitles:

(a) the other parties by unanimous agreement to suspend the operation of the treaty in whole or in part or to terminate it either:

(i) in the relations between themselves and the defaulting State, or

(ii) as between all the parties;

(b) a party specially affected by the breach to invoke it as a ground for suspending the operation of the treaty in whole or in part in the relations between itself and the defaulting State;

(c) any party other than the defaulting State to invoke the breach as a ground for suspending the operation of the treaty in whole or in part with respect to itself if the treaty is of such a character that a material breach of its provisions by one party radically changes the position of every party with respect to the further performance of its obligations under the treaty.

3. A material breach of a treaty, for the purposes of this article, consists in:

(a) a repudiation of the treaty not sanctioned by the present Convention; or

(b) the violation of a provision essential to the accomplishment of the object or purpose of the treaty.

4. The foregoing paragraphs are without prejudice to any provision in the treaty applicable in the event of a breach.

5. Paragraphs 1 to 3 do not apply to provisions relating to the protection of the human person contained in treaties of a humanitarian character, in particular to provisions prohibiting any form of reprisals against persons protected by such treaties.

Article 61

Supervening impossibility of performance

1. A party may invoke the impossibility of performing a treaty as a ground for terminating or withdrawing from it if the impossibility results from the permanent disappearance or destruction of an object indispensable for the execution of the treaty. If the impossibility is temporary, it may be invoked only as a ground for suspending the operation of the treaty.
2. Impossibility of performance may not be invoked by a party as a ground for terminating, withdrawing from or suspending the operation of a treaty if the impossibility is the result of a breach by that party either of an obligation under the treaty or of any other international obligation owed to any other party to the treaty.

Article 62

Fundamental change of circumstances

1. A fundamental change of circumstances which has occurred with regard to those existing at the time of the conclusion of a treaty, and which was not foreseen by the parties, may not be invoked as a ground for terminating or withdrawing from the treaty unless:
 - (a) the existence of those circumstances constituted an essential basis of the consent of the parties to be bound by the treaty; and
 - (b) the effect of the change is radically to transform the extent of obligations still to be performed under the treaty.
2. A fundamental change of circumstances may not be invoked as a ground for terminating or withdrawing from a treaty:
 - (a) if the treaty establishes a boundary; or
 - (b) if the fundamental change is the result of a breach by the party invoking it either of an obligation under the treaty or of any other international obligation owed to any other party to the treaty.
3. If, under the foregoing paragraphs, a party may invoke a fundamental change of circumstances as a ground for terminating or withdrawing from a treaty it may also invoke the change as a ground for suspending the operation of the treaty.

Article 63

Severance of diplomatic or consular relations

The severance of diplomatic or consular relations between parties to a treaty does not affect the legal relations established between them by the treaty except in so far as the existence of diplomatic or consular relations is indispensable for the application of the treaty.

Article 64

Emergence of a new peremptory norm of general international law (*jus cogens*)

If a new peremptory norm of general international law emerges, any existing treaty which is in conflict with that norm becomes void and terminates.

SECTION 4. PROCEDURE

Article 65

Procedure to be followed with respect to invalidity, termination, withdrawal from or suspension of the operation of a treaty

1. A party which, under the provisions of the present Convention, invokes either a defect in its consent to be bound by a treaty or a ground for impeaching the validity of a treaty, terminating it, withdrawing from it or suspending its operation, must notify the other parties of its claim. The notification shall indicate the measure proposed to be taken with respect to the treaty and the reasons therefor.
2. If, after the expiry of a period which, except in cases of special urgency, shall not be less than three months after the receipt of the notification, no party has raised any objection, the party making the notification may carry out in the manner provided in article 67 the measure which it has proposed.
3. If, however, objection has been raised by any other party, the parties shall seek a solution through the means indicated in article 33 of the Charter of the United Nations.
4. Nothing in the foregoing paragraphs shall affect the rights or obligations of the parties under any provisions in force binding the parties with regard to the settlement of disputes.
5. Without prejudice to article 45, the fact that a State has not previously made the notification prescribed in paragraph 1 shall not prevent it from making such notification in answer to another party claiming performance of the treaty or alleging its violation.

Article 66

Procedures for judicial settlement, arbitration and conciliation

If, under paragraph 3 of article 65, no solution has been reached within a period of 12 months following the date on which the objection was raised, the following procedures shall be followed:

- (a) any one of the parties to a dispute concerning the application or the interpretation of articles 53 or 64 may, by a written application, submit it to the International Court of Justice for a decision unless the parties by common consent agree to submit the dispute to arbitration;
- (b) any one of the parties to a dispute concerning the application or the interpretation of any of the other articles in Part V of the present Convention may set in motion the procedure specified in the Annex to the Convention by submitting a request to that effect to the Secretary-General of the United Nations.

Article 67

Instruments for declaring invalid, terminating, withdrawing from or suspending the operation of a treaty

1. The notification provided for under article 65 paragraph 1 must be made in writing.
2. Any act declaring invalid, terminating, withdrawing from or suspending the operation of a treaty pursuant to the provisions of the treaty or of paragraphs 2 or 3 of article 65 shall be carried out through an instrument communicated to the other parties. If the instrument is not signed by the Head of State, Head of Government or Minister for Foreign Affairs, the representative of the State communicating it may be called upon to produce full powers.

Article 68
Revocation of notifications and instruments provided for in articles 65 and 67

A notification or instrument provided for in articles 65 or 67 may be revoked at any time before it takes effect.

**SECTION 5. CONSEQUENCES OF THE INVALIDITY, TERMINATION OR SUSPENSION OF THE
OPERATION OF A TREATY**

Article 69
Consequences of the invalidity of a treaty

1. A treaty the invalidity of which is established under the present Convention is void. The provisions of a void treaty have no legal force.
2. If acts have nevertheless been performed in reliance on such a treaty:
 - (a) each party may require any other party to establish as far as possible in their mutual relations the position that would have existed if the acts had not been performed;
 - (b) acts performed in good faith before the invalidity was invoked are not rendered unlawful by reason only of the invalidity of the treaty.
3. In cases falling under articles 49, 50, 51 or 52, paragraph 2 does not apply with respect to the party to which the fraud, the act of corruption or the coercion is imputable.
4. In the case of the invalidity of a particular State's consent to be bound by a multilateral treaty, the foregoing rules apply in the relations between that State and the parties to the treaty.

Article 70
Consequences of the termination of a treaty

1. Unless the treaty otherwise provides or the parties otherwise agree, the termination of a treaty under its provisions or in accordance with the present Convention:
 - (a) releases the parties from any obligation further to perform the treaty;

(b) does not affect any right, obligation or legal situation of the parties created through the execution of the treaty prior to its termination.

2. If a State denounces or withdraws from a multilateral treaty, paragraph 1 applies in the relations between that State and each of the other parties to the treaty from the date when such denunciation or withdrawal takes effect.

Article 71
Consequences of the invalidity of a treaty which conflict
with a peremptory norm of general international law

1. In the case of a treaty which is void under article 53 the parties shall:

(a) eliminate as far as possible the consequences of any act performed in reliance on any provision which conflicts with the peremptory norm of general international law; and

(b) bring their mutual relations into conformity with the peremptory norm of general international law.

2. In the case of a treaty which becomes void and terminates under article 64, the termination of the treaty:

(a) releases the parties from any obligation further to perform the treaty;

(b) does not affect any right, obligation or legal situation of the parties created through the execution of the treaty prior to its termination; provided that those rights, obligations or situations may thereafter be maintained only to the extent that their maintenance is not in itself in conflict with the new peremptory norm of general international law.

Article 72
Consequences of the suspension of the operation of a treaty

1. Unless the treaty otherwise provides or the parties otherwise agree, the suspension of the operation of a treaty under its provisions or in accordance with the present Convention:

(a) releases the parties between which the operation of the treaty is suspended from the obligation to perform the treaty in their mutual relations during the period of the suspension;

(b) does not otherwise affect the legal relations between the parties established by the treaty.

2. During the period of the suspension the parties shall refrain from acts tending to obstruct the resumption of the operation of the treaty.

PART VI
MISCELLANEOUS PROVISIONS

Article 73
Cases of State succession, State responsibility and outbreak of hostilities

The provisions of the present Convention shall not prejudice any question that may arise in regard to a treaty from a succession of States or from the international responsibility of a State or from the outbreak of hostilities between States.

Article 74
Diplomatic and consular relations and the conclusion of treaties

The severance or absence of diplomatic or consular relations between two or more States does not prevent the conclusion of treaties between those States. The conclusion of a treaty does not in itself affect the situation in regard to diplomatic or consular relations.

Article 75
Case of an aggressor State

The provisions of the present Convention are without prejudice to any obligation in relation to a treaty which may arise for an aggressor State in consequence of measures taken in conformity with the Charter of the United Nations with reference to that State's aggression.

PART VII
DEPOSITARIES, NOTIFICATIONS, CORRECTIONS AND REGISTRATION

Article 76
Depositaries of treaties

1. The designation of the depositary of a treaty may be made by the negotiating States, either in the treaty itself or in some other manner. The depositary may be one or more States, an international organization or the chief administrative officer of the organization.
2. The functions of the depositary of a treaty are international in character and the depositary is under an obligation to act impartially in their performance. In particular, the fact that a treaty has not entered into force between certain of the parties or that a difference has appeared between a State and a depositary with regard to the performance of the latter's functions shall not affect that obligation.

Article 77
Functions of depositaries

1. The functions of a depositary, unless otherwise provided in the treaty or agreed by the contracting States, comprise in particular:
 - (a) keeping custody of the original text of the treaty and of any full powers delivered to the depositary;

(b) preparing certified copies of the original text and preparing any further text of the treaty in such additional languages as may be required by the treaty and transmitting them to the parties and to the States entitled to become parties to the treaty;

(c) receiving any signatures to the treaty and receiving and keeping custody of any instruments, notifications and communications relating to it;

(d) examining whether the signature or any instrument, notification or communication relating to the treaty is in due and proper form and, if need be, bringing the matter to the attention of the State in question;

(e) informing the parties and the States entitled to become parties to the treaty of acts, notifications and communications relating to the treaty;

(f) informing the States entitled to become parties to the treaty when the number of signatures or of instruments of ratification, acceptance, approval or accession required for the entry into force of the treaty has been received or deposited;

(g) registering the treaty with the Secretariat of the United Nations;

(h) performing the functions specified in other provisions of the present Convention.

2. In the event of any difference appearing between a State and the depositary as to the performance of the latter's functions, the depositary shall bring the question to the attention of the signatory States and the contracting States or, where appropriate, of the competent organ of the international organization concerned.

Article 78

Notifications and communications

Except as the treaty or the present Convention otherwise provide, any notification or communication to be made by any State under the present Convention shall:

(a) if there is no depositary, be transmitted direct to the States for which it is intended, or if there is a depositary, to the latter;

(b) be considered as having been made by the State in question only upon its receipt by the State to which it was transmitted or, as the case may be, upon its receipt by the depositary;

(c) if transmitted to a depositary, be considered as received by the State for which it was intended only when the latter State has been informed by the depositary in accordance with article 77, paragraph 1 (e).

Article 79

Correction of errors in texts or in certified copies of treaties

1. Where, after the authentication of the text of a treaty, the signatory States and the contracting States are agreed that it contains an error, the error shall, unless they decide upon some other means of correction, be corrected:

(a) by having the appropriate correction made in the text and causing the correction to be initialled by duly authorized representatives;

(b) by executing or exchanging an instrument or instruments setting out the correction which it has been agreed to make; or

(c) by executing a corrected text of the whole treaty by the same procedure as in the case of the original text.

2. Where the treaty is one for which there is a depositary, the latter shall notify the signatory States and the contracting States of the error and of the proposal to correct it and shall specify an appropriate time-limit within which objection to the proposed correction may be raised. If, on the expiry of the time-limit:

(a) no objection has been raised, the depositary shall make and initial the correction in the text and shall execute a *procès-verbal* of the rectification of the text and communicate a copy of it to the parties and to the States entitled to become parties to the treaty;

(b) an objection has been raised, the depositary shall communicate the objection to the signatory States and to the contracting States.

3. The rules in paragraphs 1 and 2 apply also where the text has been authenticated in two or more languages and it appears that there is a lack of concordance which the signatory States and the contracting States agree should be corrected.

4. The corrected text replaces the defective text *ab initio*, unless the signatory States and the contracting States otherwise decide.

5. The correction of the text of a treaty that has been registered shall be notified to the Secretariat of the United Nations.

6. Where an error is discovered in a certified copy of a treaty, the depositary shall execute a *procès-verbal* specifying the rectification and communicate a copy of it to the signatory States and to the contracting States.

Article 80

Registration and publication of treaties

1. Treaties shall, after their entry into force, be transmitted to the Secretariat of the United Nations for registration or filing and recording, as the case may be, and for publication.

2. The designation of a depositary shall constitute authorization for it to perform the acts specified in the preceding paragraph.

PART VIII FINAL PROVISIONS

Article 81 **Signature**

The present Convention shall be open for signature by all States Members of the United Nations or of any of the specialized agencies or of the International Atomic Energy Agency or parties to the Statute of the International Court of Justice, and by any other State invited by the General Assembly of the United Nations to become a party to the Convention, as follows: until 30 November 1969, at the Federal Ministry for Foreign Affairs of the Republic of Austria, and subsequently, until 30 April 1970, at United Nations Headquarters, New York.

Article 82 **Ratification**

The present Convention is subject to ratification. The instruments of ratification shall be deposited with the Secretary-General of the United Nations.

Article 83 **Accession**

The present Convention shall remain open for accession by any State belonging to any of the categories mentioned in article 81. The instruments of accession shall be deposited with the Secretary-General of the United Nations.

Article 84 **Entry into force**

1. The present Convention shall enter into force on the thirtieth day following the date of deposit of the thirty-fifth instrument of ratification or accession.
2. For each State ratifying or acceding to the Convention after the deposit of the thirty-fifth instrument of ratification or accession, the Convention shall enter into force on the thirtieth day after deposit by such State of its instrument of ratification or accession.

Article 85 **Authentic texts**

The original of the present Convention, of which the Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

IN WITNESS WHEREOF the undersigned Plenipotentiaries, being duly authorized thereto by their respective Governments, have signed the present Convention.

DONE at Vienna, this twenty-third day of May, one thousand nine hundred and sixty-nine.

ANNEX

1. A list of conciliators consisting of qualified jurists shall be drawn up and maintained by the Secretary-General of the United Nations. To this end, every State which is a Member of the United Nations or a party to the present Convention shall be invited to nominate two conciliators, and the names of the persons so nominated shall constitute the list. The term of a conciliator, including that of any conciliator nominated to fill a casual vacancy, shall be five years and may be renewed. A conciliator whose term expires shall continue to fulfil any function for which he shall have been chosen under the following paragraph.

2. When a request has been made to the Secretary-General under article 66, the Secretary-General shall bring the dispute before a conciliation commission constituted as follows:

The State or States constituting one of the parties to the dispute shall appoint:

(a) one conciliator of the nationality of that State or of one of those States, who may or may not be chosen from the list referred to in paragraph 1; and

(b) one conciliator not of the nationality of that State or of any of those States, who shall be chosen from the list.

The State or States constituting the other party to the dispute shall appoint two conciliators in the same way. The four conciliators chosen by the parties shall be appointed within sixty days following the date on which the Secretary-General receives the request.

The four conciliators shall, within sixty days following the date of the last of their own appointments, appoint a fifth conciliator chosen from the list, who shall be chairman.

If the appointment of the chairman or of any of the other conciliators has not been made within the period prescribed above for such appointment, it shall be made by the Secretary-General within sixty days following the expiry of that period. The appointment of the chairman may be made by the Secretary-General either from the list or from the membership of the International Law Commission. Any of the periods within which appointments must be made may be extended by agreement between the parties to the dispute.

Any vacancy shall be filled in the manner prescribed for the initial appointment.

3. The Conciliation Commission shall decide its own procedure. The Commission, with the consent of the parties to the dispute, may invite any party to the treaty to submit to it its views orally or in writing. Decisions and recommendations of the Commission shall be made by a majority vote of the five members.

4. The Commission may draw the attention of the parties to the dispute to any measures which might facilitate an amicable settlement.

5. The Commission shall hear the parties, examine the claims and objections, and make proposals to the parties with a view to reaching an amicable settlement of the dispute.

6. The Commission shall report within twelve months of its constitution. Its report shall be deposited with the Secretary-General and transmitted to the parties to the dispute. The report of the Commission, including any conclusions stated therein regarding the facts or questions of law, shall not be binding upon the parties and it shall have no other character than that of recommendations submitted for the consideration of the parties in order to facilitate an amicable settlement of the dispute.

7. The Secretary-General shall provide the Commission with such assistance and facilities as it may require. The expenses of the Commission shall be borne by the United Nations.

Abstract:-

* ([back](#))

The Convention was adopted on 22 May 1969 and opened for signature on 23 May 1969 by the *United Nations Conference on the Law of Treaties*. The Conference was convened pursuant to General Assembly resolutions 2166 (XXI) of 5 December 1966 and 2287 (XXII) of 6 December 1967. The Conference held two sessions, both at the Neue Hofburg in Vienna, the first session from 26 March to 24 May 1968 and the second session from 9 April to 22 May 1969. In addition to the Convention, the Conference adopted the Final Act and certain declarations and resolutions, which are annexed to that Act. By unanimous decision of the Conference, the original of the Final Act was deposited in the archives of the Federal Ministry for Foreign Affairs of Austria.

Entry into force on 27 January 1980, in accordance with article 84(1).

Text: United Nations, *Treaty Series*, vol. 1155, p.331.

Appendix GCF
London Convention Information Paper on Future objectives for
the London Convention 1972 and
the 1996 Protocol thereto, the Netherlands



TWENTY-FOURTH CONSULTATIVE
MEETING OF CONTRACTING PARTIES
TO THE CONVENTION ON THE
PREVENTION OF MARINE POLLUTION
BY DUMPING OF WASTES AND OTHER
MATTER 1972
11 - 15 November 2002
Agenda item 14.1

LC 24/14
9 August 2002
Original: ENGLISH

**FUTURE WORK PROGRAMME
IMPLEMENTATION AND REVIEW OF THE LONG-TERM PROGRAMME**

Future objectives for the London Convention 1972 and the 1996 Protocol thereto

Submitted by the Netherlands

SUMMARY

Executive summary: This discussion paper outlines some concerns with regard to the future direction of the London Convention and provides three options to strengthen its strategic mission.

Action to be taken: Paragraph 4

Related documents: LC 23/16, chapter 4 and annex 6

Introduction

1 In our discussions at the Twenty-third Consultative Meeting, a number of delegations expressed their willingness to explore future strategic objectives for the London Convention and policy options for co-operation with other international organizations and programmes (LC 23/16). This discussion paper outlines some concerns with regard to the future direction of the London Convention and provides three options to strengthen its strategic mission. This document should not be regarded as a definitive position of the Netherlands on this important issue but rather as a basis for discussion with other delegations.

2 The fact that the London Convention has had, and still has, an important role to play is taken as a starting point to any discussion on the future of the London Convention. Only in relation to its future ambitions can possible options be explored for co-operation with other relevant institutions and bodies. The Netherlands finds it appropriate, therefore, to firstly reassess the future ambitions of the London Convention, and, subsequently, decide upon co-operation with others.

3 In summary, the Netherlands wishes to engage in discussions that focus on defining the long-term ambitions of the London Convention in relation to the planned review of the Long-

For reasons of economy, this document is printed in a limited number. Delegates are kindly asked to bring their copies to meetings and not to request additional copies.

term Work Programme for the Convention, adopted at the Twenty-third Consultative Meeting (LC 23/16, annex 6). The successful implementation of this Programme is one of the priorities for the Convention and its Protocol over the next few years. It is explicitly not our intention to initiate an immediate review of the Convention or Protocol itself and, therefore, discussion of the long-term ambitions would not delay membership and entry into force of the 1996 Protocol.

Action requested of the Consultative Meeting

4 The Consultative Meeting is invited to consider this document, as shown at annex, and comment, as it deems appropriate.

ANNEX

FUTURE OBJECTIVES FOR THE LONDON CONVENTION 1972 AND THE 1996 PROTOCOL THERETO

1 BACKGROUND AND INTRODUCTION

1.1 The Consultative Meeting, at its 23 Meeting held in October 2001, noted the proposal by Brazil (LC/23/4) to incorporate the London Convention 1972 into the structure of IMO. During the initial general discussion, a number of delegations expressed their concerns as follows:

- .1 full integration into IMO should not be the only possibility for the future activities under the London Convention (LC); the possibility of co-operation with other international organizations and programmes, including UNEP, should be explored and the review of the LC activities should be considered in the context of the results of the World Summit on Sustainable Development in 2002;
- .2 a more flexible approach should be pursued and it would be premature at this stage to accept the proposal by the IMO Council (to establish a working group to carry out a comprehensive study on the incorporation and assimilation of all activities under LC and LP into the structure of IMO); and
- .3 the full incorporation of the LC into the structure of IMO would require amendments to the IMO Convention, LC and the Protocol thereto, which would delay the early entry into force of the Protocol and direct attention away from the implementation of the LC.

1.2 The delegation of the Netherlands undertook to prepare a submission for consideration at the Twenty-fourth Consultative Meeting to explore future strategic objectives for the London Convention 1972 (LC 23/16).

2 GOAL

2.1 The objective of this paper is to present to the Consultative Meeting of the LC the concerns of the Netherlands concerning the future of the LC. This paper should not be regarded as a definitive position of the Netherlands on this matter but rather as a guideline for discussion with other States on these important issues.

2.2 As far as we are concerned, central to any discussion on the future of the LC should be the fact that the LC has had, and still has, an important role to play. Only in relation to its future ambitions, possible options for co-operation with other relevant institutions and bodies can be explored.

2.3 This document outlines different possible lines of thought that can aid the Consultative Meeting in its discussions regarding the ambition of the LC.

3 ANALYSIS OF THE LC AMBITIONS

Accomplishments and achievements under the LC

3.1 The oceans have always been used as a waste repository by human societies. Corollary concepts included the idea that wastes could be permanently ‘disposed’ of in the seas, and the idea that the oceans have an ‘assimilative capacity’ for toxic waste.

3.2 The political motive was simple, waste-producing nations are motivated to use the ocean because hazardous wastes threaten the health and well-being of their domestic populations, creating pressures for exportation.

3.3. The London Convention 1972 was adopted with the purpose of regulating the dumping of wastes at sea. The Convention is generally regarded as one of the more successful international legal instruments, having led to an apparently significant reduction in the volume and type of waste being dumped at sea.

3.4 The LC came into force in 1975, and there are now some 78 Contracting Parties. The LC has proved to be very much a living Convention, with discussions at the various meetings resulting in substantial changes to the practical implementation of its provisions. Up until recently, these changes were reflected in various Resolutions, adopted at the meetings, and have led to a significant reduction in the amount of waste dumped, and in the case of certain categories of waste, (e.g. radioactive and industrial wastes) to a complete prohibition on dumping. These Resolutions were ultimately incorporated into the 1996 Protocol to the LC. As of 31 August 2001, there were 15 Contracting Parties to the 1996 Protocol, of which only two are not party to the Convention.

3.5 Whilst through the adoption of the 1996 Protocol to the London Convention 1972, the original approaches have **been strengthened by a new regime based on precaution and pro-action, challenges remain**, particularly with regard to the effective implementation of the Protocol, **the application of alternative waste management options and the promotion of technical co-operation and assistance** between Contracting Parties and, in particular, developing countries.

Long-term Work Programme and possible future strategic objectives for the London Convention 1972 and the 1996 Protocol thereto

3.6 The Twenty-second Consultative Meeting agreed to develop a Long-term Work Programme for LC in order that the activities carried out under the LC can be better linked to the basic purposes and objectives of the Convention (LC22/14). At its Twenty-third meeting, the CP adopted the Long-term Programme of the Convention as a living, dynamic document. This document (LC/CM 23/16, annex 6) outlines goals and activities approved by the Consultative Meeting for the period up to 2005.

3.7 For the period up to 2005, the following items will require attention:

- .1 compliance issues;
- .2 development of guidance to implement the London Convention 1972 and the 1996 Protocol;
- .3 technical co-operation and assistance;

- .4 cross-sectoral issues; and
- .5 preparation for the entry into force of the 1996 Protocol.

3.8 Even with this widened scope for the LC, large fields of marine pollution are still not addressed internationally.

3.9 The LC deals only with deliberate dumping at sea, which it is increasingly prohibiting. In any case, the authority of LC is presently restricted to the 10% of wastes that are introduced deliberately by dumping into the marine environment, and most of these wastes are dredge spoils. Remarkably, there is no international convention regulating the other 90% of wastes introduced into the seas, namely wastes from land-based sources. Some regional conventions and protocols address land-based sources to some extent (i.e. OSPAR) but a global perspective is needed.

3.10 Other organizations are not likely to take up these activities and, therefore, the LC could consider expanding its scope to provide added value to these fields.

Three options for the future development of the LC

3.11 Three options could be considered for the future development of the LC in the light of ambitions for the Convention.

3.12 The following options should be considered:

- .1 Maintaining the “status quo”;
- .2 Maintaining the “status quo” and:
 - .1 In addition to the core activities of LC it can be stated that in the coming years LC can be expected to give special attention to the following items:
 - .1 reduction of present dumping activities;
 - .2 review of the reverse list/annexes; and
 - .3 further development of the waste management approach.
 - .2 Development of LC within **the existing framework** (limited new areas):
 - .1 seabed activities;
 - .2 sub-seabed activities;
 - .3 offshore platforms (discharges, removal and disposal);
 - .4 application to internal waters; and
 - .5 matters related to past dumping activities (recovery of wastes dumped in other marine engineering activities (e.g. OTEC, artificial islands).
 - .3 Extending the framework of the Convention and the Protocol thereto in order to acknowledge the 90% not addressed discharge namely; land-based discharges (land-based sources).

3.13 It can be expected that THE WORLD SUMMIT ON SUSTAINABLE DEVELOPMENT (WSSD) will call on international bodies to better co-ordinate their efforts, therefore, irrespective

of its position in relation to other fora, the LC could find an added value in enhancing its co-operation with these other fora.

Options for scope of LC

3.14 *Option 1: "Status quo"*

The first option "status quo" is compatible with the provision of United Nations Convention on the Law of the Sea (UNCLOS). This option will only result in regulation of the 10% of total produced waste that is introduced deliberately by dumping at sea.

3.15 *Option 2: "Present situation with review of reverse list/annexes"*

The major advantages of option 2 are improved scientific credibility of the Convention and, accordingly the provision of a basic component to a more holistic framework for marine environmental protection and waste management. It also has the potential for improving compatibility with UNCLOS. The consequence of this option, as is the case with the first, is that other important sources of pollutants (land-based sources) would remain largely not addressed at the global level.

3.16 *Option 3: "Extending the framework of LC"*

- .1 Most problems with hazardous wastes are created on land, therefore, when discussing the future objectives/scope of the London Convention 1972 and the 1996 Protocol thereto, it seems logical to take into account activities that deal with land-based alternatives, and land-based waste management in a more general sense. The question is whether we should aim for a global solution, or not?
- .2 Pollution from land-based sources is responsible for 80% of the total pollution entering the marine environment. Concern is expressed regarding pollution arising from sewage, persistent organic pollutants, radioactive substances, heavy metals, oils, litter, as well as the destruction of the habitats and the alteration of timing, volume and quality of freshwater inflows. Domestic and industrial sewage causes some of the most significant coastal pollution in developing countries. Many countries have an inadequate number of sewage collection and treatment facilities, while the facilities that do exist are often poorly maintained or inoperable. It is clear that only an integrated approach can be effective in the long term.
- .3 The overall objective for the Consultative Meeting is the promotion of the worldwide acceptance, implementation and consistent application of the London Convention 1972 and the early entry into force of the 1996 Protocol thereto. Both call for promoting the effective control of all sources of pollution of the marine environment. The source of pollution in developing countries will be the first step taken to involve these countries in marine pollution problems, promote the Convention and ultimately broaden the partnership of LC.
- .4 As far as option 3 is concerned for expanding the Convention and the Protocol thereto, the most effective increase marine environmental protection is coverage of land-based sources of pollutants. This approach would effectively implement

the intent of Article I of the Convention, however, there is some possibility of overlap with UNEP's interest in the development of international and regional agreements.

4 RECOMMENDATIONS AND CONCLUSIONS

4.1 The recommendations and conclusions are:

- .1 Maintenance of the "Status quo" of the LC is not an option since it ignores the needs and opportunities for enhanced marine environmental protection from all sources.
- .2 At least, the LC should review its role in the context of Art. I and II of the convention and Art.1 and 2 of the 1996 Protocol, to find a way to extend its coverage to include other sources of marine pollution. Review of the reverse list/annexes may be an effective means of improving the comprehensiveness of the convention.
- .3 The mission for the LC should be to control all sources of pollution to the marine environment. In this way, it can become an important part of a comprehensive, global and multi-sectoral environmental protection and waste management framework. All components of this framework should, therefore, be based upon scientifically sound principle.
- .4 It is important to keep in mind the WSSD conference. The conference will address a range of important global and regional environmental issues, such as climate change, and protection of the marine environment. In this connection, it should be mentioned that the very purpose of the LC, as stated in Article I, is to promote the effective control of all sources of pollution of the marine environment.
- .5 Against this background, it is of outmost importance that the Contracting Parties of LC take into consideration the conclusions and recommendations from WSSD for the future of LC. Keeping in mind the high ambition of that Conference, it is also suggested that the Contracting Parties of LC should not be satisfied with only limited technical improvements to the implementation of the LC but instead should consider an ambitious plan for the improvement of the global protection of the marine environment.

Annex

1 INTRODUCTION

1.1 This annex presents an overview on objectives and activities of London Convention 1972 and the 1996 Protocol thereto. Based on this overview, it could be possible to make suggestions on the future strategic objectives for the LC and the Protocol thereto.

The international legal framework

1.2 In the early 1970s it was recognized that the marine environment does not have an unlimited capacity to assimilate the products of man's industrial activities and, in this context, the dumping of wastes at sea, as a means of disposal, began to attract international attention.

1.3 This form of waste disposal was common practice in the northern hemisphere, and, in fact, a public outcry over plans to dump chlorinated hydrocarbons in the North Sea in 1971 was one of the incidents which led to the development and adoption of the London Convention 1972. Nevertheless, over the years northern hemisphere countries dumped millions of tonnes of wastes at sea, largely consisting of dredged material and including materials ranging from radioactive wastes to sewage sludge [LC 23/3/3].

Relevant international agreements

1.4 The relevant international agreements are:

- .1 United Nations Convention on the Law of the Sea (UNCLOS 1982);
- .2 Convention on the International Maritime Organization (IMO 1948);
- .3 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, 1989 (Basel Convention);
- .4 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 (LC); and
- .5 1996 Protocol to the LC.

1.5 *The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal* was adopted in 1989 and entered into force on 5 May 1992:

This global environmental treaty strictly regulates the **transboundary movements of hazardous wastes** and provides obligations to its Parties to ensure that such wastes are managed and disposed of in an environmentally sound manner. The main principles of the Basel Convention are:

- .1 transboundary movements of hazardous wastes should be reduced to a minimum consistent with their environmentally sound management;
- .2 **hazardous wastes** should be **treated and disposed** of as **close as possible to their source of generation**, and

- .3 **hazardous wastes** generation should be **reduced and minimized at source**.

1.6 *The Convention on the International Maritime Organization* adopted by a UN Maritime Conference in Geneva on 6 March 1948, as modified by amendments adopted by Resolutions A.69 (ES.II), A.70 (IV), A.315 (ES.V), A.358 (IX), A.400 (X) and A.450 (XI). The purposes of the Organization (art. 1(a)):

- .1 provide machinery for co-operation among Governments in the field of governmental regulation and practices relating to technical matters **of all kinds affecting shipping** engaged in international trade;
- .2 to encourage and facilitate the general adoption of the highest practicable standards in matters **concerning maritime safety, efficiency of navigation** and prevention and **control of marine pollution from ships**; and
- .3 to deal with administrative and legal matters related to the purposes set out in this article.

1.7 *Global Programme of Action of the Marine Environment from Land-based activities* was adopted in 1995, with the United Nation Environment Programme (UNEP) being tasked as Secretariat:

- .1 the GPA aims at **preventing the degradation of the marine environment from land-based activities** by facilitating the duty of States to preserve and protect the marine environment; and
- .2 it is designed to be a source of conceptual and practical guidance to be draw upon by national and/or regional authorities for **devising and implementing sustained action to prevent, reduce, control** and/or **eliminate marine degradation from land-based activities**.

Form of marine pollution

1.8 In general, five sources of pollution have been identified as follows:

- .1 land-based sources;
- .2 vessel-generated pollution;
- .3 pollution by dumping at sea;
- .4 pollution from seabed sources; and
- .5 pollution from or through the atmosphere.

Origin and Scope of the London Convention 1972

1.9 In June 1972, representatives of governments, inter-governmental agencies, non-governmental organizations and the private sector from around the globe came together in Stockholm, Sweden, for the United Nations Conference on the Human Environment. At that historic gathering, on a wide range of issues the Conference called upon Governments and people to exert common efforts for the preservation and improvement of the environment, for the benefit of all peoples and their posterity.

1.10 For the oceans, a new impetus to the development of international rules applicable to ocean dumping resulted from the Stockholm Conference. Principle 7 of the Stockholm Declaration calls upon States to “take all possible steps to prevent pollution of the seas by substances that are liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the seas”. Among other recommendations emanating from the Stockholm Action Plan, special reference was made to the need for “an overall instrument for the control of ocean dumping...”.

1.11 The Stockholm principles and recommendations provided the backdrop and prelude to the adoption of the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter in November 1972 with the basic purpose to encourage nations of the world to work together to ensure that the marine environment is protected from hazards of dumping. Protection of the marine environment, broadly defined, is the foundation of the London Dumping Convention.

2 OBJECTIVES OF THE LONDON CONVENTION 1972 AND THE 1996 PROTOCOL THERETO

2.1 Contracting Parties are both individually and collectively committed to meeting the objectives of the London Convention 1972 and the 1996 Protocol thereto, as set out in its Articles I and II of LC and Article 2 of the Protocol.

The London Convention 1972

Promote the effective control of the sources of the pollution of the marine environment; prevent the pollution of the sea by the dumping of waste and other matter; and harmonization policies in this regard.

The 1996 Protocol of LC

Protect and preserve the marine environment from all sources of pollution; prevent, reduce and where practicable eliminate pollution caused by dumping or incineration at sea of wastes or other matter; and harmonization policies in this regard.

2.2 The London Convention 1972 was adopted with the purpose of **regulating the dumping of wastes at sea**. In relation to the Convention, dumping is defined as:

- .1 any deliberate disposal at sea of wastes or other matter **from** vessels, aircraft, platforms or other man-made structures at sea; and
- .2 any deliberate disposal at sea **of** vessels, aircraft, platforms or other man-made structures.

2.3 The definition was later extended to include incineration at sea, which is itself defined as the deliberate combustion of wastes or other matter on marine incineration facilities for the purpose of their thermal destruction.

2.4 The **LC** came into force in 1975, and there are now some 78 Contracting Parties, which meet on a bi-annual basis. The Scientific Group meeting deals largely with technical issues

relating to the implementation of the Convention, while the Consultative meeting is the political, decision-making body. The LC has proved to be very much a living Convention, with the discussions at various meetings resulting in substantial changes to the practical implementation of its provisions. Until recently, these changes were reflected in various Resolutions adopted at the meetings and which led to a significant reduction in the amount of waste dumped, and, in the case of certain categories of waste, (e.g. radioactive and industrial wastes) to a complete prohibition on dumping. These Resolutions were ultimately incorporated into the 1996 Protocol to the LC, which was adopted at a Special Conference at the end of 1996. As of 31 August 2001, there were 15 Contracting Parties to the 1996 Protocol, of which only two are not party to the Convention.

2.5 The LC is generally regarded as one of the more successful international legal instruments, having led to an apparently **significant reduction in the volume and types of waste being dumped at sea.**

2.6 Contracting Parties have clearly expressed that:

- .1 the LC originated from the 1972 UN conference on the Human Environment;
- .2 Contracting Parties are charged under the LC with a responsibility to protect the marine environment; and
- .3 Contracting Parties are concerned with the need to address all sources of marine pollution.

Core activities of the London Convention 1972 and the 1996 Protocol thereto

2.7 The core activities of the London Convention 1972 and the 1996 Protocol are:

- .1 regulating the dumping of waste at sea;
- .2 reducing the volume and type of waste being dumped at sea;
- .3 complete prohibition on dumping in cases of certain categories of waste (e.g. radioactive and industrial wastes);
- .4 promotion of world-wide acceptance, implementation and consistent application of the London Convention 1972 and the early entry into force of the 1996 Protocol thereto;
- .5 promotion, through collaboration within the Organization and other international bodies with support for those Parties which request it; and
- .6 promotion of bilateral and multilateral support for the prevention, reduction and, where practicable, elimination of pollution caused by dumping as provided for in this Protocol to those Contracting Parties that request it.

2.8 Waste or other matter that may be considered for dumping: “Reverse List “(Annex 1 of the 1996 Protocol) are:

- .1 dredged material;
- .2 sewage sludge;
- .3 fish waste, or material resulting from industrial fish processing operations;
- .4 vessels and platforms or other man-made structures at sea;
- .5 inert, inorganic geological material;

- .6 organic material of natural origin; and
- .7 bulky items primarily comprising iron, steel, concrete and similarly non-harmful materials for which the concern is physical impact, and limited to those circumstances where such waste is generated at locations, such as small islands with isolated communities, having no practicable access to disposal options other than dumping.

Accomplishments and achievements under the LC

2.9 The goals of the London Convention 1972 are to promote the **effective control of all sources of pollution** of the marine environment and take all practicable steps to prevent the pollution of the sea by the dumping of waste and other matter. Report to the World Summit on Sustainable Development (WSSD) describes the major achievements under this Convention since 1992:

- .1 an agreement in 1991 to apply a precautionary approach when implementing the Convention;
- .2 amendments to the Convention in 1993 and entered into force in February 1994: amendments to the Convention (1) to phase out dumping of industrial waste by 1 January 1996 (Resolution LC.49(16)); (2) to prohibit incineration at sea of industrial waste and sewage sludge (Resolution LC.50 (16)); and (3) to prohibit dumping of radioactive wastes (Resolution LC.51 (16));
- .3 adoption of the 1996 Protocol to the LC introducing a world-wide prohibition of waste disposal at sea, together with a list of exemptions, the so-called "reverse list". This Protocol, which will eventually replace the LC, may enter into force in 2003;
- .4 adoption of the "Generic Guidance" in 1997;
- .5 adoption of the "Specific Guidance" in 2001; addressing all waste materials, which may be considered for disposal at sea. To promote and assist with the application of these guidelines, training materials were developed in 2001 and can be found on the LC Web-site (www.londonconvention.org);
- .6 adoption of guidance on national implementation of the 1996 Protocol in 2001;
- .7 adoption in 2001 of the "Long-term Programme of the London Convention 1972 and the promotion of the 1996 Protocol thereto; and
- .8 adoption of the "Long-term Programme of Technical Co-operation and Assistance and the "Long-term Strategy" thereto.

Long-Term Work Programme for the London Convention 1972 and the Promotion of the 1996 Protocol thereto (2002-2005)

2.10 The Twenty-second Consultative Meeting agreed to develop a Long-term Work Programme for LC so that the activities carried out under it can be better linked to the basic purposes and objectives of the Convention (LC22/14). The Consultative Meeting developed this Long-term Work Programme as guidance for its activities.

2.11 The overall objective for the Consultative Meeting is the promotion of world-wide acceptance, implementation and consistent application of the London Convention 1972, and the early entry into force of the 1996 Protocol thereto.

2.12 Table 3 is an indicative list of goals and activities approved by the Consultative Meeting for the period up to 2005. This list is not exhaustive and these goals and activities are not listed in order of priority.

2.13 The following items are developed:

- .1 compliance issues;
- .2 guidance to implement the London Convention 1972 and the 1996 Protocol;
- .3 technical co-operation and assistance;
- .4 cross-sectoral issues; and
- .5 preparation for the entry into force of the 1996 Protocol.

Technical Co-operation and Assistance Programme under the LC

2.14 Contracting Parties are committed to provide technical co-operation and assistance to implement the objectives of the LC under Article IX of the Convention. When developing this Technical Co-operation and Assistance Programme, CP reconfirmed their commitment by adopting resolutions LC.54 (18) and LC.55(SM) on Technical Co-operation and Assistance Activities related to the London Convention 1972. With the adoption of the 1996 Protocol to the LC, the commitment to provide technical co-operation is substantially extended as set out in its Article 13 [Table 2].

2.15 This Programme is also established in response to the findings of the Global Waste Survey, which was initiated in 1991, based resolution LDC.43 (13) for the purpose of addressing the potential implications of the prohibition of sea disposal of industrial waste on countries world-wide, especially in developing countries. The Global Waste Survey Final Report revealed that the challenge for developing and newly-industrialized countries in complying with that prohibition is “to apply land-based solutions that are practical, affordable and environmentally sound, as defined by local and sub-regional circumstances”. In turn, the challenge for CP, through technical co-operation and assistance, is “to work with developing countries in the evolutionary process, to develop, demonstrate and apply appropriate national and sub-regional strategies and options for avoiding sea disposal of industrial waste, on a sustainable and self-reliant basis” (LC19/10).

Assessment of effectiveness of the Technical Co-operation and Assistance Programme

2.16 In 2000, the Twenty-second Consultative Meeting evaluated the accomplishments of the Programme since 1997. The main conclusion was that individual projects appear to be effective, but that there is no programmatic cohesion between these projects. Furthermore, there is a lack of capacity to develop follow-up activities, e.g., implementation of action plans, or recommendations adopted at workshops and in project reports [Table 2].

Long-term Strategy for Technical Co-operation and Assistance under the LC

Overview of the Strategy

2.17 In 1997, the Nineteenth Consultative Meeting adopted the *LC* Technical Co-operation and Assistance Programme. Several technical assistance projects have been hampered due to staffing problems at IMO and a lack of strategy. The Scientific Group, at its twenty-fourth session (May 2001), considered a first proposal for a strategy and, in general, supported the proposals contained in document (LC/SG 24/3/1).

Elements of the Strategy

2.18 While the objectives and activities of the Programme outlined in annex 4 are commendable, in order to make it more effective it is necessary to develop a more detailed and targeted Programme by identifying priorities and then developing a strategy around them.

2.19 The Consultative Meeting requested the Scientific Group to further develop this strategy at its twenty-fifth session in May 2002, in particular, by linking the objectives of the strategy with those of other international organizations and providing a better identification of projects under the strategy.

Future activities under LC and/or in association with activities under other international agreements

2.20 Future activities include efforts to improve compliance with the LC, for example, a GEF application for a project to identify barriers to compliance with the Convention and then to develop and implement solutions. The emphasis is on promotion of compliance as opposed to sanctions for non-compliance. Technical co-operation activities remain high on the LC agenda and will be conducted in collaboration with similar programmes established under other agreements wherever possible.

2.21 These activities will be carried out in the following context: wastes dumped at sea under the auspices of the LC are primarily generated by land-based activities. Even sediments, dredged from ports and harbours, are contaminated as a consequence of land-based activities. The distinction between these wastes, and others generated by land-based activities, is merely the mechanism or route of disposal to the marine environment: in the case of dumping, this being loading onto a ship for transportation to the designated dumpsite.

2.22 Since the adoption of the LC almost 30 years ago, many global and regional agreements and programmes to protect the environment have been concluded. To ensure that implementation of the Convention is carried out in a co-ordinated and integrated manner with these agreements cross-sectoral activities are being planned (LC23/16).

Present day problems

2.23 The present day problems are:

- .1 Survey on compliance with the notification and reporting requirements under Article VI (4) of the LC. This survey showed that a significant number of countries were failing to fulfil even the basic requirements. A further evaluation

of the information available suggested that many of the non-compliant countries were developing States. Moreover, discussion with officials from some countries, and visits to others, has indicated that in some cases the countries have neither a legal framework, nor an administrative structure in place to implement the provisions of the Convention [LC 23/16 Annex 4]. Analysis of the questionnaires show that scenarios have been identified where CP's are not in compliance with LC; response to these scenarios have also been identified (LC 23/3/1).

- .2 The Global Waste Survey Final Report revealed that the challenge for developing and newly-industrialized countries in complying with that prohibition is “to apply land-based solutions that are practical, affordable and environmentally sound, as defined by local and sub-regional circumstances”. In turn, the challenge for CP, through technical co-operation and assistance, is “to work with developing countries in the evolutionary process, to develop, demonstrate and apply appropriate national and sub-regional strategies and options for avoiding sea disposal of industrial waste, on a sustainable and self-reliant basis” (LC19/10).
- .3 The future activities under the LC will be carried out in the following context: wastes dumped at sea under the auspices of the LC are primarily generated by land-based activities. Even sediments dredged from ports and harbours are predominantly contaminated as a consequence of land-based activities. The distinction between these wastes and others generated by land-based activities is merely the mechanism or route of disposal to the marine environment: in the case of dumping, this being loading onto a ship for transportation to the designated dumpsite.

Priority tasks for LC - Summary of proposals made on the future objectives of LC and the 1996 Protocol thereto

2.24 The priority tasks are:

- .1 first LC report to the United Nations Conference on Environment and Development (UNCED), agenda 21: (LC 23/WP1)/9-1 with regards to:
 - .1 Chapter 17 on management-related activities regarding the prevention, reduction and control of degradation of the marine environment from sea-based activities;
 - .2 Chapter 20 on environmentally sound management of hazardous wastes including prevention of illegal international trafficking in hazardous wastes: (Basel Convention). Government, industry and international organizations are urged to collaborate by:
 - .1 developing guidelines and easy-to-implement methods for the characterization and classification of hazardous wastes; and
 - .2 developing guidelines and easy-to-implement methods for the characterization and classification of hazardous wastes; (ex. Guidance LC),
 - .3 In Chapter 22 on the safe and environmentally sound management of radioactive wastes: CP were encouraged “*to expedite work to complete*

studies on replacing the then voluntary moratorium on disposal of low-level radioactive wastes at sea by a ban, taking into account the precautionary approach...”,

“Application of Radiological Exclusion and Exemption Principles to Sea Disposal: The concept of the ‘*minimis*’ for radioactive substances under the London Convention 1972”: In 1999, the 21CM/LC accepted the principles and criteria in this report and interpreted them further in the “Guidelines for the application of the “*de minimis*’ concept under the London Convention 1972”,

- .2 distinction of “Waste” and others generated from land-based activities is merely the mechanism or route of disposal to the marine environment; (UNEP/GPA)
- .3 monitoring/watching-brief of emerging practices, i.e. regarding ocean disposal of CO₂ from fossil fuel production and use;
- .4 interface between the provisions of the London Convention 1972 that relate to the disposal of vessels at sea and other international agreements regarding related issues, such as vessel recycling and wreck removal;
- .5 review of the “Generic Guidelines”, for the assessment of wastes or other matter that may be considered for dumping. (Assessment of the quality of dredged material related to disposal at sea). Promotion “Consideration of waste Management options” (re-use; off-site recycling; destruction of hazardous constituents; treatment to reduce or remove the hazardous constituents; and disposal at land, into air and in water)/Annex 2 1996 Protocol;
- .6 reduction of present dumping activities; (one source of ocean dumping “dredged material” will not be phase out in future)!;
- .7 illegal dumping;
- .8 compliance issues (report on dumping activities);
- .9 review of the reverse list (Annex 1 of the 1996 Protocol);
- .10 further development of the waste management approach; and
- .11 *the 1996 Protocol*, as the product of a three-year review and negotiation process, contains an element of compromise; a number of expectations brought forward by Contracting Parties have not been fulfilled, particularly in regard to:
 - .1 disposal operations in internal waters of States;
 - .2 dumping of offshore structures and of vessels;
 - .3 dumping of material from offshore and deep sea exploitation activities; and
 - .4 placement at sea of structures, equipment and other material for non-disposal purposes (at consideration concerning the interpretation of LC and the 1996 Protocol).

TABLE 1

**Technical Co-operation and Assistance under LC
and the Protocol thereto**

LC 1972	LP 1996
<p>(Art. IX) The Contracting Parties shall promote, through collaboration within the Organization and other international bodies, support for those Parties which request it for:</p> <p>(a) the training of scientific and technical personnel;</p> <p>(b) the supply of necessary equipment and facilities for research and monitoring;</p> <p>(c) the disposal and treatment of waste and other measures to prevent or mitigate pollution caused by dumping;</p> <p>preferably within the countries concerned, so furthering the aims and purposes of this Convention.</p>	<p>(Art. 13(1)) Contracting Parties shall, through collaboration within the Organization and in co-ordination with other competent international organizations, promote bilateral and multilateral support for the prevention, reduction and where practicable elimination of pollution caused by dumping as provided for in this Protocol to those Contracting Parties that request it for:</p> <p>.1 training of scientific and technical personnel for research, monitoring and enforcement, including as appropriate the supply of necessary equipment and facilities, with a view to strengthening national capabilities;</p> <p>.2 advice on implementation of this Protocol;</p> <p>.3 information and technical co-operation relating to waste minimization and clean production processes;</p> <p>.4 information and technical co-operation relating to the disposal and treatment of waste and other measures to prevent, reduce and where practicable eliminate pollution caused by dumping; and</p> <p>.5 access to and transfer of environmentally sound technologies and corresponding know-how, in particular to developing countries and countries in transition to market economies, on favourable terms, including on concessional and preferential terms, as mutually agreed, taking into account the need to protect intellectual property rights as well as the special needs of developing countries and countries in transition to market economies.</p> <p>2 The Organization shall perform the following functions:</p> <p>.1 forward requests from Contracting Parties for technical co-operation to other Contracting Parties, taking into account such factors as technical capabilities;</p> <p>.2 co-ordinate requests for assistance with other competent international organizations, as appropriate; and</p> <p>.3 subject to the availability of adequate resources, assist developing countries and those in transition to market economies, which have declared their intention to become Contracting Parties to this Protocol, to examine the means necessary to achieve full implementation.</p>

TABLE 2

Technical Co-operation and Assistance Programme

Objectives	Output of the programme	Assessment of effectiveness
<p>The "Framework" adopted in 1996 sets out the following specific objectives:</p> <p>.1 to promote membership of the Protocol;</p> <p>.2 to strengthen national marine pollution prevention and management capacities to achieve compliance with the Convention or, after its entry into force, the Protocol; and</p> <p>.3 to co-operate with other organisations and agencies to ensure a co-ordinated approach to technical co-operation and assistance, avoiding duplication of effort.</p> <p>An additional objective is the promotion of alternatives to dumping, including alternative disposal mechanisms, recycling and the use of cleaner production technologies.</p>	<p>The programme will result in the development and implementation of individual projects and activities that will be based on country requests and identified needs. These projects and activities will address the needs in developing as identified in the Global Waste Survey Final Report, including:</p> <p>.1 development and implementation of national legislation and regulation;</p> <p>.2 implementation and application of national waste generation inventories and waste classification systems;</p> <p>.3 development of management alternatives to sea disposal where required;</p> <p>.4 management of sea disposal operations;</p> <p>.5 marine pollution monitoring and research;</p> <p>.6 public awareness and public education;</p> <p>.7 sustainable financing programme development; and</p> <p>.8 provision of advice.</p>	<p>In 2000, the Twenty-second Consultative Meeting carried out an initial evaluation into the effectiveness of the Technical Co-operation and Assistance Programme and concluded <i>inter alia</i> that:</p> <p>.1 this evaluation had reinforced the critical importance of this Programme for the London Convention 1972 and the 1996 Protocol;</p> <p>.2 Contracting Parties view technical co-operation under the Convention as being broader based than simply a series of self-contained projects. In this regard, some Contracting Parties were engaged in important work bilaterally and regionally that could help advance the objectives of the London Convention. Greater attention should be given to activities at these levels;</p> <p>.3 technical co-operation does not take place in a programmatic vacuum, but rather should be viewed as providing critical support for key London Convention objectives such as securing widespread acceptance of the London Convention/1996 Protocol; building institutional and technical capacity in countries; and promoting co-operation with other international organizations; and</p> <p>.4 there is a need to develop a Long-term Strategy for the Technical Co-operation and Assistance Programme directly linked to the basic purposes and objectives of the Convention and to the terms of reference of this Programme.</p>

TABLE 3

**Long-term Programme for the London Convention 1972 and
1996 Protocol thereto (2002-2005)**

Long-Term Programme for the London Convention 1972 and the 1996 protocol thereto (2002-2005)	Achievements
<p>Compliance issues:</p> <p>.1 completion of the analysis of the questionnaires on compliance issues and of agreed follow-up activities;</p> <p>.2 improvement of the quantity and quality of annual reports of Contracting Parties on their dumping activities and of regular reports on their monitoring activities submitted in accordance with Article VI(4) of the Convention;</p> <p>.3 development and implementation of a strategy to encourage reporting by those Contracting Parties, which are not reporting regularly¹;</p> <p>.4 development and implementation of reporting procedures for vessels or aircraft observed dumping in contravention of the London Convention 1972 in accordance with Article VII(3) of the Convention;</p>	<p>.1 six realistic and factual scenarios have been identified where Contracting Parties are not in compliance with the London Convention 1972. Responses to each of these scenarios have also been identified. Emphasis was given to measures to promote compliance as opposed to sanctions for non-compliance. These non-compliance scenarios serve as useful resource material when considering barriers to compliance and technical co-operation projects to overcome these barriers;</p> <p>.2 a questionnaire on compliance issues has been distributed in 1999 and 2000 to all Contracting Parties to obtain an actual record of the views and needs of Contracting Parties with regard to compliance. Several of the countries responding to this questionnaire have requested assistance;</p> <p>.3 guidance on the national implementation of the 1996 Protocol to the London Convention 1972 has been developed, aimed at States which may be interested in becoming a Party to the Protocol;</p> <p>.4 reporting procedures are being developed for vessels or aircraft observed dumping in alleged contravention of the London Convention;</p> <p>.5 a Project Concept document has been prepared for submission to the World Bank/UNDP/UNEP Global Environmental Facility to identify barriers to compliance with the provisions of the London Convention 1972 and then to develop and implement solutions; and</p> <p>.6 inter-agency contacts and collaborative arrangements will be established between IMO and UNEP, the Basel Convention Secretariat, the International Ocean Institute (IOI) and Interpol for assistance with compliance to the London Convention.</p>
<p>Development of guidance to implement the LC & LP:</p> <p>.5 review of the “Guidelines for the assessment of wastes or other matter that may be considered for dumping²”, in short the “Generic Guidelines”;</p> <p>.6 completion of sampling guidelines for dredged material characterization;</p> <p>.7 completion of generic guidelines for the selection of physical, chemical and biological variables for the assessment of dredged material;</p>	<p>Adoption of “Generic Guidelines” in 1997 (LC 19/10, annex 2).</p>

¹ Including the simplification of reporting procedures.

² The Nineteenth Consultative Meeting adopted the “Generic Guidelines” in 1997 (LC 19/10, annex 2).

<p>.8 development of guidance concerning the establishment of “Action Levels” under the “Specific guidelines for assessment of wastes or other matter that may be considered for dumping³”, in short the “Specific Guidelines”;</p> <p>.9 development of generic guidance on the use and interpretation of biological assessment tools for the assessment of dredged material and inert, inorganic geological material, as appropriate;</p> <p>.10 completion of specific assessments in relation to guidance on radiological assessment procedures to determine if materials for disposal at sea are within the scope of the London Convention 1972 (<i>de minimis</i>);</p>	<p>Adoption of 8 “Specific Guidelines” in 2000 (LC/SG 24/11, annexes 3-10):</p> <ul style="list-style-type: none"> - for assessment of dredged material; - for assessment of sewage sludge; - for assessment of fish waste, or material resulting from industrial fish processing operations; - for assessment of vessels; - for assessment of platforms or other man- made structures at sea; - for assessment of inert, inorganic geological material; - for assessment of organic material of natural origin; - for assessment of bulky items primarily comprising iron, steel, concrete etc. <p>Adoption “Guidance on radiological”</p>
<p>Technical Co-operation and Assistance:</p> <p>.11 development and implementation of the Long-term Strategy for Technical Co-operation and Assistance under the London Convention 1972;</p> <p>.12 assistance to States requesting advice in the development of national legislation to accept and implement the 1996 Protocol;</p> <p>.13 better integration with technical co-operation programmes of other relevant international organizations;</p> <p>.14 implement conclusions of the 2002 World Summit on Sustainable Development relevant for the London Convention 1972</p>	<p>Adoption of the Long-Term Strategy of TC&AP.</p> <p>Adoption of the Long-Term Programme of TC&A.</p>
<p>Cross-sectoral issues:</p> <p>.15 consideration of issues concerning the interpretation of the London Convention 1972 and the 1996 Protocol; [a review of emerging practices i.e., regarding ocean disposal of CO₂ from fossil fuel production and use].</p>	
<p>.16 establishment of co-operative arrangements with relevant international agreements and programmes for the purpose of implementing the London Convention 1972;³</p> <p>.17 consideration of advice concerning the interface between the provisions of the London Convention 1972 that relate to the disposal of vessels at sea and other³</p>	

³ The Twenty-second Consultative Meeting adopted eight “Specific Guidelines” in 2000, which were subsequently edited by the Scientific Group in 2001 (LC/SG 24/11, annexes 3 - 10).

<p>international agreements regarding related issues, such as vessel recycling and wreck removal;</p> <p>.18 consideration of policies that would assist States in ensuring that national waste management strategies include wastes considered for disposal at sea as well as other sources of potential pollution of the marine environment;</p> <p>.19 consideration of activities to promote waste prevention at source in accordance with the “Specific Guidelines” mentioned under paragraph 4.8 of this Programme;</p>	
<p>Preparation for the Entry into Force of the 1996 Protocol:</p> <p>.20 <u>Compliance procedures:</u> development of procedures and mechanisms necessary to assess and promote compliance with the 1996 Protocol under its Article 11;</p> <p>.21 <u>Transitional Period:</u> promotion of broad participation in the 1996 Protocol, development of procedures to facilitate appropriate claims by eligible States to claim a compliance waiver through the permitted transitional period under Article 26, as well as the monitoring of progress reports submitted to the Meeting of Contracting Parties;</p> <p>.22 <u>Reporting requirements:</u> consideration of the composition and terms of reference of the appropriate subsidiary body to evaluate reports submitted under Articles 9.4.2 and 9.4.3, along with modalities of operation;</p> <p>.23 <u>Duties of the Organization:</u> preparation of a first budget for the Protocol after its entry into force (Article 19.2.6);</p> <p>.24 <u>Meetings of Contracting Parties:</u> development of procedures referred to in Article 8.2, including basic criteria for determining exceptional and emergency situations, and procedures for consultative advice and the safe disposal of matter at sea in such circumstances; and</p> <p>.25 <u>Regional Co-operation:</u> co-operation with regional agreements to develop harmonized procedures for those countries parties to both the Protocol and a regional agreement (Article 12).</p>	

Appendix GCG
**MARPOL 73/78: Consolidated Edition 2002, International
Maritime Organization, London, 511 pp.**

(available as hardcopy)

Appendix GCH
Global Programme of Action for the Protection
of the Marine Environment from
Land-Based Activities, Washington, D.C., 1995

(available as hardcopy)

Appendix GCJ
Basel Convention

<http://www.basel.int/index.html>

**BASEL CONVENTION ON THE CONTROL OF
TRANSBOUNDARY MOVEMENTS OF HAZARDOUS WASTES
AND THEIR DISPOSAL ADOPTED BY THE CONFERENCE
OF THE PLENIPOTENTIARIES ON 22 MARCH 1989**

ENTRY INTO FORCE

5 MAY 1992

130 PARTIES

AS OF JULY 1999

PREAMBLE

The Parties to this Convention,

Aware of the risk of damage to human health and the environment caused by hazardous wastes and other wastes and the transboundary movement thereof,

Mindful of the growing threat to human health and the environment posed by the increased generation and complexity, and transboundary movement of hazardous wastes and other wastes,

Mindful also that the most effective way of protecting human health and the environment from the dangers posed by such wastes is the reduction of their generation to a minimum in terms of quantity and/or hazard potential,

Convinced that States should take necessary measures to ensure that the management of hazardous wastes and other wastes including their transboundary movement and disposal is consistent with the protection of human health and the environment whatever the place of disposal,

Noting that States should ensure that the generator should carry out duties with regards to the transport and disposal of hazardous wastes and other wastes in a manner that is consistent with the protection of the environment, whatever the place of disposal.

Fully recognizing that any State has the sovereign right to ban the entry or disposal of foreign hazardous wastes and other wastes in its territory,

Recognizing also the increasing desire for the prohibition of transboundary movements of hazardous wastes and their disposal in other States, especially developing countries,

Convinced that hazardous wastes and other wastes should, as far as is compatible with environmentally sound and efficient management, be disposed of in the State where they were generated,

Aware also that transboundary movements of such wastes from the State of their generation to any other State should be permitted only when conducted under conditions which do not endanger human health and the environment, and under conditions in conformity with the provisions of this Convention,

Considering that enhanced control of transboundary movement of hazardous wastes and other wastes will act as an incentive for their environmentally sound management and for the reduction of the volume of such transboundary movement,

Convinced that States should take measures for the proper exchange of information on and control of the transboundary movement of hazardous wastes and other wastes from and to those States,

Noting that a number of international and regional agreements have addressed the issue of protection and preservation of the environment with regard to the transit of dangerous goods,

Taking into account the Declaration of the United Nations Conference on the Human Environment (Stockholm, 1972), the Cairo Guidelines and Principles for the Environmentally Sound Management of Hazardous Wastes adopted by the Governing Council of the United Nations Environment Programme (UNEP) by decision 14/30 of 17 June 1987, the Recommendations of the United Nations Committee of Experts on the Transport of Dangerous Goods (formulated in 1957 and updated biennially), relevant recommendations, declarations, instruments and regulations adopted within the United Nations system and the work and studies done within other international and regional organizations,

Mindful of the spirit, principles, aims and functions of the World Charter for Nature adopted by the General Assembly of the United Nations at its thirty-seventh session (1982) as the rule of ethics in respect of the protection of the human environment and the conservation of natural resources,

Affirming that States are responsible for the fulfilment of their international obligations concerning the protection of human health and protection and preservation of the environment, and are liable in accordance with international law,

Recognizing that in the case of a material breach of the provisions of this Convention or any protocol thereto the relevant international law of treaties shall apply,

Aware of the need to continue the development and implementation of environmentally sound low-waste technologies, recycling options, good house-keeping and management systems with a view to reducing to a minimum the generation of hazardous wastes and other wastes,

Aware also of the growing international concern about the need for stringent control of transboundary movement of hazardous wastes and other wastes, and of the need as far as possible to reduce such movement to a minimum,

Concerned about the problem of illegal transboundary traffic in hazardous wastes and other wastes,

Taking into account also the limited capabilities of the developing countries to manage hazardous wastes and other wastes,

Recognizing the need to promote the transfer of technology for the sound management of hazardous wastes and other wastes produced locally, particularly to the developing countries in accordance with the spirit of the Cairo Guidelines and decision 14/16 of the Governing Council of UNEP on Promotion of the transfer of environmental protection technology,

Recognizing also that hazardous wastes and other wastes should be transported in accordance with relevant international conventions and recommendations,

Convinced also that the transboundary movement of hazardous wastes and other wastes should be permitted only when the transport and the ultimate disposal of such wastes is environmentally sound, and

Determined to protect, by strict control, human health and the environment against the adverse effects which may result from the generation and management of hazardous wastes and other wastes,

HAVE AGREED AS FOLLOWS:

Article 1

Scope of the Convention

1. The following wastes that are subject to transboundary movement shall be "hazardous wastes" for the purposes of this Convention:

(a) Wastes that belong to any category contained in Annex I, unless they do not possess any of the characteristics contained in Annex III; and

- (b) Wastes that are not covered under paragraph (a) but are defined as, or are considered to be, hazardous wastes by the domestic legislation of the Party of export, import or transit.
2. Wastes that belong to any category contained in Annex II that are subject to transboundary movement shall be "other wastes" for the purposes of this Convention.
 3. Wastes which, as a result of being radioactive, are subject to other international control systems, including international instruments, applying specifically to radioactive materials, are excluded from the scope of this Convention.
 4. Wastes which derive from the normal operations of a ship, the discharge of which is covered by another international instrument, are excluded from the scope of this Convention.

Article 2

Definitions

For the purposes of this Convention:

1. "Wastes" are substances or objects which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law;
2. "Management" means the collection, transport and disposal of hazardous wastes or other wastes, including after-care of disposal sites;
3. "Transboundary movement" means any movement of hazardous wastes or other wastes from an area under the national jurisdiction of one State to or through an area under the national jurisdiction of another State or to or through an area not under the national jurisdiction of any State, provided at least two States are involved in the movement;
4. "Disposal" means any operation specified in Annex IV to this Convention;
5. "Approved site or facility" means a site or facility for the disposal of hazardous wastes or other wastes which is authorized or permitted to operate for this purpose by a relevant authority of the State where the site or facility is located;
6. "Competent authority" means one governmental authority designated by a Party to be responsible, within such geographical areas as the Party may think fit, for receiving the notification of a transboundary movement of hazardous wastes or other wastes, and any information related to it, and for responding to such a notification, as provided in Article 6;
7. "Focal point" means the entity of a Party referred to in Article 5 responsible for receiving and submitting information as provided for in Articles 13 and 16;
8. "Environmentally sound management of hazardous wastes or other wastes" means taking all practicable steps to ensure that hazardous wastes or other wastes are managed in a manner which will protect human health and the environment against the adverse effects which may result from such wastes;
9. "Area under the national jurisdiction of a State" means any land, marine area or air space within which a State exercises administrative and regulatory responsibility in accordance with international law in regard to the protection of human health or the environment;
10. "State of export" means a Party from which a transboundary movement of hazardous wastes or other wastes is planned to be initiated or is initiated;
11. "State of import" means a Party to which a transboundary movement of hazardous wastes or other wastes is planned or takes place for the purpose of disposal therein or for the purpose of loading prior to disposal in an area not under the national jurisdiction of any State;
12. "State of transit" means any State, other than the State of export or import, through which a movement of hazardous wastes or other wastes is planned or takes place;

13. "States concerned" means Parties which are States of export or import, or transit States, whether or not Parties;
14. "Person" means any natural or legal person;
15. "Exporter" means any person under the jurisdiction of the State of export who arranges for hazardous wastes or other wastes to be exported;
16. "Importer" means any person under the jurisdiction of the State of import who arranges for hazardous wastes or other wastes to be imported;
17. "Carrier" means any person who carries out the transport of hazardous wastes or other wastes;
18. "Generator" means any person whose activity produces hazardous wastes or other wastes or, if that person is not known, the person who is in possession and/or control of those wastes;
19. "Disposer" means any person to whom hazardous wastes or other wastes are shipped and who carries out the disposal of such wastes;
20. "Political and/or economic integration organization" means an organization constituted by sovereign States to which its member States have transferred competence in respect of matters governed by this Convention and which has been duly authorized, in accordance with its internal procedures, to sign, ratify, accept, approve, formally confirm or accede to it;
21. "Illegal traffic" means any transboundary movement of hazardous wastes or other wastes as specified in Article 9.

Article 3

National Definitions of Hazardous Wastes

1. Each Party shall, within six months of becoming a Party to this Convention, inform the Secretariat of the Convention of the wastes, other than those listed in Annexes I and II, considered or defined as hazardous under its national legislation and of any requirements concerning transboundary movement procedures applicable to such wastes.
2. Each Party shall subsequently inform the Secretariat of any significant changes to the information it has provided pursuant to paragraph 1.
3. The Secretariat shall forthwith inform all Parties of the information it has received pursuant to paragraphs 1 and 2.
4. Parties shall be responsible for making the information transmitted to them by the Secretariat under paragraph 3 available to their exporters.

Article 4

General Obligations

1. (a) Parties exercising their right to prohibit the import of hazardous wastes or other wastes for disposal shall inform the other Parties of their decision pursuant to Article 13.

(b) Parties shall prohibit or shall not permit the export of hazardous wastes and other wastes to the Parties which have prohibited the import of such wastes, when notified pursuant to subparagraph (a) above.

(c) Parties shall prohibit or shall not permit the export of hazardous wastes and other wastes if the State of import does not consent in writing to the specific import, in the case where that State of import has not prohibited the import of such wastes.
2. Each Party shall take the appropriate measures to:

- (a) Ensure that the generation of hazardous wastes and other wastes within it is reduced to a minimum, taking into account social, technological and economic aspects;
- (b) Ensure the availability of adequate disposal facilities, for the environmentally sound management of hazardous wastes and other wastes, that shall be located, to the extent possible, within it, whatever the place of their disposal;
- (c) Ensure that persons involved in the management of hazardous wastes or other wastes within it take such steps as are necessary to prevent pollution due to hazardous wastes and other wastes arising from such management and, if such pollution occurs, to minimize the consequences thereof for human health and the environment;
- (d) Ensure that the transboundary movement of hazardous wastes and other wastes is reduced to the minimum consistent with the environmentally sound and efficient management of such wastes, and is conducted in a manner which will protect human health and the environment against the adverse effects which may result from such movement;
- (e) Not allow the export of hazardous wastes or other wastes to a State or group of States belonging to an economic and/or political integration organization that are Parties, particularly developing countries, which have prohibited by their legislation all imports, or if it has reason to believe that the wastes in question will not be managed in an environmentally sound manner, according to criteria to be decided on by the Parties at their first meeting.
- (f) Require that information about a proposed transboundary movement of hazardous wastes and other wastes be provided to the States concerned, according to Annex V A, to state clearly the effects of the proposed movement on human health and the environment;
- (g) Prevent the import of hazardous wastes and other wastes if it has reason to believe that the wastes in question will not be managed in an environmentally sound manner;
- (h) Co-operate in activities with other Parties and interested organizations, directly and through the Secretariat, including the dissemination of information on the transboundary movement of hazardous wastes and other wastes, in order to improve the environmentally sound management of such wastes and to achieve the prevention of illegal traffic.

3. The Parties consider that illegal traffic in hazardous wastes or other wastes is criminal.

4. Each Party shall take appropriate legal, administrative and other measures to implement and enforce the provisions of this Convention, including measures to prevent and punish conduct in contravention of the Convention.

5. A Party shall not permit hazardous wastes or other wastes to be exported to a non-Party or to be imported from a non-Party.

6. The Parties agree not to allow the export of hazardous wastes or other wastes for disposal within the area south of 60° South latitude, whether or not such wastes are subject to transboundary movement.

7. Furthermore, each Party shall:

(a) Prohibit all persons under its national jurisdiction from transporting or disposing of hazardous wastes or other wastes unless such persons are authorized or allowed to perform such types of operations;

(b) Require that hazardous wastes and other wastes that are to be the subject of a transboundary movement be packaged, labelled, and transported in conformity with generally accepted and recognized international rules and standards in the field of packaging, labelling, and transport, and that due account is taken of relevant internationally recognized practices;

(c) Require that hazardous wastes and other wastes be accompanied by a movement document from the point at which a transboundary movement commences to the point of disposal.

8. Each Party shall require that hazardous wastes or other wastes, to be exported, are managed in an environmentally sound manner in the State of import or elsewhere. Technical guidelines for the environmentally sound management of wastes subject to this Convention shall be decided by the Parties at their first meeting.

9. Parties shall take the appropriate measures to ensure that the transboundary movement of hazardous wastes and other wastes only be allowed if:

(a) The State of export does not have the technical capacity and the necessary facilities, capacity or suitable disposal sites in order to dispose of the wastes in question in an environmentally sound and efficient manner; or

(b) The wastes in question are required as a raw material for recycling or recovery industries in the State of import; or

(c) The transboundary movement in question is in accordance with other criteria to be decided by the Parties, provided those criteria do not differ from the objectives of this Convention.

10. The obligation under this Convention of States in which hazardous wastes and other wastes are generated to require that those wastes are managed in an environmentally sound manner may not under any circumstances be transferred to the States of import or transit.

11. Nothing in this Convention shall prevent a Party from imposing additional requirements that are consistent with the provisions of this Convention, and are in accordance with the rules of international law, in order better to protect human health and the environment.

12. Nothing in this Convention shall affect in any way the sovereignty of States over their territorial sea established in accordance with international law, and the sovereign rights and the jurisdiction which States have in their exclusive economic zones and their continental shelves in accordance with international law, and the exercise by ships and aircraft of all States of navigational rights and freedoms as provided for in international law and as reflected in relevant international instruments.

13. Parties shall undertake to review periodically the possibilities for the reduction of the amount and/or the pollution potential of hazardous wastes and other wastes which are exported to other States, in particular to developing countries.

Article 5

Designation of Competent Authorities and Focal Point

To facilitate the implementation of this Convention, the Parties shall:

1. Designate or establish one or more competent authorities and one focal point. One competent authority shall be designated to receive the notification in case of a State of transit.

2. Inform the Secretariat, within three months of the date of the entry into force of this Convention for them, which agencies they have designated as their focal point and their competent authorities.

3. Inform the Secretariat, within one month of the date of decision, of any changes regarding the designation made by them under paragraph 2 above.

Article 6

Transboundary Movement between Parties

1. The State of export shall notify, or shall require the generator or exporter to notify, in writing, through the channel of the competent authority of the State of export, the competent authority of the States concerned of any proposed transboundary movement of hazardous wastes or other wastes. Such notification shall contain the declarations and information specified in Annex V A, written in a language acceptable to the State of import. Only one notification needs to be sent to each State concerned.

2. The State of import shall respond to the notifier in writing, consenting to the movement with or without conditions, denying permission for the movement, or requesting additional information. A copy of the final response of the State of import shall be sent to the competent authorities of the States concerned which are Parties.

3. The State of export shall not allow the generator or exporter to commence the transboundary movement until it has received written confirmation that:

- (a) The notifier has received the written consent of the State of import; and
- (b) The notifier has received from the State of import confirmation of the existence of a contract between the exporter and the disposer specifying environmentally sound management of the wastes in question.

4. Each State of transit which is a Party shall promptly acknowledge to the notifier receipt of the notification. It may subsequently respond to the notifier in writing, within 60 days, consenting to the movement with or without conditions, denying permission for the movement, or requesting additional information. The State of export shall not allow the transboundary movement to commence until it has received the written consent of the State of transit. However, if at any time a Party decides not to require prior written consent, either generally or under specific conditions, for transit transboundary movements of hazardous wastes or other wastes, or modifies its requirements in this respect, it shall forthwith inform the other Parties of its decision pursuant to Article 13. In this latter case, if no response is received by the State of export within 60 days of the receipt of a given notification by the State of transit, the State of export may allow the export to proceed through the State of transit.

5. In the case of a transboundary movement of wastes where the wastes are legally defined as or considered to be hazardous wastes only:

(a) By the State of export, the requirements of paragraph 9 of this Article that apply to the importer or disposer and the State of import shall apply mutatis mutandis to the exporter and State of export, respectively;

(b) By the State of import, or by the States of import and transit which are Parties, the requirements of paragraphs 1, 3, 4 and 6 of this Article that apply to the exporter and State of export shall apply mutatis mutandis to the importer or disposer and State of import, respectively; or

(c) By any State of transit which is a Party, the provisions of paragraph 4 shall apply to such State.

6. The State of export may, subject to the written consent of the States concerned, allow the generator or the exporter to use a general notification where hazardous wastes or other wastes having the same physical and chemical characteristics are shipped regularly to the same disposer via the same customs office of exit of the State of export via the same customs office of entry of the State of import, and, in the case of transit, via the same customs office of entry and exit of the State or States of transit.

7. The States concerned may make their written consent to the use of the general notification referred to in paragraph 6 subject to the supply of certain information, such as the exact quantities or periodical lists of hazardous wastes or other wastes to be shipped.

8. The general notification and written consent referred to in paragraphs 6 and 7 may cover multiple shipments of hazardous wastes or other wastes during a maximum period of 12 months.

9. The Parties shall require that each person who takes charge of a transboundary movement of hazardous wastes or other wastes sign the movement document either upon delivery or receipt of the wastes in question. They shall also require that the disposer inform both the exporter and the competent authority of the State of export of receipt by the disposer of the wastes in question and, in due course, of the completion of disposal as specified in the notification. If no such information is received within the State of export, the competent authority of the State of export or the exporter shall so notify the State of import.

10. The notification and response required by this Article shall be transmitted to the competent authority of the Parties concerned or to such governmental authority as may be appropriate in the case of non-Parties.

11. Any transboundary movement of hazardous wastes or other wastes shall be covered by insurance, bond or other guarantee as may be required by the State of import or any State of transit which is a Party.

Article 7

Transboundary Movement from a Party through

States which are not Parties

Paragraph 1 of Article 6 of the Convention shall apply mutatis mutandis to transboundary movement of hazardous wastes or other wastes from a Party through a State or States which are not Parties.

Article 8

Duty to Re-import

When a transboundary movement of hazardous wastes or other wastes to which the consent of the States concerned has been given, subject to the provisions of this Convention, cannot be completed in accordance with the terms of the contract, the State of export shall ensure that the wastes in question are taken back into the State of export, by the exporter, if alternative arrangements cannot be made for their disposal in an environmentally sound manner, within 90 days from the time that the importing State informed the State of export and the Secretariat, or such other period of time as the States concerned agree. To this end, the State of export and any Party of transit shall not oppose, hinder or prevent the return of those wastes to the State of export.

Article 9

Illegal Traffic

1. For the purpose of this Convention, any transboundary movement of hazardous wastes or other wastes:

- (a) without notification pursuant to the provisions of this Convention to all States concerned; or
- (b) without the consent pursuant to the provisions of this Convention of a State concerned; or
- (c) with consent obtained from States concerned through falsification, misrepresentation or fraud; or
- (d) that does not conform in a material way with the documents; or
- (e) that results in deliberate disposal (e.g. dumping) of hazardous wastes or other wastes in contravention of this Convention and of general principles of international law,

shall be deemed to be illegal traffic.

2. In case of a transboundary movement of hazardous wastes or other wastes deemed to be illegal traffic as the result of conduct on the part of the exporter or generator, the State of export shall ensure that the wastes in question are:

- (a) taken back by the exporter or the generator or, if necessary, by itself into the State of export, or, if impracticable,
- (b) are otherwise disposed of in accordance with the provisions of this Convention,

within 30 days from the time the State of export has been informed about the illegal traffic or such other period of time as States concerned may agree. To this end the Parties concerned shall not oppose, hinder or prevent the return of those wastes to the State of export.

3. In the case of a transboundary movement of hazardous wastes or other wastes deemed to be illegal traffic as the result of conduct on the part of the importer or disposer, the State of import shall ensure that the wastes in question are disposed of in an environmentally sound manner by the importer or disposer or, if necessary, by itself within 30 days from the time the illegal traffic has come to the attention of the State of import or such other period of time as the States concerned may agree. To this end, the Parties concerned shall co-operate, as necessary, in the disposal of the wastes in an environmentally sound manner.

4. In cases where the responsibility for the illegal traffic cannot be assigned either to the exporter or generator or to the importer or disposer, the Parties concerned or other Parties, as appropriate, shall ensure, through co-operation, that the wastes in question are disposed of as soon as possible in an environmentally sound manner either in the State of export or the State of import or elsewhere as appropriate.

5. Each Party shall introduce appropriate national/domestic legislation to prevent and punish illegal traffic. The Parties shall co-operate with a view to achieving the objects of this Article.

Article 10

International Co-operation

1. The Parties shall co-operate with each other in order to improve and achieve environmentally sound management of hazardous wastes and other wastes.
2. To this end, the Parties shall:
 - (a) Upon request, make available information, whether on a bilateral or multilateral basis, with a view to promoting the environmentally sound management of hazardous wastes and other wastes, including harmonization of technical standards and practices for the adequate management of hazardous wastes and other wastes;
 - (b) Co-operate in monitoring the effects of the management of hazardous wastes on human health and the environment;
 - (c) Co-operate, subject to their national laws, regulations and policies, in the development and implementation of new environmentally sound low-waste technologies and the improvement of existing technologies with a view to eliminating, as far as practicable, the generation of hazardous wastes and other wastes and achieving more effective and efficient methods of ensuring their management in an environmentally sound manner, including the study of the economic, social and environmental effects of the adoption of such new or improved technologies;
 - (d) Co-operate actively, subject to their national laws, regulations and policies, in the transfer of technology and management systems related to the environmentally sound management of hazardous wastes and other wastes. They shall also co-operate in developing the technical capacity among Parties, especially those which may need and request technical assistance in this field;
 - (e) Co-operate in developing appropriate technical guidelines and/or codes of practice.
3. The Parties shall employ appropriate means to co-operate in order to assist developing countries in the implementation of subparagraphs a, b, c and d of paragraph 2 of Article 4.
4. Taking into account the needs of developing countries, co-operation between Parties and the competent international organizations is encouraged to promote, inter alia, public awareness, the development of sound management of hazardous wastes and other wastes and the adoption of new low-waste technologies.

Article 11

Bilateral, Multilateral and Regional Agreements

1. Notwithstanding the provisions of Article 4 paragraph 5, Parties may enter into bilateral, multilateral, or regional agreements or arrangements regarding transboundary movement of hazardous wastes or other wastes with Parties or non-Parties provided that such agreements or arrangements do not derogate from the environmentally sound management of hazardous wastes and other wastes as required by this Convention. These agreements or arrangements shall stipulate provisions which are not less environmentally sound than those provided for by this Convention in particular taking into account the interests of developing countries.
2. Parties shall notify the Secretariat of any bilateral, multilateral or regional agreements or arrangements referred to in paragraph 1 and those which they have entered into prior to the entry into force of this Convention for them, for the purpose of controlling transboundary movements of hazardous wastes and other wastes which take place entirely among the Parties to such agreements. The provisions of this Convention shall not affect transboundary movements which take place pursuant to such agreements provided that such agreements are compatible with the environmentally sound management of hazardous wastes and other wastes as required by this Convention.

Article 12

Consultations on Liability

The Parties shall co-operate with a view to adopting, as soon as practicable, a protocol setting out appropriate rules and procedures in the field of liability and compensation for damage resulting from the transboundary movement and disposal of hazardous wastes and other wastes.

Article 13

Transmission of Information

1. The Parties shall, whenever it comes to their knowledge, ensure that, in the case of an accident occurring during the transboundary movement of hazardous wastes or other wastes or their disposal, which are likely to present risks to human health and the environment in other States, those states are immediately informed.

2. The Parties shall inform each other, through the Secretariat, of:

(a) Changes regarding the designation of competent authorities and/or focal points, pursuant to Article 5;

(b) Changes in their national definition of hazardous wastes, pursuant to Article 3;

and, as soon as possible,

(c) Decisions made by them not to consent totally or partially to the import of hazardous wastes or other wastes for disposal within the area under their national jurisdiction;

(d) Decisions taken by them to limit or ban the export of hazardous wastes or other wastes;

(e) Any other information required pursuant to paragraph 4 of this Article.

3. The Parties, consistent with national laws and regulations, shall transmit, through the Secretariat, to the Conference of the Parties established under Article 15, before the end of each calendar year, a report on the previous calendar year, containing the following information:

(a) Competent authorities and focal points that have been designated by them pursuant to Article 5;

(b) Information regarding transboundary movements of hazardous wastes or other wastes in which they have been involved, including:

(i) The amount of hazardous wastes and other wastes exported, their category, characteristics, destination, any transit country and disposal method as stated on the response to notification;

(ii) The amount of hazardous wastes and other wastes imported, their category, characteristics, origin, and disposal methods;

(iii) Disposals which did not proceed as intended;

(iv) Efforts to achieve a reduction of the amount of hazardous wastes or other wastes subject to transboundary movement;

(c) Information on the measures adopted by them in implementation of this Convention;

(d) Information on available qualified statistics which have been compiled by them on the effects on human health and the environment of the generation, transportation and disposal of hazardous wastes or other wastes;

(e) Information concerning bilateral, multilateral and regional agreements and arrangements entered into pursuant to Article 11 of this Convention;

(f) Information on accidents occurring during the transboundary movement and disposal of hazardous wastes and other wastes and on the measures undertaken to deal with them;

- (g) Information on disposal options operated within the area of their national jurisdiction;
- (h) Information on measures undertaken for development of technologies for the reduction and/or elimination of production of hazardous wastes and other wastes; and
- (i) Such other matters as the Conference of the Parties shall deem relevant.

4. The Parties, consistent with national laws and regulations, shall ensure that copies of each notification concerning any given transboundary movement of hazardous wastes or other wastes, and the response to it, are sent to the Secretariat when a Party considers that its environment may be affected by that transboundary movement has requested that this should be done.

Article 14

Financial Aspects

1. The Parties agree that, according to the specific needs of different regions and subregions, regional or sub-regional centres for training and technology transfers regarding the management of hazardous wastes and other wastes and the minimization of their generation should be established. The Parties shall decide on the establishment of appropriate funding mechanisms of a voluntary nature.
2. The Parties shall consider the establishment of a revolving fund to assist on an interim basis in case of emergency situations to minimize damage from accidents arising from transboundary movements of hazardous wastes and other wastes or during the disposal of those wastes.

Article 15

Conference of the Parties

1. A Conference of the Parties is hereby established. The first meeting of the Conference of the Parties shall be convened by the Executive Director of UNEP not later than one year after the entry into force of this Convention. Thereafter, ordinary meetings of the Conference of the Parties shall be held at regular intervals to be determined by the Conference at its first meeting.
2. Extraordinary meetings of the Conference of the Parties shall be held at such other times as may be deemed necessary by the Conference, or at the written request of any Party, provided that, within six months of the request being communicated to them by the Secretariat, it is supported by at least one third of the Parties.
3. The Conference of the Parties shall by consensus agree upon and adopt rules of procedure for itself and for any subsidiary body it may establish, as well as financial rules to determine in particular the financial participation of the Parties under this Convention.
4. The Parties at their first meeting shall consider any additional measures needed to assist them in fulfilling their responsibilities with respect to the protection and the preservation of the marine environment in the context of this Convention.
5. The Conference of the Parties shall keep under continuous review and evaluation the effective implementation of this Convention, and, in addition, shall:
 - (a) Promote the harmonization of appropriate policies, strategies and measures for minimizing harm to human health and the environment by hazardous wastes and other wastes;
 - (b) Consider and adopt, as required, amendments to this Convention and its annexes, taking into consideration, inter alia, available scientific, technical, economic and environmental information;
 - (c) Consider and undertake any additional action that may be required for the achievement of the purposes of this Convention in the light of experience gained in its operation and in the operation of the agreements and arrangements envisaged in Article 11;

(d) Consider and adopt protocols as required; and

(e) Establish such subsidiary bodies as are deemed necessary for the implementation of this Convention.

6. The United Nations, its specialized agencies, as well as any State not Party to this Convention, may be represented as observers at meetings of the Conference of the Parties. Any other body or agency, whether national or international, governmental or non-governmental, qualified in fields relating to hazardous wastes or other wastes which has informed the Secretariat of its wish to be represented as an observer at a meeting of the Conference of Parties, may be admitted unless at least one third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure adopted by the Conference of the Parties.

7. The Conference of the Parties shall undertake three years after the entry into force of this Convention, and at least every six years thereafter, an evaluation of its effectiveness and, if deemed necessary, to consider the adoption of a complete or partial ban of transboundary movements of hazardous wastes and other wastes in light of the latest scientific, environmental, technical and economic information.

Article 16

Secretariat

1. The functions of the Secretariat shall be:

(a) To arrange for and service meetings provided for in Articles 15 and 17;

(b) To prepare and transmit reports based upon information received in accordance with Articles 3, 4, 6, 11 and 13 as well as upon information derived from meetings of subsidiary bodies established under Article 15 as well as upon, as appropriate, information provided by relevant intergovernmental and non-governmental entities;

(c) To prepare reports on its activities carried out in implementation of its functions under this Convention and present them to the Conference of the Parties;

(d) To ensure the necessary coordination with relevant international bodies, and in particular to enter into such administrative and contractual arrangements as may be required for the effective discharge of its function;

(e) To communicate with Focal Points and Competent Authorities established by the Parties in accordance with Article 5 of this Convention;

(f) To compile information concerning authorized national sites and facilities of Parties available for the disposal of their hazardous wastes and other wastes and to circulate this information among Parties;

(g) To receive and convey information from and to Parties on:

- sources of technical assistance and training;

- available technical and scientific know-how;

- sources of advice and expertise; and

- availability of resources

with a view to assisting them, upon request, in such areas as:

- the handling of the notification system of this Convention;

- the management of hazardous wastes and other wastes;

- environmentally sound technologies relating to hazardous wastes and other wastes; such as low- and non-waste technology;

- the assessment of disposal capabilities and sites;
- the monitoring of hazardous wastes and other wastes; and
- emergency responses;

(h) To provide Parties, upon request, with information on consultants or consulting firms having the necessary technical competence in the field, which can assist them to examine a notification for a transboundary movement, the concurrence of a shipment of hazardous wastes or other wastes with the relevant notification, and/or the fact that the proposed disposal facilities for hazardous wastes or other wastes are environmentally sound, when they have reason to believe that the wastes in question will not be managed in an environmentally sound manner. Any such examination would not be at the expense of the Secretariat;

(i) To assist Parties upon request in their identification of cases of illegal traffic and to circulate immediately to the Parties concerned any information it has received regarding illegal traffic;

(j) To co-operate with Parties and with relevant and competent international organizations and agencies in the provision of experts and equipment for the purpose of rapid assistance to States in the event of an emergency situation; and

(k) To perform such other functions relevant to the purposes of this Convention as may be determined by the Conference of the Parties.

2. The Secretariat functions will be carried out on an interim basis by UNEP until the completion of the first meeting of the Conference of the Parties held pursuant to Article 15.

3. At its first meeting, the Conference of the Parties shall designate the Secretariat from among those existing competent intergovernmental organizations which have signified their willingness to carry out the Secretariat functions under this Convention. At this meeting, the Conference of the Parties shall also evaluate the implementation by the interim Secretariat of the functions assigned to it, in particular under paragraph 1 above, and decide upon the structures appropriate for those functions.

Article 17

Amendment of the Convention

1. Any Party may propose amendments to this Convention and any Party to a protocol may propose amendments to that protocol. Such amendments shall take due account, inter alia, of relevant scientific and technical considerations.

2. Amendments to this Convention shall be adopted at a meeting of the Conference of the Parties. Amendments to any protocol shall be adopted at a meeting of the Parties to the protocol in question. The text of any proposed amendment to this Convention or to any protocol, except as may otherwise be provided in such protocol, shall be communicated to the Parties by the Secretariat at least six months before the meeting at which it is proposed for adoption. The Secretariat shall also communicate proposed amendments to the Signatories to this Convention for information.

3. The Parties shall make every effort to reach agreement on any proposed amendment to this Convention by consensus. If all efforts at consensus have been exhausted, and no agreement reached, the amendment shall as a last resort be adopted by a three-fourths majority of the Parties present and voting at the meeting, and shall be submitted by the Depositary to all Parties for ratification, approval, formal confirmation or acceptance.

4. The procedure mentioned in paragraph 3 above shall apply to amendments to any protocol, except that a two-thirds majority of the Parties to that protocol present and voting at the meeting shall suffice for their adoption.

5. Instruments of ratification, approval, formal confirmation or acceptance of amendments shall be deposited with the Depositary. Amendments adopted in accordance with paragraphs 3 or 4 above shall enter into force between Parties having accepted them on the ninetieth day after the receipt by the Depositary of their instrument of ratification, approval, formal confirmation or acceptance by at least three-fourths of the Parties who accepted them or by at least two thirds of the Parties to the protocol concerned who accepted them, except as may otherwise be provided in such protocol. The amendments shall enter into force for any other Party on the ninetieth day after that Party deposits its instrument of ratification, approval, formal confirmation or acceptance of the amendments.

6. For the purpose of this Article, "Parties present and voting" means Parties present and casting an affirmative or negative vote.

Article 18

Adoption and Amendment of Annexes

1. The annexes to this Convention or to any protocol shall form an integral part of this Convention or of such protocol, as the case may be and, unless expressly provided otherwise, a reference to this Convention or its protocols constitutes at the same time a reference to any annexes thereto. Such annexes shall be restricted to scientific, technical and administrative matters.
2. Except as may be otherwise provided in any protocol with respect to its annexes, the following procedure shall apply to the proposal, adoption and entry into force of additional annexes to this Convention or of annexes to a protocol:
 - (a) Annexes to this Convention and its protocols shall be proposed and adopted according to the procedure laid down in Article 17, paragraphs 2, 3 and 4;
 - (b) Any Party that is unable to accept an additional annex to this Convention or an annex to any protocol to which it is party shall so notify the Depositary, in writing, within six months from the date of the communication of the adoption by the Depositary. The Depositary shall without delay notify all Parties of any such notification received. A Party may at any time substitute an acceptance for a previous declaration of objection and the annexes shall thereupon enter into force for that Party;
 - (c) On the expiry of six months from the date of the circulation of the communication by the Depositary, the annex shall become effective for all Parties to this Convention or to any protocol concerned, which have not submitted a notification in accordance with the provision of subparagraph (b) above.
3. The proposal, adoption and entry into force of amendments to annexes to this Convention or to any protocol shall be subject to the same procedure as for the proposal, adoption and entry into force of annexes to the Convention or annexes to a protocol. Annexes and amendments thereto shall take due account, inter alia, of relevant scientific and technical considerations.
4. If an additional annex or an amendment to an annex involves an amendment to this Convention or to any protocol, the additional annex or amended annex shall not enter into force until such time the amendment to this Convention or to the protocol enters into force.

Article 19

Verification

Any Party which has reason to believe that another Party is acting or has acted in breach of its obligations under this Convention may inform the Secretariat thereof, and in such an event, shall simultaneously and immediately inform, directly or through the Secretariat, the Party against whom the allegations are made. All relevant information should be submitted by the Secretariat to the Parties.

Article 20

Settlement of Disputes

1. In case of a dispute between Parties as to the interpretation or application of, or compliance with, this Convention or any protocol thereto, they shall seek a settlement of the dispute through negotiation or any other peaceful means of their own choice.
2. If the Parties concerned cannot settle their dispute through the means mentioned in the preceding paragraph, the dispute, if the Parties to the dispute agree, shall be submitted to the International Court of Justice or to arbitration under the conditions set out in Annex VI on Arbitration. However, failure to reach common agreement on submission of the dispute to the International Court of Justice or to arbitration shall not absolve the Parties from the responsibility of continuing to seek to resolve it by the means referred to in paragraph 1.

3. When ratifying, accepting, approving, formally confirming or acceding to this Convention, or at any time thereafter, a State or political and/or economic integration organization may declare that it recognizes as compulsory ipso facto and without special agreement, in relation to any Party accepting the same obligation:

(a) submission of the dispute to the International Court of Justice; and/or

(b) arbitration in accordance with the procedures set out in Annex VI.

Such declaration shall be notified in writing to the Secretariat which shall communicate it to the Parties.

Article 21

Signature

This Convention shall be open for signature by States, by Namibia, represented by the United Nations Council for Namibia, and by political and/or economic integration organizations, in Basel on 22 March 1989, at the Federal Department of Foreign Affairs of Switzerland in Berne from 23 March 1989 to 30 June 1989 and at United Nations Headquarters in New York from 1 July 1989 to 22 March 1990.

Article 22

Ratification, Acceptance, Formal Confirmation or Approval

1. This Convention shall be subject to ratification, acceptance or approval by States and by Namibia, represented by the United Nations Council for Namibia, and to formal confirmation or approval by political and/or economic integration organizations. Instruments of ratification, acceptance, formal confirmation, or approval shall be deposited with the Depository.

2. Any organization referred to in paragraph 1 above which becomes a Party to this Convention without any of its members States being a Party shall be bound by all the obligations under the Convention. In the case of such organizations, one or more of whose member States is a Party to the Convention, the organization and its member States shall decide on their respective responsibilities for the performance of their obligations under the Convention. In such cases, the organization and the member States shall not be entitled to exercise rights under the Convention concurrently.

3. In their instruments of formal confirmation or approval, the organizations referred to in paragraph 1 above shall declare the extent of their competence with respect to the matters governed by the Convention. These organizations shall also inform the Depository, who will inform the Parties of any substantial modification in the extent of their competence.

Article 23

Accession

1. This Convention shall be open for accession by States, by Namibia, represented by the United Nations Council for Namibia, and by political and/or economic integration organizations from the day after the date on which the Convention is closed for signature. The instruments of accession shall be deposited with the Depository.

2. In their instruments of accession, the organizations referred to in paragraph 1 above shall declare the extent of their competence with respect to the matters governed by the Convention. These organizations shall also inform the Depository of any substantial modification in the extent of their competence.

3. The provisions of Article 22, paragraph 2, shall apply to political and/or economic integration organizations which accede to this Convention.

Article 24

Right to Vote

1. Except as provided for in paragraph 2 below, each Contracting Party to this Convention shall have one vote.

2. Political and/or economic integration organizations, in matters within their competence, in accordance with Article 22, paragraph 3, and Article 23, paragraph 2, shall exercise their right to vote with a number of votes equal to the number of their member States which are Parties to the Convention or the relevant protocol. Such organizations shall not exercise their right to vote if their member States exercise theirs, and vice versa.

Article 25

Entry into Force

1. This Convention shall enter into force on the ninetieth day after the day of deposit of the twentieth instrument of ratification, acceptance, formal confirmation, approval or accession.
2. For each State or political and/or economic integration organization which ratifies, accepts, approves or formally confirms this Convention or accedes thereto after the date of the deposit of the twentieth instrument of ratification, acceptance, approval, formal confirmation or accession, it shall enter into force on the ninetieth day after the date of deposit by such State or political and/or economic integration organization of its instrument of ratification, acceptance, approval, formal confirmation or accession.
3. For the purpose of paragraphs 1 and 2 above, any instrument deposited by a political and/or economic integration organization shall not be counted as additional to those deposited by member States of such organization.

Article 26

Reservations and Declarations

1. No reservation or exception may be made to this Convention.
2. Paragraph 1 of this Article does not preclude a State or political and/or economic integration organization, when signing, ratifying, accepting, approving, formally confirming or acceding to this Convention, from making declarations or statements, however phrased or named, with a view, *inter alia*, to the harmonization of its laws and regulations with the provisions of this Convention, provided that such declarations or statements do not purport to exclude or to modify the legal effects of the provisions of the Convention in their application to that State.

Article 27

Withdrawal

1. At any time after three years from the date on which this Convention has entered into force for a Party, that Party may withdraw from the Convention by giving written notification to the Depositary.
2. Withdrawal shall be effective one year from receipt of notification by the Depositary, or on such later date as may be specified in the notification.

Article 28

Depositary

The Secretary-General of the United Nations shall be the Depositary of this Convention and of any protocol thereto.

Article 29

Authentic texts

The original Arabic, Chinese, English, French, Russian and Spanish texts of this Convention are equally authentic.

IN WITNESS WHEREOF the undersigned, being duly authorized to that effect, have signed this Convention.

Done at.....on the.....day of.....1989

Annex I

CATEGORIES OF WASTES TO BE CONTROLLED

Waste Streams

- Y1** Clinical wastes from medical care in hospitals, medical centers and clinics
- Y2** Wastes from the production and preparation of pharmaceutical products
- Y3** Waste pharmaceuticals, drugs and medicines
- Y4** Wastes from the production, formulation and use of biocides and phytopharmaceuticals
- Y5** Wastes from the manufacture, formulation and use of wood preserving chemicals
- Y6** Wastes from the production, formulation and use of organic solvents
- Y7** Wastes from heat treatment and tempering operations containing cyanides
- Y8** Waste mineral oils unfit for their originally intended use
- Y9** Waste oils/water, hydrocarbons/water mixtures, emulsions
- Y10** Waste substances and articles containing or contaminated with polychlorinated biphenyls (PCBs) and/or polychlorinated terphenyls (PCTs) and/or polybrominated biphenyls (PBBs)
- Y11** Waste tarry residues arising from refining, distillation and any pyrolytic treatment
- Y12** Wastes from production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish
- Y13** Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives
- Y14** Waste chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on man and/or the environment are not known
- Y15** Wastes of an explosive nature not subject to other legislation
- Y16** Wastes from production, formulation and use of photographic chemicals and processing materials
- Y17** Wastes resulting from surface treatment of metals and plastics
- Y18** Residues arising from industrial waste disposal operations

Wastes having as constituents:

- Y19** Metal carbonyls
- Y20** Beryllium; beryllium compounds
- Y21** Hexavalent chromium compounds
- Y22** Copper compounds
- Y23** Zinc compounds
- Y24** Arsenic; arsenic compounds

Y25 Selenium; selenium compounds

Y26 Cadmium; cadmium compounds

Y27 Antimony; antimony compounds

Y28 Tellurium; tellurium compounds

Y29 Mercury; mercury compounds

Y30 Thallium; thallium compounds

Y31 Lead; lead compounds

Y32 Inorganic fluorine compounds excluding calcium fluoride

Y33 Inorganic cyanides

Y34 Acidic solutions or acids in solid form

Y35 Basic solutions or bases in solid form

Y36 Asbestos (dust and fibres)

Y37 Organic phosphorus compounds

Y38 Organic cyanides

Y39 Phenols; phenol compounds including chlorophenols

Y40 Ethers

Y41 Halogenated organic solvents

Y42 Organic solvents excluding halogenated solvents

Y43 Any congener of polychlorinated dibenzo-furan

Y44 Any congener of polychlorinated dibenzo-p-dioxin

Y45 Organohalogen compounds other than substances referred to in this Annex (e.g. Y39, Y41, Y42, Y43, Y44)

(a) To facilitate the application of this Convention, and subject to paragraphs (b), (c) and (d), wastes listed in Annex VIII are characterized as hazardous pursuant to Article 1, paragraph 1 (a), of this Convention, and wastes listed in Annex IX are not covered by Article 1, paragraph 1 (a), of this Convention.

(b) Designation of a waste on Annex VIII does not preclude, in a particular case, the use of Annex III to demonstrate that a waste is not hazardous pursuant to Article 1, paragraph 1 (a), of this Convention.

(c) Designation of a waste on Annex IX does not preclude, in a particular case, characterization of such a waste as hazardous pursuant to Article 1, paragraph 1 (a), of this Convention if it contains Annex I material to an extent causing it to exhibit an Annex III characteristic.

(d) Annexes VIII and IX do not affect the application of Article 1, paragraph 1 (a), of this Convention for the purpose of characterization of wastes.⁽¹⁾

Annex II

CATEGORIES OF WASTES REQUIRING SPECIAL CONSIDERATION

Y46 - Wastes collected from households

Y47 - Residues arising from the incineration of household wastes

Annex III

LIST OF HAZARDOUS CHARACTERISTICS

UN Class⁽²⁾ Code Characteristics

1 H1 Explosive

An explosive substance or waste is a solid or liquid substance or waste (or mixture of substances or wastes) which is in itself capable by chemical reaction of producing gas at such a temperature and pressure and at such speed as to cause damage to the surroundings.

3 H3 Flammable liquids

The word "flammable" has the same meaning as "inflammable." Flammable liquids are liquids, or mixtures of liquids, or liquids containing solids in solution or suspension (for example, paints, varnishes, lacquers, etc., but not including substances or wastes otherwise classified on account of their dangerous characteristics) which give off a flammable vapour at temperatures of not more than 60.5 C, closed-cup test, or not more than 65.6C, open-cup test. (Since the results of open-cup tests and of closed-cup tests are not strictly comparable and even individual results by the same test are often variable, regulations varying from the above figures to make allowance for such differences would be within the spirit of this definition.)

4.1 H4.1 Flammable solids

Solids, or waste solids, other than those classed as explosives, which under conditions encountered in transport are readily combustible, or may cause or contribute to fire through friction.

4.2 H4.2 Substances or wastes liable to spontaneous combustion

Substances or wastes which are liable to spontaneous heating under normal conditions encountered in transport, or to heating up on contact with air, and being then liable to catch fire.

4.3 H4.3 Substances or wastes which, in contact with water emit flammable gases

Substances or wastes which, by interaction with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities.

5.1 H5.1 Oxidizing

Substances or wastes which, while in themselves not necessarily combustible, may, generally by yielding oxygen cause, or contribute to, the combustion of other materials.

5.2 H5.2 Organic Peroxides

Organic substances or wastes which contain the bivalent-O-O- structure are thermally unstable substances which may undergo exothermic self-accelerating decomposition.

6.1 H6.1 Poisonous (Acute)

Substances or wastes liable either to cause death or serious injury or to harm health if swallowed or inhaled or by skin contact.

6.2 H6.2 Infectious substances

Substances or wastes containing viable micro organisms or their toxins which are known or suspected to cause disease in animals or humans.

8 H8 Corrosives

Substances or wastes which, by chemical action, will cause severe damage when in contact with living tissue, or, in the case of leakage, will materially damage, or even destroy, other goods or the means of transport; they may also cause other hazards.

9 H10 Liberation of toxic gases in contact with air or water

Substances or wastes which, by interaction with air or water, are liable to give off toxic gases in dangerous quantities.

9 H11 Toxic (Delayed or chronic)

Substances or wastes which, if they are inhaled or ingested or if they penetrate the skin, may involve delayed or chronic effects, including carcinogenicity.

9 H12 Ecotoxic

Substances or wastes which if released present or may present immediate or delayed adverse impacts to the environment by means of bioaccumulation and/or toxic effects upon biotic systems.

9 H13 Capable, by any means, after disposal, of yielding another material, e.g., leachate, which possesses any of the characteristics listed above.

Tests

The potential hazards posed by certain types of wastes are not yet fully documented; tests to define quantitatively these hazards do not exist. Further research is necessary in order to develop means to characterize potential hazards posed to man and/or the environment by these wastes. Standardized tests have been derived with respect to pure substances and materials. Many countries have developed national tests which can be applied to materials listed in Annex I, in order to decide if these materials exhibit any of the characteristics listed in this Annex.

Annex IV

DISPOSAL OPERATIONS

A. OPERATIONS WHICH DO NOT LEAD TO THE POSSIBILITY OF RESOURCE

RECOVERY, RECYCLING, RECLAMATION, DIRECT RE-USE OR

ALTERNATIVE USES

Section A encompasses all such disposal operations which occur in practice.

D1 Deposit into or onto land, (e.g., landfill, etc.)

D2 Land treatment, (e.g., biodegradation of liquid or sludgy discards in soils, etc.)

D3 Deep injection, (e.g., injection of pumpable discards into wells, salt domes or naturally occurring repositories, etc.)

D4 Surface impoundment, (e.g., placement of liquid or sludge discards into pits, ponds or lagoons, etc.)

D5 Specially engineered landfill, (e.g., placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)

D6 Release into a water body except seas/oceans

D7 Release into seas/oceans including sea-bed insertion

D8 Biological treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations in Section A

D9 Physico chemical treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations in Section A, (e.g., evaporation, drying, calcination, neutralization, precipitation, etc.)

D10 Incineration on land

D11 Incineration at sea

D12 Permanent storage (e.g., emplacement of containers in a mine, etc.)

D13 Blending or mixing prior to submission to any of the operations in Section A

D14 Repackaging prior to submission to any of the operations in Section A

D15 Storage pending any of the operations in Section A

B. OPERATIONS WHICH MAY LEAD TO RESOURCE RECOVERY, RECYCLING

RECLAMATION, DIRECT RE-USE OR ALTERNATIVE USES

Section B encompasses all such operations with respect to materials

legally defined as or considered to be hazardous wastes and which

otherwise would have been destined for operations included in Section A

R1 Use as a fuel (other than in direct incineration) or other means to generate energy

R2 Solvent reclamation/regeneration

R3 Recycling/reclamation of organic substances which are not used as solvents

R4 Recycling/reclamation of metals and metal compounds

R5 Recycling/reclamation of other inorganic materials

R6 Regeneration of acids or bases

R7 Recovery of components used for pollution abatement

R8 Recovery of components from catalysts

R9 Used oil re-refining or other reuses of previously used oil

R10 Land treatment resulting in benefit to agriculture or ecological improvement

R11 Uses of residual materials obtained from any of the operations numbered R1-R10

R12 Exchange of wastes for submission to any of the operations numbered R1-R11

R13 Accumulation of material intended for any operation in Section B

Annex V A

INFORMATION TO BE PROVIDED ON NOTIFICATION

1. Reason for waste export
2. Exporter of the waste 1/
3. Generator(s) of the waste and site of generation 1/
4. Disposer of the waste and actual site of disposal 1/
5. Intended carrier(s) of the waste or their agents, if known 1/
6. Country of export of the waste
Competent authority 2/
7. Expected countries of transit
Competent authority 2/
8. Country of import of the waste
Competent authority 2/
9. General or single notification
10. Projected date(s) of shipment(s) and period of time over which waste is to be exported and proposed itinerary (including point of entry and exit) 3/
11. Means of transport envisaged (road, rail, sea, air, inland waters)
12. Information relating to insurance 4/
13. Designation and physical description of the waste including Y number and UN number and its composition 5/ and information on any special handling requirements including emergency provisions in case of accidents
14. Type of packaging envisaged (e.g. bulk, drummed, tanker)
15. Estimated quantity in weight/volume 6/
16. Process by which the waste is generated 7/
17. For wastes listed in Annex I, classifications from Annex III: hazardous characteristic, H number, and UN class
18. Method of disposal as per Annex IV
19. Declaration by the generator and exporter that the information is correct
20. Information transmitted (including technical description of the plant) to the exporter or generator from the disposer of the waste upon which the latter has based his assessment that there was no reason to believe that the wastes will not be managed in an environmentally sound manner in accordance with the laws and regulations of the country of import.
21. Information concerning the contract between the exporter and disposer.

Notes

1/ Full name and address, telephone or telefax number and the name, address, telephone, telex or telefax number of the person to be contacted.

2/ Full name and address, telephone, telex or telefax number.

3/ In the case of a general notification covering several shipments, either the expected dates of each shipment or, if this is not known, the expected frequency of the shipments will be required.

4/ Information to be provided on relevant insurance requirements and how they are met by exporter, carrier and disposer.

5/ The nature and the concentration of the most hazardous components, in terms of toxicity and other dangers presented by the waste both in handling and in relation to the proposed disposal method.

6/ In the case of a general notification covering several shipments, both the estimated total quantity and the estimated quantities for each individual shipment will be required.

7/ Insofar as this is necessary to assess the hazard and determine the appropriateness of the proposed disposal operation.

Annex V B

INFORMATION TO BE PROVIDED ON THE MOVEMENT DOCUMENT

1. Exporter of the waste 1/
2. Generator(s) of the waste and site of generation 1/
3. Disposer of the waste and actual site of disposal 1/
4. Carrier(s) of the waste 1/ or his agent(s)
5. Subject of general or single notification
6. The date the transboundary movement started and date(s) and signature on receipt by each person who takes charge of the waste
7. Means of transport (road, rail, inland waterway, sea, air) including countries of export, transit and import, also point of entry and exit where these have been designated
8. General description of the waste (physical state, proper UN shipping name and class, UN number, Y number and H number as applicable)
9. Information on special handling requirements including emergency provision in case of accidents
10. Type and number of packages
11. Quantity in weight/volume
12. Declaration by the generator or exporter that the information is correct
13. Declaration by the generator or exporter indicating no objection from the competent authorities of all States concerned which are Parties
14. Certification by disposer of receipt at designated disposal facility and indication of method of disposal and of the approximate date of disposal.

Notes

The information required on the movement document shall where possible be integrated in one document with that required under transport rules. Where this is not possible the information should complement rather than duplicate that required under the transport rules. The movement document shall carry instructions as to who is to provide information and fill-out any form.

1/ Full name and address, telephone or telefax number and the name, address, telephone, telex or telefax number of the person to be contacted in case of emergency.

Annex VI

ARBITRATION

Article 1

Unless the agreement referred to in Article 20 of the Convention provides otherwise, the arbitration procedure shall be conducted in accordance with Articles 2 to 10 below.

Article 2

The claimant party shall notify the Secretariat that the Parties have agreed to submit the dispute to arbitration pursuant to paragraph 2 or paragraph 3 of Article 20 and include, in particular, the Articles of the Convention the interpretation or application of which are at issue. The Secretariat shall forward the information thus received to all Parties to the Convention.

Article 3

The arbitral tribunal shall consist of three members. Each of the Parties to the dispute shall appoint an arbitrator, and the two arbitrators so appointed shall designate by common agreement the third arbitrator, who shall be the chairman of the tribunal. The latter shall not be a national of one of the Parties to the dispute, nor have his usual place of residence in the territory of one of these Parties, nor be employed by any of them, nor have dealt with the case in any other capacity.

Article 4

1. If the chairman of the arbitral tribunal has not been designated within two months of the appointment of the second arbitrator, the Secretary-General of the United Nations shall, at the request of either Party, designate him within a further two months period.

2. If one of the Parties to the dispute does not appoint an arbitrator within two months of the receipt of the request, the other Party may inform the Secretary-General of the United Nations who shall designate the chairman of the arbitral tribunal within a further two months' period. Upon designation, the chairman of the arbitral tribunal shall request the Party which has not appointed an arbitrator to do so within two months. After such period, he shall inform the Secretary-General of the United Nations, who shall make this appointment within a further two months' period.

Article 5

1. The arbitral tribunal shall render its decision in accordance with international law and in accordance with the provisions of this Convention.

2. Any arbitral tribunal constituted under the provisions of this Annex shall draw up its own rules of procedure.

Article 6

1. The decisions of the arbitral tribunal both on procedure and on substance, shall be taken by majority vote of its members.

2. The tribunal may take all appropriate measures in order to establish the facts. It may, at the request of one of the Parties, recommend essential interim measures of protection.

3. The Parties to the dispute shall provide all facilities necessary for the effective conduct of the proceedings.

4. The absence or default of a Party in the dispute shall not constitute an impediment to the proceedings.

Article 7

The tribunal may hear and determine counter-claims arising directly out of the subject-matter of the dispute.

Article 8

Unless the arbitral tribunal determines otherwise because of the particular circumstances of the case, the expenses of the tribunal, including the remuneration of its members, shall be borne by the Parties to the dispute in equal shares. The tribunal shall keep a record of all its expenses, and shall furnish a final statement thereof to the Parties.

Article 9

Any Party that has an interest of a legal nature in the subject-matter of the dispute which may be affected by the decision in the case, may intervene in the proceedings with the consent of the tribunal.

Article 10

1. The tribunal shall render its award within five months of the date on which it is established unless it finds it necessary to extend the time-limit for a period which should not exceed five months.

2. The award of the arbitral tribunal shall be accompanied by a statement of reasons. It shall be final and binding upon the Parties to the dispute.

3. Any dispute which may arise between the Parties concerning the interpretation or execution of the award may be submitted by either Party to the arbitral tribunal which made the award or, if the latter cannot be seized thereof, to another tribunal constituted for this purpose in the same manner as the first.

Annex VII

Annex VII is not yet into force. Annex VII is an integral part of Amendment. It was adopted in 1995 by Decision III/1 which amended the Basel Convention.⁽³⁾

Annex VIII

LIST A

Wastes contained in this Annex are characterized as hazardous under Article 1, paragraph 1 (a), of this Convention, and their designation on this Annex does not preclude the use of Annex III to demonstrate that a waste is not hazardous.

A1 Metal and metal-bearing wastes

A1010 Metal wastes and waste consisting of alloys of any of the following:

- Antimony
- Arsenic
- Beryllium
- Cadmium
- Lead
- Mercury

- Selenium
- Tellurium
- Thallium

but excluding such wastes specifically listed on list B.

A1020 Waste having as constituents or contaminants, excluding metal waste in massive form, any of the following:

- Antimony; antimony compounds
- Beryllium; beryllium compounds
- Cadmium; cadmium compounds
- Lead; lead compounds
- Selenium; selenium compounds
- Tellurium; tellurium compounds

A1030 Wastes having as constituents or contaminants any of the following:

- Arsenic; arsenic compounds
- Mercury; mercury compounds.
- Thallium; thallium compounds

A1040 Wastes having as constituents any of the following:

- Metal carbonyls
- Hexavalent chromium compounds

A1050 Galvanic sludges

A1060 Waste liquors from the pickling of metals

A1070 Leaching residues from zinc processing, dust and sludges such as jarosite, hematite, etc.

A1080 Waste zinc residues not included on list B, containing lead and cadmium in concentrations sufficient to exhibit Annex III characteristics

A1090 Ashes from the incineration of insulated copper wire

A1100 Dusts and residues from gas cleaning systems of copper smelters

A1110 Spent electrolytic solutions from copper electrorefining and electrowinning operations

A1120 Waste sludges, excluding anode slimes, from electrolyte purification systems in copper electrorefining and electrowinning operations

A1130 Spent etching solutions containing dissolved copper

A1140 Waste cupric chloride and copper cyanide catalysts

A1150 Precious metal ash from incineration of printed circuit boards not included on list B⁽⁴⁾

A1160 Waste lead-acid batteries, whole or crushed

A1170 Unsorted waste batteries excluding mixtures of only list B batteries. Waste batteries not specified on list B containing Annex I constituents to an extent to render them hazardous.

A1180 Waste electrical and electronic assemblies or scrap⁽⁵⁾ containing components such as accumulators and other batteries included on list A, mercury-switches, glass from cathode-ray tubes and other activated glass and PCB-capacitors, or contaminated with Annex I constituents (e.g., cadmium, mercury, lead, polychlorinated biphenyl) to an extent that they possess any of the characteristics contained in Annex III (note the related entry on list B B1110)⁽⁶⁾

A2 Wastes containing principally inorganic constituents, which may contain metals and organic materials

A2010 Glass waste from cathode-ray tubes and other activated glasses

A2020 Waste inorganic fluorine compounds in the form of liquids or sludges but excluding such wastes specified on list B

A2030 Waste catalysts but excluding such wastes specified on list B

A2040 Waste gypsum arising from chemical industry processes, when containing Annex I constituents to the extent that it exhibits an Annex III hazardous characteristic (note the related entry on list B B2080)

A2050 Waste asbestos (dusts and fibres)

A2060 Coal-fired power plant fly-ash containing Annex I substances in concentrations sufficient to exhibit Annex III characteristics (note the related entry on list B B2050)

A3 Wastes containing principally organic constituents, which may contain metals and inorganic materials

A3010 Waste from the production or processing of petroleum coke and bitumen

A3020 Waste mineral oils unfit for their originally intended use

A3030 Wastes that contain, consist of or are contaminated with leaded anti-knock compound sludges

A3040 Waste thermal (heat transfer) fluids

A3050 Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives excluding such wastes specified on list B (note the related entry on list B B4020)

A3060 Waste nitrocellulose

A3070 Waste phenols, phenol compounds including chlorophenol in the form of liquids or sludges

A3080 Waste ethers not including those specified on list B

A3090 Waste leather dust, ash, sludges and flours when containing hexavalent chromium compounds or biocides (note the related entry on list B B3100)

A3100 Waste paring and other waste of leather or of composition leather not suitable for the manufacture of leather articles containing hexavalent chromium compounds or biocides (note the related entry on list B B3090)

A3110 Fellmongery wastes containing hexavalent chromium compounds or biocides or infectious substances (note the related entry on list B B3110)

A3120 Fluff - light fraction from shredding

A3130 Waste organic phosphorous compounds

A3140 Waste non-halogenated organic solvents but excluding such wastes specified on list B

A3150 Waste halogenated organic solvents

A3160 Waste halogenated or unhalogenated non-aqueous distillation residues arising from organic solvent recovery operations

A3170 Wastes arising from the production of aliphatic halogenated hydrocarbons (such as chloromethane, dichloroethane, vinyl chloride, vinylidene chloride, allyl chloride and epichlorhydrin)

A3180 Wastes, substances and articles containing, consisting of or contaminated with polychlorinated biphenyl (PCB), polychlorinated terphenyl (PCT), polychlorinated naphthalene (PCN) or polybrominated biphenyl (PBB), or any other polybrominated analogues of these compounds, at a concentration level of 50 mg/kg or more⁽⁷⁾

A3190 Waste tarry residues (excluding asphalt cements) arising from refining, distillation and any pyrolytic treatment of organic materials

A4 Wastes which may contain either inorganic or organic constituents

A4010 Wastes from the production, preparation and use of pharmaceutical products but excluding such wastes specified on list B

A4020 Clinical and related wastes; that is wastes arising from medical, nursing, dental, veterinary, or similar practices, and wastes generated in hospitals or other facilities during the investigation or treatment of patients, or research projects

A4030 Wastes from the production, formulation and use of biocides and phytopharmaceuticals, including waste pesticides and herbicides which are off-specification, outdated,⁽⁸⁾ or unfit for their originally intended use

A4040 Wastes from the manufacture, formulation and use of wood-preserving chemicals⁽⁹⁾

A4050 Wastes that contain, consist of or are contaminated with any of the following:

- Inorganic cyanides, excepting precious-metal-bearing residues in solid form containing traces of inorganic cyanides
- Organic cyanides

A4060 Waste oils/water, hydrocarbons/water mixtures, emulsions

A4070 Wastes from the production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish excluding any such waste specified on list B (note the related entry on list B B4010)

A4080 Wastes of an explosive nature (but excluding such wastes specified on list B)

A4090 Waste acidic or basic solutions, other than those specified in the corresponding entry on list B (note the related entry on list B B2120)

A4100 Wastes from industrial pollution control devices for cleaning of industrial off-gases but excluding such wastes specified on list B

A4110 Wastes that contain, consist of or are contaminated with any of the following:

- Any congener of polychlorinated dibenzo-furan
- Any congener of polychlorinated dibenzo-dioxin

A4120 Wastes that contain, consist of or are contaminated with peroxides

A4130 Waste packages and containers containing Annex I substances in concentrations sufficient to exhibit Annex III hazard characteristics

A4140 Waste consisting of or containing off specification or outdated⁽¹⁰⁾ chemicals corresponding to Annex I categories and exhibiting Annex III hazard characteristics

A4150 Waste chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on human health and/or the environment are not known

A4160 Spent activated carbon not included on list B (note the related entry on list B B2060)

Annex IX

LIST B

Wastes contained in the Annex will not be wastes covered by Article 1, paragraph 1 (a), of this Convention unless they contain Annex I material to an extent causing them to exhibit an Annex III characteristic.

B1 Metal and metal-bearing wastes

B1010 Metal and metal-alloy wastes in metallic, non-dispersible form:

- Precious metals (gold, silver, the platinum group, but not mercury)
- Iron and steel scrap
- Copper scrap
- Nickel scrap
- Aluminium scrap
- Zinc scrap
- Tin scrap
- Tungsten scrap
- Molybdenum scrap
- Tantalum scrap
- Magnesium scrap
- Cobalt scrap
- Bismuth scrap
- Titanium scrap
- Zirconium scrap
- Manganese scrap
- Germanium scrap
- Vanadium scrap

- Scrap of hafnium, indium, niobium, rhenium and gallium
- Thorium scrap
- Rare earths scrap

B1020 Clean, uncontaminated metal scrap, including alloys, in bulk finished form (sheet, plate, beams, rods, etc), of:

- Antimony scrap
- Beryllium scrap
- Cadmium scrap
- Lead scrap (but excluding lead-acid batteries)
- Selenium scrap
- Tellurium scrap

B1030 Refractory metals containing residues

B1040 Scrap assemblies from electrical power generation not contaminated with lubricating oil, PCB or PCT to an extent to render them hazardous

B1050 Mixed non-ferrous metal, heavy fraction scrap, not containing Annex I materials in concentrations sufficient to exhibit Annex III characteristics⁽¹¹⁾

B1060 Waste selenium and tellurium in metallic elemental form including powder

B1070 Waste of copper and copper alloys in dispersible form, unless they contain Annex I constituents to an extent that they exhibit Annex III characteristics

B1080 Zinc ash and residues including zinc alloys residues in dispersible form unless containing Annex I constituents in concentration such as to exhibit Annex III characteristics or exhibiting hazard characteristic H4.3⁽¹²⁾

B1090 Waste batteries conforming to a specification, excluding those made with lead, cadmium or mercury

B1100 Metal-bearing wastes arising from melting, smelting and refining of metals:

- Hard zinc spelter
- Zinc-containing drosses:
 - Galvanizing slab zinc top dross (>90% Zn)
 - Galvanizing slab zinc bottom dross (>92% Zn)
 - Zinc die casting dross (>85% Zn)
 - Hot dip galvanizers slab zinc dross (batch)(>92% Zn)
 - Zinc skimmings
- Aluminium skimmings (or skims) excluding salt slag

- Slags from copper processing for further processing or refining not containing arsenic, lead or cadmium to an extent that they exhibit Annex III hazard characteristics
- Wastes of refractory linings, including crucibles, originating from copper smelting
- Slags from precious metals processing for further refining
- Tantalum-bearing tin slags with less than 0.5% tin

B1110 Electrical and electronic assemblies:

- Electronic assemblies consisting only of metals or alloys
- Waste electrical and electronic assemblies or scrap⁽¹³⁾ (including printed circuit boards) not containing components such as accumulators and other batteries included on list A, mercury-switches, glass from cathode-ray tubes and other activated glass and PCB-capacitors, or not contaminated with Annex I constituents (e.g., cadmium, mercury, lead, polychlorinated biphenyl) or from which these have been removed, to an extent that they do not possess any of the characteristics contained in Annex III (note the related entry on list A A1180)
- Electrical and electronic assemblies (including printed circuit boards, electronic components and wires) destined for direct reuse,⁽¹⁴⁾ and not for recycling or final disposal⁽¹⁵⁾

B1120 Spent catalysts excluding liquids used as catalysts, containing any of:

Transition metals, excluding waste catalysts (spent catalysts, liquid used catalysts or other catalysts) on list A:	Scandium	Titanium
	Vanadium	Chromium
	Manganese	Iron
	Cobalt	Nickel
	Copper	Zinc
	Yttrium	Zirconium
	Niobium	Molybdenum
	Hafnium	Tantalum
	Tungsten	Rhenium
	Lanthanides (rare earth metals):	Lanthanum
	Praseodymium	Neody
	Samarium	Europium
	Gadolinium	Terbium
	Dysprosium	Holmium
	Erbium	Thulium
	Ytterbium	Lutetium

B1130 Cleaned spent precious-metal-bearing catalysts

B1140 Precious-metal-bearing residues in solid form which contain traces of inorganic cyanides

B1150 Precious metals and alloy wastes (gold, silver, the platinum group, but not mercury) in a dispersible, non-liquid form with appropriate packaging and labelling

B1160 Precious-metal ash from the incineration of printed circuit boards (note the related entry on list A A1150)

B1170 Precious-metal ash from the incineration of photographic film

B1180 Waste photographic film containing silver halides and metallic silver

B1190 Waste photographic paper containing silver halides and metallic silver

B1200 Granulated slag arising from the manufacture of iron and steel

B1210 Slag arising from the manufacture of iron and steel including slags as a source of TiO₂ and vanadium

B1220 Slag from zinc production, chemically stabilized, having a high iron content (above 20%) and processed according to industrial specifications (e.g., DIN 4301) mainly for construction

B1230 Mill scaling arising from the manufacture of iron and steel

B1240 Copper oxide mill-scale

B2 Wastes containing principally inorganic constituents, which may contain metals and organic materials

B2010 Wastes from mining operations in non-dispersible form:

- Natural graphite waste
- Slate waste, whether or not roughly trimmed or merely cut, by sawing or otherwise
- Mica waste
- Leucite, nepheline and nepheline syenite waste
- Feldspar waste
- Fluorspar waste
- Silica wastes in solid form excluding those used in foundry operations

B2020 Glass waste in non-dispersible form:

- Cullet and other waste and scrap of glass except for glass from cathode-ray tubes and other activated glasses

B2030 Ceramic wastes in non-dispersible form:

- Cermet wastes and scrap (metal ceramic composites)
- Ceramic based fibres not elsewhere specified or included

B2040 Other wastes containing principally inorganic constituents:

- Partially refined calcium sulphate produced from flue-gas desulphurization (FGD)
- Waste gypsum wallboard or plasterboard arising from the demolition of buildings

- Slag from copper production, chemically stabilized, having a high iron content (above 20%) and processed according to industrial specifications (e.g., DIN 4301 and DIN 8201) mainly for construction and abrasive applications
- Sulphur in solid form
- Limestone from the production of calcium cyanamide (having a pH less than 9)
- Sodium, potassium, calcium chlorides
- Carborundum (silicon carbide)
- Broken concrete
- Lithium-tantalum and lithium-niobium containing glass scraps

B2050 Coal-fired power plant fly-ash, not included on list A (note the related entry on list A A2060)

B2060 Spent activated carbon resulting from the treatment of potable water and processes of the food industry and vitamin production (note the related entry on list A A4160)

B2070 Calcium fluoride sludge

B2080 Waste gypsum arising from chemical industry processes not included on list A (note the related entry on list A A2040)

B2090 Waste anode butts from steel or aluminium production made of petroleum coke or bitumen and cleaned to normal industry specifications (excluding anode butts from chlor alkali electrolyses and from metallurgical industry)

B2100 Waste hydrates of aluminium and waste alumina and residues from alumina production excluding such materials used for gas cleaning, flocculation or filtration processes

B2110 Bauxite residue ("red mud") (pH moderated to less than 11.5)

B2120 Waste acidic or basic solutions with a pH greater than 2 and less than 11.5, which are not corrosive or otherwise hazardous (note the related entry on list A A4090)

B3 Wastes containing principally organic constituents, which may contain metals and inorganic materials

B3010 Solid plastic waste:

The following plastic or mixed plastic materials, provided they are not mixed with other wastes and are prepared to a specification:

- Scrap plastic of non-halogenated polymers and co-polymers, including but not limited to the following⁽¹⁶⁾:
 - ethylene
 - styrene
 - polypropylene
 - polyethylene terephthalate
 - acrylonitrile
 - butadiene

- polyacetals
- polyamides
- polybutylene terephthalate
- polycarbonates
- polyethers
- polyphenylene sulphides
- acrylic polymers
- alkanes C10-C13 (plasticiser)
- polyurethane (not containing CFCs)
- polysiloxanes
- polymethyl methacrylate
- polyvinyl alcohol
- polyvinyl butyral
- polyvinyl acetate
- Cured waste resins or condensation products including the following:
 - urea formaldehyde resins
 - phenol formaldehyde resins
 - melamine formaldehyde resins
 - epoxy resins
 - alkyd resins
 - polyamides
- The following fluorinated polymer wastes⁽¹⁷⁾
 - perfluoroethylene/propylene (FEP)
 - perfluoroalkoxy alkane (PFA)
 - perfluoroalkoxy alkane (MFA)
 - polyvinylfluoride (PVF)
 - polyvinylidene fluoride (PVDF)

B3020 Paper, paperboard and paper product wastes

The following materials, provided they are not mixed with hazardous wastes:

Waste and scrap of paper or paperboard of:

- unbleached paper or paperboard or of corrugated paper or paperboard
- other paper or paperboard, made mainly of bleached chemical pulp, not coloured in the mass
- paper or paperboard made mainly of mechanical pulp (for example, newspapers, journals and similar printed matter)
- other, including but not limited to 1) laminated paperboard 2) unsorted scrap.

B3030 Textile wastes

The following materials, provided they are not mixed with other wastes and are prepared to a specification:

- Silk waste (including cocoons unsuitable for reeling, yarn waste and garnetted stock)
 - not carded or combed
 - other
- Waste of wool or of fine or coarse animal hair, including yarn waste but excluding garnetted stock
 - noils of wool or of fine animal hair
 - other waste of wool or of fine animal hair
 - waste of coarse animal hair
- Cotton waste (including yarn waste and garnetted stock)
 - yarn waste (including thread waste)
 - garnetted stock
 - other
- Flax tow and waste
- Tow and waste (including yarn waste and garnetted stock) of true hemp (Cannabis sativa L.)
- Tow and waste (including yarn waste and garnetted stock) of jute and other textile bast fibres (excluding flax, true hemp and ramie)
- Tow and waste (including yarn waste and garnetted stock) of sisal and other textile fibres of the genus Agave
- Tow, noils and waste (including yarn waste and garnetted stock) of coconut
- Tow, noils and waste (including yarn waste and garnetted stock) of abaca (Manila hemp or Musa textilis Nee)
- Tow, noils and waste (including yarn waste and garnetted stock) of ramie and other vegetable textile fibres, not elsewhere specified or included
- Waste (including noils, yarn waste and garnetted stock) of man-made fibres
 - of synthetic fibres
 - of artificial fibres

- Worn clothing and other worn textile articles
- Used rags, scrap twine, cordage, rope and cables and worn out articles of twine, cordage, rope or cables of textile materials
- sorted
- other

B3040 Rubber wastes

The following materials, provided they are not mixed with other wastes:

- Waste and scrap of hard rubber (e.g., ebonite)
- Other rubber wastes (excluding such wastes specified elsewhere)

B3050 Untreated cork and wood waste:

- Wood waste and scrap, whether or not agglomerated in logs, briquettes, pellets or similar forms
- Cork waste: crushed, granulated or ground cork

B3060 Wastes arising from agro-food industries provided it is not infectious:

- Wine lees
- Dried and sterilized vegetable waste, residues and byproducts, whether or not in the form of pellets, of a kind used in animal feeding, not elsewhere specified or included
- Degras: residues resulting from the treatment of fatty substances or animal or vegetable waxes
- Waste of bones and horn-cores, unworked, defatted, simply prepared (but not cut to shape), treated with acid or degelatinised
- Fish waste
- Cocoa shells, husks, skins and other cocoa waste
- Other wastes from the agro-food industry excluding by-products which meet national and international requirements and standards for human or animal consumption

B3070 The following wastes:

- Waste of human hair
- Waste straw
- Deactivated fungus mycelium from penicillin production to be used as animal feed

B3080 Waste parings and scrap of rubber

B3090 Paring and other wastes of leather or of composition leather not suitable for the manufacture of leather articles, excluding leather sludges, not containing hexavalent chromium compounds and biocides (note the related entry on list A A3100)

B3100 Leather dust, ash, sludges or flours not containing hexavalent chromium compounds or biocides (note the related entry on list A A3090)

B3110 Fellingmongery wastes not containing hexavalent chromium compounds or biocides or infectious substances (note the related entry on list A A3110)

B3120 Wastes consisting of food dyes

B3130 Waste polymer ethers and waste non-hazardous monomer ethers incapable of forming peroxides

B3140 Waste pneumatic tyres, excluding those destined for Annex IVA operations

B4 Wastes which may contain either inorganic or organic constituents

B4010 Wastes consisting mainly of water-based/latex paints, inks and hardened varnishes not containing organic solvents, heavy metals or biocides to an extent to render them hazardous (note the related entry on list A A4070)

B4020 Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives, not listed on list A, free of solvents and other contaminants to an extent that they do not exhibit Annex III characteristics, e.g., water-based, or glues based on casein starch, dextrin, cellulose ethers, polyvinyl alcohols (note the related entry on list A A3050)

B4030 Used single-use cameras, with batteries not included on list A

Footnotes

1. Characterization of wastes:

2. Corresponds to the hazard classification system included in the United Nations Recommendations on the Transport of Dangerous Goods (ST/SG/AC.10/1Rev.5, United Nations, New York, 1988)

3. Decision III/1 (AMENDMENT TO THE BASEL CONVENTION)

The Conference,

Decides to adopt the following amendment to the Convention:

"Insert new preambular paragraph 7 bis:

Recognizing that transboundary movements of hazardous wastes, especially to developing countries, have a high risk of not constituting an environmentally sound management of hazardous wastes as required by this Convention;

Insert new Article 4A:

1. Each Party listed in Annex VII shall prohibit all transboundary movements of hazardous wastes which are destined for operations according to Annex IV A, to States not listed in Annex VII.

2. Each Party listed in Annex VII shall phase out by 31 December 1997, and prohibit as of that date, all transboundary movements of hazardous wastes under Article 1(I)(a) of the Convention which are destined for operations according to Annex IV B to States not listed in Annex VII. Such transboundary movement shall not be prohibited unless the wastes in question are characterised as hazardous under the Convention.

Annex VII

Parties and other States which are members of OECD, EC, Liechtenstein"

4. Note that mirror entry on list B (B1160) does not specify exceptions.

5. This entry does not include scrap assemblies from electric power generation.

6. PCBs are at a concentration level of 50 mg/kg or more.

7. The 50 mg/kg level is considered to be an internationally practical level for all wastes. However, many individual countries have established lower regulatory levels (e.g., 20 mg/kg) for specific wastes.

8. "Outdated" means unused within the period recommended by the manufacturer.

9. This entry does not include wood treated with wood preserving chemicals.

10. "Outdated" means unused within the period recommended by the manufacturer.
11. Note that even where low level contamination with Annex I materials initially exists, subsequent processes, including recycling processes, may result in separated fractions containing significantly enhanced concentrations of those Annex I materials.
12. The status of zinc ash is currently under review and there is a recommendation with the United Nations Conference on Trade and Development (UNCTAD) that zinc ashes should not be dangerous goods.
13. This entry does not include scrap from electrical power generation.
14. Reuse can include repair, refurbishment or upgrading, but not major reassembly.
15. In some countries these materials destined for direct re-use are not considered wastes.
16. It is understood that such scraps are completely polymerized.
17. - Post-consumer wastes are excluded from this entry
 - Wastes shall not be mixed
 - Problems arising from open-burning practices to be considered.

Appendix GCK

Text of the Basel Convention and Decisions of the Conference of Parties (COP 1 to 5). Basel Convention Series No. 00/01, UNEP Publication UNEP/SBS/2000/12, United Nations Environment Programme, Geneva, 223 pp

(available as hardcopy)

Appendix GCL
Rotterdam (PIC) Convention

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ROTTERDAM CONVENTION ON THE PRIOR INFORMED CONSENT PROCEDURE FOR CERTAIN
HAZARDOUS CHEMICALS AND PESTICIDES IN INTERNATIONAL TRADE

The Parties to this Convention,

Aware of the harmful impact on human health and the environment from certain hazardous chemicals and pesticides in international trade,

Recalling the pertinent provisions of the Rio Declaration on Environment and Development and chapter 19 of Agenda 21 on 'Environmentally sound management of toxic chemicals, including prevention of illegal international traffic in toxic and dangerous products',

Mindful of the work undertaken by the United Nations Environment Programme (UNEP) and the Food and Agriculture Organization of the United Nations (FAO) in the operation of the voluntary Prior Informed Consent procedure, as set out in the UNEP Amended London Guidelines for the Exchange of Information on Chemicals in International Trade (hereinafter referred to as the 'Amended London Guidelines') and the FAO International Code of Conduct on the Distribution and Use of Pesticides (hereinafter referred to as the 'International Code of Conduct'),

Taking into account the circumstances and particular requirements of developing countries and countries with economies in transition, in particular the need to strengthen national capabilities and capacities for the management of chemicals, including transfer of technology, providing financial and technical assistance and promoting cooperation among the Parties,

Noting the specific needs of some countries for information on transit movements,

Recognizing that good management practices for chemicals should be promoted in all countries, taking into account, *inter alia*, the voluntary standards laid down in the International Code of Conduct and the UNEP Code of Ethics on the International Trade in Chemicals,

Desiring to ensure that hazardous chemicals that are exported from their territory are packaged and labelled in a manner that is adequately protective of human health and the environment, consistent with the principles of the Amended London Guidelines and the International Code of Conduct,

Recognizing that trade and environmental policies should be mutually supportive with a view to achieving sustainable development,

Emphasizing that nothing in this Convention shall be interpreted as implying in any way a change in the rights and obligations of a Party under any existing international agreement applying to chemicals in international trade or to environmental protection,

Understanding that the above recital is not intended to create a hierarchy between this Convention and other international agreements,

Determined to protect human health, including the health of consumers and workers, and the environment against potentially harmful impacts from certain hazardous chemicals and pesticides in international trade,

Have agreed as follows:

Article 1

Objective

The objective of this Convention is to promote shared responsibility and cooperative efforts among Parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm and to contribute to their environmentally sound use, by facilitating information exchange about their characteristics, by providing for a national decision-making process on their import and export and by disseminating these decisions to Parties.

Article 2

Definitions

For the purposes of this Convention:

(a) 'Chemical' means a substance whether by itself or in a mixture or preparation and whether manufactured or obtained from nature, but does not include any living organism. It consists of the following categories: pesticide (including severely hazardous pesticide formulations) and industrial;

(b) 'Banned chemical' means a chemical all uses of which within one or more categories have been prohibited by final regulatory action, in order to protect human health or the environment. It includes a chemical that has been refused approval for first-time use or has been withdrawn by industry either from the domestic market or from further consideration in the domestic approval process and where there is clear evidence that such action has been taken in order to protect human health or the environment;

(c) 'Severely restricted chemical' means a chemical virtually all use of which within one or more categories has been prohibited by final regulatory action in order to protect human health or the environment, but for which certain specific uses remain allowed. It includes a chemical that has, for virtually all use, been refused for approval or been withdrawn by industry either from the domestic market or from further consideration in the domestic approval process, and where there is clear evidence that such action has been taken in order to protect human health or the environment;

(d) 'Severely hazardous pesticide formulation' means a chemical formulated for pesticidal use that produces severe health or environmental effects observable within a short period of time after single or multiple exposure, under conditions of use;

(e) 'Final regulatory action' means an action taken by a Party, that does not require subsequent regulatory action by that Party, the purpose of which is to ban or severely restrict a chemical;

(f) 'Export' and 'import' mean, in their respective connotations, the movement of a chemical from one Party to another Party, but exclude mere transit operations;

(g) 'Party' means a State or regional economic integration organization that has consented to be bound by this Convention and for which the Convention is in force;

(h) 'Regional economic integration organization' means an organization constituted by sovereign States of a given region to which its member States have transferred competence in respect of matters governed by this Convention and which has been duly authorized, in accordance with its internal procedures, to sign, ratify, accept, approve or accede to this Convention;

(i) 'Chemical Review Committee' means the subsidiary body referred to in paragraph 6 of Article 18.

Article 3

Scope of the Convention

1. This Convention applies to:

- (a) Banned or severely restricted chemicals; and
- (b) Severely hazardous pesticide formulations.

2. This Convention does not apply to:

- (a) Narcotic drugs and psychotropic substances;

- (b) Radioactive materials;
- (c) Wastes;
- (d) Chemical weapons;
- (e) Pharmaceuticals, including human and veterinary drugs;
- (f) Chemicals used as food additives;
- (g) Food;
- (h) Chemicals in quantities not likely to affect human health or the environment provided they are imported:
 - (i) For the purpose of research or analysis; or
 - (ii) By an individual for his or her own personal use in quantities reasonable for such use.

Article 4

Designated national authorities

1. Each Party shall designate one or more national authorities that shall be authorized to act on its behalf in the performance of the administrative functions required by this Convention.
2. Each Party shall seek to ensure that such authority or authorities have sufficient resources to perform their tasks effectively.
3. Each Party shall, no later than the date of the entry into force of this Convention for it, notify the name and address of such authority or authorities to the Secretariat. It shall forthwith notify the Secretariat of any changes in the name and address of such authority or authorities.
4. The Secretariat shall forthwith inform the Parties of the notifications it receives under paragraph 3.

Article 5

Procedures for banned or severely restricted chemicals

1. Each Party that has adopted a final regulatory action shall notify the Secretariat in writing of such

action. Such notification shall be made as soon as possible, and in any event no later than ninety days after the date on which the final regulatory action has taken effect, and shall contain the information required by Annex I, where available.

2. Each Party shall, at the date of entry into force of this Convention for it, notify the Secretariat in writing of its final regulatory actions in effect at that time, except that each Party that has submitted notifications of final regulatory actions under the Amended London Guidelines or the International Code of Conduct need not resubmit those notifications.

3. The Secretariat shall, as soon as possible, and in any event no later than six months after receipt of a notification under paragraphs 1 and 2, verify whether the notification contains the information required by Annex I. If the notification contains the information required, the Secretariat shall forthwith forward to all Parties a summary of the information received. If the notification does not contain the information required, it shall inform the notifying Party accordingly.

4. The Secretariat shall every six months communicate to the Parties a synopsis of the information received pursuant to paragraphs 1 and 2, including information regarding those notifications which do not contain all the information required by Annex I.

5. When the Secretariat has received at least one notification from each of two Prior Informed Consent regions regarding a particular chemical that it has verified meet the requirements of Annex I, it shall forward them to the Chemical Review Committee. The composition of the Prior Informed Consent regions shall be defined in a decision to be adopted by consensus at the first meeting of the Conference of the Parties.

6. The Chemical Review Committee shall review the information provided in such notifications and, in accordance with the criteria set out in Annex II, recommend to the Conference of the Parties whether the chemical in question should be made subject to the Prior Informed Consent procedure and, accordingly, be listed in Annex III.

Article 6

Procedures for severely hazardous pesticide formulations

1. Any Party that is a developing country or a country with an economy in transition and that is experiencing problems caused by a severely hazardous pesticide formulation under conditions of use in its territory, may propose to the Secretariat the listing of the severely hazardous pesticide formulation in Annex III. In developing a proposal, the Party may draw upon technical expertise from any relevant source. The proposal shall contain the information required by part 1 of Annex IV.

2. The Secretariat shall, as soon as possible, and in any event no later than six months after receipt of a proposal under paragraph 1, verify whether the proposal contains the information required by part 1 of Annex IV. If the proposal contains the information required, the Secretariat shall forthwith forward to all Parties a summary of the information received. If the proposal does not contain the information

required, it shall inform the proposing Party accordingly.

3. The Secretariat shall collect the additional information set out in part 2 of Annex IV regarding the proposal forwarded under paragraph 2.

4. When the requirements of paragraphs 2 and 3 above have been fulfilled with regard to a particular severely hazardous pesticide formulation, the Secretariat shall forward the proposal and the related information to the Chemical Review Committee.

5. The Chemical Review Committee shall review the information provided in the proposal and the additional information collected and, in accordance with the criteria set out in part 3 of Annex IV, recommend to the Conference of the Parties whether the severely hazardous pesticide formulation in question should be made subject to the Prior Informed Consent procedure and, accordingly, be listed in Annex III.

Article 7

Listing of chemicals in Annex III

1. For each chemical that the Chemical Review Committee has decided to recommend for listing in Annex III, it shall prepare a draft decision guidance document. The decision guidance document should, at a minimum, be based on the information specified in Annex I, or, as the case may be, Annex IV, and include information on uses of the chemical in a category other than the category for which the final regulatory action applies.

2. The recommendation referred to in paragraph 1 together with the draft decision guidance document shall be forwarded to the Conference of the Parties. The Conference of the Parties shall decide whether the chemical should be made subject to the Prior Informed Consent procedure and, accordingly, list the chemical in Annex III and approve the draft decision guidance document.

3. When a decision to list a chemical in Annex III has been taken and the related decision guidance document has been approved by the Conference of the Parties, the Secretariat shall forthwith communicate this information to all Parties.

Article 8

Chemicals in the voluntary Prior Informed Consent procedure

For any chemical, other than a chemical listed in Annex III, that has been included in the voluntary Prior Informed Consent procedure before the date of the first meeting of the Conference of the Parties, the Conference of the Parties shall decide at that meeting to list the chemical in Annex III, provided that it is satisfied that all the requirements for listing in that Annex have been fulfilled.

Article 9

Removal of chemicals from Annex III

1. If a Party submits to the Secretariat information that was not available at the time of the decision to list a chemical in Annex III and that information indicates that its listing may no longer be justified in accordance with the relevant criteria in Annex II or, as the case may be, Annex IV, the Secretariat shall forward the information to the Chemical Review Committee.
2. The Chemical Review Committee shall review the information it receives under paragraph 1. For each chemical that the Chemical Review Committee decides, in accordance with the relevant criteria in Annex II or, as the case may be, Annex IV, to recommend for removal from Annex III, it shall prepare a revised draft decision guidance document.
3. A recommendation referred to in paragraph 2 shall be forwarded to the Conference of the Parties and be accompanied by a revised draft decision guidance document. The Conference of the Parties shall decide whether the chemical should be removed from Annex III and whether to approve the revised draft decision guidance document.
4. When a decision to remove a chemical from Annex III has been taken and the revised decision guidance document has been approved by the Conference of the Parties, the Secretariat shall forthwith communicate this information to all Parties.

Article 10

Obligations in relation to imports of chemicals listed in Annex III

1. Each Party shall implement appropriate legislative or administrative measures to ensure timely decisions with respect to the import of chemicals listed in Annex III.
2. Each Party shall transmit to the Secretariat, as soon as possible, and in any event no later than nine months after the date of dispatch of the decision guidance document referred to in paragraph 3 of Article 7, a response concerning the future import of the chemical concerned. If a Party modifies this response, it shall forthwith submit the revised response to the Secretariat.
3. The Secretariat shall, at the expiration of the time period in paragraph 2, forthwith address to a Party that has not provided such a response, a written request to do so. Should the Party be unable to provide a response, the Secretariat shall, where appropriate, help it to provide a response within the time period specified in the last sentence of paragraph 2 of Article 11.
4. A response under paragraph 2 shall consist of either:

- (a) A final decision, pursuant to legislative or administrative measures:

- (i) To consent to import;
- (ii) Not to consent to import; or
- (iii) To consent to import only subject to specified conditions; or

(b) An interim response, which may include:

- (i) An interim decision consenting to import with or without specified conditions, or not consenting to import during the interim period;
- (ii) A statement that a final decision is under active consideration;
- (iii) A request to the Secretariat, or to the Party that notified the final regulatory action, for further information;
- (iv) A request to the Secretariat for assistance in evaluating the chemical.

5. A response under subparagraphs (a) or (b) of paragraph 4 shall relate to the category or categories specified for the chemical in Annex III.

6. A final decision should be accompanied by a description of any legislative or administrative measures upon which it is based.

7. Each Party shall, no later than the date of entry into force of this Convention for it, transmit to the Secretariat responses with respect to each chemical listed in Annex III. A Party that has provided such responses under the Amended London Guidelines or the International Code of Conduct need not resubmit those responses.

8. Each Party shall make its responses under this Article available to those concerned within its jurisdiction, in accordance with its legislative or administrative measures.

9. A Party that, pursuant to paragraphs 2 and 4 above and paragraph 2 of Article 11, takes a decision not to consent to import of a chemical or to consent to its import only under specified conditions shall, if it has not already done so, simultaneously prohibit or make subject to the same conditions:

- (a) Import of the chemical from any source; and
- (b) Domestic production of the chemical for domestic use.

10. Every six months the Secretariat shall inform all Parties of the responses it has received. Such information shall include a description of the legislative or administrative measures on which the decisions have been based, where available. The Secretariat shall, in addition, inform the Parties of any cases of failure to transmit a response.

Article 11

Obligations in relation to exports of chemicals listed in Annex III

1. Each exporting Party shall:

- (a) Implement appropriate legislative or administrative measures to communicate the responses forwarded by the Secretariat in accordance with paragraph 10 of Article 10 to those concerned within its jurisdiction;
- (b) Take appropriate legislative or administrative measures to ensure that exporters within its jurisdiction comply with decisions in each response no later than six months after the date on which the Secretariat first informs the Parties of such response in accordance with paragraph 10 of Article 10;
- (c) Advise and assist importing Parties, upon request and as appropriate:
 - (i) To obtain further information to help them to take action in accordance with paragraph 4 of Article 10 and paragraph 2 (c) below; and
 - (ii) To strengthen their capacities and capabilities to manage chemicals safely during their life-cycle.

2. Each Party shall ensure that a chemical listed in Annex III is not exported from its territory to any importing Party that, in exceptional circumstances, has failed to transmit a response or has transmitted an interim response that does not contain an interim decision, unless:

- (a) It is a chemical that, at the time of import, is registered as a chemical in the importing Party; or
- (b) It is a chemical for which evidence exists that it has previously been used in, or imported into, the importing Party and in relation to which no regulatory action to prohibit its use has been taken; or
- (c) Explicit consent to the import has been sought and received by the exporter through a designated national authority of the importing Party. The importing Party shall respond to such a request within sixty days and shall promptly notify the Secretariat of its decision.

The obligations of exporting Parties under this paragraph shall apply with effect from the expiration of a period of six months from the date on which the Secretariat first informs the Parties, in accordance with paragraph 10 of Article 10, that a Party has failed to transmit a response or has transmitted an interim response that does not contain an interim decision, and shall apply for one year.

Article 12

Export notification

1. Where a chemical that is banned or severely restricted by a Party is exported from its territory, that Party shall provide an export notification to the importing Party. The export notification shall include the information set out in Annex V.
2. The export notification shall be provided for that chemical prior to the first export following adoption of the corresponding final regulatory action. Thereafter, the export notification shall be provided before the first export in any calendar year. The requirement to notify before export may be waived by the designated national authority of the importing Party.
3. An exporting Party shall provide an updated export notification after it has adopted a final regulatory action that results in a major change concerning the ban or severe restriction of that chemical.
4. The importing Party shall acknowledge receipt of the first export notification received after the adoption of the final regulatory action. If the exporting Party does not receive the acknowledgement within thirty days of the dispatch of the export notification, it shall submit a second notification. The exporting Party shall make reasonable efforts to ensure that the importing Party receives the second notification.
5. The obligations of a Party set out in paragraph 1 shall cease when:
 - (a) The chemical has been listed in Annex III;
 - (b) The importing Party has provided a response for the chemical to the Secretariat in accordance with paragraph 2 of Article 10; and
 - (c) The Secretariat has distributed the response to the Parties in accordance with paragraph 10 of Article 10.

Article 13

Information to accompany exported chemicals

1. The Conference of the Parties shall encourage the World Customs Organization to assign specific Harmonized System customs codes to the individual chemicals or groups of chemicals listed in Annex III, as appropriate. Each Party shall require that, whenever a code has been assigned to such a chemical, the shipping document for that chemical bears the code when exported.
2. Without prejudice to any requirements of the importing Party, each Party shall require that both chemicals listed in Annex III and chemicals banned or severely restricted in its territory are, when exported, subject to labelling requirements that ensure adequate availability of information with regard to risks and/or hazards to human health or the environment, taking into account relevant

international standards.

3. Without prejudice to any requirements of the importing Party, each Party may require that chemicals subject to environmental or health labelling requirements in its territory are, when exported, subject to labelling requirements that ensure adequate availability of information with regard to risks and/or hazards to human health or the environment, taking into account relevant international standards.

4. With respect to the chemicals referred to in paragraph 2 that are to be used for occupational purposes, each exporting Party shall require that a safety data sheet that follows an internationally recognized format, setting out the most up-to-date information available, is sent to each importer.

5. The information on the label and on the safety data sheet should, as far as practicable, be given in one or more of the official languages of the importing Party.

Article 14

Information exchange

1. Each Party shall, as appropriate and in accordance with the objective of this Convention, facilitate:

(a) The exchange of scientific, technical, economic and legal information concerning the chemicals within the scope of this Convention, including toxicological, ecotoxicological and safety information;

(b) The provision of publicly available information on domestic regulatory actions relevant to the objectives of this Convention; and

(c) The provision of information to other Parties, directly or through the Secretariat, on domestic regulatory actions that substantially restrict one or more uses of the chemical, as appropriate.

2. Parties that exchange information pursuant to this Convention shall protect any confidential information as mutually agreed.

3. The following information shall not be regarded as confidential for the purposes of this Convention:

(a) The information referred to in Annexes I and IV, submitted pursuant to Articles 5 and 6 respectively;

(b) The information contained in the safety data sheet referred to in paragraph 4 of Article 13;

- (c) The expiry date of the chemical;
 - (d) Information on precautionary measures, including hazard classification, the nature of the risk and the relevant safety advice; and
 - (e) The summary results of the toxicological and ecotoxicological tests.
4. The production date of the chemical shall generally not be considered confidential for the purposes of this Convention.
5. Any Party requiring information on transit movements through its territory of chemicals listed in Annex III may report its need to the Secretariat, which shall inform all Parties accordingly.

Article 15

Implementation of the Convention

1. Each Party shall take such measures as may be necessary to establish and strengthen its national infrastructures and institutions for the effective implementation of this Convention. These measures may include, as required, the adoption or amendment of national legislative or administrative measures and may also include:
- (a) The establishment of national registers and databases including safety information for chemicals;
 - (b) The encouragement of initiatives by industry to promote chemical safety; and
 - (c) The promotion of voluntary agreements, taking into consideration the provisions of Article 16.
2. Each Party shall ensure, to the extent practicable, that the public has appropriate access to information on chemical handling and accident management and on alternatives that are safer for human health or the environment than the chemicals listed in Annex III.
3. The Parties agree to cooperate, directly or, where appropriate, through competent international organizations, in the implementation of this Convention at the subregional, regional and global levels.
4. Nothing in this Convention shall be interpreted as restricting the right of the Parties to take action that is more stringently protective of human health and the environment than that called for in this Convention, provided that such action is consistent with the provisions of this Convention and is in accordance with international law.

Article 16

Technical assistance

The Parties shall, taking into account in particular the needs of developing countries and countries with economies in transition, cooperate in promoting technical assistance for the development of the infrastructure and the capacity necessary to manage chemicals to enable implementation of this Convention. Parties with more advanced programmes for regulating chemicals should provide technical assistance, including training, to other Parties in developing their infrastructure and capacity to manage chemicals throughout their life-cycle.

Article 17

Non-Compliance

The Conference of the Parties shall, as soon as practicable, develop and approve procedures and institutional mechanisms for determining non-compliance with the provisions of this Convention and for treatment of Parties found to be in non-compliance.

Article 18

Conference of the Parties

1. A Conference of the Parties is hereby established.
2. The first meeting of the Conference of the Parties shall be convened by the Executive Director of UNEP and the Director-General of FAO, acting jointly, no later than one year after the entry into force of this Convention. Thereafter, ordinary meetings of the Conference of the Parties shall be held at regular intervals to be determined by the Conference.
3. Extraordinary meetings of the Conference of the Parties shall be held at such other times as may be deemed necessary by the Conference, or at the written request of any Party provided that it is supported by at least one third of the Parties.
4. The Conference of the Parties shall by consensus agree upon and adopt at its first meeting rules of procedure and financial rules for itself and any subsidiary bodies, as well as financial provisions governing the functioning of the Secretariat.
5. The Conference of the Parties shall keep under continuous review and evaluation the implementation of this Convention. It shall perform the functions assigned to it by the Convention and, to this end, shall:

- (a) Establish, further to the requirements of paragraph 6 below, such subsidiary bodies, as it

considers necessary for the implementation of the Convention;

(b) Cooperate, where appropriate, with competent international organizations and intergovernmental and non-governmental bodies; and

(c) Consider and undertake any additional action that may be required for the achievement of the objectives of the Convention.

6. The Conference of the Parties shall, at its first meeting, establish a subsidiary body, to be called the Chemical Review Committee, for the purposes of performing the functions assigned to that Committee by this Convention. In this regard:

(a) The members of the Chemical Review Committee shall be appointed by the Conference of the Parties. Membership of the Committee shall consist of a limited number of government-designated experts in chemicals management. The members of the Committee shall be appointed on the basis of equitable geographical distribution, including ensuring a balance between developed and developing Parties;

(b) The Conference of the Parties shall decide on the terms of reference, organization and operation of the Committee;

(c) The Committee shall make every effort to make its recommendations by consensus. If all efforts at consensus have been exhausted, and no consensus reached, such recommendation shall as a last resort be adopted by a two-thirds majority vote of the members present and voting.

7. The United Nations, its specialized agencies and the International Atomic Energy Agency, as well as any State not Party to this Convention, may be represented at meetings of the Conference of the Parties as observers. Any body or agency, whether national or international, governmental or non-governmental, qualified in matters covered by the Convention, and which has informed the Secretariat of its wish to be represented at a meeting of the Conference of the Parties as an observer may be admitted unless at least one third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure adopted by the Conference of the Parties.

Article 19

Secretariat

1. A Secretariat is hereby established.

2. The functions of the Secretariat shall be:

(a) To make arrangements for meetings of the Conference of the Parties and its subsidiary

bodies and to provide them with services as required;

(b) To facilitate assistance to the Parties, particularly developing Parties and Parties with economies in transition, on request, in the implementation of this Convention;

(c) To ensure the necessary coordination with the secretariats of other relevant international bodies;

(d) To enter, under the overall guidance of the Conference of the Parties, into such administrative and contractual arrangements as may be required for the effective discharge of its functions; and

(e) To perform the other secretariat functions specified in this Convention and such other functions as may be determined by the Conference of the Parties.

3. The secretariat functions for this Convention shall be performed jointly by the Executive Director of UNEP and the Director-General of FAO, subject to such arrangements as shall be agreed between them and approved by the Conference of the Parties.

4. The Conference of the Parties may decide, by a three-fourths majority of the Parties present and voting, to entrust the secretariat functions to one or more other competent international organizations, should it find that the Secretariat is not functioning as intended.

Article 20

Settlement of disputes

1. Parties shall settle any dispute between them concerning the interpretation or application of this Convention through negotiation or other peaceful means of their own choice.

2. When ratifying, accepting, approving or acceding to this Convention, or at any time thereafter, a Party that is not a regional economic integration organization may declare in a written instrument submitted to the Depositary that, with respect to any dispute concerning the interpretation or application of the Convention, it recognizes one or both of the following means of dispute settlement as compulsory in relation to any Party accepting the same obligation:

(a) Arbitration in accordance with procedures to be adopted by the Conference of the Parties in an annex as soon as practicable; and

(b) Submission of the dispute to the International Court of Justice.

3. A Party that is a regional economic integration organization may make a declaration with like effect in relation to arbitration in accordance with the procedure referred to in paragraph 2 (a).

4. A declaration made pursuant to paragraph 2 shall remain in force until it expires in accordance with its terms or until three months after written notice of its revocation has been deposited with the Depositary.

5. The expiry of a declaration, a notice of revocation or a new declaration shall not in any way affect proceedings pending before an arbitral tribunal or the International Court of Justice unless the parties to the dispute otherwise agree.

6. If the parties to a dispute have not accepted the same or any procedure pursuant to paragraph 2, and if they have not been able to settle their dispute within twelve months following notification by one party to another that a dispute exists between them, the dispute shall be submitted to a conciliation commission at the request of any party to the dispute. The conciliation commission shall render a report with recommendations. Additional procedures relating to the conciliation commission shall be included in an annex to be adopted by the Conference of the Parties no later than the second meeting of the Conference.

Article 21

Amendments to the Convention

1. Amendments to this Convention may be proposed by any Party.

2. Amendments to this Convention shall be adopted at a meeting of the Conference of the Parties. The text of any proposed amendment shall be communicated to the Parties by the Secretariat at least six months before the meeting at which it is proposed for adoption. The Secretariat shall also communicate the proposed amendment to the signatories to this Convention and, for information, to the Depositary.

3. The Parties shall make every effort to reach agreement on any proposed amendment to this Convention by consensus. If all efforts at consensus have been exhausted, and no agreement reached, the amendment shall as a last resort be adopted by a three-fourths majority vote of the Parties present and voting at the meeting.

4. The amendment shall be communicated by the Depositary to all Parties for ratification, acceptance or approval.

5. Ratification, acceptance or approval of an amendment shall be notified to the Depositary in writing. An amendment adopted in accordance with paragraph 3 shall enter into force for the Parties having accepted it on the ninetieth day after the date of deposit of instruments of ratification, acceptance or approval by at least three fourths of the Parties. Thereafter, the amendment shall enter into force for any other Party on the ninetieth day after the date on which that Party deposits its instrument of ratification, acceptance or approval of the amendment.

Article 22

Adoption and amendment of annexes

1. Annexes to this Convention shall form an integral part thereof and, unless expressly provided otherwise, a reference to this Convention constitutes at the same time a reference to any annexes thereto.
2. Annexes shall be restricted to procedural, scientific, technical or administrative matters.
3. The following procedure shall apply to the proposal, adoption and entry into force of additional annexes to this Convention:
 - (a) Additional annexes shall be proposed and adopted according to the procedure laid down in paragraphs 1, 2 and 3 of Article 21;
 - (b) Any Party that is unable to accept an additional annex shall so notify the Depositary, in writing, within one year from the date of communication of the adoption of the additional annex by the Depositary. The Depositary shall without delay notify all Parties of any such notification received. A Party may at any time withdraw a previous notification of non-acceptance in respect of an additional annex and the annex shall thereupon enter into force for that Party subject to subparagraph (c) below; and
 - (c) On the expiry of one year from the date of the communication by the Depositary of the adoption of an additional annex, the annex shall enter into force for all Parties that have not submitted a notification in accordance with the provisions of subparagraph (b) above.
4. Except in the case of Annex III, the proposal, adoption and entry into force of amendments to annexes to this Convention shall be subject to the same procedures as for the proposal, adoption and entry into force of additional annexes to the Convention.
5. The following procedure shall apply to the proposal, adoption and entry into force of amendments to Annex III:
 - (a) Amendments to Annex III shall be proposed and adopted according to the procedure laid down in Articles 5 to 9 and paragraph 2 of Article 21;
 - (b) The Conference of the Parties shall take its decisions on adoption by consensus;
 - (c) A decision to amend Annex III shall forthwith be communicated to the Parties by the Depositary. The amendment shall enter into force for all Parties on a date to be specified in the decision.

6. If an additional annex or an amendment to an annex is related to an amendment to this Convention, the additional annex or amendment shall not enter into force until such time as the amendment to the Convention enters into force.

Article 23

Voting

1. Each Party to this Convention shall have one vote, except as provided for in paragraph 2 below.
2. A regional economic integration organization, on matters within its competence, shall exercise its right to vote with a number of votes equal to the number of its member States that are Parties to this Convention. Such an organization shall not exercise its right to vote if any of its member States exercises its right to vote, and vice versa.
3. For the purposes of this Convention, 'Parties present and voting' means Parties present and casting an affirmative or negative vote.

Article 24

Signature

This Convention shall be open for signature at Rotterdam by all States and regional economic integration organizations on 11 September 1998, and at United Nations Headquarters in New York from 12 September 1998 to 10 September 1999.

Article 25

Ratification, acceptance, approval or accession

1. This Convention shall be subject to ratification, acceptance or approval by States and by regional economic integration organizations. It shall be open for accession by States and by regional economic integration organizations from the day after the date on which the Convention is closed for signature. Instruments of ratification, acceptance, approval or accession shall be deposited with the Depository.
2. Any regional economic integration organization that becomes a Party to this Convention without any of its member States being a Party shall be bound by all the obligations under the Convention. In the case of such organizations, one or more of whose member States is a Party to this Convention, the organization and its member States shall decide on their respective responsibilities for the performance of their obligations under the Convention. In such cases, the organization and the member States shall not be entitled to exercise rights under the Convention concurrently.

3. In its instrument of ratification, acceptance, approval or accession, a regional economic integration organization shall declare the extent of its competence in respect of the matters governed by this Convention. Any such organization shall also inform the Depositary, who shall in turn inform the Parties, of any relevant modification in the extent of its competence.

Article 26

Entry into force

1. This Convention shall enter into force on the ninetieth day after the date of deposit of the fiftieth instrument of ratification, acceptance, approval or accession.
2. For each State or regional economic integration organization that ratifies, accepts or approves this Convention or accedes thereto after the deposit of the fiftieth instrument of ratification, acceptance, approval or accession, the Convention shall enter into force on the ninetieth day after the date of deposit by such State or regional economic integration organization of its instrument of ratification, acceptance, approval or accession.
3. For the purpose of paragraphs 1 and 2, any instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by member States of that organization.

Article 27

Reservations

No reservations may be made to this Convention.

Article 28

Withdrawal

1. At any time after three years from the date on which this Convention has entered into force for a Party, that Party may withdraw from the Convention by giving written notification to the Depositary.
2. Any such withdrawal shall take effect upon expiry of one year from the date of receipt by the Depositary of the notification of withdrawal, or on such later date as may be specified in the notification of withdrawal.

Article 29

Depositary

The Secretary-General of the United Nations shall be the Depositary of this Convention.

Article 30

Authentic texts

The original of this Convention, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

IN WITNESS WHEREOF the undersigned, being duly authorized to that effect, have signed this Convention.

Done at Rotterdam on this tenth day of September, one thousand nine hundred and ninety-eight.

Annex I

INFORMATION REQUIREMENTS FOR NOTIFICATIONS MADE PURSUANT TO ARTICLE 5

Notifications shall include:

1. Properties, identification and uses

- (a) Common name;
- (b) Chemical name according to an internationally recognized nomenclature (for example, International Union of Pure and Applied Chemistry (IUPAC)), where such nomenclature exists;
- (c) Trade names and names of preparations;
- (d) Code numbers: Chemicals Abstract Service (CAS) number, Harmonized System customs code and other numbers;
- (e) Information on hazard classification, where the chemical is subject to classification requirements;
- (f) Use or uses of the chemical;
- (g) Physico-chemical, toxicological and ecotoxicological properties.

2. Final regulatory action

(a) Information specific to the final regulatory action:

- (i) Summary of the final regulatory action;
- (ii) Reference to the regulatory document;
- (iii) Date of entry into force of the final regulatory action;
- (iv) Indication of whether the final regulatory action was taken on the basis of a risk or hazard evaluation and, if so, information on such evaluation, covering a reference to the relevant documentation;
- (v) Reasons for the final regulatory action relevant to human health, including the health of consumers and workers, or the environment;
- (vi) Summary of the hazards and risks presented by the chemical to human health, including the health of consumers and workers, or the environment and the expected effect of the final regulatory action;

(b) Category or categories where the final regulatory action has been taken, and for each category:

- (i) Use or uses prohibited by the final regulatory action;
- (ii) Use or uses that remain allowed;
- (iii) Estimation, where available, of quantities of the chemical produced, imported, exported and used;

(c) An indication, to the extent possible, of the likely relevance of the final regulatory action to other States and regions;

(d) Other relevant information that may cover:

- (i) Assessment of socio-economic effects of the final regulatory action;
- (ii) Information on alternatives and their relative risks, where available, such as:
 - Integrated pest management strategies;
 - Industrial practices and processes, including cleaner technology.

Annex II

CRITERIA FOR LISTING BANNED OR SEVERELY RESTRICTED CHEMICALS

IN ANNEX III

In reviewing the notifications forwarded by the Secretariat pursuant to paragraph 5 of Article 5, the Chemical Review Committee shall:

- (a) Confirm that the final regulatory action has been taken in order to protect human health or the environment;
- (b) Establish that the final regulatory action has been taken as a consequence of a risk evaluation. This evaluation shall be based on a review of scientific data in the context of the conditions prevailing in the Party in question. For this purpose, the documentation provided shall demonstrate that:
 - (i) Data have been generated according to scientifically recognized methods;
 - (ii) Data reviews have been performed and documented according to generally recognized scientific principles and procedures;
 - (iii) The final regulatory action was based on a risk evaluation involving prevailing conditions within the Party taking the action;
- (c) Consider whether the final regulatory action provides a sufficiently broad basis to merit listing of the chemical in Annex III, by taking into account:
 - (i) Whether the final regulatory action led, or would be expected to lead, to a significant decrease in the quantity of the chemical used or the number of its uses;
 - (ii) Whether the final regulatory action led to an actual reduction of risk or would be expected to result in a significant reduction of risk for human health or the environment of the Party that submitted the notification;
 - (iii) Whether the considerations that led to the final regulatory action being taken are applicable only in a limited geographical area or in other limited circumstances;
 - (iv) Whether there is evidence of ongoing international trade in the chemical;
- (d) Take into account that intentional misuse is not in itself an adequate reason to list a chemical in Annex III.

Annex III

CHEMICALS SUBJECT TO THE PRIOR INFORMED CONSENT PROCEDURE

Chemical	Relevant CAS number(s)	Category
2,4,5-T	93-76-5	Pesticide
Aldrin	309-00-2	Pesticide
Captafol	2425-06-1	Pesticide
Chlordane	57-74-9	Pesticide
Chlordimeform	6164-98-3	Pesticide
Chlorobenzilate	510-15-6	Pesticide
DDT	50-29-3	Pesticide
Dieldrin	60-57-1	Pesticide
Dinoseb and dinoseb salts	88-85-7	Pesticide
1,2-dibromoethane (EDB)	106-93-4	Pesticide
Fluoroacetamide	640-19-7	Pesticide

HCH (mixed isomers)	608-73-1	Pesticide
Heptachlor	76-44-8	Pesticide
Hexachlorobenzene	118-74-1	Pesticide
Lindane	58-89-9	Pesticide
Mercury compounds, including inorganic mercury compounds, alkyl mercury compounds and alkyloxyalkyl and aryl mercury compounds		Pesticide

Pentachlorophenol	87-86-5	Pesticide
Monocrotophos (Soluble liquid formulations of the substance that exceed 600 g active ingredient/l)	6923-22-4	Severely hazardous pesticide formulation
Methamidophos (Soluble liquid formulations of the substance that exceed 600 g active ingredient/l)	10265-92-6	Severely hazardous pesticide formulation
Phosphamidon (Soluble liquid formulations of the substance that exceed 1000 g active ingredient/l)	13171-21-6 (mixture, (E)&(Z) isomers) 23783-98-4 ((Z)-isomer) 297-99-4 ((E)-isomer)	Severely hazardous pesticide formulation

Methyl-parathion (emulsifiable concentrates (EC) with 19.5%, 40%, 50%, 60% active ingredient and dusts containing 1.5%, 2% and 3% active ingredient)	298-00-0	Severely hazardous pesticide formulation
Parathion (all formulations - aerosols, dustable powder (DP), emulsifiable concentrate (EC), granules (GR) and wettable powders (WP) - of this substance are included, except capsule suspensions (CS))	56-38-2	Severely hazardous pesticide formulation
Crocidolite	12001-28-4	Industrial
Polybrominated biphenyls (PBB)	36355-01-8 (hexa-) 27858-07-7 (octa-) 13654-09-6 (deca-)	Industrial
Polychlorinated biphenyls (PCB)	1336-36-3	Industrial
Polychlorinated terphenyls (PCT)	61788-33-8	Industrial
Tris (2,3-dibromopropyl) phosphate	126-72-7	Industrial

Annex IV

INFORMATION AND CRITERIA FOR LISTING SEVERELY HAZARDOUS PESTICIDE

FORMULATIONS IN ANNEX III

Part 1. Documentation required from a proposing Party

Proposals submitted pursuant to paragraph 1 of Article 6 shall include adequate documentation containing the following information:

- (a) Name of the hazardous pesticide formulation;
- (b) Name of the active ingredient or ingredients in the formulation;
- (c) Relative amount of each active ingredient in the formulation;
- (d) Type of formulation;
- (e) Trade names and names of the producers, if available;
- (f) Common and recognized patterns of use of the formulation within the proposing Party;
- (g) A clear description of incidents related to the problem, including the adverse effects and the way in which the formulation was used;
- (h) Any regulatory, administrative or other measure taken, or intended to be taken, by the proposing Party in response to such incidents.

Part 2. Information to be collected by the Secretariat

Pursuant to paragraph 3 of Article 6, the Secretariat shall collect relevant information relating to the formulation, including:

- (a) The physico-chemical, toxicological and ecotoxicological properties of the formulation;
- (b) The existence of handling or applicator restrictions in other States;
- (c) Information on incidents related to the formulation in other States;
- (d) Information submitted by other Parties, international organizations, non-governmental organizations or other relevant sources, whether national or international;
- (e) Risk and/or hazard evaluations, where available;
- (f) Indications, if available, of the extent of use of the formulation, such as the number of registrations or production or sales quantity;

- (g) Other formulations of the pesticide in question, and incidents, if any, relating to these formulations;
- (h) Alternative pest-control practices;
- (i) Other information which the Chemical Review Committee may identify as relevant.

Part 3. Criteria for listing severely hazardous pesticide formulations in Annex III

In reviewing the proposals forwarded by the Secretariat pursuant to paragraph 5 of Article 6, the Chemical Review Committee shall take into account:

- (a) The reliability of the evidence indicating that use of the formulation, in accordance with common or recognized practices within the proposing Party, resulted in the reported incidents;
- (b) The relevance of such incidents to other States with similar climate, conditions and patterns of use of the formulation;
- (c) The existence of handling or applicator restrictions involving technology or techniques that may not be reasonably or widely applied in States lacking the necessary infrastructure;
- (d) The significance of reported effects in relation to the quantity of the formulation used;
- (e) That intentional misuse is not in itself an adequate reason to list a formulation in Annex III.

Annex V

INFORMATION REQUIREMENTS FOR EXPORT NOTIFICATION

1. Export notifications shall contain the following information:

- (a) Name and address of the relevant designated national authorities of the exporting Party and the importing Party;
- (b) Expected date of export to the importing Party;
- (c) Name of the banned or severely restricted chemical and a summary of the information specified in Annex I that is to be provided to the Secretariat in accordance with Article 5. Where more than one such chemical is included in a mixture or preparation, such information shall be provided for each chemical;

(d) A statement indicating, if known, the foreseen category of the chemical and its foreseen use within that category in the importing Party;

(e) Information on precautionary measures to reduce exposure to, and emission of, the chemical;

(f) In the case of a mixture or a preparation, the concentration of the banned or severely restricted chemical or chemicals in question;

(g) Name and address of the importer;

(h) Any additional information that is readily available to the relevant designated national authority of the exporting Party that would be of assistance to the designated national authority of the importing Party.

2. In addition to the information referred to in paragraph 1, the exporting Party shall provide such further information specified in Annex I as may be requested by the importing Party.



Appendix EUA
Water Framework Directive 2000/60/EC

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Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy
Official Journal L 327 , 22/12/2000 P. 0001 - 0073

Directive 2000/60/EC of the European Parliament and of the Council
of 23 October 2000
establishing a framework for Community action in the field of water policy

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,
Having regard to the Treaty establishing the European Community, and in particular Article 175(1) thereof,

Having regard to the proposal from the Commission(1),

Having regard to the opinion of the Economic and Social Committee(2),

Having regard to the opinion of the Committee of the Regions(3),

Acting in accordance with the procedure laid down in Article 251 of the Treaty(4), and in the light of the joint text approved by the Conciliation Committee on 18 July 2000,

Whereas:

(1) Water is not a commercial product like any other but, rather, a heritage which must be protected, defended and treated as such.

(2) The conclusions of the Community Water Policy Ministerial Seminar in Frankfurt in 1988 highlighted the need for Community legislation covering ecological quality. The Council in its resolution of 28 June 1988(5) asked the Commission to submit proposals to improve ecological quality in Community surface waters.

(3) The declaration of the Ministerial Seminar on groundwater held at The Hague in 1991 recognised the need for action to avoid long-term deterioration of freshwater quality and quantity and called for a programme of actions to be implemented by the year 2000 aiming at sustainable management and protection of freshwater resources. In its resolutions of 25 February 1992(6), and 20 February 1995(7), the Council requested an action programme for groundwater and a revision of Council Directive 80/68/EEC of 17 December 1979 on the protection of groundwater against pollution caused by certain dangerous substances(8), as part of an overall policy on freshwater protection.

(4) Waters in the Community are under increasing pressure from the continuous growth in demand for sufficient quantities of good quality water for all purposes. On 10 November 1995, the European Environment Agency in its report "Environment in the European Union - 1995" presented an updated state of the environment report, confirming the need for action to protect Community waters in qualitative as well as in quantitative terms.

(5) On 18 December 1995, the Council adopted conclusions requiring, inter alia, the drawing up of a new framework Directive establishing the basic principles of sustainable water policy in the European Union and inviting the Commission to come forward with a proposal.

(6) On 21 February 1996 the Commission adopted a communication to the European Parliament and the Council on European Community water policy setting out the principles for a Community water policy.

(7) On 9 September 1996 the Commission presented a proposal for a Decision of the

European Parliament and of the Council on an action programme for integrated protection and management of groundwater(9). In that proposal the Commission pointed to the need to establish procedures for the regulation of abstraction of freshwater and for the monitoring of freshwater quality and quantity.

(8) On 29 May 1995 the Commission adopted a communication to the European Parliament and the Council on the wise use and conservation of wetlands, which recognised the important functions they perform for the protection of water resources.

(9) It is necessary to develop an integrated Community policy on water.

(10) The Council on 25 June 1996, the Committee of the Regions on 19 September 1996, the Economic and Social Committee on 26 September 1996, and the European Parliament on 23 October 1996 all requested the Commission to come forward with a proposal for a Council Directive establishing a framework for a European water policy.

(11) As set out in Article 174 of the Treaty, the Community policy on the environment is to contribute to pursuit of the objectives of preserving, protecting and improving the quality of the environment, in prudent and rational utilisation of natural resources, and to be based on the precautionary principle and on the principles that preventive action should be taken, environmental damage should, as a priority, be rectified at source and that the polluter should pay.

(12) Pursuant to Article 174 of the Treaty, in preparing its policy on the environment, the Community is to take account of available scientific and technical data, environmental conditions in the various regions of the Community, and the economic and social development of the Community as a whole and the balanced development of its regions as well as the potential benefits and costs of action or lack of action.

(13) There are diverse conditions and needs in the Community which require different specific solutions. This diversity should be taken into account in the planning and execution of measures to ensure protection and sustainable use of water in the framework of the river basin. Decisions should be taken as close as possible to the locations where water is affected or used. Priority should be given to action within the responsibility of Member States through the drawing up of programmes of measures adjusted to regional and local conditions.

(14) The success of this Directive relies on close cooperation and coherent action at Community, Member State and local level as well as on information, consultation and involvement of the public, including users.

(15) The supply of water is a service of general interest as defined in the Commission communication on services of general interest in Europe(10).

(16) Further integration of protection and sustainable management of water into other Community policy areas such as energy, transport, agriculture, fisheries, regional policy and tourism is necessary. This Directive should provide a basis for a continued dialogue and for the development of strategies towards a further integration of policy areas. This Directive can also make an important contribution to other areas of cooperation between Member States, inter alia, the European spatial development perspective (ESDP).

(17) An effective and coherent water policy must take account of the vulnerability of aquatic ecosystems located near the coast and estuaries or in gulfs or relatively closed seas, as their equilibrium is strongly influenced by the quality of inland waters flowing into them. Protection of water status within river basins will provide economic benefits by contributing towards the protection of fish populations, including coastal fish populations.

(18) Community water policy requires a transparent, effective and coherent legislative framework. The Community should provide common principles and the overall framework for action. This Directive should provide for such a framework and coordinate and integrate, and, in a longer perspective, further develop the overall principles and structures for protection and sustainable use of water in the Community in accordance with the principles of subsidiarity.

(19) This Directive aims at maintaining and improving the aquatic environment in the Community. This purpose is primarily concerned with the quality of the waters concerned.

Control of quantity is an ancillary element in securing good water quality and therefore measures on quantity, serving the objective of ensuring good quality, should also be established.

(20) The quantitative status of a body of groundwater may have an impact on the ecological quality of surface waters and terrestrial ecosystems associated with that groundwater body.

(21) The Community and Member States are party to various international agreements containing important obligations on the protection of marine waters from pollution, in particular the Convention on the Protection of the Marine Environment of the Baltic Sea Area, signed in Helsinki on 9 April 1992 and approved by Council Decision 94/157/EC(11), the Convention for the Protection of the Marine Environment of the North-East Atlantic, signed in Paris on 22 September 1992 and approved by Council Decision 98/249/EC(12), and the Convention for the Protection of the Mediterranean Sea Against Pollution, signed in Barcelona on 16 February 1976 and approved by Council Decision 77/585/EEC(13), and its Protocol for the Protection of the Mediterranean Sea Against Pollution from Land-Based Sources, signed in Athens on 17 May 1980 and approved by Council Decision 83/101/EEC(14). This Directive is to make a contribution towards enabling the Community and Member States to meet those obligations.

(22) This Directive is to contribute to the progressive reduction of emissions of hazardous substances to water.

(23) Common principles are needed in order to coordinate Member States' efforts to improve the protection of Community waters in terms of quantity and quality, to promote sustainable water use, to contribute to the control of transboundary water problems, to protect aquatic ecosystems, and terrestrial ecosystems and wetlands directly depending on them, and to safeguard and develop the potential uses of Community waters.

(24) Good water quality will contribute to securing the drinking water supply for the population.

(25) Common definitions of the status of water in terms of quality and, where relevant for the purpose of the environmental protection, quantity should be established. Environmental objectives should be set to ensure that good status of surface water and groundwater is achieved throughout the Community and that deterioration in the status of waters is prevented at Community level.

(26) Member States should aim to achieve the objective of at least good water status by defining and implementing the necessary measures within integrated programmes of measures, taking into account existing Community requirements. Where good water status already exists, it should be maintained. For groundwater, in addition to the requirements of good status, any significant and sustained upward trend in the concentration of any pollutant should be identified and reversed.

(27) The ultimate aim of this Directive is to achieve the elimination of priority hazardous substances and contribute to achieving concentrations in the marine environment near background values for naturally occurring substances.

(28) Surface waters and groundwaters are in principle renewable natural resources; in particular, the task of ensuring good status of groundwater requires early action and stable long-term planning of protective measures, owing to the natural time lag in its formation and renewal. Such time lag for improvement should be taken into account in timetables when establishing measures for the achievement of good status of groundwater and reversing any significant and sustained upward trend in the concentration of any pollutant in groundwater.

(29) In aiming to achieve the objectives set out in this Directive, and in establishing a programme of measures to that end, Member States may phase implementation of the programme of measures in order to spread the costs of implementation.

(30) In order to ensure a full and consistent implementation of this Directive any extensions of timescale should be made on the basis of appropriate, evident and transparent criteria and be justified by the Member States in the river basin management plans.

(31) In cases where a body of water is so affected by human activity or its natural condition is such that it may be unfeasible or unreasonably expensive to achieve good status, less stringent environmental objectives may be set on the basis of appropriate, evident and transparent criteria, and all practicable steps should be taken to prevent any further deterioration of the status of waters.

(32) There may be grounds for exemptions from the requirement to prevent further deterioration or to achieve good status under specific conditions, if the failure is the result of unforeseen or exceptional circumstances, in particular floods and droughts, or, for reasons of overriding public interest, of new modifications to the physical characteristics of a surface water body or alterations to the level of bodies of groundwater, provided that all practicable steps are taken to mitigate the adverse impact on the status of the body of water.

(33) The objective of achieving good water status should be pursued for each river basin, so that measures in respect of surface water and groundwaters belonging to the same ecological, hydrological and hydrogeological system are coordinated.

(34) For the purposes of environmental protection there is a need for a greater integration of qualitative and quantitative aspects of both surface waters and groundwaters, taking into account the natural flow conditions of water within the hydrological cycle.

(35) Within a river basin where use of water may have transboundary effects, the requirements for the achievement of the environmental objectives established under this Directive, and in particular all programmes of measures, should be coordinated for the whole of the river basin district. For river basins extending beyond the boundaries of the Community, Member States should endeavour to ensure the appropriate coordination with the relevant non-member States. This Directive is to contribute to the implementation of Community obligations under international conventions on water protection and management, notably the United Nations Convention on the protection and use of transboundary water courses and international lakes, approved by Council Decision 95/308/EC(15) and any succeeding agreements on its application.

(36) It is necessary to undertake analyses of the characteristics of a river basin and the impacts of human activity as well as an economic analysis of water use. The development in water status should be monitored by Member States on a systematic and comparable basis throughout the Community. This information is necessary in order to provide a sound basis for Member States to develop programmes of measures aimed at achieving the objectives established under this Directive.

(37) Member States should identify waters used for the abstraction of drinking water and ensure compliance with Council Directive 80/778/EEC of 15 July 1980 relating to the quality of water intended for human consumption(16).

(38) The use of economic instruments by Member States may be appropriate as part of a programme of measures. The principle of recovery of the costs of water services, including environmental and resource costs associated with damage or negative impact on the aquatic environment should be taken into account in accordance with, in particular, the polluter-pays principle. An economic analysis of water services based on long-term forecasts of supply and demand for water in the river basin district will be necessary for this purpose.

(39) There is a need to prevent or reduce the impact of incidents in which water is accidentally polluted. Measures with the aim of doing so should be included in the programme of measures.

(40) With regard to pollution prevention and control, Community water policy should be based on a combined approach using control of pollution at source through the setting of emission limit values and of environmental quality standards.

(41) For water quantity, overall principles should be laid down for control on abstraction and impoundment in order to ensure the environmental sustainability of the affected water systems.

(42) Common environmental quality standards and emission limit values for certain groups or families of pollutants should be laid down as minimum requirements in Community

legislation. Provisions for the adoption of such standards at Community level should be ensured.

(43) Pollution through the discharge, emission or loss of priority hazardous substances must cease or be phased out. The European Parliament and the Council should, on a proposal from the Commission, agree on the substances to be considered for action as a priority and on specific measures to be taken against pollution of water by those substances, taking into account all significant sources and identifying the cost-effective and proportionate level and combination of controls.

(44) In identifying priority hazardous substances, account should be taken of the precautionary principle, relying in particular on the determination of any potentially adverse effects of the product and on a scientific assessment of the risk.

(45) Member States should adopt measures to eliminate pollution of surface water by the priority substances and progressively to reduce pollution by other substances which would otherwise prevent Member States from achieving the objectives for the bodies of surface water.

(46) To ensure the participation of the general public including users of water in the establishment and updating of river basin management plans, it is necessary to provide proper information of planned measures and to report on progress with their implementation with a view to the involvement of the general public before final decisions on the necessary measures are adopted.

(47) This Directive should provide mechanisms to address obstacles to progress in improving water status when these fall outside the scope of Community water legislation, with a view to developing appropriate Community strategies for overcoming them.

(48) The Commission should present annually an updated plan for any initiatives which it intends to propose for the water sector.

(49) Technical specifications should be laid down to ensure a coherent approach in the Community as part of this Directive. Criteria for evaluation of water status are an important step forward. Adaptation of certain technical elements to technical development and the standardisation of monitoring, sampling and analysis methods should be adopted by committee procedure. To promote a thorough understanding and consistent application of the criteria for characterisation of the river basin districts and evaluation of water status, the Commission may adopt guidelines on the application of these criteria.

(50) The measures necessary for the implementation of this Directive should be adopted in accordance with Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission(17).

(51) The implementation of this Directive is to achieve a level of protection of waters at least equivalent to that provided in certain earlier acts, which should therefore be repealed once the relevant provisions of this Directive have been fully implemented.

(52) The provisions of this Directive take over the framework for control of pollution by dangerous substances established under Directive 76/464/EEC(18). That Directive should therefore be repealed once the relevant provisions of this Directive have been fully implemented.

(53) Full implementation and enforcement of existing environmental legislation for the protection of waters should be ensured. It is necessary to ensure the proper application of the provisions implementing this Directive throughout the Community by appropriate penalties provided for in Member States' legislation. Such penalties should be effective, proportionate and dissuasive,

HAVE ADOPTED THIS DIRECTIVE:

Article 1

Purpose

The purpose of this Directive is to establish a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater which:

- (a) prevents further deterioration and protects and enhances the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystems;
- (b) promotes sustainable water use based on a long-term protection of available water resources;
- (c) aims at enhanced protection and improvement of the aquatic environment, inter alia, through specific measures for the progressive reduction of discharges, emissions and losses of priority substances and the cessation or phasing-out of discharges, emissions and losses of the priority hazardous substances;
- (d) ensures the progressive reduction of pollution of groundwater and prevents its further pollution, and
- (e) contributes to mitigating the effects of floods and droughts and thereby contributes to:
 - the provision of the sufficient supply of good quality surface water and groundwater as needed for sustainable, balanced and equitable water use,
 - a significant reduction in pollution of groundwater,
 - the protection of territorial and marine waters, and
 - achieving the objectives of relevant international agreements, including those which aim to prevent and eliminate pollution of the marine environment, by Community action under Article 16(3) to cease or phase out discharges, emissions and losses of priority hazardous substances, with the ultimate aim of achieving concentrations in the marine environment near background values for naturally occurring substances and close to zero for man-made synthetic substances.

Article 2

Definitions

For the purposes of this Directive the following definitions shall apply:

1. "Surface water" means inland waters, except groundwater; transitional waters and coastal waters, except in respect of chemical status for which it shall also include territorial waters.
2. "Groundwater" means all water which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.
3. "Inland water" means all standing or flowing water on the surface of the land, and all groundwater on the landward side of the baseline from which the breadth of territorial waters is measured.
4. "River" means a body of inland water flowing for the most part on the surface of the land but which may flow underground for part of its course.
5. "Lake" means a body of standing inland surface water.
6. "Transitional waters" are bodies of surface water in the vicinity of river mouths which are partly saline in character as a result of their proximity to coastal waters but which are substantially influenced by freshwater flows.
7. "Coastal water" means surface water on the landward side of a line, every point of which is at a distance of one nautical mile on the seaward side from the nearest point of the baseline from which the breadth of territorial waters is measured, extending where appropriate up to the outer limit of transitional waters.
8. "Artificial water body" means a body of surface water created by human activity.
9. "Heavily modified water body" means a body of surface water which as a result of physical alterations by human activity is substantially changed in character, as designated by the Member State in accordance with the provisions of Annex II.
10. "Body of surface water" means a discrete and significant element of surface water such as a lake, a reservoir, a stream, river or canal, part of a stream, river or canal, a transitional water or a stretch of coastal water.
11. "Aquifer" means a subsurface layer or layers of rock or other geological strata of

sufficient porosity and permeability to allow either a significant flow of groundwater or the abstraction of significant quantities of groundwater.

12. "Body of groundwater" means a distinct volume of groundwater within an aquifer or aquifers.

13. "River basin" means the area of land from which all surface run-off flows through a sequence of streams, rivers and, possibly, lakes into the sea at a single river mouth, estuary or delta.

14. "Sub-basin" means the area of land from which all surface run-off flows through a series of streams, rivers and, possibly, lakes to a particular point in a water course (normally a lake or a river confluence).

15. "River basin district" means the area of land and sea, made up of one or more neighbouring river basins together with their associated groundwaters and coastal waters, which is identified under Article 3(1) as the main unit for management of river basins.

16. "Competent Authority" means an authority or authorities identified under Article 3(2) or 3(3).

17. "Surface water status" is the general expression of the status of a body of surface water, determined by the poorer of its ecological status and its chemical status.

18. "Good surface water status" means the status achieved by a surface water body when both its ecological status and its chemical status are at least "good".

19. "Groundwater status" is the general expression of the status of a body of groundwater, determined by the poorer of its quantitative status and its chemical status.

20. "Good groundwater status" means the status achieved by a groundwater body when both its quantitative status and its chemical status are at least "good".

21. "Ecological status" is an expression of the quality of the structure and functioning of aquatic ecosystems associated with surface waters, classified in accordance with Annex V.

22. "Good ecological status" is the status of a body of surface water, so classified in accordance with Annex V.

23. "Good ecological potential" is the status of a heavily modified or an artificial body of water, so classified in accordance with the relevant provisions of Annex V.

24. "Good surface water chemical status" means the chemical status required to meet the environmental objectives for surface waters established in Article 4(1)(a), that is the chemical status achieved by a body of surface water in which concentrations of pollutants do not exceed the environmental quality standards established in Annex IX and under Article 16(7), and under other relevant Community legislation setting environmental quality standards at Community level.

25. "Good groundwater chemical status" is the chemical status of a body of groundwater, which meets all the conditions set out in table 2.3.2 of Annex V.

26. "Quantitative status" is an expression of the degree to which a body of groundwater is affected by direct and indirect abstractions.

27. "Available groundwater resource" means the long-term annual average rate of overall recharge of the body of groundwater less the long-term annual rate of flow required to achieve the ecological quality objectives for associated surface waters specified under Article 4, to avoid any significant diminution in the ecological status of such waters and to avoid any significant damage to associated terrestrial ecosystems.

28. "Good quantitative status" is the status defined in table 2.1.2 of Annex V.

29. "Hazardous substances" means substances or groups of substances that are toxic, persistent and liable to bio-accumulate, and other substances or groups of substances which give rise to an equivalent level of concern.

30. "Priority substances" means substances identified in accordance with Article 16(2) and listed in Annex X. Among these substances there are "priority hazardous substances" which means substances identified in accordance with Article 16(3) and (6) for which measures have to be taken in accordance with Article 16(1) and (8).

31. "Pollutant" means any substance liable to cause pollution, in particular those listed in Annex VIII.
32. "Direct discharge to groundwater" means discharge of pollutants into groundwater without percolation throughout the soil or subsoil.
33. "Pollution" means the direct or indirect introduction, as a result of human activity, of substances or heat into the air, water or land which may be harmful to human health or the quality of aquatic ecosystems or terrestrial ecosystems directly depending on aquatic ecosystems, which result in damage to material property, or which impair or interfere with amenities and other legitimate uses of the environment.
34. "Environmental objectives" means the objectives set out in Article 4.
35. "Environmental quality standard" means the concentration of a particular pollutant or group of pollutants in water, sediment or biota which should not be exceeded in order to protect human health and the environment.
36. "Combined approach" means the control of discharges and emissions into surface waters according to the approach set out in Article 10.
37. "Water intended for human consumption" has the same meaning as under Directive 80/778/EEC, as amended by Directive 98/83/EC.
38. "Water services" means all services which provide, for households, public institutions or any economic activity:
- (a) abstraction, impoundment, storage, treatment and distribution of surface water or groundwater,
 - (b) waste-water collection and treatment facilities which subsequently discharge into surface water.
39. "Water use" means water services together with any other activity identified under Article 5 and Annex II having a significant impact on the status of water.
This concept applies for the purposes of Article 1 and of the economic analysis carried out according to Article 5 and Annex III, point (b).
40. "Emission limit values" means the mass, expressed in terms of certain specific parameters, concentration and/or level of an emission, which may not be exceeded during any one or more periods of time. Emission limit values may also be laid down for certain groups, families or categories of substances, in particular for those identified under Article 16.
The emission limit values for substances shall normally apply at the point where the emissions leave the installation, dilution being disregarded when determining them. With regard to indirect releases into water, the effect of a waste-water treatment plant may be taken into account when determining the emission limit values of the installations involved, provided that an equivalent level is guaranteed for protection of the environment as a whole and provided that this does not lead to higher levels of pollution in the environment.
41. "Emission controls" are controls requiring a specific emission limitation, for instance an emission limit value, or otherwise specifying limits or conditions on the effects, nature or other characteristics of an emission or operating conditions which affect emissions. Use of the term "emission control" in this Directive in respect of the provisions of any other Directive shall not be held as reinterpreting those provisions in any respect.

Article 3

Coordination of administrative arrangements within river basin districts

1. Member States shall identify the individual river basins lying within their national territory and, for the purposes of this Directive, shall assign them to individual river basin districts. Small river basins may be combined with larger river basins or joined with neighbouring small basins to form individual river basin districts where appropriate. Where groundwaters do not fully follow a particular river basin, they shall be identified and assigned to the nearest or most appropriate river basin district. Coastal waters shall be identified and assigned to the nearest or most appropriate river basin district or districts.
2. Member States shall ensure the appropriate administrative arrangements, including the

identification of the appropriate competent authority, for the application of the rules of this Directive within each river basin district lying within their territory.

3. Member States shall ensure that a river basin covering the territory of more than one Member State is assigned to an international river basin district. At the request of the Member States involved, the Commission shall act to facilitate the assigning to such international river basin districts.

Each Member State shall ensure the appropriate administrative arrangements, including the identification of the appropriate competent authority, for the application of the rules of this Directive within the portion of any international river basin district lying within its territory.

4. Member States shall ensure that the requirements of this Directive for the achievement of the environmental objectives established under Article 4, and in particular all programmes of measures are coordinated for the whole of the river basin district. For international river basin districts the Member States concerned shall together ensure this coordination and may, for this purpose, use existing structures stemming from international agreements. At the request of the Member States involved, the Commission shall act to facilitate the establishment of the programmes of measures.

5. Where a river basin district extends beyond the territory of the Community, the Member State or Member States concerned shall endeavour to establish appropriate coordination with the relevant non-Member States, with the aim of achieving the objectives of this Directive throughout the river basin district. Member States shall ensure the application of the rules of this Directive within their territory.

6. Member States may identify an existing national or international body as competent authority for the purposes of this Directive.

7. Member States shall identify the competent authority by the date mentioned in Article 24.

8. Member States shall provide the Commission with a list of their competent authorities and of the competent authorities of all the international bodies in which they participate at the latest six months after the date mentioned in Article 24. For each competent authority the information set out in Annex I shall be provided.

9. Member States shall inform the Commission of any changes to the information provided according to paragraph 8 within three months of the change coming into effect.

Article 4

Environmental objectives

1. In making operational the programmes of measures specified in the river basin management plans:

(a) for surface waters

(i) Member States shall implement the necessary measures to prevent deterioration of the status of all bodies of surface water, subject to the application of paragraphs 6 and 7 and without prejudice to paragraph 8;

(ii) Member States shall protect, enhance and restore all bodies of surface water, subject to the application of subparagraph (iii) for artificial and heavily modified bodies of water, with the aim of achieving good surface water status at the latest 15 years after the date of entry into force of this Directive, in accordance with the provisions laid down in Annex V, subject to the application of extensions determined in accordance with paragraph 4 and to the application of paragraphs 5, 6 and 7 without prejudice to paragraph 8;

(iii) Member States shall protect and enhance all artificial and heavily modified bodies of water, with the aim of achieving good ecological potential and good surface water chemical status at the latest 15 years from the date of entry into force of this Directive, in accordance with the provisions laid down in Annex V, subject to the application of extensions determined in accordance with paragraph 4 and to the application of paragraphs 5, 6 and 7 without prejudice to paragraph 8;

(iv) Member States shall implement the necessary measures in accordance with Article 16(1) and (8), with the aim of progressively reducing pollution from priority substances and ceasing

or phasing out emissions, discharges and losses of priority hazardous substances without prejudice to the relevant international agreements referred to in Article 1 for the parties concerned;

(b) for groundwater

(i) Member States shall implement the measures necessary to prevent or limit the input of pollutants into groundwater and to prevent the deterioration of the status of all bodies of groundwater, subject to the application of paragraphs 6 and 7 and without prejudice to paragraph 8 of this Article and subject to the application of Article 11(3)(j);

(ii) Member States shall protect, enhance and restore all bodies of groundwater, ensure a balance between abstraction and recharge of groundwater, with the aim of achieving good groundwater status at the latest 15 years after the date of entry into force of this Directive, in accordance with the provisions laid down in Annex V, subject to the application of extensions determined in accordance with paragraph 4 and to the application of paragraphs 5, 6 and 7 without prejudice to paragraph 8 of this Article and subject to the application of Article 11(3)(j);

(iii) Member States shall implement the measures necessary to reverse any significant and sustained upward trend in the concentration of any pollutant resulting from the impact of human activity in order progressively to reduce pollution of groundwater.

Measures to achieve trend reversal shall be implemented in accordance with paragraphs 2, 4 and 5 of Article 17, taking into account the applicable standards set out in relevant Community legislation, subject to the application of paragraphs 6 and 7 and without prejudice to paragraph 8;

(c) for protected areas

Member States shall achieve compliance with any standards and objectives at the latest 15 years after the date of entry into force of this Directive, unless otherwise specified in the Community legislation under which the individual protected areas have been established.

2. Where more than one of the objectives under paragraph 1 relates to a given body of water, the most stringent shall apply.

3. Member States may designate a body of surface water as artificial or heavily modified, when:

(a) the changes to the hydromorphological characteristics of that body which would be necessary for achieving good ecological status would have significant adverse effects on:

(i) the wider environment;

(ii) navigation, including port facilities, or recreation;

(iii) activities for the purposes of which water is stored, such as drinking-water supply, power generation or irrigation;

(iv) water regulation, flood protection, land drainage, or

(v) other equally important sustainable human development activities;

(b) the beneficial objectives served by the artificial or modified characteristics of the water body cannot, for reasons of technical feasibility or disproportionate costs, reasonably be achieved by other means, which are a significantly better environmental option.

Such designation and the reasons for it shall be specifically mentioned in the river basin management plans required under Article 13 and reviewed every six years.

4. The deadlines established under paragraph 1 may be extended for the purposes of phased achievement of the objectives for bodies of water, provided that no further deterioration occurs in the status of the affected body of water when all of the following conditions are met:

(a) Member States determine that all necessary improvements in the status of bodies of water cannot reasonably be achieved within the timescales set out in that paragraph for at least one of the following reasons:

(i) the scale of improvements required can only be achieved in phases exceeding the timescale, for reasons of technical feasibility;

(ii) completing the improvements within the timescale would be disproportionately expensive;

(iii) natural conditions do not allow timely improvement in the status of the body of water.

(b) Extension of the deadline, and the reasons for it, are specifically set out and explained in the river basin management plan required under Article 13.

(c) Extensions shall be limited to a maximum of two further updates of the river basin management plan except in cases where the natural conditions are such that the objectives cannot be achieved within this period.

(d) A summary of the measures required under Article 11 which are envisaged as necessary to bring the bodies of water progressively to the required status by the extended deadline, the reasons for any significant delay in making these measures operational, and the expected timetable for their implementation are set out in the river basin management plan. A review of the implementation of these measures and a summary of any additional measures shall be included in updates of the river basin management plan.

5. Member States may aim to achieve less stringent environmental objectives than those required under paragraph 1 for specific bodies of water when they are so affected by human activity, as determined in accordance with Article 5(1), or their natural condition is such that the achievement of these objectives would be infeasible or disproportionately expensive, and all the following conditions are met:

(a) the environmental and socioeconomic needs served by such human activity cannot be achieved by other means, which are a significantly better environmental option not entailing disproportionate costs;

(b) Member States ensure,

- for surface water, the highest ecological and chemical status possible is achieved, given impacts that could not reasonably have been avoided due to the nature of the human activity or pollution,

- for groundwater, the least possible changes to good groundwater status, given impacts that could not reasonably have been avoided due to the nature of the human activity or pollution;

(c) no further deterioration occurs in the status of the affected body of water;

(d) the establishment of less stringent environmental objectives, and the reasons for it, are specifically mentioned in the river basin management plan required under Article 13 and those objectives are reviewed every six years.

6. Temporary deterioration in the status of bodies of water shall not be in breach of the requirements of this Directive if this is the result of circumstances of natural cause or force majeure which are exceptional or could not reasonably have been foreseen, in particular extreme floods and prolonged droughts, or the result of circumstances due to accidents which could not reasonably have been foreseen, when all of the following conditions have been met:

(a) all practicable steps are taken to prevent further deterioration in status and in order not to compromise the achievement of the objectives of this Directive in other bodies of water not affected by those circumstances;

(b) the conditions under which circumstances that are exceptional or that could not reasonably have been foreseen may be declared, including the adoption of the appropriate indicators, are stated in the river basin management plan;

(c) the measures to be taken under such exceptional circumstances are included in the programme of measures and will not compromise the recovery of the quality of the body of water once the circumstances are over;

(d) the effects of the circumstances that are exceptional or that could not reasonably have been foreseen are reviewed annually and, subject to the reasons set out in paragraph 4(a), all practicable measures are taken with the aim of restoring the body of water to its status prior to the effects of those circumstances as soon as reasonably practicable, and

(e) a summary of the effects of the circumstances and of such measures taken or to be taken in accordance with paragraphs (a) and (d) are included in the next update of the river basin management plan.

7. Member States will not be in breach of this Directive when:

- failure to achieve good groundwater status, good ecological status or, where relevant, good

ecological potential or to prevent deterioration in the status of a body of surface water or groundwater is the result of new modifications to the physical characteristics of a surface water body or alterations to the level of bodies of groundwater, or

- failure to prevent deterioration from high status to good status of a body of surface water is the result of new sustainable human development activities

and all the following conditions are met:

(a) all practicable steps are taken to mitigate the adverse impact on the status of the body of water;

(b) the reasons for those modifications or alterations are specifically set out and explained in the river basin management plan required under Article 13 and the objectives are reviewed every six years;

(c) the reasons for those modifications or alterations are of overriding public interest and/or the benefits to the environment and to society of achieving the objectives set out in paragraph 1 are outweighed by the benefits of the new modifications or alterations to human health, to the maintenance of human safety or to sustainable development, and

(d) the beneficial objectives served by those modifications or alterations of the water body cannot for reasons of technical feasibility or disproportionate cost be achieved by other means, which are a significantly better environmental option.

8. When applying paragraphs 3, 4, 5, 6 and 7, a Member State shall ensure that the application does not permanently exclude or compromise the achievement of the objectives of this Directive in other bodies of water within the same river basin district and is consistent with the implementation of other Community environmental legislation.

9. Steps must be taken to ensure that the application of the new provisions, including the application of paragraphs 3, 4, 5, 6 and 7, guarantees at least the same level of protection as the existing Community legislation.

Article 5

Characteristics of the river basin district, review of the environmental impact of human activity and economic analysis of water use

1. Each Member State shall ensure that for each river basin district or for the portion of an international river basin district falling within its territory:

- an analysis of its characteristics,
- a review of the impact of human activity on the status of surface waters and on groundwater,
and

- an economic analysis of water use

is undertaken according to the technical specifications set out in Annexes II and III and that it is completed at the latest four years after the date of entry into force of this Directive.

2. The analyses and reviews mentioned under paragraph 1 shall be reviewed, and if necessary updated at the latest 13 years after the date of entry into force of this Directive and every six years thereafter.

Article 6

Register of protected areas

1. Member States shall ensure the establishment of a register or registers of all areas lying within each river basin district which have been designated as requiring special protection under specific Community legislation for the protection of their surface water and groundwater or for the conservation of habitats and species directly depending on water. They shall ensure that the register is completed at the latest four years after the date of entry into force of this Directive.

2. The register or registers shall include all bodies of water identified under Article 7(1) and all protected areas covered by Annex IV.

3. For each river basin district, the register or registers of protected areas shall be kept under review and up to date.

Article 7

Waters used for the abstraction of drinking water

1. Member States shall identify, within each river basin district:

- all bodies of water used for the abstraction of water intended for human consumption providing more than 10 m³ a day as an average or serving more than 50 persons, and
- those bodies of water intended for such future use.

Member States shall monitor, in accordance with Annex V, those bodies of water which according to Annex V, provide more than 100 m³ a day as an average.

2. For each body of water identified under paragraph 1, in addition to meeting the objectives of Article 4 in accordance with the requirements of this Directive, for surface water bodies including the quality standards established at Community level under Article 16, Member States shall ensure that under the water treatment regime applied, and in accordance with Community legislation, the resulting water will meet the requirements of Directive 80/778/EEC as amended by Directive 98/83/EC.

3. Member States shall ensure the necessary protection for the bodies of water identified with the aim of avoiding deterioration in their quality in order to reduce the level of purification treatment required in the production of drinking water. Member States may establish safeguard zones for those bodies of water.

Article 8

Monitoring of surface water status, groundwater status and protected areas

1. Member States shall ensure the establishment of programmes for the monitoring of water status in order to establish a coherent and comprehensive overview of water status within each river basin district:

- for surface waters such programmes shall cover:

- (i) the volume and level or rate of flow to the extent relevant for ecological and chemical status and ecological potential, and
- (ii) the ecological and chemical status and ecological potential;

- for groundwaters such programmes shall cover monitoring of the chemical and quantitative status,

- for protected areas the above programmes shall be supplemented by those specifications contained in Community legislation under which the individual protected areas have been established.

2. These programmes shall be operational at the latest six years after the date of entry into force of this Directive unless otherwise specified in the legislation concerned. Such monitoring shall be in accordance with the requirements of Annex V.

3. Technical specifications and standardised methods for analysis and monitoring of water status shall be laid down in accordance with the procedure laid down in Article 21.

Article 9

Recovery of costs for water services

1. Member States shall take account of the principle of recovery of the costs of water services, including environmental and resource costs, having regard to the economic analysis conducted according to Annex III, and in accordance in particular with the polluter pays principle.

Member States shall ensure by 2010

- that water-pricing policies provide adequate incentives for users to use water resources efficiently, and thereby contribute to the environmental objectives of this Directive,
- an adequate contribution of the different water uses, disaggregated into at least industry, households and agriculture, to the recovery of the costs of water services, based on the economic analysis conducted according to Annex III and taking account of the polluter pays principle.

Member States may in so doing have regard to the social, environmental and economic effects of the recovery as well as the geographic and climatic conditions of the region or regions affected.

2. Member States shall report in the river basin management plans on the planned steps towards implementing paragraph 1 which will contribute to achieving the environmental objectives of this Directive and on the contribution made by the various water uses to the recovery of the costs of water services.

3. Nothing in this Article shall prevent the funding of particular preventive or remedial measures in order to achieve the objectives of this Directive.

4. Member States shall not be in breach of this Directive if they decide in accordance with established practices not to apply the provisions of paragraph 1, second sentence, and for that purpose the relevant provisions of paragraph 2, for a given water-use activity, where this does not compromise the purposes and the achievement of the objectives of this Directive. Member States shall report the reasons for not fully applying paragraph 1, second sentence, in the river basin management plans.

Article 10

The combined approach for point and diffuse sources

1. Member States shall ensure that all discharges referred to in paragraph 2 into surface waters are controlled according to the combined approach set out in this Article.

2. Member States shall ensure the establishment and/or implementation of:

- (a) the emission controls based on best available techniques, or
- (b) the relevant emission limit values, or
- (c) in the case of diffuse impacts the controls including, as appropriate, best environmental practices

set out in:

- Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control(19),
- Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment(20),
- Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources(21),
- the Directives adopted pursuant to Article 16 of this Directive,
- the Directives listed in Annex IX,
- any other relevant Community legislation

at the latest 12 years after the date of entry into force of this Directive, unless otherwise specified in the legislation concerned.

3. Where a quality objective or quality standard, whether established pursuant to this Directive, in the Directives listed in Annex IX, or pursuant to any other Community legislation, requires stricter conditions than those which would result from the application of paragraph 2, more stringent emission controls shall be set accordingly.

Article 11

Programme of measures

1. Each Member State shall ensure the establishment for each river basin district, or for the part of an international river basin district within its territory, of a programme of measures, taking account of the results of the analyses required under Article 5, in order to achieve the objectives established under Article 4. Such programmes of measures may make reference to measures following from legislation adopted at national level and covering the whole of the territory of a Member State. Where appropriate, a Member State may adopt measures applicable to all river basin districts and/or the portions of international river basin districts falling within its territory.

2. Each programme of measures shall include the "basic" measures specified in paragraph 3 and, where necessary, "supplementary" measures.

3. "Basic measures" are the minimum requirements to be complied with and shall consist of:

(a) those measures required to implement Community legislation for the protection of water, including measures required under the legislation specified in Article 10 and in part A of Annex VI;

(b) measures deemed appropriate for the purposes of Article 9;

(c) measures to promote an efficient and sustainable water use in order to avoid compromising the achievement of the objectives specified in Article 4;

(d) measures to meet the requirements of Article 7, including measures to safeguard water quality in order to reduce the level of purification treatment required for the production of drinking water;

(e) controls over the abstraction of fresh surface water and groundwater, and impoundment of fresh surface water, including a register or registers of water abstractions and a requirement of prior authorisation for abstraction and impoundment. These controls shall be periodically reviewed and, where necessary, updated. Member States can exempt from these controls, abstractions or impoundments which have no significant impact on water status;

(f) controls, including a requirement for prior authorisation of artificial recharge or augmentation of groundwater bodies. The water used may be derived from any surface water or groundwater, provided that the use of the source does not compromise the achievement of the environmental objectives established for the source or the recharged or augmented body of groundwater. These controls shall be periodically reviewed and, where necessary, updated;

(g) for point source discharges liable to cause pollution, a requirement for prior regulation, such as a prohibition on the entry of pollutants into water, or for prior authorisation, or registration based on general binding rules, laying down emission controls for the pollutants concerned, including controls in accordance with Articles 10 and 16. These controls shall be periodically reviewed and, where necessary, updated;

(h) for diffuse sources liable to cause pollution, measures to prevent or control the input of pollutants. Controls may take the form of a requirement for prior regulation, such as a prohibition on the entry of pollutants into water, prior authorisation or registration based on general binding rules where such a requirement is not otherwise provided for under Community legislation. These controls shall be periodically reviewed and, where necessary, updated;

(i) for any other significant adverse impacts on the status of water identified under Article 5 and Annex II, in particular measures to ensure that the hydromorphological conditions of the bodies of water are consistent with the achievement of the required ecological status or good ecological potential for bodies of water designated as artificial or heavily modified. Controls for this purpose may take the form of a requirement for prior authorisation or registration based on general binding rules where such a requirement is not otherwise provided for under Community legislation. Such controls shall be periodically reviewed and, where necessary, updated;

(j) a prohibition of direct discharges of pollutants into groundwater subject to the following provisions:

Member States may authorise reinjection into the same aquifer of water used for geothermal purposes.

They may also authorise, specifying the conditions for:

- injection of water containing substances resulting from the operations for exploration and extraction of hydrocarbons or mining activities, and injection of water for technical reasons, into geological formations from which hydrocarbons or other substances have been extracted or into geological formations which for natural reasons are permanently unsuitable for other purposes. Such injections shall not contain substances other than those resulting from the above operations,

- reinjection of pumped groundwater from mines and quarries or associated with the construction or maintenance of civil engineering works,

- injection of natural gas or liquefied petroleum gas (LPG) for storage purposes into

geological formations which for natural reasons are permanently unsuitable for other purposes,

- injection of natural gas or liquefied petroleum gas (LPG) for storage purposes into other geological formations where there is an overriding need for security of gas supply, and where the injection is such as to prevent any present or future danger of deterioration in the quality of any receiving groundwater,

- construction, civil engineering and building works and similar activities on, or in the ground which come into contact with groundwater. For these purposes, Member States may determine that such activities are to be treated as having been authorised provided that they are conducted in accordance with general binding rules developed by the Member State in respect of such activities,

- discharges of small quantities of substances for scientific purposes for characterisation, protection or remediation of water bodies limited to the amount strictly necessary for the purposes concerned

provided such discharges do not compromise the achievement of the environmental objectives established for that body of groundwater;

(k) in accordance with action taken pursuant to Article 16, measures to eliminate pollution of surface waters by those substances specified in the list of priority substances agreed pursuant to Article 16(2) and to progressively reduce pollution by other substances which would otherwise prevent Member States from achieving the objectives for the bodies of surface waters as set out in Article 4;

(l) any measures required to prevent significant losses of pollutants from technical installations, and to prevent and/or to reduce the impact of accidental pollution incidents for example as a result of floods, including through systems to detect or give warning of such events including, in the case of accidents which could not reasonably have been foreseen, all appropriate measures to reduce the risk to aquatic ecosystems.

4. "Supplementary" measures are those measures designed and implemented in addition to the basic measures, with the aim of achieving the objectives established pursuant to Article 4. Part B of Annex VI contains a non-exclusive list of such measures.

Member States may also adopt further supplementary measures in order to provide for additional protection or improvement of the waters covered by this Directive, including in implementation of the relevant international agreements referred to in Article 1.

5. Where monitoring or other data indicate that the objectives set under Article 4 for the body of water are unlikely to be achieved, the Member State shall ensure that:

- the causes of the possible failure are investigated,
- relevant permits and authorisations are examined and reviewed as appropriate,
- the monitoring programmes are reviewed and adjusted as appropriate, and
- additional measures as may be necessary in order to achieve those objectives are established, including, as appropriate, the establishment of stricter environmental quality standards following the procedures laid down in Annex V.

Where those causes are the result of circumstances of natural cause or force majeure which are exceptional and could not reasonably have been foreseen, in particular extreme floods and prolonged droughts, the Member State may determine that additional measures are not practicable, subject to Article 4(6).

6. In implementing measures pursuant to paragraph 3, Member States shall take all appropriate steps not to increase pollution of marine waters. Without prejudice to existing legislation, the application of measures taken pursuant to paragraph 3 may on no account lead, either directly or indirectly to increased pollution of surface waters. This requirement shall not apply where it would result in increased pollution of the environment as a whole.

7. The programmes of measures shall be established at the latest nine years after the date of entry into force of this Directive and all the measures shall be made operational at the latest 12 years after that date.

8. The programmes of measures shall be reviewed, and if necessary updated at the latest 15 years after the date of entry into force of this Directive and every six years thereafter. Any new or revised measures established under an updated programme shall be made operational within three years of their establishment.

Article 12

Issues which can not be dealt with at Member State level

1. Where a Member State identifies an issue which has an impact on the management of its water but cannot be resolved by that Member State, it may report the issue to the Commission and any other Member State concerned and may make recommendations for the resolution of it.
2. The Commission shall respond to any report or recommendations from Member States within a period of six months.

Article 13

River basin management plans

1. Member States shall ensure that a river basin management plan is produced for each river basin district lying entirely within their territory.
2. In the case of an international river basin district falling entirely within the Community, Member States shall ensure coordination with the aim of producing a single international river basin management plan. Where such an international river basin management plan is not produced, Member States shall produce river basin management plans covering at least those parts of the international river basin district falling within their territory to achieve the objectives of this Directive.
3. In the case of an international river basin district extending beyond the boundaries of the Community, Member States shall endeavour to produce a single river basin management plan, and, where this is not possible, the plan shall at least cover the portion of the international river basin district lying within the territory of the Member State concerned.
4. The river basin management plan shall include the information detailed in Annex VII.
5. River basin management plans may be supplemented by the production of more detailed programmes and management plans for sub-basin, sector, issue, or water type, to deal with particular aspects of water management. Implementation of these measures shall not exempt Member States from any of their obligations under the rest of this Directive.
6. River basin management plans shall be published at the latest nine years after the date of entry into force of this Directive.
7. River basin management plans shall be reviewed and updated at the latest 15 years after the date of entry into force of this Directive and every six years thereafter.

Article 14

Public information and consultation

1. Member States shall encourage the active involvement of all interested parties in the implementation of this Directive, in particular in the production, review and updating of the river basin management plans. Member States shall ensure that, for each river basin district, they publish and make available for comments to the public, including users:
 - (a) a timetable and work programme for the production of the plan, including a statement of the consultation measures to be taken, at least three years before the beginning of the period to which the plan refers;
 - (b) an interim overview of the significant water management issues identified in the river basin, at least two years before the beginning of the period to which the plan refers;
 - (c) draft copies of the river basin management plan, at least one year before the beginning of the period to which the plan refers.

On request, access shall be given to background documents and information used for the development of the draft river basin management plan.

2. Member States shall allow at least six months to comment in writing on those documents in order to allow active involvement and consultation.
3. Paragraphs 1 and 2 shall apply equally to updated river basin management plans.

Article 15

Reporting

1. Member States shall send copies of the river basin management plans and all subsequent updates to the Commission and to any other Member State concerned within three months of their publication:

- (a) for river basin districts falling entirely within the territory of a Member State, all river management plans covering that national territory and published pursuant to Article 13;
- (b) for international river basin districts, at least the part of the river basin management plans covering the territory of the Member State.

2. Member States shall submit summary reports of:

- the analyses required under Article 5, and
- the monitoring programmes designed under Article 8

undertaken for the purposes of the first river basin management plan within three months of their completion.

3. Member States shall, within three years of the publication of each river basin management plan or update under Article 13, submit an interim report describing progress in the implementation of the planned programme of measures.

Article 16

Strategies against pollution of water

1. The European Parliament and the Council shall adopt specific measures against pollution of water by individual pollutants or groups of pollutants presenting a significant risk to or via the aquatic environment, including such risks to waters used for the abstraction of drinking water. For those pollutants measures shall be aimed at the progressive reduction and, for priority hazardous substances, as defined in Article 2(30), at the cessation or phasing-out of discharges, emissions and losses. Such measures shall be adopted acting on the proposals presented by the Commission in accordance with the procedures laid down in the Treaty.

2. The Commission shall submit a proposal setting out a list of priority substances selected amongst those which present a significant risk to or via the aquatic environment. Substances shall be prioritised for action on the basis of risk to or via the aquatic environment, identified by:

- (a) risk assessment carried out under Council Regulation (EEC) No 793/93(22), Council Directive 91/414/EEC(23), and Directive 98/8/EC of the European Parliament and of the Council(24), or
- (b) targeted risk-based assessment (following the methodology of Regulation (EEC) No 793/93) focusing solely on aquatic ecotoxicity and on human toxicity via the aquatic environment.

When necessary in order to meet the timetable laid down in paragraph 4, substances shall be prioritised for action on the basis of risk to, or via the aquatic environment, identified by a simplified risk-based assessment procedure based on scientific principles taking particular account of:

- evidence regarding the intrinsic hazard of the substance concerned, and in particular its aquatic ecotoxicity and human toxicity via aquatic exposure routes, and
- evidence from monitoring of widespread environmental contamination, and
- other proven factors which may indicate the possibility of widespread environmental contamination, such as production or use volume of the substance concerned, and use patterns.

3. The Commission's proposal shall also identify the priority hazardous substances. In doing so, the Commission shall take into account the selection of substances of concern undertaken

in the relevant Community legislation regarding hazardous substances or relevant international agreements.

4. The Commission shall review the adopted list of priority substances at the latest four years after the date of entry into force of this Directive and at least every four years thereafter, and come forward with proposals as appropriate.

5. In preparing its proposal, the Commission shall take account of recommendations from the Scientific Committee on Toxicity, Ecotoxicity and the Environment, Member States, the European Parliament, the European Environment Agency, Community research programmes, international organisations to which the Community is a party, European business organisations including those representing small and medium-sized enterprises, European environmental organisations, and of other relevant information which comes to its attention.

6. For the priority substances, the Commission shall submit proposals of controls for:

- the progressive reduction of discharges, emissions and losses of the substances concerned, and, in particular

- the cessation or phasing-out of discharges, emissions and losses of the substances as identified in accordance with paragraph 3, including an appropriate timetable for doing so.

The timetable shall not exceed 20 years after the adoption of these proposals by the European Parliament and the Council in accordance with the provisions of this Article.

In doing so it shall identify the appropriate cost-effective and proportionate level and combination of product and process controls for both point and diffuse sources and take account of Community-wide uniform emission limit values for process controls. Where appropriate, action at Community level for process controls may be established on a sector-by-sector basis. Where product controls include a review of the relevant authorisations issued under Directive 91/414/EEC and Directive 98/8/EC, such reviews shall be carried out in accordance with the provisions of those Directives. Each proposal for controls shall specify arrangements for their review, updating and for assessment of their effectiveness.

7. The Commission shall submit proposals for quality standards applicable to the concentrations of the priority substances in surface water, sediments or biota.

8. The Commission shall submit proposals, in accordance with paragraphs 6 and 7, and at least for emission controls for point sources and environmental quality standards within two years of the inclusion of the substance concerned on the list of priority substances. For substances included in the first list of priority substances, in the absence of agreement at Community level six years after the date of entry into force of this Directive, Member States shall establish environmental quality standards for these substances for all surface waters affected by discharges of those substances, and controls on the principal sources of such discharges, based, inter alia, on consideration of all technical reduction options. For substances subsequently included in the list of priority substances, in the absence of agreement at Community level, Member States shall take such action five years after the date of inclusion in the list.

9. The Commission may prepare strategies against pollution of water by any other pollutants or groups of pollutants, including any pollution which occurs as a result of accidents.

10. In preparing its proposals under paragraphs 6 and 7, the Commission shall also review all the Directives listed in Annex IX. It shall propose, by the deadline in paragraph 8, a revision of the controls in Annex IX for all those substances which are included in the list of priority substances and shall propose the appropriate measures including the possible repeal of the controls under Annex IX for all other substances.

All the controls in Annex IX for which revisions are proposed shall be repealed by the date of entry into force of those revisions.

11. The list of priority substances of substances mentioned in paragraphs 2 and 3 proposed by the Commission shall, on its adoption by the European Parliament and the Council, become Annex X to this Directive. Its revision mentioned in paragraph 4 shall follow the same procedure.

Article 17

Strategies to prevent and control pollution of groundwater

1. The European Parliament and the Council shall adopt specific measures to prevent and control groundwater pollution. Such measures shall be aimed at achieving the objective of good groundwater chemical status in accordance with Article 4(1)(b) and shall be adopted, acting on the proposal presented within two years after the entry into force of this Directive, by the Commission in accordance with the procedures laid down in the Treaty.
2. In proposing measures the Commission shall have regard to the analysis carried out according to Article 5 and Annex II. Such measures shall be proposed earlier if data are available and shall include:
 - (a) criteria for assessing good groundwater chemical status, in accordance with Annex II.2.2 and Annex V 2.3.2 and 2.4.5;
 - (b) criteria for the identification of significant and sustained upward trends and for the definition of starting points for trend reversals to be used in accordance with Annex V 2.4.4.
3. Measures resulting from the application of paragraph 1 shall be included in the programmes of measures required under Article 11.
4. In the absence of criteria adopted under paragraph 2 at Community level, Member States shall establish appropriate criteria at the latest five years after the date of entry into force of this Directive.
5. In the absence of criteria adopted under paragraph 4 at national level, trend reversal shall take as its starting point a maximum of 75 % of the level of the quality standards set out in existing Community legislation applicable to groundwater.

Article 18

Commission report

1. The Commission shall publish a report on the implementation of this Directive at the latest 12 years after the date of entry into force of this Directive and every six years thereafter, and shall submit it to the European Parliament and to the Council.
2. The report shall include the following:
 - (a) a review of progress in the implementation of the Directive;
 - (b) a review of the status of surface water and groundwater in the Community undertaken in coordination with the European Environment Agency;
 - (c) a survey of the river basin management plans submitted in accordance with Article 15, including suggestions for the improvement of future plans;
 - (d) a summary of the response to each of the reports or recommendations to the Commission made by Member States pursuant to Article 12;
 - (e) a summary of any proposals, control measures and strategies developed under Article 16;
 - (f) a summary of the responses to comments made by the European Parliament and the Council on previous implementation reports.
3. The Commission shall also publish a report on progress in implementation based on the summary reports that Member States submit under Article 15(2), and submit it to the European Parliament and the Member States, at the latest two years after the dates referred to in Articles 5 and 8.
4. The Commission shall, within three years of the publication of each report under paragraph 1, publish an interim report describing progress in implementation on the basis of the interim reports of the Member States as mentioned in Article 15(3). This shall be submitted to the European Parliament and to the Council.
5. The Commission shall convene when appropriate, in line with the reporting cycle, a conference of interested parties on Community water policy from each of the Member States, to comment on the Commission's implementation reports and to share experiences. Participants should include representatives from the competent authorities, the European Parliament, NGOs, the social and economic partners, consumer bodies, academics and other experts.

Article 19

Plans for future Community measures

1. Once a year, the Commission shall for information purposes present to the Committee referred to in Article 21 an indicative plan of measures having an impact on water legislation which it intends to propose in the near future, including any emerging from the proposals, control measures and strategies developed under Article 16. The Commission shall make the first such presentation at the latest two years after the date of entry into force of this Directive.
2. The Commission will review this Directive at the latest 19 years after the date of its entry into force and will propose any necessary amendments to it.

Article 20

Technical adaptations to the Directive

1. Annexes I, III and section 1.3.6 of Annex V may be adapted to scientific and technical progress in accordance with the procedures laid down in Article 21, taking account of the periods for review and updating of the river basin management plans as referred to in Article 13. Where necessary, the Commission may adopt guidelines on the implementation of Annexes II and V in accordance with the procedures laid down in Article 21.
2. For the purpose of transmission and processing of data, including statistical and cartographic data, technical formats for the purpose of paragraph 1 may be adopted in accordance with the procedures laid down in Article 21.

Article 21

Regulatory committee

1. The Commission shall be assisted by a committee (hereinafter referred to as "the Committee").
2. Where reference is made to this Article, Articles 5 and 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.
The period laid down in Article 5(6) of Decision 1999/468/EC shall be set at three months.
3. The Committee shall adopt its rules of procedure.

Article 22

Repeals and transitional provisions

1. The following shall be repealed with effect from seven years after the date of entry into force of this Directive:
 - Directive 75/440/EEC of 16 June 1975 concerning the quality required of surface water intended for the abstraction of drinking water in the Member States(25),
 - Council Decision 77/795/EEC of 12 December 1977 establishing a common procedure for the exchange of information on the quality of surface freshwater in the Community(26),
 - Council Directive 79/869/EEC of 9 October 1979 concerning the methods of measurement and frequencies of sampling and analysis of surface water intended for the abstraction of drinking waters in the Member States(27).
2. The following shall be repealed with effect from 13 years after the date of entry into force of this Directive:
 - Council Directive 78/659/EEC of 18 July 1978 on the quality of freshwaters needing protection or improvement in order to support fish life(28),
 - Council Directive 79/923/EEC of 30 October 1979 on the quality required of shellfish waters(29),
 - Council Directive 80/68/EEC of 17 December 1979 on the protection of groundwater against pollution caused by certain dangerous substances,
 - Directive 76/464/EEC, with the exception of Article 6, which shall be repealed with effect from the entry into force of this Directive.
3. The following transitional provisions shall apply for Directive 76/464/EEC:

(a) the list of priority substances adopted under Article 16 of this Directive shall replace the list of substances prioritised in the Commission communication to the Council of 22 June 1982;

(b) for the purposes of Article 7 of Directive 76/464/EEC, Member States may apply the principles for the identification of pollution problems and the substances causing them, the establishment of quality standards, and the adoption of measures, laid down in this Directive.

4. The environmental objectives in Article 4 and environmental quality standards established in Annex IX and pursuant to Article 16(7), and by Member States under Annex V for substances not on the list of priority substances and under Article 16(8) in respect of priority substances for which Community standards have not been set, shall be regarded as environmental quality standards for the purposes of point 7 of Article 2 and Article 10 of Directive 96/61/EC.

5. Where a substance on the list of priority substances adopted under Article 16 is not included in Annex VIII to this Directive or in Annex III to Directive 96/61/EC, it shall be added thereto.

6. For bodies of surface water, environmental objectives established under the first river basin management plan required by this Directive shall, as a minimum, give effect to quality standards at least as stringent as those required to implement Directive 76/464/EEC.

Article 23

Penalties

Member States shall determine penalties applicable to breaches of the national provisions adopted pursuant to this Directive. The penalties thus provided for shall be effective, proportionate and dissuasive.

Article 24

Implementation

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive at the latest 22 December 2003. They shall forthwith inform the Commission thereof.

When Member States adopt these measures, they shall contain a reference to this Directive or shall be accompanied by such a reference on the occasion of their official publication. The methods of making such a reference shall be laid down by the Member States.

2. Member States shall communicate to the Commission the texts of the main provisions of national law which they adopt in the field governed by this Directive. The Commission shall inform the other Member States thereof.

Article 25

Entry into force

This Directive shall enter into force on the day of its publication in the Official Journal of the European Communities.

Article 26

Addressees

This Directive is addressed to the Member States.

Done at Luxembourg, 23 October 2000.

For the European Parliament

The President

N. Fontaine

For the Council

The President

J. Glavany

- (1) OJ C 184, 17.6.1997, p. 20,
OJ C 16, 20.1.1998, p. 14 and
OJ C 108, 7.4.1998, p. 94.
- (2) OJ C 355, 21.11.1997, p. 83.
- (3) OJ C 180, 11.6.1998, p. 38.
- (4) Opinion of the European Parliament of 11 February 1999 (OJ C 150, 28.5.1999, p. 419), confirmed on 16 September 1999, and Council Common Position of 22 October 1999 (OJ C 343, 30.11.1999, p. 1). Decision of the European Parliament of 7 September 2000 and Decision of the Council of 14 September 2000.
- (5) OJ C 209, 9.8.1988, p. 3.
- (6) OJ C 59, 6.3.1992, p. 2.
- (7) OJ C 49, 28.2.1995, p. 1.
- (8) OJ L 20, 26.1.1980, p. 43. Directive as amended by Directive 91/692/EEC (OJ L 377, 31.12.1991, p. 48).
- (9) OJ C 355, 25.11.1996, p. 1.
- (10) OJ C 281, 26.9.1996, p. 3.
- (11) OJ L 73, 16.3.1994, p. 19.
- (12) OJ L 104, 3.4.1998, p. 1.
- (13) OJ L 240, 19.9.1977, p. 1.
- (14) OJ L 67, 12.3.1983, p. 1.
- (15) OJ L 186, 5.8.1995, p. 42.
- (16) OJ L 229, 30.8.1980, p. 11. Directive as last amended by Directive 98/83/EC (OJ L 330, 5.12.1998, p. 32).
- (17) OJ C 184, 17.7.1999, p. 23.
- (18) OJ L 129, 18.5.1976, p. 23. Directive as amended by Directive 91/692/EEC (OJ L 377, 31.12.1991, p. 48).
- (19) OJ L 257, 10.10.1996, p. 26.
- (20) OJ L 135, 30.5.1991, p. 40. Directive as amended by Commission Directive 98/15/EC (OJ L 67, 7.3.1998, p. 29).
- (21) OJ L 375, 31.12.1991, p. 1.
- (22) OJ L 84, 5.4.1993, p. 1.
- (23) OJ L 230, 19.8.1991, p. 1. Directive as last amended by Directive 98/47/EC (OJ L 191, 7.7.1998, p. 50).
- (24) OJ L 123, 24.4.1998, p. 1.
- (25) OJ L 194, 25.7.1975, p. 26. Directive as last amended by Directive 91/692/EEC.
- (26) OJ L 334, 24.12.1977, p. 29. Decision as last amended by the 1994 Act of Accession.
- (27) OJ L 271, 29.10.1979, p. 44. Directive as last amended by the 1994 Act of Accession.
- (28) OJ L 222, 14.8.1978, p. 1. Directive as last amended by the 1994 Act of Accession.
- (29) OJ L 281, 10.11.1979, p. 47. Directive as amended by Directive 91/692/EEC.

ANNEX I

INFORMATION REQUIRED FOR THE LIST OF COMPETENT AUTHORITIES

As required under Article 3(8), the Member States shall provide the following information on all competent authorities within each of its river basin districts as well as the portion of any international river basin district lying within their territory.

- (i) Name and address of the competent authority - the official name and address of the authority identified under Article 3(2).
- (ii) Geographical coverage of the river basin district - the names of the main rivers within the

river basin district together with a precise description of the boundaries of the river basin district. This information should as far as possible be available for introduction into a geographic information system (GIS) and/or the geographic information system of the Commission (GISCO).

(iii) Legal status of competent authority - a description of the legal status of the competent authority and, where relevant, a summary or copy of its statute, founding treaty or equivalent legal document.

(iv) Responsibilities - a description of the legal and administrative responsibilities of each competent authority and of its role within each river basin district.

(v) Membership - where the competent authority acts as a coordinating body for other competent authorities, a list is required of these bodies together with a summary of the institutional relationships established in order to ensure coordination.

(vi) International relationships - where a river basin district covers the territory of more than one Member State or includes the territory of non-Member States, a summary is required of the institutional relationships established in order to ensure coordination.

ANNEX II

1 SURFACE WATERS

1.1. Characterisation of surface water body types

Member States shall identify the location and boundaries of bodies of surface water and shall carry out an initial characterisation of all such bodies in accordance with the following methodology. Member States may group surface water bodies together for the purposes of this initial characterisation.

(i) The surface water bodies within the river basin district shall be identified as falling within either one of the following surface water categories - rivers, lakes, transitional waters or coastal waters - or as artificial surface water bodies or heavily modified surface water bodies.

(ii) For each surface water category, the relevant surface water bodies within the river basin district shall be differentiated according to type. These types are those defined using either "system A" or "system B" identified in section 1.2.

(iii) If system A is used, the surface water bodies within the river basin district shall first be differentiated by the relevant ecoregions in accordance with the geographical areas identified in section 1.2 and shown on the relevant map in Annex XI. The water bodies within each ecoregion shall then be differentiated by surface water body types according to the descriptors set out in the tables for system A.

(iv) If system B is used, Member States must achieve at least the same degree of differentiation as would be achieved using system A. Accordingly, the surface water bodies within the river basin district shall be differentiated into types using the values for the obligatory descriptors and such optional descriptors, or combinations of descriptors, as are required to ensure that type specific biological reference conditions can be reliably derived.

(v) For artificial and heavily modified surface water bodies the differentiation shall be undertaken in accordance with the descriptors for whichever of the surface water categories most closely resembles the heavily modified or artificial water body concerned.

(vi) Member States shall submit to the Commission a map or maps (in a GIS format) of the geographical location of the types consistent with the degree of differentiation required under system A.

1.2. Ecoregions and surface water body types

1.2.1. Rivers

System A

>TABLE POSITION>

System B

>TABLE POSITION>

1.2.2. Lakes

System A

>TABLE POSITION>

System B

>TABLE POSITION>

1.2.3. Transitional Waters

System A

>TABLE POSITION>

System B

>TABLE POSITION>

1.2.4. Coastal Waters

System A

>TABLE POSITION>

System B

>TABLE POSITION>

1.3. Establishment of type-specific reference conditions for surface water body types

(i) For each surface water body type characterised in accordance with section 1.1, type-specific hydromorphological and physicochemical conditions shall be established representing the values of the hydromorphological and physicochemical quality elements specified in point 1.1 in Annex V for that surface water body type at high ecological status as defined in the relevant table in point 1.2 in Annex V. Type-specific biological reference conditions shall be established, representing the values of the biological quality elements specified in point 1.1 in Annex V for that surface water body type at high ecological status as defined in the relevant table in section 1.2 in Annex V.

(ii) In applying the procedures set out in this section to heavily modified or artificial surface water bodies references to high ecological status shall be construed as references to maximum ecological potential as defined in table 1.2.5 of Annex V. The values for maximum ecological potential for a water body shall be reviewed every six years.

(iii) Type-specific conditions for the purposes of points (i) and (ii) and type-specific biological reference conditions may be either spatially based or based on modelling, or may be derived using a combination of these methods. Where it is not possible to use these methods, Member States may use expert judgement to establish such conditions. In defining high ecological status in respect of concentrations of specific synthetic pollutants, the detection limits are those which can be achieved in accordance with the available techniques at the time when the type-specific conditions are to be established.

(iv) For spatially based type-specific biological reference conditions, Member States shall develop a reference network for each surface water body type. The network shall contain a sufficient number of sites of high status to provide a sufficient level of confidence about the values for the reference conditions, given the variability in the values of the quality elements corresponding to high ecological status for that surface water body type and the modelling techniques which are to be applied under paragraph (v).

(v) Type-specific biological reference conditions based on modelling may be derived using either predictive models or hindcasting methods. The methods shall use historical, palaeological and other available data and shall provide a sufficient level of confidence about the values for the reference conditions to ensure that the conditions so derived are consistent and valid for each surface water body type.

(vi) Where it is not possible to establish reliable type-specific reference conditions for a quality element in a surface water body type due to high degrees of natural variability in that element, not just as a result of seasonal variations, then that element may be excluded from the assessment of ecological status for that surface water type. In such circumstances Member States shall state the reasons for this exclusion in the river basin management plan.

1.4. Identification of Pressures

Member States shall collect and maintain information on the type and magnitude of the

significant anthropogenic pressures to which the surface water bodies in each river basin district are liable to be subject, in particular the following.

Estimation and identification of significant point source pollution, in particular by substances listed in Annex VIII, from urban, industrial, agricultural and other installations and activities, based, inter alia, on information gathered under:

- (i) Articles 15 and 17 of Directive 91/271/EEC;
- (ii) Articles 9 and 15 of Directive 96/61/EC(1);

and for the purposes of the initial river basin management plan:

- (iii) Article 11 of Directive 76/464/EEC; and
- (iv) Directives 75/440/EC, 76/160/EEC(2), 78/659/EEC and 79/923/EEC(3).

Estimation and identification of significant diffuse source pollution, in particular by substances listed in Annex VIII, from urban, industrial, agricultural and other installations and activities; based, inter alia, on information gathered under:

- (i) Articles 3, 5 and 6 of Directive 91/676/EEC(4);
- (ii) Articles 7 and 17 of Directive 91/414/EEC;
- (iii) Directive 98/8/EC;

and for the purposes of the first river basin management plan:

- (iv) Directives 75/440/EEC, 76/160/EEC, 76/464/EEC, 78/659/EEC and 79/923/EEC.

Estimation and identification of significant water abstraction for urban, industrial, agricultural and other uses, including seasonal variations and total annual demand, and of loss of water in distribution systems.

Estimation and identification of the impact of significant water flow regulation, including water transfer and diversion, on overall flow characteristics and water balances.

Identification of significant morphological alterations to water bodies.

Estimation and identification of other significant anthropogenic impacts on the status of surface waters.

Estimation of land use patterns, including identification of the main urban, industrial and agricultural areas and, where relevant, fisheries and forests.

1.5. Assessment of Impact

Member States shall carry out an assessment of the susceptibility of the surface water status of bodies to the pressures identified above.

Member States shall use the information collected above, and any other relevant information including existing environmental monitoring data, to carry out an assessment of the likelihood that surface waters bodies within the river basin district will fail to meet the environmental quality objectives set for the bodies under Article 4. Member States may utilise modelling techniques to assist in such an assessment.

For those bodies identified as being at risk of failing the environmental quality objectives, further characterisation shall, where relevant, be carried out to optimise the design of both the monitoring programmes required under Article 8, and the programmes of measures required under Article 11.

2. GROUNDWATERS

2.1. Initial characterisation

Member States shall carry out an initial characterisation of all groundwater bodies to assess their uses and the degree to which they are at risk of failing to meet the objectives for each groundwater body under Article 4. Member States may group groundwater bodies together for the purposes of this initial characterisation. This analysis may employ existing hydrological, geological, pedological, land use, discharge, abstraction and other data but shall identify:

- the location and boundaries of the groundwater body or bodies,
- the pressures to which the groundwater body or bodies are liable to be subject including:
 - diffuse sources of pollution
 - point sources of pollution
 - abstraction

- artificial recharge,
- the general character of the overlying strata in the catchment area from which the groundwater body receives its recharge,
- those groundwater bodies for which there are directly dependent surface water ecosystems or terrestrial ecosystems.

2.2. Further characterisation

Following this initial characterisation, Member States shall carry out further characterisation of those groundwater bodies or groups of bodies which have been identified as being at risk in order to establish a more precise assessment of the significance of such risk and identification of any measures to be required under Article 11. Accordingly, this characterisation shall include relevant information on the impact of human activity and, where relevant, information on:

- geological characteristics of the groundwater body including the extent and type of geological units,
- hydrogeological characteristics of the groundwater body including hydraulic conductivity, porosity and confinement,
- characteristics of the superficial deposits and soils in the catchment from which the groundwater body receives its recharge, including the thickness, porosity, hydraulic conductivity, and absorptive properties of the deposits and soils,
- stratification characteristics of the groundwater within the groundwater body,
- an inventory of associated surface systems, including terrestrial ecosystems and bodies of surface water, with which the groundwater body is dynamically linked,
- estimates of the directions and rates of exchange of water between the groundwater body and associated surface systems,
- sufficient data to calculate the long term annual average rate of overall recharge,
- characterisation of the chemical composition of the groundwater, including specification of the contributions from human activity. Member States may use typologies for groundwater characterisation when establishing natural background levels for these bodies of groundwater.

2.3. Review of the impact of human activity on groundwaters

For those bodies of groundwater which cross the boundary between two or more Member States or are identified following the initial characterisation undertaken in accordance with paragraph 2.1 as being at risk of failing to meet the objectives set for each body under Article 4, the following information shall, where relevant, be collected and maintained for each groundwater body:

(a) the location of points in the groundwater body used for the abstraction of water with the exception of:

- points for the abstraction of water providing less than an average of 10 m³ per day, or,
- points for the abstraction of water intended for human consumption providing less than an average of 10 m³ per day or serving less than 50 persons,

(b) the annual average rates of abstraction from such points,

(c) the chemical composition of water abstracted from the groundwater body,

(d) the location of points in the groundwater body into which water is directly discharged,

(e) the rates of discharge at such points,

(f) the chemical composition of discharges to the groundwater body, and

(g) land use in the catchment or catchments from which the groundwater body receives its recharge, including pollutant inputs and anthropogenic alterations to the recharge characteristics such as rainwater and run-off diversion through land sealing, artificial recharge, damming or drainage.

2.4. Review of the impact of changes in groundwater levels

Member States shall also identify those bodies of groundwater for which lower objectives are to be specified under Article 4 including as a result of consideration of the effects of the status of the body on:

- (i) surface water and associated terrestrial ecosystems

- (ii) water regulation, flood protection and land drainage
- (iii) human development.

2.5. Review of the impact of pollution on groundwater quality

Member States shall identify those bodies of groundwater for which lower objectives are to be specified under Article 4(5) where, as a result of the impact of human activity, as determined in accordance with Article 5(1), the body of groundwater is so polluted that achieving good groundwater chemical status is infeasible or disproportionately expensive.

- (1) OJ L 135, 30.5.1991, p. 40. Directive as last amended by Directive 98/15/EC (OJ L 67, 7.3.1998, p. 29).
- (2) OJ L 31, 5.2.1976, p. 1. Directive as last amended by the 1994 Act of Accession.
- (3) OJ L 281, 10.11.1979, p. 47. Directive as amended by Directive 91/692/EEC (OJ L 377, 31.12.1991, p. 48).
- (4) OJ L 375, 31.12.1991, p. 1.

ANNEX III

ECONOMIC ANALYSIS

The economic analysis shall contain enough information in sufficient detail (taking account of the costs associated with collection of the relevant data) in order to:

- (a) make the relevant calculations necessary for taking into account under Article 9 the principle of recovery of the costs of water services, taking account of long term forecasts of supply and demand for water in the river basin district and, where necessary:
 - estimates of the volume, prices and costs associated with water services, and
 - estimates of relevant investment including forecasts of such investments;
- (b) make judgements about the most cost-effective combination of measures in respect of water uses to be included in the programme of measures under Article 11 based on estimates of the potential costs of such measures.

ANNEX IV

PROTECTED AREAS

1. The register of protected areas required under Article 6 shall include the following types of protected areas:

- (i) areas designated for the abstraction of water intended for human consumption under Article 7;
- (ii) areas designated for the protection of economically significant aquatic species;
- (iii) bodies of water designated as recreational waters, including areas designated as bathing waters under Directive 76/160/EEC;
- (iv) nutrient-sensitive areas, including areas designated as vulnerable zones under Directive 91/676/EEC and areas designated as sensitive areas under Directive 91/271/EEC; and
- (v) areas designated for the protection of habitats or species where the maintenance or improvement of the status of water is an important factor in their protection, including relevant Natura 2000 sites designated under Directive 92/43/EEC(1) and Directive 79/409/EEC(2).

2. The summary of the register required as part of the river basin management plan shall include maps indicating the location of each protected area and a description of the Community, national or local legislation under which they have been designated.

- (1) OJ L 206, 22.7.1992, p. 7. Directive as last amended by Directive 97/62/EC (OJ L 305, 8.11.1997, p. 42).
- (2) OJ L 103, 25.4.1979, p. 1. Directive as last amended by Directive 97/49/EC (OJ L 223,

13.8.1997, p. 9).

ANNEX V

>TABLE POSITION>

1. SURFACE WATER STATUS

1.1. Quality elements for the classification of ecological status

1.1.1. Rivers

Biological elements

Composition and abundance of aquatic flora

Composition and abundance of benthic invertebrate fauna

Composition, abundance and age structure of fish fauna

Hydromorphological elements supporting the biological elements

Hydrological regime

quantity and dynamics of water flow

connection to groundwater bodies

River continuity

Morphological conditions

river depth and width variation

structure and substrate of the river bed

structure of the riparian zone

Chemical and physico-chemical elements supporting the biological elements

General

Thermal conditions

Oxygenation conditions

Salinity

Acidification status

Nutrient conditions

Specific pollutants

Pollution by all priority substances identified as being discharged into the body of water

Pollution by other substances identified as being discharged in significant quantities into the body of water

1.1.2. Lakes

Biological elements

Composition, abundance and biomass of phytoplankton

Composition and abundance of other aquatic flora

Composition and abundance of benthic invertebrate fauna

Composition, abundance and age structure of fish fauna

Hydromorphological elements supporting the biological elements

Hydrological regime

quantity and dynamics of water flow

residence time

connection to the groundwater body

Morphological conditions

lake depth variation

quantity, structure and substrate of the lake bed

structure of the lake shore

Chemical and physico-chemical elements supporting the biological elements

General

Transparency

Thermal conditions
Oxygenation conditions
Salinity
Acidification status
Nutrient conditions
Specific pollutants
Pollution by all priority substances identified as being discharged into the body of water
Pollution by other substances identified as being discharged in significant quantities into the body of water
1.1.3. Transitional waters
Biological elements
Composition, abundance and biomass of phytoplankton
Composition and abundance of other aquatic flora
Composition and abundance of benthic invertebrate fauna
Composition and abundance of fish fauna
Hydro-morphological elements supporting the biological elements
Morphological conditions
depth variation
quantity, structure and substrate of the bed
structure of the intertidal zone
Tidal regime
freshwater flow
wave exposure
Chemical and physico-chemical elements supporting the biological elements
General
Transparency
Thermal conditions
Oxygenation conditions
Salinity
Nutrient conditions
Specific pollutants
Pollution by all priority substances identified as being discharged into the body of water
Pollution by other substances identified as being discharged in significant quantities into the body of water
1.1.4. Coastal waters
Biological elements
Composition, abundance and biomass of phytoplankton
Composition and abundance of other aquatic flora
Composition and abundance of benthic invertebrate fauna
Hydromorphological elements supporting the biological elements
Morphological conditions
depth variation
structure and substrate of the coastal bed
structure of the intertidal zone
Tidal regime
direction of dominant currents
wave exposure
Chemical and physico-chemical elements supporting the biological elements
General
Transparency
Thermal conditions
Oxygenation conditions
Salinity

Nutrient conditions

Specific pollutants

Pollution by all priority substances identified as being discharged into the body of water

Pollution by other substances identified as being discharged in significant quantities into the body of water

1.1.5. Artificial and heavily modified surface water bodies

The quality elements applicable to artificial and heavily modified surface water bodies shall be those applicable to whichever of the four natural surface water categories above most closely resembles the heavily modified or artificial water body concerned.

1.2. Normative definitions of ecological status classifications

Table 1.2. General definition for rivers, lakes, transitional waters and coastal waters

>TABLE POSITION>

Waters achieving a status below moderate shall be classified as poor or bad.

Waters showing evidence of major alterations to the values of the biological quality elements for the surface water body type and in which the relevant biological communities deviate substantially from those normally associated with the surface water body type under undisturbed conditions, shall be classified as poor.

Waters showing evidence of severe alterations to the values of the biological quality elements for the surface water body type and in which large portions of the relevant biological communities normally associated with the surface water body type under undisturbed conditions are absent, shall be classified as bad.

1.2.1. Definitions for high, good and moderate ecological status in rivers

Biological quality elements

>TABLE POSITION>

Hydromorphological quality elements

>TABLE POSITION>

Physico-chemical quality elements

>TABLE POSITION>

1.2.2. Definitions for high, good and moderate ecological status in lakes

Biological quality elements

>TABLE POSITION>

Hydromorphological quality elements

>TABLE POSITION>

Physico-chemical quality elements

>TABLE POSITION>

1.2.3. Definitions for high, good and moderate ecological status in transitional waters

Biological quality elements

>TABLE POSITION>

Hydromorphological quality elements

>TABLE POSITION>

Physico-chemical quality elements

>TABLE POSITION>

1.2.4. Definitions for high, good and moderate ecological status in coastal waters

Biological quality elements

>TABLE POSITION>

Hydromorphological quality elements

>TABLE POSITION>

Physico-chemical quality elements

>TABLE POSITION>

1.2.5. Definitions for maximum, good and moderate ecological potential for heavily modified or artificial water bodies

>TABLE POSITION>

1.2.6. Procedure for the setting of chemical quality standards by Member States

In deriving environmental quality standards for pollutants listed in points 1 to 9 of Annex VIII for the protection of aquatic biota, Member States shall act in accordance with the following provisions. Standards may be set for water, sediment or biota.

Where possible, both acute and chronic data shall be obtained for the taxa set out below which are relevant for the water body type concerned as well as any other aquatic taxa for which data are available. The "base set" of taxa are:

- algae and/or macrophytes
- daphnia or representative organisms for saline waters
- fish.

Setting the environmental quality standard

The following procedure applies to the setting of a maximum annual average concentration:

(i) Member States shall set appropriate safety factors in each case consistent with the nature and quality of the available data and the guidance given in section 3.3.1 of Part II of "Technical guidance document in support of Commission Directive 93/67/EEC on risk assessment for new notified substances and Commission Regulation (EC) No 1488/94 on risk assessment for existing substances" and the safety factors set out in the table below:

>TABLE POSITION>

(ii) where data on persistence and bioaccumulation are available, these shall be taken into account in deriving the final value of the environmental quality standard;

(iii) the standard thus derived should be compared with any evidence from field studies.

Where anomalies appear, the derivation shall be reviewed to allow a more precise safety factor to be calculated;

(iv) the standard derived shall be subject to peer review and public consultation including to allow a more precise safety factor to be calculated.

1.3. Monitoring of ecological status and chemical status for surface waters

The surface water monitoring network shall be established in accordance with the requirements of Article 8. The monitoring network shall be designed so as to provide a coherent and comprehensive overview of ecological and chemical status within each river basin and shall permit classification of water bodies into five classes consistent with the normative definitions in section 1.2. Member States shall provide a map or maps showing the surface water monitoring network in the river basin management plan.

On the basis of the characterisation and impact assessment carried out in accordance with Article 5 and Annex II, Member States shall for each period to which a river basin management plan applies, establish a surveillance monitoring programme and an operational monitoring programme. Member States may also need in some cases to establish programmes of investigative monitoring.

Member States shall monitor parameters which are indicative of the status of each relevant quality element. In selecting parameters for biological quality elements Member States shall identify the appropriate taxonomic level required to achieve adequate confidence and precision in the classification of the quality elements. Estimates of the level of confidence and precision of the results provided by the monitoring programmes shall be given in the plan.

1.3.1. Design of surveillance monitoring

Objective

Member States shall establish surveillance monitoring programmes to provide information for:

- supplementing and validating the impact assessment procedure detailed in Annex II,
- the efficient and effective design of future monitoring programmes,
- the assessment of long-term changes in natural conditions, and
- the assessment of long-term changes resulting from widespread anthropogenic activity.

The results of such monitoring shall be reviewed and used, in combination with the impact assessment procedure described in Annex II, to determine requirements for monitoring programmes in the current and subsequent river basin management plans.

Selection of monitoring points

Surveillance monitoring shall be carried out of sufficient surface water bodies to provide an assessment of the overall surface water status within each catchment or subcatchments within the river basin district. In selecting these bodies Member States shall ensure that, where appropriate, monitoring is carried out at points where:

- the rate of water flow is significant within the river basin district as a whole; including points on large rivers where the catchment area is greater than 2500 km²,
- the volume of water present is significant within the river basin district, including large lakes and reservoirs,
- significant bodies of water cross a Member State boundary,
- sites are identified under the Information Exchange Decision 77/795/EEC, and at such other sites as are required to estimate the pollutant load which is transferred across Member State boundaries, and which is transferred into the marine environment.

Selection of quality elements

Surveillance monitoring shall be carried out for each monitoring site for a period of one year during the period covered by a river basin management plan for:

- parameters indicative of all biological quality elements,
- parameters indicative of all hydromorphological quality elements,
- parameters indicative of all general physico-chemical quality elements,
- priority list pollutants which are discharged into the river basin or sub-basin, and
- other pollutants discharged in significant quantities in the river basin or sub-basin, unless the previous surveillance monitoring exercise showed that the body concerned reached good status and there is no evidence from the review of impact of human activity in Annex II that the impacts on the body have changed. In these cases, surveillance monitoring shall be carried out once every three river basin management plans.

1.3.2. Design of operational monitoring

Operational monitoring shall be undertaken in order to:

- establish the status of those bodies identified as being at risk of failing to meet their environmental objectives, and
- assess any changes in the status of such bodies resulting from the programmes of measures. The programme may be amended during the period of the river basin management plan in the light of information obtained as part of the requirements of Annex II or as part of this Annex, in particular to allow a reduction in frequency where an impact is found not to be significant or the relevant pressure is removed.

Selection of monitoring sites

Operational monitoring shall be carried out for all those bodies of water which on the basis of either the impact assessment carried out in accordance with Annex II or surveillance monitoring are identified as being at risk of failing to meet their environmental objectives under Article 4 and for those bodies of water into which priority list substances are discharged. Monitoring points shall be selected for priority list substances as specified in the legislation laying down the relevant environmental quality standard. In all other cases, including for priority list substances where no specific guidance is given in such legislation, monitoring points shall be selected as follows:

- for bodies at risk from significant point source pressures, sufficient monitoring points within each body in order to assess the magnitude and impact of the point source. Where a body is subject to a number of point source pressures monitoring points may be selected to assess the magnitude and impact of these pressures as a whole,
- for bodies at risk from significant diffuse source pressures, sufficient monitoring points within a selection of the bodies in order to assess the magnitude and impact of the diffuse source pressures. The selection of bodies shall be made such that they are representative of the relative risks of the occurrence of the diffuse source pressures, and of the relative risks of the failure to achieve good surface water status,

- for bodies at risk from significant hydromorphological pressure, sufficient monitoring points within a selection of the bodies in order to assess the magnitude and impact of the hydromorphological pressures. The selection of bodies shall be indicative of the overall impact of the hydromorphological pressure to which all the bodies are subject.

Selection of quality elements

In order to assess the magnitude of the pressure to which bodies of surface water are subject Member States shall monitor for those quality elements which are indicative of the pressures to which the body or bodies are subject. In order to assess the impact of these pressures, Member States shall monitor as relevant:

- parameters indicative of the biological quality element, or elements, most sensitive to the pressures to which the water bodies are subject,
- all priority substances discharged, and other pollutants discharged in significant quantities,
- parameters indicative of the hydromorphological quality element most sensitive to the pressure identified.

1.3.3. Design of investigative monitoring

Objective

Investigative monitoring shall be carried out:

- where the reason for any exceedances is unknown,
 - where surveillance monitoring indicates that the objectives set out in Article 4 for a body of water are not likely to be achieved and operational monitoring has not already been established, in order to ascertain the causes of a water body or water bodies failing to achieve the environmental objectives, or
 - to ascertain the magnitude and impacts of accidental pollution,
- and shall inform the establishment of a programme of measures for the achievement of the environmental objectives and specific measures necessary to remedy the effects of accidental pollution.

1.3.4. Frequency of monitoring

For the surveillance monitoring period, the frequencies for monitoring parameters indicative of physico-chemical quality elements given below should be applied unless greater intervals would be justified on the basis of technical knowledge and expert judgement. For biological or hydromorphological quality elements monitoring shall be carried out at least once during the surveillance monitoring period.

For operational monitoring, the frequency of monitoring required for any parameter shall be determined by Member States so as to provide sufficient data for a reliable assessment of the status of the relevant quality element. As a guideline, monitoring should take place at intervals not exceeding those shown in the table below unless greater intervals would be justified on the basis of technical knowledge and expert judgement.

Frequencies shall be chosen so as to achieve an acceptable level of confidence and precision. Estimates of the confidence and precision attained by the monitoring system used shall be stated in the river basin management plan.

Monitoring frequencies shall be selected which take account of the variability in parameters resulting from both natural and anthropogenic conditions. The times at which monitoring is undertaken shall be selected so as to minimise the impact of seasonal variation on the results, and thus ensure that the results reflect changes in the water body as a result of changes due to anthropogenic pressure. Additional monitoring during different seasons of the same year shall be carried out, where necessary, to achieve this objective.

>TABLE POSITION>

1.3.5. Additional monitoring requirements for protected areas

The monitoring programmes required above shall be supplemented in order to fulfil the following requirements:

Drinking water abstraction points

Bodies of surface water designated in Article 7 which provide more than 100 m³ a day as an average shall be designated as monitoring sites and shall be subject to such additional

monitoring as may be necessary to meet the requirements of that Article. Such bodies shall be monitored for all priority substances discharged and all other substances discharged in significant quantities which could affect the status of the body of water and which are controlled under the provisions of the Drinking Water Directive. Monitoring shall be carried out in accordance with the frequencies set out below:

>TABLE POSITION>

Habitat and species protection areas

Bodies of water forming these areas shall be included within the operational monitoring programme referred to above where, on the basis of the impact assessment and the surveillance monitoring, they are identified as being at risk of failing to meet their environmental objectives under Article 4. Monitoring shall be carried out to assess the magnitude and impact of all relevant significant pressures on these bodies and, where necessary, to assess changes in the status of such bodies resulting from the programmes of measures. Monitoring shall continue until the areas satisfy the water-related requirements of the legislation under which they are designated and meet their objectives under Article 4.

1.3.6. Standards for monitoring of quality elements

Methods used for the monitoring of type parameters shall conform to the international standards listed below or such other national or international standards which will ensure the provision of data of an equivalent scientific quality and comparability.

Macroinvertebrate sampling

>TABLE POSITION>

Macrophyte sampling

Relevant CEN / ISO standards when developed

Fish sampling

Relevant CEN / ISO standards when developed

Diatom sampling

Relevant CEN/ISO standards when developed

Standards for physico-chemical parameters

Any relevant CEN/ISO standards

Standards for hydromorphological parameters

Any relevant CEN/ISO standards

1.4. Classification and presentation of ecological status

1.4.1. Comparability of biological monitoring results

(i) Member States shall establish monitoring systems for the purpose of estimating the values of the biological quality elements specified for each surface water category or for heavily modified and artificial bodies of surface water. In applying the procedure set out below to heavily modified or artificial water bodies, references to ecological status should be construed as references to ecological potential. Such systems may utilise particular species or groups of species which are representative of the quality element as a whole.

(ii) In order to ensure comparability of such monitoring systems, the results of the systems operated by each Member State shall be expressed as ecological quality ratios for the purposes of classification of ecological status. These ratios shall represent the relationship between the values of the biological parameters observed for a given body of surface water and the values for these parameters in the reference conditions applicable to that body. The ratio shall be expressed as a numerical value between zero and one, with high ecological status represented by values close to one and bad ecological status by values close to zero.

(iii) Each Member State shall divide the ecological quality ratio scale for their monitoring system for each surface water category into five classes ranging from high to bad ecological status, as defined in Section 1.2, by assigning a numerical value to each of the boundaries between the classes. The value for the boundary between the classes of high and good status, and the value for the boundary between good and moderate status shall be established through the intercalibration exercise described below.

(iv) The Commission shall facilitate this intercalibration exercise in order to ensure that these class boundaries are established consistent with the normative definitions in Section 1.2 and are comparable between Member States.

(v) As part of this exercise the Commission shall facilitate an exchange of information between Member States leading to the identification of a range of sites in each ecoregion in the Community; these sites will form an intercalibration network. The network shall consist of sites selected from a range of surface water body types present within each ecoregion. For each surface water body type selected, the network shall consist of at least two sites corresponding to the boundary between the normative definitions of high and good status, and at least two sites corresponding to the boundary between the normative definitions of good and moderate status. The sites shall be selected by expert judgement based on joint inspections and all other available information.

(vi) Each Member State monitoring system shall be applied to those sites in the intercalibration network which are both in the ecoregion and of a surface water body type to which the system will be applied pursuant to the requirements of this Directive. The results of this application shall be used to set the numerical values for the relevant class boundaries in each Member State monitoring system.

(vii) Within three years of the date of entry into force of the Directive, the Commission shall prepare a draft register of sites to form the intercalibration network which may be adapted in accordance with the procedures laid down in Article 21. The final register of sites shall be established within four years of the date of entry into force of the Directive and shall be published by the Commission.

(viii) The Commission and Member States shall complete the intercalibration exercise within 18 months of the date on which the finalised register is published.

(ix) The results of the intercalibration exercise and the values established for the Member State monitoring system classifications shall be published by the Commission within six months of the completion of the intercalibration exercise.

1.4.2. Presentation of monitoring results and classification of ecological status and ecological potential

(i)

>TABLE POSITION>

(ii)

>TABLE POSITION>

(iii) Member States shall also indicate, by a black dot on the map, those bodies of water where failure to achieve good status or good ecological potential is due to non-compliance with one or more environmental quality standards which have been established for that body of water in respect of specific synthetic and non-synthetic pollutants (in accordance with the compliance regime established by the Member State).

1.4.3. Presentation of monitoring results and classification of chemical status

Where a body of water achieves compliance with all the environmental quality standards established in Annex IX, Article 16 and under other relevant Community legislation setting environmental quality standards it shall be recorded as achieving good chemical status. If not, the body shall be recorded as failing to achieve good chemical status.

>TABLE POSITION>

2. GROUNDWATER

2.1. Groundwater quantitative status

2.1.1. Parameter for the classification of quantitative status

Groundwater level regime

2.1.2. Definition of quantitative status

>TABLE POSITION>

2.2. Monitoring of groundwater quantitative status

2.2.1. Groundwater level monitoring network

The groundwater monitoring network shall be established in accordance with the requirements

of Articles 7 and 8. The monitoring network shall be designed so as to provide a reliable assessment of the quantitative status of all groundwater bodies or groups of bodies including assessment of the available groundwater resource. Member States shall provide a map or maps showing the groundwater monitoring network in the river basin management plan.

2.2.2. Density of monitoring sites

The network shall include sufficient representative monitoring points to estimate the groundwater level in each groundwater body or group of bodies taking into account short and long-term variations in recharge and in particular:

- for groundwater bodies identified as being at risk of failing to achieve environmental objectives under Article 4, ensure sufficient density of monitoring points to assess the impact of abstractions and discharges on the groundwater level,
- for groundwater bodies within which groundwater flows across a Member State boundary, ensure sufficient monitoring points are provided to estimate the direction and rate of groundwater flow across the Member State boundary.

2.2.3. Monitoring frequency

The frequency of observations shall be sufficient to allow assessment of the quantitative status of each groundwater body or group of bodies taking into account short and long-term variations in recharge. In particular:

- for groundwater bodies identified as being at risk of failing to achieve environmental objectives under Article 4, ensure sufficient frequency of measurement to assess the impact of abstractions and discharges on the groundwater level,
- for groundwater bodies within which groundwater flows across a Member State boundary, ensure sufficient frequency of measurement to estimate the direction and rate of groundwater flow across the Member State boundary.

2.2.4. Interpretation and presentation of groundwater quantitative status

The results obtained from the monitoring network for a groundwater body or group of bodies shall be used to assess the quantitative status of that body or those bodies. Subject to point 2.5. Member States shall provide a map of the resulting assessment of groundwater quantitative status, colour-coded in accordance with the following regime:

Good: green

Poor: red

2.3. Groundwater chemical status

2.3.1. Parameters for the determination of groundwater chemical status

Conductivity

Concentrations of pollutants

2.3.2. Definition of good groundwater chemical status

>TABLE POSITION<

2.4. Monitoring of groundwater chemical status

2.4.1. Groundwater monitoring network

The groundwater monitoring network shall be established in accordance with the requirements of Articles 7 and 8. The monitoring network shall be designed so as to provide a coherent and comprehensive overview of groundwater chemical status within each river basin and to detect the presence of long-term anthropogenically induced upward trends in pollutants.

On the basis of the characterisation and impact assessment carried out in accordance with Article 5 and Annex II, Member States shall for each period to which a river basin management plan applies, establish a surveillance monitoring programme. The results of this programme shall be used to establish an operational monitoring programme to be applied for the remaining period of the plan.

Estimates of the level of confidence and precision of the results provided by the monitoring programmes shall be given in the plan.

2.4.2. Surveillance monitoring

Objective

Surveillance monitoring shall be carried out in order to:

- supplement and validate the impact assessment procedure,
- provide information for use in the assessment of long term trends both as a result of changes in natural conditions and through anthropogenic activity.

Selection of monitoring sites

Sufficient monitoring sites shall be selected for each of the following:

- bodies identified as being at risk following the characterisation exercise undertaken in accordance with Annex II,
- bodies which cross a Member State boundary.

Selection of parameters

The following set of core parameters shall be monitored in all the selected groundwater bodies:

- oxygen content
- pH value
- conductivity
- nitrate
- ammonium

Bodies which are identified in accordance with Annex II as being at significant risk of failing to achieve good status shall also be monitored for those parameters which are indicative of the impact of these pressures.

Transboundary water bodies shall also be monitored for those parameters which are relevant for the protection of all of the uses supported by the groundwater flow.

2.4.3. Operational monitoring

Objective

Operational monitoring shall be undertaken in the periods between surveillance monitoring programmes in order to:

- establish the chemical status of all groundwater bodies or groups of bodies determined as being at risk,
- establish the presence of any long term anthropogenically induced upward trend in the concentration of any pollutant.

Selection of monitoring sites

Operational monitoring shall be carried out for all those groundwater bodies or groups of bodies which on the basis of both the impact assessment carried out in accordance with Annex II and surveillance monitoring are identified as being at risk of failing to meet objectives under Article 4. The selection of monitoring sites shall also reflect an assessment of how representative monitoring data from that site is of the quality of the relevant groundwater body or bodies.

Frequency of monitoring

Operational monitoring shall be carried out for the periods between surveillance monitoring programmes at a frequency sufficient to detect the impacts of relevant pressures but at a minimum of once per annum.

2.4.4. Identification of trends in pollutants

Member States shall use data from both surveillance and operational monitoring in the identification of long term anthropogenically induced upward trends in pollutant concentrations and the reversal of such trends. The base year or period from which trend identification is to be calculated shall be identified. The calculation of trends shall be undertaken for a body or, where appropriate, group of bodies of groundwater. Reversal of a trend shall be demonstrated statistically and the level of confidence associated with the identification stated.

2.4.5. Interpretation and presentation of groundwater chemical status

In assessing status, the results of individual monitoring points within a groundwater body shall be aggregated for the body as a whole. Without prejudice to the Directives concerned, for good status to be achieved for a groundwater body, for those chemical parameters for

which environmental quality standards have been set in Community legislation:

- the mean value of the results of monitoring at each point in the groundwater body or group of bodies shall be calculated, and
- in accordance with Article 17 these mean values shall be used to demonstrate compliance with good groundwater chemical status.

Subject to point 2.5, Member States shall provide a map of groundwater chemical status, colour-coded as indicated below:

Good: green

Poor: red

Member States shall also indicate by a black dot on the map, those groundwater bodies which are subject to a significant and sustained upward trend in the concentrations of any pollutant resulting from the impact of human activity. Reversal of a trend shall be indicated by a blue dot on the map.

These maps shall be included in the river basin management plan.

2.5. Presentation of Groundwater Status

Member States shall provide in the river basin management plan a map showing for each groundwater body or groups of groundwater bodies both the quantitative status and the chemical status of that body or group of bodies, colour-coded in accordance with the requirements of points 2.2.4 and 2.4.5. Member States may choose not to provide separate maps under points 2.2.4 and 2.4.5 but shall in that case also provide an indication in accordance with the requirements of point 2.4.5 on the map required under this point, of those bodies which are subject to a significant and sustained upward trend in the concentration of any pollutant or any reversal in such a trend.

ANNEX VI

LISTS OF MEASURES TO BE INCLUDED WITHIN THE PROGRAMMES OF MEASURES

PART A

Measures required under the following Directives:

- (i) The Bathing Water Directive (76/160/EEC);
- (ii) The Birds Directive (79/409/EEC)(1);
- (iii) The Drinking Water Directive (80/778/EEC) as amended by Directive (98/83/EC);
- (iv) The Major Accidents (Seveso) Directive (96/82/EC)(2);
- (v) The Environmental Impact Assessment Directive (85/337/EEC)(3);
- (vi) The Sewage Sludge Directive (86/278/EEC)(4);
- (vii) The Urban Waste-water Treatment Directive (91/271/EEC);
- (viii) The Plant Protection Products Directive (91/414/EEC);
- (ix) The Nitrates Directive (91/676/EEC);
- (x) The Habitats Directive (92/43/EEC)(5);
- (xi) The Integrated Pollution Prevention Control Directive (96/61/EC).

PART B

The following is a non-exclusive list of supplementary measures which Member States within each river basin district may choose to adopt as part of the programme of measures required under Article 11(4):

- (i) legislative instruments
- (ii) administrative instruments
- (iii) economic or fiscal instruments
- (iv) negotiated environmental agreements
- (v) emission controls
- (vi) codes of good practice
- (vii) recreation and restoration of wetlands areas

- (viii) abstraction controls
- (ix) demand management measures, inter alia, promotion of adapted agricultural production such as low water requiring crops in areas affected by drought
- (x) efficiency and reuse measures, inter alia, promotion of water-efficient technologies in industry and water-saving irrigation techniques
- (xi) construction projects
- (xii) desalination plants
- (xiii) rehabilitation projects
- (xiv) artificial recharge of aquifers
- (xv) educational projects
- (xvi) research, development and demonstration projects
- (xvii) other relevant measures

- (1) OJ L 103, 25.4.1979, p. 1.
- (2) OJ L 10, 14.1.1997, p. 13.
- (3) OJ L 175, 5.7.1985, p. 40. Directive as amended by Directive 97/11/EC (OJ L 73, 14.3.1997, p. 5).
- (4) OJ L 181, 8.7.1986, p. 6.
- (5) OJ L 206, 22.7.1992, p. 7.

ANNEX VII

RIVER BASIN MANAGEMENT PLANS

A. River basin management plans shall cover the following elements:

1. a general description of the characteristics of the river basin district required under Article 5 and Annex II. This shall include:

1.1. for surface waters:

- mapping of the location and boundaries of water bodies,
- mapping of the ecoregions and surface water body types within the river basin,
- identification of reference conditions for the surface water body types;

1.2. for groundwaters:

- mapping of the location and boundaries of groundwater bodies;

2. a summary of significant pressures and impact of human activity on the status of surface water and groundwater, including:

- estimation of point source pollution,
- estimation of diffuse source pollution, including a summary of land use,
- estimation of pressures on the quantitative status of water including abstractions,
- analysis of other impacts of human activity on the status of water;

3. identification and mapping of protected areas as required by Article 6 and Annex IV;

4. a map of the monitoring networks established for the purposes of Article 8 and Annex V, and a presentation in map form of the results of the monitoring programmes carried out under those provisions for the status of:

- 4.1. surface water (ecological and chemical);
- 4.2. groundwater (chemical and quantitative);
- 4.3. protected areas;

5. a list of the environmental objectives established under Article 4 for surface waters, groundwaters and protected areas, including in particular identification of instances where use has been made of Article 4(4), (5), (6) and (7), and the associated information required under that Article;

6. a summary of the economic analysis of water use as required by Article 5 and Annex III;

7. a summary of the programme or programmes of measures adopted under Article 11, including the ways in which the objectives established under Article 4 are thereby to be

achieved;

- 7.1. a summary of the measures required to implement Community legislation for the protection of water;
- 7.2. a report on the practical steps and measures taken to apply the principle of recovery of the costs of water use in accordance with Article 9;
- 7.3. a summary of the measures taken to meet the requirements of Article 7;
- 7.4. a summary of the controls on abstraction and impoundment of water, including reference to the registers and identifications of the cases where exemptions have been made under Article 11(3)(e);
- 7.5. a summary of the controls adopted for point source discharges and other activities with an impact on the status of water in accordance with the provisions of Article 11(3)(g) and 11(3)(i);
- 7.6. an identification of the cases where direct discharges to groundwater have been authorised in accordance with the provisions of Article 11(3)(j);
- 7.7. a summary of the measures taken in accordance with Article 16 on priority substances;
- 7.8. a summary of the measures taken to prevent or reduce the impact of accidental pollution incidents;
- 7.9. a summary of the measures taken under Article 11(5) for bodies of water which are unlikely to achieve the objectives set out under Article 4;
- 7.10. details of the supplementary measures identified as necessary in order to meet the environmental objectives established;
- 7.11. details of the measures taken to avoid increase in pollution of marine waters in accordance with Article 11(6);
8. a register of any more detailed programmes and management plans for the river basin district dealing with particular sub-basins, sectors, issues or water types, together with a summary of their contents;
9. a summary of the public information and consultation measures taken, their results and the changes to the plan made as a consequence;
10. a list of competent authorities in accordance with Annex I;
11. the contact points and procedures for obtaining the background documentation and information referred to in Article 14(1), and in particular details of the control measures adopted in accordance with Article 11(3)(g) and 11(3)(i) and of the actual monitoring data gathered in accordance with Article 8 and Annex V.

B. The first update of the river basin management plan and all subsequent updates shall also include:

1. a summary of any changes or updates since the publication of the previous version of the river basin management plan, including a summary of the reviews to be carried out under Article 4(4), (5), (6) and (7);
2. an assessment of the progress made towards the achievement of the environmental objectives, including presentation of the monitoring results for the period of the previous plan in map form, and an explanation for any environmental objectives which have not been reached;
3. a summary of, and an explanation for, any measures foreseen in the earlier version of the river basin management plan which have not been undertaken;
4. a summary of any additional interim measures adopted under Article 11(5) since the publication of the previous version of the river basin management plan.

ANNEX VIII

INDICATIVE LIST OF THE MAIN POLLUTANTS

1. Organohalogen compounds and substances which may form such compounds in the aquatic environment.

2. Organophosphorous compounds.
3. Organotin compounds.
4. Substances and preparations, or the breakdown products of such, which have been proved to possess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine-related functions in or via the aquatic environment.
5. Persistent hydrocarbons and persistent and bioaccumulable organic toxic substances.
6. Cyanides.
7. Metals and their compounds.
8. Arsenic and its compounds.
9. Biocides and plant protection products.
10. Materials in suspension.
11. Substances which contribute to eutrophication (in particular, nitrates and phosphates).
12. Substances which have an unfavourable influence on the oxygen balance (and can be measured using parameters such as BOD, COD, etc.).

ANNEX IX

EMISSION LIMIT VALUES AND ENVIRONMENTAL QUALITY STANDARDS

The "limit values" and "quality objectives" established under the re Directives of Directive 76/464/EEC shall be considered emission limit values and environmental quality standards, respectively, for the purposes of this Directive. They are established in the following Directives:

- (i) The Mercury Discharges Directive (82/176/EEC)(1);
- (ii) The Cadmium Discharges Directive (83/513/EEC)(2);
- (iii) The Mercury Directive (84/156/EEC)(3);
- (iv) The Hexachlorocyclohexane Discharges Directive (84/491/EEC)(4); and
- (v) The Dangerous Substance Discharges Directive (86/280/EEC)(5).

- (1) OJ L 81, 27.3.1982, p. 29.
- (2) OJ L 291, 24.10.1983, p. 1.
- (3) OJ L 74, 17.3.1984, p. 49.
- (4) OJ L 274, 17.10.1984, p. 11.
- (5) OJ L 181, 4.7.1986, p. 16.

ANNEX X

PRIORITY SUBSTANCES

ANNEX XI

MAP A

System A: Ecoregions for rivers and lakes

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1. Iberic-Macaronesian region
2. Pyrenees
3. Italy, Corsica and Malta
4. Alps
5. Dinaric western Balkan
6. Hellenic western Balkan
7. Eastern Balkan
8. Western highlands

9. Central highlands
10. The Carpathians
11. Hungarian lowlands
12. Pontic province
13. Western plains
14. Central plains
15. Baltic province
16. Eastern plains
17. Ireland and Northern Ireland
18. Great Britain
19. Iceland
20. Borealic uplands
21. Tundra
22. Fenno-Scandian shield
23. Taiga
24. The Caucasus
25. Caspic depression

MAP B

System A: Ecoregions for transitional waters and coastal waters

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1. Atlantic Ocean
2. Norwegian Sea
3. Barents Sea
4. North Sea
5. Baltic Sea
6. Mediterranean Sea

Commission statement

The Commission in its report under Article 17(3) will, with the assistance of the Member States, include a cost-benefit study.

Appendix EUB
Hazardous Waste Directive 91/689/EEC

This document is meant purely as a documentation tool and the institutions do not assume any liability for its contents

► **B**

**COUNCIL DIRECTIVE
of 12 December 1991
on hazardous waste
(91/689/EEC)**

(OJ L 377, 31.12.1991, p. 20)

Amended by:

	Official Journal		
	No	page	date
► <u>M1</u> Council Directive 94/31/EC of 27 June 1994	L 168	28	2.7.1994

Corrected by:

► **C1** Corrigendum, OJ L 23, 30.1.1998, p. 39 (91/689/EEC)



COUNCIL DIRECTIVE
of 12 December 1991
on hazardous waste
(91/689/EEC)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular ►C1 Article 130s ◀ thereof,

Having regard to the proposal from the Commission⁽¹⁾,

Having regard to the opinion of the European Parliament⁽²⁾,

Having regard to the opinion of the Economic and Social Committee⁽³⁾,

Whereas Council Directive 78/319/EEC of 20 March 1978 on toxic and dangerous waste⁽⁴⁾, established Community rules on the disposal of dangerous waste; whereas in order to take account of experience gained in the implementation of that Directive by the Member States, it is necessary to amend the rules and to replace Directive 78/319/EEC by this Directive;

Whereas the Council resolution of 7 May 1990 on waste policy⁽⁵⁾ and the action programme of the European Communities on the environment, which was the subject of the resolution of the Council of the European Communities and of the representatives of the Government of the Member States, meeting within the Council, of 19 October 1987 on the continuation and implementation of a European Community policy and action programme on the environment (1987 to 1992)⁽⁶⁾, envisage Community measures to improve the conditions under which hazardous wastes are disposed of and managed;

Whereas the general rules applying to waste management which are laid down by Council Directive 75/442/EEC of 15 July 1975 on waste⁽⁷⁾, as amended by Directive 91/156/EEC⁽⁸⁾, also apply to the management of hazardous waste;

Whereas the correct management of hazardous waste necessitates additional, more stringent rules to take account of the special nature of such waste;

Whereas it is necessary, in order to improve the effectiveness of the management of hazardous waste in the Community, to use a precise and uniform definition of hazardous waste based on experience;

Whereas it is necessary to ensure that disposal and recovery of hazardous waste is monitored in the fullest manner possible;

Whereas it must be possible rapidly to adapt the provisions of this Directive to scientific and technical progress; whereas the Committee set up by Directive 75/442/EEC must also be empowered to adapt the provisions of this Directive to such progress,

⁽¹⁾ OJ No C 295, 19. 11. 1988, p. 8, and
OJ No C 42, 22. 2. 1990, p. 19.

⁽²⁾ OJ No C 158, 26. 6. 1989, p. 238.

⁽³⁾ OJ No C 56, 6. 3. 1989, p. 2.

⁽⁴⁾ OJ No L 84, 31. 3. 1978, p. 43.

⁽⁵⁾ OJ No C 122, 18. 5. 1990, p. 2.

⁽⁶⁾ OJ No C 328, 7. 12. 1987, p. 1.

⁽⁷⁾ OJ No L 194, 25. 7. 1975, p. 39.

⁽⁸⁾ OJ No L 78, 26. 3. 1991, p. 32.

▼B

HAS ADOPTED THIS DIRECTIVE:

Article 1

1. The object of this Directive, drawn up pursuant to Article 2 (2) of Directive 75/442/EEC, is to approximate the laws of the Member States on the controlled management of hazardous waste.
2. Subject of this Directive, Directive 75/442/EEC shall apply to hazardous waste.
3. The definition of 'waste' and of the other terms used in this Directive shall be those in Directive 75/442/EEC.
4. For the purpose of this Directive 'hazardous waste' means:
 - wastes featuring on a list to be drawn up in accordance with the procedure laid down in Article 18 of Directive 75/442/EEC on the basis of Annexes I and II to this Directive, not later than six months before the date of implementation of this Directive. These wastes must have one or more of the properties listed in Annex III. The list shall take into account the origin and composition of the waste and, where necessary, limit values of concentration. This list shall be periodically reviewed and if necessary by the same procedure,
 - any other waste which is considered by a Member State to display any of the properties listed in Annex III. Such cases shall be notified to the Commission and reviewed in accordance with the procedure laid down in Article 18 of Directive 75/442/EEC with a view to adaptation of the list.
5. Domestic waste shall be exempted from the provisions of this Directive. The Council shall establish, upon a proposal from the Commission, specific rules taking into consideration the particular nature of domestic waste not later than the end of 1992.

Article 2

1. Member States shall take the necessary measures to require that on every site where tipping (discharge) of hazardous waste takes place the waste is recorded and identified.
2. Member States shall take the necessary measures to require that establishment and undertaking which dispose of, recover, collect or transport hazardous waste do not mix different categories of hazardous waste or mix hazardous waste with non-hazardous waste.
3. By way of derogation from paragraph 2, the mixing of hazardous waste with other hazardous waste or with other waste, substances or materials may be permitted only where the conditions laid down in Article 4 of Directive 75/442/EEC are complied with and in particular for the purpose of improving safety during disposal or recovery. Such an operation shall be subject to the permit requirement imposed in Articles 9, 10 and 11 of Directive 75/442/EEC.
4. Where waste is already mixed with other waste, substances or materials, separation must be effected, where technically and economically feasible, and where necessary in order to comply with Article 4 of Directive 75/442/EEC.

Article 3

1. The derogation referred to in Article 11 (1) (a) of Directive 75/442/EEC from the permit requirement for establishments or undertakings which carry out their own waste disposal shall not apply to hazardous waste covered by this Directive.
2. In accordance with Article 11 (1) (b) of Directive 75/442/EEC, a Member State may waive Article 10 of that Directive for establishments or undertakings which recover waste covered by this Directive:
 - if the Member State adopts general rules listing the type and quantity of waste and laying down specific conditions (limit values for the content of hazardous substances in the waste, emission limit values,

▼B

- type of activity) and other necessary requirements for carrying out different forms of recovery, and
- if the types or quantities of waste and methods of recovery are such that the conditions laid down in Article 4 of Directive 75/442/EEC are complied with.
3. The establishments or undertakings referred to in paragraph 2 shall be registered with the competent authorities.
 4. If a Member State intends to make use of the provisions of paragraph 2, the rules referred to in that paragraph shall be sent to the Commission not later than three months prior to their coming into force. The Commission shall consult the Member States. In the light of these consultations the Commission shall propose that the rules be finally agreed upon in accordance with the procedure laid down in Article 18 of Directive 75/442/EEC.

Article 4

1. Article 13 of Directive 75/442/EEC shall also apply to producers of hazardous waste.
2. Article 14 of Directive 75/442/EEC shall also apply to producers of hazardous waste and to all establishments and undertakings transporting hazardous waste.
3. The records referred to in Article 14 of Directive 75/442/EEC must be preserved for at least three years except in the case of establishments and undertakings transporting hazardous waste which must keep such records for at least 12 months. Documentary evidence that the management operations have been carried out must be supplied at the request of the competent authorities or of a previous holder.

Article 5

1. Member States shall take the necessary measures to ensure that, in the course of collection, transport and temporary storage, waste is properly packaged and labelled in accordance with the international and Community standards in force.
2. In the case of hazardous waste, inspections concerning collection and transport operations made on the basis of Article 13 of Directive 75/442/EEC shall cover more particularly the origin and destination of such waste.
3. Where hazardous waste is transferred, it shall be accompanied by an identification form containing the details specified in Section A of Annex I to Council Directive 84/631/EEC of 6 December 1984 on the supervision and control within the European Community of the transfrontier shipment of hazardous waste⁽¹⁾, as last amended by Directive 86/279/EEC⁽²⁾.

Article 6

1. As provided in Article 7 of Directive 75/442/EEC, the competent authorities shall draw up, either separately or in the framework of their general waste management plans, plans for the management of hazardous waste and shall make these plans public.
2. The Commission shall compare these plans, and in particular the methods of disposal and recovery. It shall make this information available to the competent authorities of the Member States which ask for it.

Article 7

In cases of emergency or grave danger, Member States shall take all necessary steps, including, where appropriate, temporary derogations

⁽¹⁾ OJ No L 326, 13. 12. 1984, p. 31.

⁽²⁾ OJ No L 181, 4. 7. 1986, p. 13.

▼B

from this Directive, to ensure that hazardous waste is so dealt with as not to constitute a threat to the population or the environment. The Member State shall inform the Commission of any such derogations.

Article 8

1. In the context of the report provided for in Article 16 (1) of Directive 75/442/EEC, and on the basis of a questionnaire drawn up in accordance with that Article, the Member States shall send the Commission a report on the implementation of this Directive.

2. In addition to the consolidated report referred to in Article 16 (2) of Directive 75/442/EEC, the Commission shall report to the European Parliament and the Council every three years on the implementation of this Directive.

3. In addition, by 12 December 1994, the Member States shall send the Commission the following information for every establishment or undertaking which carries out disposal and/or recovery of hazardous waste principally on behalf of third parties and which is likely to form part of the integrated network referred to in Article of Directive 75/442/EEC:

- name and address,
- the method used to treat waste,
- the types and quantities of waste which can be treated.

Once a year, Member States shall inform the Commission of any changes in this information.

The Commission shall make this information available on request to the competent authorities in the Member States.

The format in which this information will be supplied to the Commission shall be agreed upon in accordance with the procedure laid down in Article 18 of Directive 75/442/EEC.

Article 9

The amendments necessary for adapting the Annexes to this Directive to scientific and technical progress and for revising the list of wastes referred to in Article 1 (4) shall be adopted in accordance with the procedure laid down in Article 18 of Directive 74/442/EEC.

▼M1*Article 10*

1. Member States shall bring into force the laws, regulations and administrative provisions necessary for them to comply with this Directive by 27 June 1995. They shall immediately inform the Commission thereof.

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2. When Member States adopt these measures, they shall contain a reference to this Directive or shall be accompanied by such reference on the occasion of their official publication. The methods of making such a reference shall be laid down by the Member States.

3. Member States shall communicate to the Commission the texts of the main provisions of national law which they adopt in the field governed by this Directive.

▼M1*Article 11*

Directive 78/319/EEC shall be repealed with effect from 27 June 1995.

▼B*Article 12*

This Directive is addressed to the Member States.

▼**B**

ANNEX I

**CATEGORIES OR GENERIC TYPES OF HAZARDOUS WASTE LISTED
ACCORDING TO THEIR NATURE OR THE ACTIVITY WHICH
GENERATED THEM(*) (WASTE MAY BE LIQUID, SLUDGE OR
SOLID IN FORM)**

ANNEX I.A.

Wastes displaying any of the properties listed in Annex III and which consist of:

1. anatomical substances; hospital and other clinical wastes;
2. pharmaceuticals, medicines and veterinary compounds;
3. wood preservatives;
4. biocides and phyto-pharmaceutical substances;
5. residue from substances employed as solvents;
6. halogenated organic substances not employed as solvents excluding inert polymerized materials;
7. tempering salts containing cyanides;
8. mineral oils and oily substances (e.g. cutting sludges, etc.);
9. oil/water, hydrocarbon/water mixtures, emulsions;
10. substances containing PCBs and/or PCTs (e.g. dielectrics etc.);
11. tarry materials arising from refining, distillation and any pyrolytic treatment (e.g. still bottoms, etc.);
12. inks, dyes, pigments, paints, lacquers, varnishes;
13. resins, latex, plasticizers, glues/adhesives;
14. chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on man and/or the environment are not known (e.g. laboratory residues, etc.);
15. pyrotechnics and other explosive materials;
16. photographic chemicals and processing materials;
17. any material contaminated with any congener of polychlorinated dibenzofuran;
18. any material contaminated with any congener of polychlorinated dibenzo-p-dioxin.

ANNEX I.B.

Wastes which contain any of the constituents listed in Annex II and having any of the properties listed in Annex III and consisting of:

19. animal or vegetable soaps, fats, waxes;
20. non-halogenated organic substances not employed as solvents;
21. inorganic substances without metals or metal compounds;
22. ashes and/or cinders;
23. soil, sand, clay including dredging spoils;
24. non-cyanidic tempering salts;
25. metallic dust, powder;
26. spent catalyst materials;
27. liquids or sludges containing metals or metal compounds;
28. residue from pollution control operations (e.g. baghouse dusts, etc.) except (29), (30) and (33);
29. scrubber sludges;
30. sludges from water purification plants;
31. decarbonization residue;
32. ion-exchange column residue;
33. sewage sludges, untreated or unsuitable for use in agriculture;
34. residue from cleaning of tanks and/or equipment;

(*) Certain duplications of entries found in Annex II are intentional.

▼B

35. contaminated equipment;
36. contaminated containers (e.g. packaging, gas cylinders, etc.) whose contents included one or more of the constituents listed in Annex II;
37. batteries and other electrical cells;
38. vegetable oils;
39. materials resulting from selective waste collections from households and which exhibit any of the characteristics listed in Annex III;
40. any other wastes which contain any of the constituents listed in Annex II and any of the properties listed in Annex III.

▼B

ANNEX II

CONSTITUENTS OF THE WASTES IN ANNEX I.B. WHICH RENDER THEM HAZARDOUS WHEN THEY HAVE THE PROPERTIES DESCRIBED IN ANNEX III(*)

Wastes having as constituents:

- C1 beryllium; beryllium compounds;
- C2 vanadium compounds;
- C3 chromium (VI) compounds;
- C4 cobalt compounds;
- C5 nickel compounds;
- C6 copper compounds;
- C7 zinc compounds;
- C8 arsenic; arsenic compounds;
- C9 selenium; selenium compounds;
- C10 silver compounds;
- C11 cadmium; cadmium compounds;
- C12 tin compounds;
- C13 antimony; antimony compounds;
- C14 tellurium; tellurium compounds;
- C15 barium compounds; excluding barium sulfate;
- C16 mercury; mercury compounds;
- C17 thallium; thallium compounds;
- C18 lead; lead compounds;
- C19 inorganic sulphides;
- C20 inorganic fluorine compounds, excluding calcium fluoride;
- C21 inorganic cyanides;
- C22 the following alkaline or alkaline earth metals: lithium, sodium, potassium, calcium, magnesium in uncombined form;
- C23 acidic solutions or acids in solid form;
- C24 basic solutions or bases in solid form;
- C25 asbestos (dust and fibres);
- C26 phosphorus; phosphorus compounds, excluding mineral phosphates;
- C27 metal carbonyls;
- C28 peroxides;
- C29 chlorates;
- C30 perchlorates;
- C31 azides;
- C32 PCBs and/or PCTs;
- C33 pharmaceutical or veterinary compounds;
- C34 biocides and phyto-pharmaceutical substances (e.g. pesticides, etc.);
- C35 infectious substances;
- C36 creosotes;
- C37 isocyanates; thiocyanates;
- C38 organic cyanides (e.g. nitriles, etc.);
- C39 phenols; phenol compounds;
- C40 halogenated solvents;
- C41 organic solvents, excluding halogenated solvents;
- C42 organohalogen compounds, excluding inert polymerized materials and other substances referred to in this Annex;
- C43 aromatic compounds; polycyclic and heterocyclic organic compounds;

(*) Certain duplications of generic types of hazardous wastes listed in Annex I are intentional.

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- C44 aliphatic amines;
- C45 aromatic amines
- C46 ethers;
- C47 substances of an explosive character, excluding those listed elsewhere in this Annex;
- C48 sulphur organic compounds;
- C49 any congener of polychlorinated dibenzo-furan;
- C50 any congener of polychlorinated dibenzo-p-dioxin;
- C51 hydrocarbons and their oxygen; nitrogen and/or sulphur compounds not otherwise taken into account in this Annex.



Annex III

PROPERTIES OF WASTES WHICH RENDER THEM HAZARDOUS

- H1 'Explosive': substances and preparations which may explode under the effect of flame or which are more sensitive to shocks or friction than dinitrobenzene.
- H2 'Oxidizing': substances and preparations which exhibit highly exothermic reactions when in contact with other substances, particularly flammable substances.
- H3-A 'Highly flammable':
- liquid substances and preparations having a flash point below 21 °C (including extremely flammable liquids), or
 - substances and preparations which may become hot and finally catch fire in contact with air at ambient temperature without any application of energy, or
 - solid substances and preparations which may readily catch fire after brief contact with a source of ignition and which continue to burn or to be consumed after removal of the source of ignition, or
 - gaseous substances and preparations which are flammable in air at normal pressure, or
 - substances and preparations which, in contact with water or damp air, evolve highly flammable gases in dangerous quantities.
- H3-B 'Flammable': liquid substances and preparations having a flash point equal to or greater than 21 °C and less than or equal to 55 °C.
- H4 'Irritant': non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, can cause inflammation.
- H5 'harmful': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may involve limited health risks.
- H6 'Toxic': substances and preparations (including very toxic substances and preparations) which, if they are inhaled or ingested or if they penetrate the skin, may involve serious, acute or chronic health risks and even death.
- H7 'Carcinogenic': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce cancer or increase its incidence.
- H8 'Corrosive': substances and preparations which may destroy living tissue on contacts.
- H9 'Infectious': substances containing viable micro-organisms or their toxins which are known or reliably believed to cause disease in man or other living organisms.
- H10 'Teratogenic': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce non-hereditary congenital malformations or increase their incidence.
- H11 'Mutagenic': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce hereditary genetic defects or increase their incidence.
- H12 Substances and preparations which release toxic or very toxic gases in contact with water, air or an acid.
- H13 Substances and preparations capable by any means, after disposal, of yielding another substance, e.g. a leachate, which possesses any of the characteristics listed above.
- H14 'Ecotoxic': substances and preparations which present or may present immediate or delayed risks for one or more sectors of the environment.

Notes

1. Attribution of the hazard properties 'toxic' (and 'very toxic'), 'harmful', 'corrosive' and 'irritant' is made on the basis of the criteria laid down by Annex VI, part I A and part II B, of Council Directive 67/548/EEC of 27 June 1967 of the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances⁽¹⁾, in the version as amended by Council Directive 79/831/EEC⁽²⁾.

⁽¹⁾ OJ No L 196, 16. 8. 1967, p. 1.

⁽²⁾ OJ No L 259, 15. 10. 1979, p. 10.

▼B

2. With regard to attribution of the properties ‘carcinogenic’, ‘teratogenic’ and ‘mutagenic’, and reflecting the most recent findings, additional criteria are contained in the Guide to the classification and labelling of dangerous substances and preparations of Annex VI (part II D) to Directive 67/548/EEC in the version as amended by Commission Directive 83/467/EEC⁽¹⁾.

Test methods

The test methods serve to give specific meaning to the definitions given in Annex III.

The methods to be used are those described in Annex V to Directive 67/548/EEC, in the version as amended by Commission Directive 84/449/EEC⁽²⁾, or by subsequent Commission Directives adapting Directive 67/548/EEC to technical progress. These methods are themselves based on the work and recommendations of the competent international bodies, in particular the OECD.

⁽¹⁾ OJ No L 257, 16. 9. 1983, p. 1.

⁽²⁾ OJ No L 251, 19. 9. 1984, p. 1.

Appendix EUC
Directive (EEC) 259/93/EEC on the Supervision and
Control of Shipments of Waste

**31993R0259**

Council Regulation (EEC) No 259/93 of 1 February 1993 on the supervision and control of shipments of waste within, into and out of the European Community

Official Journal L 030 , 06/02/1993 P. 0001 - 0028

Finnish special edition....: Chapter 15 Volume 12 P. 0043

Swedish special edition....: Chapter 15 Volume 12 P. 0043

MORE INFO **TEXT:**

COUNCIL REGULATION (EEC) No 259/93 of 1 February 1993 on the supervision and control of shipments of waste within, into and out of the European Community

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 130s thereof,

Having regard to the proposal from the Commission (1),

Having regard to the opinion of the European Parliament (2),

Having regard to the opinion of the Economic and Social Committee (3),

Whereas the Community has signed the Basle Convention of 22 March 1989 on the control of transboundary movements of hazardous wastes and their disposal;

Whereas provisions concerning waste are contained in Article 39 of the ACP-EEC Convention of 15 December 1989;

Whereas the Community has approved the Decision of the OECD Council of 30 March 1992 on the control of transfrontier movements of wastes destined for recovery operations;

Whereas, in the light of the foregoing, Directive 84/631/EEC (4), which organizes the supervision and control of transfrontier shipments of hazardous waste, needs to be replaced by a Regulation;

Whereas the supervision and control of shipments of waste within a Member State is a national responsibility; whereas, however, national systems for the supervision and control of shipments of waste within a Member State should comply with minimum criteria in order to ensure a high level of protection of the environment and human health;

Whereas it is important to organize the supervision and control of shipments of wastes in a way which takes account of the need to preserve, protect and improve the quality of the environment;

Whereas Council Directive 75/442/EEC of 15 July 1975 on waste (5) lays down in its Article 5 (1) that an integrated and adequate network of waste disposal installations, to be established by Member States through appropriate measures, where necessary or advisable in cooperation with other Member States, must enable the Community as a whole to become self-sufficient in waste disposal and the Member States to move towards that aim individually, taking into account geographical circumstances or the need for specialized installations for certain types of waste; whereas Article 7 of the said Directive requests the drawing up of waste management plans, if appropriate in cooperation with the Member States concerned, which shall be notified to the Commission, and stipulates that Member States may take measures necessary to prevent movements of waste which are not in accordance with their waste

management plans and that they shall inform the Commission and the other Member States of any such measures;

Whereas it is necessary to apply different procedures depending on the type of waste and its destination, including whether it is destined for disposal or recovery;

Whereas shipments of waste must be subject to prior notification to the competent authorities enabling them to be duly informed in particular of the type, movement and disposal or recovery of the waste, so that these authorities may take all necessary measures for the protection of human health and the environment, including the possibility of raising reasoned objections to the shipment;

Whereas Member States should be able to implement the principles of proximity, priority for recovery and self-sufficiency at Community and national levels - in accordance with Directive 75/442/EEC - by taking measures in accordance with the Treaty to prohibit generally or partially or to object systematically to shipments of waste for disposal, except in the case of hazardous waste produced in the Member State of dispatch in such a small quantity that the provision of new specialized disposal installations within that State would be uneconomic; whereas the specific problem of disposal of such small quantities requires cooperation between the Member States concerned and possible recourse to a Community procedure;

Whereas exports of waste for disposal to third countries must be prohibited in order to protect the environment of those countries; whereas exceptions shall apply to exports to EFTA countries which are also Parties to the Basle Convention;

Whereas exports of waste for recovery to countries to which the OECD Decision does not apply must be subject to conditions providing for environmentally sound management of waste;

Whereas agreements or arrangements on exports of waste for recovery with countries to which the OECD Decision does not apply must be subject to periodic review by the Commission leading, if appropriate, to a proposal by the Commission to reconsider the conditions under which such exports take place, including the possibility of a ban;

Whereas shipments of waste for recovery listed on the green list of the OECD Decision shall be generally excluded from the control procedures of this Regulation since such waste should not normally present a risk to the environment if properly recovered in the country of destination; whereas some exceptions to this exclusion are necessary in accordance with Community legislation and the OECD Decision; whereas some exceptions are also necessary in order to facilitate the tracking of such shipments within the Community and to take account of exceptional cases; whereas such waste shall be subject to Directive 75/442/EEC;

Whereas exports of waste for recovery listed on the OECD green list to countries to which the OECD Decision does not apply must be subject to consultation by the Commission with the country of destination; whereas it may be appropriate in the light of such consultation that the Commission make proposals to the Council;

Whereas exports of waste for recovery to countries which are not parties to the Basle Convention must be subject to specific agreements between these countries and the Community; whereas Member States must, in exceptional cases, be able to conclude after the date of application of this Regulation bilateral agreements for the import of specific waste before the Community has concluded such agreements, in the case of waste for recovery in order to avoid any interruption of waste treatment and in the case of waste for disposal where the country of dispatch does not have or cannot reasonably acquire the technical capacity and necessary facilities to dispose of the waste in an environmentally sound manner;

Whereas provision must be made for the waste to be taken back or to be disposed of or recovered in an alternative and environmentally sound manner if the shipment cannot be completed in accordance with the terms of the consignment note or the contract;

Whereas, in the event of illegal traffic, the person whose action is the cause of such traffic must take back and/or dispose of or recover the waste in an alternative and environmentally sound manner; whereas, should he fail to do so, the competent authorities of dispatch or destination, as appropriate, must themselves intervene;

Whereas it is important for a system of financial guarantees or equivalent insurance to be

established;

Whereas Member States must provide the Commission with information relevant to the implementation of this Regulation;

Whereas the documents provided for by this Regulation must be established and the Annexes adapted within a Community procedure,

HAS ADOPTED THIS REGULATION:

TITLE I SCOPE AND DEFINITIONS

Article 1

1. This Regulation shall apply to shipments of waste within, into and out of the Community.

2. The following shall be excluded from the scope of this Regulation:

(a) the offloading to shore of waste generated by the normal operation of ships and offshore platforms, including waste water and residues, provided that such waste is the subject of a specific binding international instrument;

(b) shipments of civil aviation waste;

(c) shipments of radioactive waste as defined in Article 2 of Directive 92/3/Euratom of 3 February 1992 on the supervision and control of shipments of radioactive waste between Member States and into and out of the Community (6);

(d) shipments of waste mentioned in Article 2 (1) (b) of Directive 75/442/EEC, where they are already covered by other relevant legislation;

(e) shipments of waste into the Community in accordance with the requirements of the Protocol on Environmental Protection to the Antarctic Treaty.

3. (a) Shipments of waste destined for recovery only and listed in Annex II shall also be excluded from the provisions of this Regulation except as provided for in subparagraphs (b), (c), (d) and (e), in Article 11 and in Article 17 (1), (2) and (3).

(b) Such waste shall be subject to all provisions of Directive 75/442/EEC. It shall in particular be:

- destined for duly authorized facilities only, authorized according to Article 10 and 11 of Directive 75/442/EEC,

- subject to all provisions of Articles 8, 12, 13 and 14 of Directive 75/442/EEC.

(c) However, certain wastes listed in Annex II may be controlled, if, among other reasons, they exhibit any of the hazardous characteristics listed in Annex III of Council Directive 91/689/EEC (7), as if they had been listed in Annex III or IV.

These wastes and the decision about which of the two procedures should be followed shall be determined in accordance with the procedure laid down in Article 18 of Directive 75/442/EEC. Such wastes shall be listed in Annex II (a).

(d) In exceptional cases, shipments of wastes listed in Annex II may, for environmental or public health reasons, be controlled by Member States as if they had been listed in Annex III or IV.

Member States which make use of this possibility shall immediately notify the Commission of such cases and inform other Member States, as appropriate, and give reasons for their decision. The Commission, in accordance with the procedure laid down in Article 18

of Directive 75/442/EEC, may confirm such action including, where appropriate, by adding such wastes to Annex II.A.

(e) Where waste listed in Annex II is shipped in contravention of this Regulation or of Directive 75/442/EEC, Member States may apply appropriate provisions of Articles 25 and 26 of this Regulation.

Article 2

For the purposes of this Regulation:

(a) waste is as defined in Article 1 (a) of Directive 75/442/EEC;

(b) competent authorities means the competent authorities designated by either the Member States in accordance with Article 36 or non-Member States;

- (c) competent authority of dispatch means the competent authority, designated by the Member States in accordance with Article 36, for the area from which the shipment is dispatched or designated by non-Member States;
- (d) competent authority of destination means the competent authority, designated by the Member States in accordance with Article 36, for the area in which the shipment is received, or in which waste is loaded on board before disposal at sea without prejudice to existing conventions on disposal at sea or designated by non-Member States;
- (e) competent authority of transit means the single authority designated by Member States in accordance with Article 36 for the State through which the shipment is in transit;
- (f) correspondent means the central body designated by each Member State and the Commission, in accordance with Article 37;
- (g) notifier means any natural person or corporate body to whom or to which the duty to notify is assigned, that is to say the person referred to hereinafter who proposes to ship waste or have waste shipped:
- (i) the person whose activities produced the waste (original producer); or
- (ii) where this is not possible, a collector licensed to this effect by a Member State or a registered or licensed dealer or broker who arranges for the disposal or the recovery of waste; or
- (iii) where these persons are unknown or are not licensed, the person having possession or legal control of the waste (holder); or
- (iv) in the case of import into or transit through the Community of waste, the person designated by the laws of the State of dispatch or, when this designation has not taken place, the person having possession or legal control of the waste (holder);
- (h) consignee means the person or undertaking to whom or to which the waste is shipped for recovery or disposal;
- (i) disposal is as defined in Article 1 (e) of Directive 75/442/EEC;
- (j) authorized centre means any establishment or undertaking authorized or licensed pursuant to Article 6 of Directive 75/439/EEC (8), Articles 9, 10 and 11 of Directive 75/442/EEC and Article 6 of Directive 76/403/EEC (9);
- (k) recovery is as defined in Article 1 (f) of Directive 75/442/EEC;
- (l) State of dispatch means any State from which a shipment of waste is planned or made;
- (m) State of destination means any State to which a shipment of waste is planned or made for disposal or recovery, or for loading on board before disposal at sea without prejudice to existing conventions on disposal at sea;
- (n) State of transit means any State, other than the State of dispatch or destination, through which a shipment of waste is planned or made;
- (o) consignment note means the standard consignment note to be drawn up in accordance with Article 42;
- (p) the Basle Convention means the Basle Convention of 22 March 1989 on the control of transboundary movements of hazardous wastes and their disposal;
- (q) the fourth Lomé Convention means the Lomé Convention of 15 December 1989;
- (r) the OECD Decision means the decision of the OECD Council of 30 March 1992 on the control of transfrontier movements of wastes destined for recovery operations.

TITLE II SHIPMENTS OF WASTE BETWEEN MEMBER STATES Chapter A Waste for disposal

Article 3

1. Where the notifier intends to ship waste for disposal from one Member State to another Member State and/or pass it in transit through one or several other Member States, and without prejudice to Articles 25 (2) and 26 (2), he shall notify the competent authority of destination and send a copy of the notification to the competent authorities of dispatch and of transit and to the consignee.
2. Notification shall mandatorily cover any intermediate stage of the shipment from the place of dispatch to its final destination.

3. Notification shall be effected by means of the consignment note which shall be issued by the competent authority of dispatch.

4. In making notification, the notifier shall complete the consignment note and shall, if requested by competent authorities, supply additional information and documentation.

5. The notifier shall supply on the consignment note information with particular regard to:

- the source, composition and quantity of the waste for disposal including, in the case of Article 2 (g) (ii), the producer's identity and, in the case of waste from various sources a detailed inventory of the waste and, if known, the identity of the original producers,
- the arrangements for routing and for insurance against damage to third parties,
- the measures to be taken to ensure safe transport and, in particular, compliance by the carrier with the conditions laid down for transport by the Member States concerned,
- the identity of the consignee of the waste, the location of the disposal centre and the type and duration of the authorization under which the centre operates. The centre must have adequate technical capacity for the disposal of the waste in question under conditions presenting no danger to human health or to the environment,
- the operations involving disposal as referred to in Annex II.A to Directive 75/442/EEC.

6. The notifier must make a contract with the consignee for the disposal of the waste.

The contract may include some or all of the information referred to in paragraph 5.

The contract must include the obligation:

- of the notifier, in accordance with Articles 25 and 26 (2), to take the waste back if the shipment has not been completed as planned or if it has been effected in violation of this Regulation,
- of the consignee, to provide as soon as possible and no later than 180 days following the receipt of the waste a certificate to the notifier that the waste has been disposed of in an environmentally sound manner.

A copy of this contract must be supplied to the competent authority on request.

Should the waste be shipped between two establishments under the control of the same legal entity, this contract may be replaced by a declaration by the entity in question undertaking to dispose of the waste.

7. The information given in accordance with paragraphs 4 to 6 shall be treated confidentially in accordance with existing national regulations.

8. A competent authority of dispatch may, in accordance with national legislation, decide to transmit the notification itself instead of the notifier to the competent authority of destination, with copies to the consignee and to the competent authority of transit.

The competent authority of dispatch may decide not to proceed with notification if it has itself immediate objections to raise against the shipment in accordance with Article 4 (3). It shall immediately inform the notifier of these objections.

Article 4

1. On receipt of the notification, the competent authority of destination shall, within three working days, send an acknowledgement to the notifier and copies thereof to the other competent authorities concerned and to the consignee.

2. (a) The competent authority of destination shall have 30 days following dispatch of the acknowledgement to take its decision authorizing the shipment, with or without conditions, or refusing it. It may also request additional information.

It shall give its authorization only in the absence of objections on its part or on the part of the other competent authorities. The authorization shall be subject to any transport conditions referred to in (d).

The competent authority of destination shall take its decision not earlier than 21 days following the dispatch of the acknowledgement. It may, however, take its decision earlier if it has the written consent of the other competent authorities concerned.

The competent authority of destination shall send its decision to the notifier in writing, with copies to the other competent authorities concerned.

(b) The competent authorities of dispatch and transit may raise objections within 20 days

following the dispatch of the acknowledgement. They may also request additional information. These objections shall be conveyed in writing to the notifier, with copies to the other competent authorities concerned.

(c) The objections and conditions referred to in (a) and (b) shall be based on paragraph 3.

(d) The competent authorities of dispatch and transit may, within 20 days following the dispatch of the acknowledgement, lay down conditions in respect of the transport of waste within their jurisdiction.

These conditions must be notified to the notifier in writing, with copies to the competent authorities concerned, and entered in the consignment note. They may not be more stringent than those laid down in respect of similar shipments occurring wholly within their jurisdiction and shall take due account of existing agreements, in particular relevant international conventions.

3. (a) (i) In order to implement the principles of proximity, priority for recovery and self-sufficiency at Community and national levels in accordance with Directive 75/442/EEC, Member States may take measures in accordance with the Treaty to prohibit generally or partially or to object systematically to shipments of waste. Such measures shall immediately be notified to the Commission, which will inform the other Member States.

(ii) In the case of hazardous waste (as defined in Article 1 (4) of Directive 91/689/EEC) produced in a Member State of dispatch in such a small quantity overall per year that the provision of new specialized disposal installations within that State would be uneconomic, (i) shall not apply.

(iii) The Member State of destination shall cooperate with the Member State of dispatch which considers that (ii) applies, with a view to resolving the issue bilaterally. If there is no satisfactory solution, either Member State may refer the matter to the Commission, which will determine the issue in accordance with the procedure laid down in Article 18 of Directive 75/442/EEC.

(b) The competent authorities of dispatch and destination, while taking into account geographical circumstances or the need for specialized installations for certain types of waste, may raise reasoned objections to planned shipments if they are not in accordance with Directive 75/442/EEC, especially Articles 5 and 7:

(i) in order to implement the principle of self-sufficiency at Community and national levels;

(ii) in cases where the installation has to dispose of waste from a nearer source and the competent authority has given priority to this waste;

(iii) in order to ensure that shipments are in accordance with waste management plans.

(c) Furthermore, the competent authorities of dispatch, destination and transit may raise reasoned objections to the planned shipment if:

- it is not in accordance with national laws and regulations relating to environmental protection, public order, public safety or health protection,

- the notifier or the consignee was previously guilty of illegal trafficking.

In this case, the competent authority of dispatch may refuse all shipments involving the person in question in accordance with national legislation, or

- the shipment conflicts with obligations resulting from international conventions concluded by the Member State or Member States concerned.

4. If, within the time limits laid down in paragraph 2, the competent authorities are satisfied that the problems giving rise to their objections have been solved and that the conditions in respect of the transport will be met, they shall immediately inform the notifier in writing, with copies to the consignee and to the other competent authorities concerned.

If there is subsequently any essential change in the conditions of the shipment, a new notification must be made.

5. The competent authority of destination shall signify its authorization by appropriately stamping the consignment note.

Article 5

1. The shipment may be effected only after the notifier has received authorization from the

competent authority of destination.

2. Once the notifier has received authorization, he shall insert the date of shipment and otherwise complete the consignment note and send copies to the competent authorities concerned three working days before the shipment is made.

3. A copy or, if requested by the competent authorities, a specimen of the consignment note, together with the stamp of authorization, shall accompany each shipment.

4. All undertakings involved in the operation shall complete the consignment note at the points indicated, sign it and retain a copy thereof.

5. Within three working days following receipt of the waste for disposal, the consignee shall send copies of the completed consignment note, except for the certificate referred to in paragraph 6, to the notifier and the competent authorities concerned.

6. As soon as possible and not later than 180 days following the receipt of the waste, the consignee shall, under his responsibility, send a certificate of disposal to the notifier and the other competent authorities concerned. This certificate shall be part of or attached to the consignment note which accompanies the shipment.

Chapter B Waste for recovery

Article 6

1. Where the notifier intends to ship waste for recovery listed in Annex III from one Member State to another Member State and/or pass it in transit through one or several other Member States, and without prejudice to Articles 25 (2) and 26 (2), he shall notify the competent authority of destination and send copies of the notification to the competent authorities of dispatch and transit and to the consignee.

2. Notification shall mandatorily cover any intermediary stage of the shipment from the place of dispatch to its final destination.

3. Notification shall be effected by means of the consignment note which shall be issued by the competent authority of dispatch.

4. In making notification, the notifier shall complete the consignment note and shall, if requested by competent authorities, supply additional information and documentation.

5. The notifier shall supply on the consignment note information with particular regard to:

- the source, composition and quantity of the waste for recovery, including the producer's identity and, in the case of waste from various sources, a detailed inventory of the waste and, if known, the identity of the original producer,
- the arrangements for routing and for insurance against damage to third parties,
- the measures to be taken to ensure safe transport and, in particular, compliance by the carrier with the conditions laid down for transport by the Member States concerned,
- the identity of the consignee of the waste, the location of the recovery centre and the type and duration of the authorization under which the centre operates. The centre must have adequate technical capacity for the recovery of the waste in question under conditions presenting no danger to human health or to the environment,
- the operations involving recovery as contained in Annex II.B to Directive 75/442/EEC,
- the planned method of disposal for the residual waste after recycling has taken place,
- the amount of the recycled material in relation to the residual waste,
- the estimated value of the recycled material.

6. The notifier must conclude a contract with the consignee for the recovery of the waste. The contract may include some or all of the information referred to in paragraph 5.

The contract must include the obligation:

- of the notifier, in accordance with Articles 25 and 26 (2), to take the waste back if the shipment has not been completed as planned or if it has been effected in violation of this Regulation,
- of the consignee to provide, in the case of retransfer of the waste for recovery to another Member State or to a third country, the notification of the initial country of dispatch,
- of the consignee to provide, as soon as possible and not later than 180 days following the receipt of the waste, a certificate to the notifier that the waste has been recovered in an environmentally sound manner.

A copy of this contract must be supplied to the competent authority on request.

Should the waste be shipped between two establishments under the control of the same legal entity, this contract may be replaced by a declaration by the entity in question undertaking to recover the waste.

7. The information given in accordance with paragraphs 4 to 6 shall be treated confidentially in accordance with existing national regulations.

8. A competent authority of dispatch may, in accordance with national legislation, decide to transmit the notification itself instead of the notifier to the competent authority of destination, with copies to the consignee and to the competent authority of transit.

Article 7

1. On receipt of the notification the competent authority of destination shall send, within three working days, an acknowledgement to the notifier and copies thereof to the other competent authorities and to the consignee.

2. The competent authorities of destination, dispatch and transit shall have 30 days following dispatch of the acknowledgement to object to the shipment. Such objection shall be based on paragraph 4. Any objection must be provided in writing to the notifier and to other competent authorities concerned within the 30-day period.

The competent authorities concerned may decide to provide written consent in a period less than the 30 days.

Written consent or objection may be provided by post, or by telefax followed by post. Such consent shall expire within one year unless otherwise specified.

3. The competent authorities of dispatch, destination and transit shall have 20 days following the dispatch of the acknowledgement in which to lay down conditions in respect of the transport of waste within their jurisdiction.

These conditions must be notified to the notifier in writing, with copies to the competent authorities concerned, and entered in the consignment note. They may not be more stringent than those laid down in respect of similar shipments occurring wholly within their jurisdiction and shall take due account of existing agreements, in particular relevant international conventions.

4. (a) The competent authorities of destination and dispatch may raise reasoned objections to the planned shipment:

- in accordance with Directive 75/442/EEC, in particular Article 7 thereof, or
- if it is not in accordance with national laws and regulations relating to environmental protection, public order, public safety or health protection, or
- if the notifier or the consignee has previously been guilty of illegal trafficking. In this case, the competent authority of dispatch may refuse all shipments involving the person in question in accordance with national legislation, or
- if the shipment conflicts with obligations resulting from international conventions concluded by the Member State or Member States concerned, or
- if the ratio of the recoverable and non-recoverable waste, the estimated value of the materials to be finally recovered or the cost of the recovery and the cost of the disposal of the non recoverable fraction do not justify the recovery under economic and environmental considerations.

(b) The competent authorities of transit may raise reasoned objections to the planned shipment based on the second, third and fourth indents of (a).

5. If within the time limit laid down in paragraph 2 the competent authorities are satisfied that the problems giving rise to their objections have been solved and that the conditions in respect of the transport will be met, they shall immediately inform the notifier in writing, with copies to the consignee and to the other competent authorities concerned.

If there is subsequently any essential change in the conditions of the shipment, a new notification must be made.

6. In case of prior written consent, the competent authority shall signify its authorization by appropriately stamping the consignment note.

Article 8

1. The shipment may be effected after the 30-day period has passed if no objection has been lodged. Tacit consent, however, expires within one year from that date. Where the competent authorities decide to provide written consent, the shipment may be effected immediately after all necessary consents have been received.
2. The notifier shall insert the date of shipment and otherwise complete the consignment note and send copies to the competent authorities concerned three working days before the shipment is made.
3. A copy or, if requested by the competent authorities, a specimen of the consignment note shall accompany each shipment.
4. All undertakings involved in the operation shall complete the consignment note at the points indicated, sign it and retain a copy thereof.
5. Within three working days following receipt of the waste for recovery, the consignee shall send copies of the completed consignment note, except for the certificate referred to in paragraph 6, to the notifier and to the competent authorities concerned.
6. As soon as possible and not later than 180 days following receipt of the waste the consignee, under his responsibility, shall send a certificate of recovery of the waste to the notifier and the other competent authorities concerned. This certificate shall be part of or attached to the consignment note which accompanies the shipment.

Article 9

1. The competent authorities having jurisdiction over specific recovery facilities may decide, notwithstanding Article 7, that they will not raise objections concerning shipments of certain types of waste to a specific recovery facility. Such decisions may be limited to a specific period of time; however, they may be revoked at any time.
2. Competent authorities which select this option shall inform the Commission of the recovery facility name, address, technologies employed, waste types to which the decision applies and the period covered. Any revocations must also be notified to the Commission. The Commission shall send this information without delay to the other competent authorities concerned in the Community and to the OECD Secretariat.
3. All intended shipments to such facilities shall require notification to the competent authorities concerned, in accordance with Article 6. Such notification shall arrive prior to the time the shipment is dispatched. The competent authorities of the Member States of dispatch and transit may raise objections to any such shipment, based on Article 7 (4), or impose conditions in respect of the transport.
4. In instances where competent authorities acting under terms of their domestic laws are required to review the contract referred to in Article 6 (6), these authorities shall so inform the Commission. In such cases, the notification plus the contracts or portions thereof to be reviewed must arrive seven days prior to the time the shipment is dispatched in order that such review may be appropriately performed.
5. For the actual shipment, Article 8 (2) to (6) shall apply.

Article 10

Shipments of waste for recovery listed in Annex IV and of waste for recovery which has not yet been assigned to Annex II, Annex III or Annex IV shall be subject to the same procedures as referred to in Articles 6 to 8 except that the consent of the competent authorities concerned must be provided in writing prior to commencement of shipment.

Article 11

1. In order to assist the tracking of shipments of waste for recovery listed in Annex II, they shall be accompanied by the following information, signed by the holder:
 - (a) the name and address of the holder;
 - (b) the usual commercial description of the waste;
 - (c) the quantity of the waste;

- (d) the name and address of the consignee;
- (e) the operations involving recovery, as listed in Annex II.B to Directive 75/442/EEC;
- (f) the anticipated date of shipment.

2. The information specified in paragraph 1 shall be treated confidentially in accordance with existing national regulations.

Chapter C Shipment of waste for disposal and recovery between Member States with transit via third States

Article 12

Without prejudice to Articles 3 to 10, where a shipment of waste takes place between Member States with transit via one or more third States,

(a) the notifier shall send a copy of the notification to the competent authority(ies) of the third State(s);

(b) the competent authority of destination shall ask the competent authority in the third State(s) whether it wishes to send its written consent to the planned shipment:

- in the case of parties to the Basle Convention, within 60 days, unless it has waived this right in accordance with the terms of that Convention, or

- in the case of countries not parties to the Basle Convention, within a period agreed between the competent authorities.

In both cases the competent authority of destination shall, where appropriate, wait for consent before giving its authorization.

TITLE III SHIPMENTS OF WASTE WITHIN MEMBER STATES

Article 13

1. Titles II, VII and VIII shall not apply to shipments within a Member State.

2. Member States shall, however, establish an appropriate system for the supervision and control of shipments of waste within their jurisdiction. This system should take account of the need for coherence with the Community system established by this Regulation.

3. Member States shall inform the Commission of their system for the supervision and control of shipments of waste. The Commission shall inform the other Member States thereof.

4. Member States may apply the system provided for in Titles II, VII and VIII within their jurisdiction.

TITLE IV EXPORTS OF WASTE Chapter A Waste for disposal

Article 14

1. All exports of waste for disposal shall be prohibited, except those to EFTA countries which are also parties to the Basle Convention.

2. However, without prejudice to Articles 25 (2), and 26 (2), exports of waste for disposal to an EFTA country shall also be banned:

(a) where the EFTA country of destination prohibits imports of such wastes or where it has not given its written consent to the specific import of this waste;

(b) if the competent authority of dispatch in the Community has reason to believe that the waste will not be managed in accordance with environmentally sound methods in the EFTA country of destination concerned.

3. The competent authority of dispatch shall require that any waste for disposal authorized for export to EFTA countries be managed in an environmentally sound manner throughout the period of shipment and in the State of destination.

Article 15

1. The notifier shall send the notification to the competent authority of dispatch by means of the consignment note in accordance with Article 3 (5), with copies to the other competent authorities concerned and to the consignee. The consignment note shall be issued by the competent authority of dispatch.

On receipt of the notification, the competent authority of dispatch shall within three working days send the notifier a written acknowledgement of the notification, with copies to the other

competent authorities concerned.

2. The competent authority of dispatch shall have 70 days following dispatch of the acknowledgement to take its decision authorizing the shipment, with or without conditions, or refusing it. It may also request additional information.

It shall give its authorization only in the absence of objections on its part or on the part of the other competent authorities and if it has received from the notifier the copies referred to in paragraph 4. The authorization shall, where applicable, be subject to any transport conditions referred to in paragraph 5.

The competent authority of dispatch shall take its decision no earlier than 61 days following the dispatch of the acknowledgement.

It may, however, take its decision earlier if it has the written consent of the other competent authorities.

It shall send a certified copy of the decision to the other competent authorities concerned, to the customs office of departure from the Community and to the consignee.

3. The competent authorities of dispatch and transit in the Community may, within 60 days following the dispatch of the acknowledgement, raise objections based on Article 4 (3). They may also request additional information. Any objection must be provided in writing to the notifier, with copies to the other competent authorities concerned.

4. The notifier shall provide to the competent authority of dispatch a copy of:

(a) the written consent of the EFTA country of destination to the planned shipment;

(b) the confirmation from the EFTA country of destination of the existence of a contract between the notifier and the consignee specifying environmentally sound management of the waste in question; a copy of the contract must be supplied, if requested.

The contract shall also specify that the consignee be required to provide:

- within three working days following the receipt of the waste for disposal, copies of the fully completed consignment note, except for the certification referred to in the second indent, to the notifier and to the competent authority concerned,

- as soon as possible and not later than 180 days following the receipt of the waste, a certificate of disposal under his responsibility to the notifier and to the competent authority concerned. The form of this certificate shall be part of the consignment note which accompanies the shipment.

The contract shall, in addition, stipulate that if a consignee issues an incorrect certificate with the consequence that the financial guarantee is released he shall bear the costs arising from the duty to return the waste to the area of jurisdiction of the competent authority of dispatch and its disposal in an alternative and environmentally sound manner;

(c) written consent to the planned shipment from the other State(s) of transit, unless this (these) State(s) is (are) a Party (Parties) to the Basle Convention and has (have) waived this in accordance with the terms of that Convention.

5. The competent authorities of transit in the Community shall have 60 days following the dispatch of the acknowledgement in which to lay down conditions in respect of the shipments of waste in their area of jurisdiction.

These conditions, which shall be forwarded to the notifier, with copies to the other competent authorities concerned, may not be more stringent than those laid down in respect of similar shipments effected wholly within the area of jurisdiction of the competent authority in question.

6. The competent authority of dispatch shall signify its authorization by appropriately stamping the consignment note.

7. The shipment may be effected only after the notifier has received authorization from the competent authority of dispatch.

8. Once the notifier has received authorization, he shall insert the date of shipment and otherwise complete the consignment note and send copies to the competent authorities concerned three working days before the shipment is made. A copy or, if requested by the competent authorities, a specimen of the consignment note, together with the stamp of authorization, shall accompany each shipment.

All undertakings involved in the operation shall complete the consignment note at the points indicated, sign it and retain a copy thereof.

A specimen of the consignment note shall be delivered by the carrier to the last customs office of departure when the waste leaves the Community.

9. As soon as the waste has left the Community, the customs office of departure shall send a copy of the consignment note to the competent authority which issued the authorization.

10. If, 42 days after the waste has left the Community, the competent authority which gave the authorization has received no information from the consignee about his receipt of the waste, it shall inform without delay the competent authority of destination.

It shall take action in a similar way if, 180 days after the waste has left the Community, the competent authority which gave the authorization has not received from the consignee the certificate of disposal referred to in paragraph 4.

11. A competent authority of dispatch may, in accordance with national legislation, decide to transmit the notification itself instead of the notifier, with copies to the consignee and the competent authority of transit.

The competent authority of dispatch may decide to proceed with any notification if it has itself immediate objections to raise against the shipment in accordance with Article 4 (3). It shall immediately inform the notifier of these objections.

12. The information given in paragraphs 1 to 4 shall be treated confidentially in accordance with existing national regulations.

Chapter B Waste for recovery

Article 16

1. All exports of waste for recovery shall be prohibited except those to:

(a) countries to which the OECD decision applies;

(b) other countries:

- which are Parties to the Basle Convention and/or with which the Community, or the Community and its Member States, have concluded bilateral or multilateral or regional agreements or arrangements in accordance with Article 11 of the Basle Convention and paragraph 2, or

- with which individual Member States have concluded bilateral agreements and arrangements prior to the date of application of this Regulation, in so far as these are compatible with Community legislation and in accordance with Article 11 of the Basle Convention and paragraph 2. These agreements and arrangements shall be notified to the Commission within three months of the date of application of this Regulation or of their date of application, whichever is the earlier, and shall expire when agreements or arrangements are concluded in accordance with the first indent.

2. The agreements and arrangements referred to in paragraph 1 (b) shall guarantee an environmentally sound management of the waste in accordance with Article 11 of the Basle Convention and shall, in particular:

(a) guarantee that the recovery operation is carried out in an authorized centre which complies with the requirements for environmentally sound management;

(b) fix the conditions for the treatment of the non-recoverable components of the waste and, if appropriate, oblige the notifier to take them back;

(c) enable, if appropriate, the examination of the compliance of the agreements on the spot in agreement with the countries concerned;

(d) be subject to periodic review by the Commission and for the first time not later than 31 December 1996, taking into account the experience gained and the ability of the countries concerned to carry out recovery activities in a manner which provides full guarantees of environmentally sound management. The Commission shall inform the European Parliament and the Council about the results of this review. If such a review leads to the conclusion that environmental guarantees are insufficient, the continuation of waste exports under such terms shall, on a proposal from the Commission, be reconsidered, including the possibility of a ban.

3. However, without prejudice to Article 25 (2) and 26 (2), exports of waste for recovery to the countries referred to in paragraph 1 shall be prohibited:

(a) where such a country prohibits all imports of such wastes or where it has not given its consent to their specific import;

(b) if the competent authority of dispatch has reason to believe that the waste will not be managed in accordance with environmentally sound methods in such a country.

4. The competent authority of dispatch shall require that any waste for recovery authorized for export be managed in an environmentally sound manner throughout the period of shipment and in the State of destination.

Article 17

1. In respect of waste listed in Annex II, the Commission shall notify prior to the date of application of this Regulation to every country to which the OECD Decision does not apply the list of waste included in that Annex and request written confirmation that such waste is not subject to control in the country of destination and that the latter will accept categories of such waste to be shipped without recourse to the control procedures which apply to Annex III or IV or that it indicate where such waste should be subject to either those procedures or the procedure laid down in Article 15.

If such confirmation is not received six months before the date of application of this Regulation, the Commission shall make appropriate proposals to the Council.

2. Where waste listed in Annex II is exported, it shall be destined for recovery operations within a facility which under applicable domestic law is operating or is authorized to operate in the importing country. Furthermore, a surveillance system based on prior automatic export licensing shall be established in cases to be determined in accordance with the procedure laid down in Article 18 of Directive 75/442/EEC.

Such a system shall in each case provide that a copy of the export licence be forwarded without delay to the authorities of the country in question.

3. Where such waste is subject to control in the country of destination or upon request of such a country in accordance with paragraph 1 or where a country of destination has notified under Article 3 of the Basle Convention that it regards certain kinds of waste listed in Annex II as hazardous, exports of such waste to that country shall be subjected to control. The Member State of export or the Commission shall notify all such cases to the committee established pursuant to Article 18 of Directive 75/442/EEC; the Commission shall determine in consultation with the country of destination which of the control procedures shall apply, that is those applicable to Annex III or IV or the procedure laid down in Article 15.

4. Where waste listed in Annex III is exported from the Community for recovery to countries and through countries to which the OECD Decision applies, Articles 6, 7, 8 and 9 (1), (3), (4) and (5) shall apply, the provisions concerning the competent authorities of dispatch and transit applying only to the competent authorities in the Community.

5. In addition, the competent authorities of the ex-ported and Community-transit countries shall be informed of the decision referred to in Article 9.

6. Where the waste for recovery listed in Annex IV and waste for recovery which has not yet been assigned to Annex II, III or IV is exported for recovery to countries and through countries to which the OECD Decision applies, Article 10 shall apply by analogy.

7. In addition, where waste is exported in accordance with paragraphs 4 to 6:

- a specimen of the consignment note shall be delivered by the carrier to the last customs office of departure when the waste leaves the Community,
- as soon as the waste has left the Community, the customs office of departure shall send a copy of the consignment note to the competent authority of export,
- if, 42 days after the waste has left the Community, the competent authority of export has received no information from the consignee about this receipt of the waste, it shall inform without delay the competent authority of destination,
- the contract shall stipulate that, if a consignee issues an incorrect certificate with the consequence that the financial guarantee is released, he shall bear the costs arising from the duty to return the waste to the area of jurisdiction of the competent authority of dispatch and its disposal or recovery in an alternative and environmentally sound manner.

8. Where waste for recovery listed in Annex III and IV and waste for recovery which has not yet been assigned to Annex II, III or IV is exported to and through countries to which the OECD Decision does not apply:

- Article 15, except for paragraph 3, shall apply by analogy,
- reasoned objections may be raised in accordance with Article 7 (4) only, save as otherwise provided for in bilateral or multilateral agreements entered into in accordance with Article 16 (1) (b) and on the basis of the control procedure of either paragraph 4 or 6 of this Article or Article 15.

Chapter C Export of waste to ACP States

Article 18

1. All exports of waste to ACP States shall be prohibited.
2. This prohibition does not prevent a Member State to which an ACP State has chosen to export waste for processing from returning the processed waste to the ACP State of origin.
3. In case of re-export to ACP States, a specimen of the consignment note, together with the stamp of authorization, shall accompany each shipment.

TITLE V IMPORTS OF WASTE INTO THE COMMUNITY Chapter A Imports of waste for disposal

Article 19

1. All imports into the Community of waste for disposal shall be prohibited except those from:
 - (a) EFTA countries which are Parties to the Basle Convention;
 - (b) other countries:
 - which are Parties to the Basle Convention, or
 - with which the Community, or the Community and its Member States, have concluded bilateral or multilateral agreements or arrangements compatible with Community legislation and in accordance with Article 11 of the Basle Convention guaranteeing that the disposal operations carried out in an authorized centre and complies with the requirements for environmentally sound management, or
 - with which individual Member States have concluded bilateral agreements or arrangements prior to the date of application of this Regulation, compatible with Community legislation and in accordance with Article 11 of the Basle Convention, containing the same guarantees as referred to above and guaranteeing that the waste originated in the country of dispatch and that disposal will be carried out exclusively in the Member State which has concluded the agreement or arrangement. These agreements or arrangements shall be notified to the Commission within three months of the date of application of the Regulation or of their date of application, whichever is the earlier, and shall expire when agreements or arrangements are concluded in accordance with the second indent, or
 - with which individual Member States conclude bilateral agreements or arrangements after the date of application of this Regulation in the circumstances of paragraph 2.
2. The Council hereby authorizes individual Member States to conclude bilateral agreements and arrangements after the date of application of this Regulation in exceptional cases for the disposal of specific waste, where such waste will not be managed in an environmentally sound manner in the country of dispatch. These agreements and arrangements shall comply with the conditions set out in paragraph 1 (b), third indent and shall be notified to the Commission prior to their conclusion.
3. The countries referred to in paragraph 1 (b) shall be required to present a duly motivated request beforehand to the competent authority of the Member State of destination on the basis that they do not have and cannot reasonably acquire the technical capacity and the necessary facilities in order to dispose of the waste in an environmentally sound manner.
4. The competent authority of destination shall prohibit the bringing of waste into its area of jurisdiction if it has reason to believe that the waste will not be managed in an environmentally sound manner in its area.

Article 20

1. Notification shall be made to the competent authority of destinations by means of the consignment note in accordance with Article 3 (5) with copies to the consignee of the waste and to the competent authorities of transit. The consignment note shall be issued by the competent authority of destination.

On receipt of the notification, the competent authority of destination shall, within three working days, send a written acknowledgement of the notifier, with copies to the competent authorities of transit in the Community.

2. The competent authority of destination shall authorize the shipment only in the absence of objections on its part or from the other competent authorities concerned. The authorization shall be subject to any transport conditions referred to in paragraph 5.

3. The competent authorities of destination and transit in the Community may, within 60 days of dispatch of the copy of the acknowledgement, raise objections based on Article 4 (3). They may also request additional information. These objections shall be conveyed in writing to the notifier, with copies to the other competent authorities concerned in the Community;

4. The competent authority of destination shall have 70 days following dispatch of the acknowledgement to take its decision authorizing the shipment, with or without conditions, or refusing it. It may also request additional information.

It shall send certified copies of the decision to the competent authorities of transit in the Community, the consignee and the customs office of entry into the Community.

The competent authority of destination shall take its decision no earlier than 61 days following the dispatch of the acknowledgement. It may, however, take its decision earlier if it has the written consent of the other competent authorities.

The competent authority of destination shall signify its authorization by appropriately stamping the consignment note.

5. The competent authority of destination and transit in the Community shall have 60 days following dispatch of the acknowledgement to lay down conditions in respect of the shipment of the waste. These conditions, which must be conveyed to the notifier, with copies to the competent authorities concerned, may not be more stringent than those laid down in respect of similar shipments occurring wholly within the jurisdiction of the competent authority in question.

6. The shipment may be effected only after the notifier has received authorization from the competent authority of destination.

7. Once the notifier has received authorization, he shall insert the date of the shipment and otherwise complete the consignment note and send copies to the competent authorities concerned three working days before the shipment is made. A specimen of the consignment note shall be delivered by the carrier to the customs office of entry into the Community.

A copy or, if requested by the competent authorities, a specimen of the consignment note, together with the stamp of authorization, shall accompany each shipment.

All undertakings involved in the operation shall complete the consignment note at the points indicated, sign it and retain a copy.

8. Within three working days following receipt of the waste for disposal, the consignee shall send copies of the completed consignment note, except for the certificate referred to in paragraph 9, to the notifier and the competent authorities concerned;

9. As soon as possible and not later than 180 days following the receipt of the waste, the consignee shall, under his responsibility, send a certificate of disposal to the notifier and the other competent authorities concerned. This certificate shall be part of or attached to the consignment note which accompanies the shipment.

Chapter B Imports of waste for recovery

Article 21

1. All imports of waste for recovery into the Community shall be prohibited, except those from:

(a) countries to which the OECD decision applies;

(b) other countries:

- which are Parties to the Basle Convention and/or with which the Community, or the

Community and its Member States, have concluded bilateral or multilateral or regional agreements or arrangements compatible with Community legislation and in accordance with Article 11 of the Basle Convention, guaranteeing that the recovery operation is carried out in an authorized centre and complies with the requirements for environmentally sound management, or

- with which individual Member States have concluded bilateral agreements or arrangements prior to the date of application of this Regulation, where these are compatible with Community legislation and in accordance with Article 11 of the Basle Convention, containing the same guarantees as referred to above. These agreements or arrangements shall be notified to the Commission within three months of the date of application of this Regulation or of their date of application, whichever is the earlier, and shall expire when agreements or arrangements are concluded in accordance with the first indent, or

- with which individual Member States conclude bilateral agreements or arrangements after the date of application of this Regulation in the circumstances of paragraph 2.

2. The Council hereby authorizes individual Member States to conclude after the date of applications of this Regulation bilateral agreements and arrangements in exceptional cases for the recovery of specific waste, where a Member State deems such agreements or arrangements necessary to avoid any interruption of waste treatment before the Community has concluded those agreements and arrangements. Such agreements and arrangements shall also be compatible with Community legislation and in accordance with Article 11 of the Basle Convention; they shall be notified to the Commission prior to their conclusion and shall expire when agreements or arrangements are concluded in accordance with paragraph 1 (b), first indent.

Article 22

1. Where waste is imported for recovery from countries and through countries to which the OECD Decision applies, the following control procedures shall apply by analogy:

(a) for waste listed in Annex III: Articles 6, 7, 8, 9 (1), (3), (4) and (5), and 17 (5);

(b) for waste listed in Annex IV and waste which has not yet been assigned to Annex II, III or IV: Article 10.

2. Where waste for recovery listed in Annexes III and IV and waste which has not yet been assigned to Annex II, III or IV is imported from and through countries to the OECD Decision does not apply:

- Article 20 shall apply by analogy,

- reasoned objections may be raised in accordance with Article 7 (4) only,

save as otherwise provided for the bilateral or multilateral agreements entered into in accordance with Article 21 (1) (b) and on the basis of the control procedures of either paragraph 1 of this Article or Article 20.

TITLE VI TRANSIT OF WASTE FROM OUTSIDE AND THROUGH THE COMMUNITY FOR DISPOSAL OR RECOVERY OUTSIDE THE COMMUNITY Chapter A Waste for disposal and recovery (except transit covered by Article 24)

Article 23

1. Where waste for disposal and, except in cases covered by Article 24, recovery is shipped through (a) Member State(s), notification shall be effected by means of the consignment note to the last competent authority of transit within the Community, with copies to the consignee, the other competent authorities concerned and the customs offices of entry into and departure from the Community.

2. The last competent authority of transit within the Community shall promptly inform the notifier of receipt of the notification. The other competent authorities in the Community shall, on the basis of paragraph 5, convey their reactions to the last competent authority of transit in the Community, which shall then respond in writing to the notifier within 60 days, consenting to the shipment with or without reservations; or imposing, if appropriate, conditions laid down by the other competent authorities of transit, or withholding information. Any refusal or

reservations must be justified. The competent authority shall send a certified copy of the decision to both the other competent authorities concerned and the customs offices of entry into and departure from the Community.

3. Without prejudice to Articles 25 (2) and 26 (2), the shipment shall be admitted into the Community only if the notifier has received the written consent of the last competent authority of transit. This authority shall signify its consent by appropriately stamping the consignment note.

4. The competent authorities of transit within the Community shall have 20 days following notification to lay down, if appropriate, any conditions attached to the transport of the waste. These conditions, which must be conveyed to the notifier, with copies to the competent authorities concerned, may not be more stringent than those laid down in respect of similar shipments occurring wholly within the jurisdiction of the competent authority in question.

5. The consignment note shall be issued by the last competent authority of transit within the Community.

6. Once the notifier has received authorization, he shall complete the consignment note and send copies to the competent authorities concerned three working days before the shipment is made.

A specimen of the consignment note, together with the stamp of authorization, shall accompany each shipment.

A specimen of the consignment note shall be supplied by the carrier to the customs office of departure when the waste leaves the Community.

All undertakings involved in the operation shall complete the consignment note at the points indicated, sign it and retain a copy thereof.

7. As soon as the waste has left the Community, the customs office of departure shall send a copy of the consignment note to the last competent authority of transit within the Community. Furthermore, at the latest 42 days after the waste has left the Community, the notifier shall declare or certify to that competent authority, with copies to the other competent authorities of transit, that it has arrived at its intended destination.

Chapter B Transit of waste for recovery from and to a country to which the OECD Decision applies

Article 24

1. Transit of waste for recovery listed in Annexes III and IV from a country and transferred for recovery to a country to which the OECD Decision applies through (a) Member State(s) requires notification to all competent authorities of transit of the Member State(s) concerned.

2. Notification shall be effected by means of the consignment note.

3. On receipt of the notification the competent authority(ies) of transit shall send an acknowledgement to the notifier and to the consignee within three working days.

4. This competent authority(ies) of transit may raise reasoned objections to the planned shipment based on Article 7 (4). Any objection must be provided in writing to the notifier and to the competent authorities of transit of the other Member States concerned within 30 days of dispatch of the acknowledgement.

5. The competent authority of transit may decide to provide written consent in less than 30 days.

In the case of transit of waste listed in Annex IV and waste which has not yet been assigned to Annex II, III or IV, consent must be given in writing prior to commencement of the shipment.

6. The shipment may be effected only in the absence of any objection.

TITLE VII COMMON PROVISIONS

Article 25

1. Where a shipment of waste to which the competent authorities concerned have consented cannot be completed in accordance with the terms of the consignment note or the contract referred to in Articles 3 and 6, the competent authority of dispatch shall, within 90 days after it has been informed thereof, ensure that the notifier returns the waste to its area of jurisdiction or elsewhere within the State of dispatch unless it is satisfied that the waste can be disposed of

or recovered in an alternative and environmentally sound manner.

2. In cases referred to in paragraph 1, a further notification shall be made. No Member State of dispatch or Member State of transit shall oppose the return of this waste at the duly motivated request of the competent authority of destination and with an explanation of the reason.

3. The obligation of the notifier and the subsidiary obligation of the State of dispatch to take the waste back shall end when the consignee has issued the certificate referred to in Articles 5 and 8.

Article 26

1. Any shipment of waste effected:

(a) without notification to all competent authorities concerned pursuant to the provisions of this Regulation; or

(b) without the consent of the competent authorities concerned pursuant to the provisions of this Regulation; or

(c) with consent obtained from the competent authorities concerned through falsification, misrepresentation or fraud; or

(d) which is not specified in a material way in the consignment note; or

(e) which results in disposal or recovery in contravention of Community or international rules; or

(f) contrary to Articles 14, 16, 19 and 21

shall be deemed to be illegal traffic.

2. If such illegal traffic is the responsibility of the notifier of the waste, the competent authority of dispatch shall ensure that the waste in question is:

(a) taken back by the notifier or, if necessary, by the competent authority itself, into the State of dispatch, or if impracticable;

(b) otherwise disposed of or recovered in an environmentally sound manner, within 30 days from the time when the competent authority was informed of the illegal traffic or within such other period of time as may be agreed by the competent authorities concerned.

In this case a further notification shall be made. No Member State of dispatch or Member State of transit shall oppose the return of this waste at the duly motivated request of the competent authority of destination and with an explanation of the reason.

3. If such illegal traffic is the responsibility of the consignee, the competent authority of destination shall ensure that the waste in question is disposed of in an environmentally sound manner by the consignee or, if impracticable, by the competent authority itself within 30 days from the time it was informed of the illegal traffic or within any such other period of time as may be agreed by the competent authorities concerned. To this end, they shall cooperate, as necessary, in the disposal or recovery of the waste in an environmentally sound manner.

4. Where responsibility for the illegal traffic cannot be imputed to either the notifier or the consignee, the competent authorities shall cooperate to ensure that the waste in question is disposed of or recovered in an environmentally sound manner. Guidelines for this cooperation shall be established in accordance with the procedure laid down in Article 18 of Directive 75/442/EEC.

5. Member States shall take appropriate legal action to prohibit and punish illegal traffic.

Article 27

1. All shipments of waste covered within the scope of this Regulation shall be subject to the provision of a financial guarantee or equivalent insurance covering costs for shipment, including cases referred to in Articles 25 and 26, and for disposal or recovery.

2. Such guarantees shall be returned when proof has been furnished, by means of:

- the certificate of disposal or recovery, that the waste has reached its destination and has been disposed of or recovered in an environmentally sound manner,

- Control copy T 5 drawn up pursuant to Commission Regulation (EEC) No 2823/87 (10) that, in the case of transit through the Community, the waste has left the Community.

3. Each Member State shall inform the Commission of the provision which it makes in national law pursuant to this Article. The Commission shall forward this information to all Member States.

Article 28

1. While respecting the obligations imposed on him by the applicable Articles 3, 6, 9, 15, 17, 20, 22, 23 and 24, the notifier may use a general notification procedure where waste for disposal or recovery having the same physical and chemical characteristics is shipped periodically to the same consignee following the same route. If, in the case of unforeseen circumstances, this route cannot be followed, the notifier shall inform the competent authorities concerned as soon as possible or before the shipment starts if the need for route modification is already known at this time.

Where the route modification is known before the shipment starts and this involves other competent authorities than those concerned in the general notification, this procedure shall not be used.

2. Under a general notification procedure, a single notification may cover several shipments of waste over a maximum period of one year. The indicated period may be shortened by agreement between the competent authorities concerned.

3. The competent authorities concerned shall make their agreement to the use of this general notification procedure subject to the subsequent supply of additional information. If the composition of the waste is not as notified or if the conditions imposed on its shipment are not respected, the competent authorities concerned shall withdraw their consent to this procedure by means of official notice to the notifier. Copies of this notice shall be sent to the other competent authorities concerned.

4. General notification shall be made by means of the consignment note.

Article 29

Wastes which are the subject of different notifications shall not be mixed during shipment.

Article 30

1. Member States shall take the measures needed to ensure that waste is shipped in accordance with the provisions of this Regulation. Such measures may include inspections of establishments and undertakings, in accordance with Article 13 of Directive 75/442/EEC, and spot checks of shipments.

2. Checks may take place in particular:

- at the point of origin, carried out with the producer, holder or notifier,
- at the destination, carried out with the final consignee,
- at the external frontiers of the Community,
- during the shipment within the Community.

3. Checks may include the inspection of documents, the confirmation of identity and, if appropriate, the physical control of the waste.

Article 31

1. The consignment note shall be printed and completed and any further documentation and information referred to in Article 4 and 6 shall be supplied in a language which is acceptable to the competent authority of:

- dispatch, as referred to in Articles 3, 7, 15 and 17, in the case of both a shipment of waste within the Community and the export of waste,
- destination, as referred to in Articles 20 and 22, in the case of the import of waste,
- transit, as referred to in Articles 23 and 24.

A translation shall be supplied by the notifier at the request of the other competent authorities concerned in a language acceptable to them.

2. Further details may be determined in accordance with the procedure laid down in Article 18 of Directive 75/442/EEC.

TITLE VIII OTHER PROVISIONS

Article 32

The provisions of the international transport conventions listed in Annex I to which the Member States are parties shall be complied with in so far as they cover the waste to which this Regulation refers.

Article 33

1. Appropriate administrative costs of implementing the notification and supervision procedure and usual costs of appropriate analyses and inspections may be charged to the notifier.
2. Costs arising from the return of waste, including shipment, disposal or recovery of the waste in an alternative and environmentally sound manner pursuant to Articles 25 (1) and 26 (2), shall be charged to the notifier or, if impracticable, to the Member States concerned.
3. Costs arising from disposal or recovery in an alternative and environmentally sound manner pursuant to Article 26 (3) shall be charged to the consignee.
4. Costs arising from disposal or recovery, including possible shipment pursuant to Article 26 (4), shall be charged to the notifier and/or the consignee depending upon the decision by the competent authorities involved.

Article 34

1. Without prejudice to the provisions of Article 26 and to Community and national provisions concerning civil liability and irrespective of the point of disposal or recovery of the waste, the producer of that waste shall take all the necessary steps to dispose of or recover or to arrange for disposal or recovery of the waste so as to protect the quality of the environment in accordance with Directives 75/442/EEC and 91/689/EEC.
2. Member States shall take all necessary steps to ensure that the obligations laid down in paragraph 1 are carried out.

Article 35

All documents sent to or by the competent authorities shall be kept in the Community for at least three years by the competent authorities, the notifier and the consignee.

Article 36

Member States shall designate the competent authority or authorities for the implementation of this Regulation. A single competent authority of transit shall be designated by each Member State.

Article 37

1. Member States and the Commission shall each designate at least one correspondent responsible for informing or advising persons or undertakings who or which make enquiries. The Commission correspondent shall forward to the correspondents of the Member States any questions put to him which concern the latter, and vice versa.
2. The Commission shall, if requested by Member States or if otherwise appropriate, periodically hold a meeting of the correspondents to examine with them the questions raised by the implementation of this Regulation.

Article 38

1. Member States shall notify the Commission not later than three months before the date of application of this Regulation of the name(s), address(es) and telephone and telex/telex number(s) of the competent authorities and of the correspondents, together with the stamp of the competent authorities.

Member States shall notify the Commission annually of any changes in this information.

2. The Commission shall send the information without delay to the other Member States and to the Secretariat of the Basle Convention.

The Commission shall furthermore send to Member States the waste management plans

referred to in Article 7 of Directive 75/442/EEC.

Article 39

1. Member States may designate customs offices of entry into and departure from the Community for shipments of waste entering and leaving the Community and inform the Commission thereof.

The Commission shall publish the list of these offices in the Official Journal of the European Communities and, if appropriate, update this list.

2. If Member States decide to designate the custom offices referred to in paragraph 1, no shipment of waste shall be allowed to use any other frontier crossing points within a Member State for entering or leaving the Community.

Article 40

Member States, as appropriate and necessary in liaison with the Commission, shall cooperate with other parties to the Basle Convention and inter-State organizations directly or through the Secretariat of the Basle Convention, inter alia, via the exchange of information, the promotion of environmentally sound technologies and the development of appropriate codes of good practice.

Article 41

1. Before the end of each calendar year, Member States shall draw up a report in accordance with Article 13 (3) of the Basle Convention and send it to the Secretariat of the Basle Convention and a copy thereof to the Commission.

2. The Commission shall, based on these reports, establish every three years report on the implementation of this Regulation by the Community and its Member States. It may request to this end additional information in accordance with Article 6 of Directive 91/692/EEC (11).

Article 42

1. The Commission shall draw up not later than three months before the date of application of this Regulation and adapt if appropriate afterwards, in accordance with the procedure laid down in Article 18 of Directive 75/442/EEC, the standard consignment note, including the form of the certificate of disposal and recovery (either integral to the consignment note or, meanwhile, attached to the existing consignment note under Directive 84/631/EEC) taking account in particular of:

- the relevant Articles of this Regulation,
- the relevant international Conventions and agreements.

2. The existing form of the consignment note shall apply by analogy until the new consignment note has been drawn up. The form of the certificate of disposal and recovery to be attached to the existing consignment note shall be drawn up as soon as possible.

3. Without prejudice to the procedure laid down in Article 1 (3) (c) and (d) regarding Annex II.A, Annexes II, III and IV shall be adapted by the Commission in accordance with the procedure laid down in Article 18 of Directive 75/442/EEC only to reflect changes already agreed under the review mechanism of the OECD.

4. The procedure referred to in paragraph 1 shall apply also to define environmentally sound management, taking into account the relevant international conventions and agreements.

Article 43

Directive 84/631/EEC is hereby repealed with effect from the date of application of this Regulation. Any shipment pursuant to Articles 4 and 5 of that Directive shall be completed not later than six months from the date of application of this Regulation.

Article 44

This Regulation shall enter into force on the third day following its publication in the Official Journal of the European Communities.

It shall apply 15 months after publication.

This Regulation shall be binding in its entirety and directly applicable in all Member States.
Done at Brussels, 1 February 1993.

For the Council

The President

N. HELVEG PETERSEN

(1) OJ No C 115, 6. 5. 1992, p. 4.

(2) OJ No C 94, 13. 4. 1992, p. 276 and opinion delivered on 20 January 1993 (not yet published in the Official Journal).

(3) OJ No C 269, 14. 10. 1991, p. 10.

(4) OJ No L 326, 13. 12. 1984, p. 31. Directive as last amended by Directive 91/692/EEC (OJ No L 377, 31. 12. 1991, p. 48).

(5) OJ No L 194, 25. 7. 1975, p. 39. Directive as amended by Directive 91/156/EEC (OJ No L 78, 26. 3. 1991, p. 32).

(6) OJ No L 35, 12. 2. 1992, p. 24.

(7) OJ No L 377, 31. 12. 1991, p. 20.

(8) OJ No L 194, 25. 7. 1975, p. 23. Directive as last amended by Directive 91/692/EEC (OJ No L 377, 31. 12. 1991, p. 48).

(9) OJ No L 108, 26. 4. 1976, p. 41.

(10) OJ No L 270, 23. 9. 1987, p. 1.

(11) OJ No L 377, 31. 12. 1991, p. 48.

ANNEX I

LIST OF INTERNATIONAL TRANSPORT CONVENTIONS REFERRED TO IN ARTICLE 32 (1) 1. ADR:

European Agreement concerning the international carriage of dangerous goods by road (1957).

2. Cotif:

Convention concerning the international carriage of dangerous goods by rail (1985).

RID:

Regulation on the international carriage by rail of dangerous goods (1985).

3. Solas Convention:

International Convention for the safety of life at sea (1974).

4. IMDG Code (1):

International maritime dangerous goods code.

5. Chicago Convention:

Convention on international civil aviation (1944), Annex 18 to which deals with the carriage of dangerous goods by air (TI: Technical instructions for the safe transport of dangerous goods by air).

6. Marpol Convention:

International Convention for the prevention of pollution from ships (1973 to 1978).

7. ADN:

Regulations of the carriage of dangerous substances on the Rhine (1970).

(1) This list contains those Conventions in force at the time of adoption of this Regulation.

(2) Since 1 January 1985, the IMDG code has been incorporated in the Solas Convention.

ANNEX II

GREEN LIST OF WASTES (1)() A. METAL AND METAL-ALLOY WASTES IN METALLIC, NON DISPERSIBLE FORM (2)() The following waste and scrap of precious metals and their alloys:

7112 10 - Of gold

7112 20 - Of platinum (the expression 'platinum' includes platinum, iridium, osmium,

palladium, rhodium and ruthenium)

7112 90 - Of other precious metal, e.g., silver

NB: 1. Mercury is specifically excluded as a component of these metals.

2. Electrical assemblies wastes and electronic scrap shall consist only of metals or alloys

3. Electrical scrap (meeting specifications laid down by the Review Mechanism).

The following ferrous waste and scrap; remelting scrap ingots of iron or steel:

7204 10 - Waste and scrap of cast iron

7204 21 - Waste and scrap of stainless steel

7204 29 - Waste and scrap of other alloy steels

7204 30 - Waste and scrap of tinned iron or steel

7204 41 - Turnings, shavings, chips, milling waste, filings, trimmings and stampings, whether or not in bundles

7204 49 - Other ferrous waste and scrap

7204 50 - Remelting scrap ingots

ex 7302 10 - Used iron and steel rails

The following waste and scrap of non-ferrous metals and their alloys:

7404 00 - Copper waste and scrap

7503 00 - Nickel waste and scrap

7602 00 - Aluminium waste and scrap

ex 7802 00 - Lead waste and scrap

7902 00 - Zinc waste and scrap

8002 00 - Tin waste and scrap

ex 8101 91 - Tungsten waste and scrap

ex 8102 91 - Molybdenum waste and scrap

ex 8103 10 - Tantalum waste and scrap

8104 20 - Magnesium waste and scrap

ex 8105 10 - Cobalt waste and scrap

ex 8106 00 - Bismuth waste and scrap

ex 8107 10 - Cadmium waste and scrap

ex 8108 10 - Titanium waste and scrap

ex 8109 10 - Zirconium waste and scrap

ex 8110 00 - Antimony waste and scrap

ex 8111 00 - Manganese waste and scrap

ex 8112 11 - Beryllium waste and scrap

ex 8112 20 - Chromium waste and scrap

ex 8112 30 - Germanium waste and scrap

ex 8112 40 - Vanadium waste and scrap

ex 8112 91 Wastes and scrap of:

- Hafnium

- Indium

- Niobium

- Phenium

- Gallium

- Thallium

ex 2805 30 Thorium and rare earths waste and scrap

ex 2804 90 Selenium waste and scrap

ex 2804 50 Tellurium waste and scrap

B. OTHER METAL BEARING WASTES ARISING FROM MELTING, SMELTING AND REFINING OF METALS

2620 11 Hard zinc spelter

Zinc containing drosses:

- Galvanizing slab zinc top dross (> 90 % Zn)

- Galvanizing slab zinc bottom dross (> 92 % Zn)

- Zinc die cast dross (> 85 % Zn)

- Hot dip galvanizers slab zinc dross (batch) (> 92 % Zn)

- Zinc skimmings

Aluminium skimmings

ex 2620 90 Slags from precious metals and copper processing for further refining

C. WASTES FROM MINING OPERATIONS: THESE WASTES TO BE IN NON-DISPERSIBLE FORM

ex 2504 90 Natural graphite waste

ex 2514 00 Slate waste, whether or not roughly trimmed or merely cut, by sawing or otherwise

2525 30 Mica waste

ex 2529 21 Feldspar; leucite; nepheline and nepheline syenite; fluorspar - containing by weight 97 % or less of calcium fluoride

ex 2804 61 ex 2804 69 Silica wastes in solid form excluding those used in foundry operations

D. SOLID PLASTIC WASTES

Including, but not limited to:

3915 Waste, parings and scrap of plastics:

3915 10 - Of polymers of ethylene

3915 20 - Of polymers of styrene

3915 30 - Of polymers of vinyl chloride

3915 90 Polymerized or co-polymerized:

- Polypropylene

- Polyethylene terephthalate

- Acrylonitrile copolymer

- Butadiene copolymer

- Styrene copolymer

- Polyamides

- Polybutylene terephthalates

- Polycarbonates

- Polyphenylene sulphides

- Acrylic polymers

- Paraffins (C10-C13)

- Polyurethane (not containing chlorofluorocarbons)

- Polysiloxanes (silicones)

- Polymethyl methacrylate

- Polyvinyl alcohol

- Polyvinyl butyral

- Polyvinyl acetate

- Fluorinated polytetrafluoroethylene (Teflon, PTFE)

3915 90 Resins or condensation products of:

- Urea formaldehyde resins

- Phenol formaldehyde resins

- Melamine formaldehyde resins

- Epoxy resins

- Alkyd resins

- Polyamides

E. PAPER, PAPERBOARD AND PAPER PRODUCT WASTES

4707 00 Waste and scrap of paper or paperboard:

4707 10 - Of unbleached kraft paper or paperboard or of corrugated paper or paperboard

4707 20 - Of other paper or paperboard, made mainly of bleached chemical pulp, not colored in the mass

4707 30 - Of paper or paperboard made mainly of mechanical pulp (for example, newspapers, journals and similar printed matter)

4707 90 - Other, including but not limited to:

1. Laminated paperboard

2. Unsorted waste and scrap

F. GLASS WASTE IN NON-DISPERSIBLE FORM

ex 7001 00 Cullet and other waste and scrap of glass except for glass from cathode-ray tubes and other activated glasses

Fibre glass wastes

G. CERAMIC WASTES IN NON-DISPERSIBLE FORM

ex 6900 00 Wastes of ceramic which have been fired after shaping, including ceramic vessels

ex 8113 00 Cermets waste and scrap

Ceramic based fibres not otherwise listed

H. TEXTILE WASTES

5003 Silk waste (including cocoons unsuitable for reeling, yarn waste and garnetted stock):

5003 10 - Not carded or combed

5003 90 - Other

5103 Waste of wool or of fine or coarse animal hair, including yarn waste but excluding garnetted stock:

5103 10 - Noils of wool or of fine animal hair

5103 20 - Other waste of wool or of fine animal hair

5103 30 - Waste of coarse animal hair

5202 Cotton waste (including yarn waste and garnetted stock):

5202 10 - Yarn waste (including thread waste)

5202 91 - Garnetted stock

5202 99 - Other

5301 30 Flax tow and waste

ex 5302 90 Tow and waste (including yarn waste and garnetted stock) of true hemp (*Cannabis sativa* L.)

ex 5303 90 Tow and waste (including yarn waste and garnetted stock) of jute and other textile bast fibres (excluding flax, true hemp and ramie)

ex 5304 90 Tow and waste (including yarn waste and garnetted stock) of sisal and other textile fibres of the genus *Agave*

ex 5305 19 Tow, noils and waste (including yarn waste and garnetted stock) of coconut

ex 5305 29 Tow, noils and waste (including yarn waste and garnetted stock) of abaca (*Manila hemp* or *Musa textilis* Nee)

ex 5305 99 Tow, noils and waste (including yarn waste and garnetted stock) of ramie and other vegetable textile fibres, not elsewhere specified or included

5505 Waste (including noils, yarn waste and garnetted stock) of man-made fibres:

5505 10 - Of synthetic fibres

5505 20 - Of artificial fibres

6309 00 Worn clothing and other worn textile articles

6310 Used rags, scrap twine, cordage, rope and cables and worn out articles of twine, cordage, rope or cables of textile materials:

6310 10 - Sorted

6310 90 - Other

I. RUBBER WASTES

4004 00 Waste, parings and scrap of rubber (other than hard rubber) and granules obtained therefrom

4012 20 Used pneumatic tyres

ex 4017 00 Waste and scrap of hard rubber (for example, ebonite)

J. UNTREATED CORK AND WOOD WASTES

4401 30 Wood waste and scrap, whether or not agglomerated in logs, briquettes, pellets or similar forms

4501 90 Cork waste; crushed, granulated or ground cork

K. WASTES ARISING FROM AGRO-FOOD INDUSTRIES

2301 00 Dried, sterilized and stabilized flours, meals and pellets, of meat or meat offal, of fish or of crustaceans, molluscs or other aquatic invertebrates, unfit for human consumption but fit

for animal feed or other purposes; greaves

2302 00 Bran, sharps and other residues, whether or not in the form of pellets derived from the shifting, milling or other working of cereals or of leguminous plants

2303 00 Residues of starch manufacture and similar residues, beet-pulp, bagasse and other waste of sugar manufacture, brewing or distilling dregs and waste, whether or not in the form of pellets

2304 00 Oil-cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of soya-bean oil, used for animal feed

2305 00 Oil-cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of ground-nut (peanut) oil, used for animal feed

2306 00 Oil-cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of vegetable oil, used for animal feed

ex 2307 00 Wine lees

ex 2308 00 Dried and sterilized vegetable waste, residues and byproducts, whether or not in the form of pellets, of a kind used in animal feeding, not elsewhere specified or included

1522 00 Degras; residues resulting from the treatment of fatty substances or animal or vegetable waxes

1807 00 Cocoa shells, husks, skins and other cocoa waste

L. WASTES ARISING FROM TANNING AND FELLMONGERY OPERATIONS AND LEATHER USE

0502 00 Waste of pigs', hogs' or boars' bristles and hair or of badger hair and other brush-making hair

0503 00 Horsehair waste, whether or not put up as a layer with or without supporting material

0505 90 Waste of skins and other parts of birds, with their feathers or down, of feathers and parts of feathers (whether or not with trimmed edges) and down, not further worked than cleaned, disinfected or treated for preservation

0506 90 Waste of bones and horn-cores, unworked, defatted, simply prepared (but not cut to shape), treated with acid or degelatinized

4110 00 Parings and other waste of leather or of composition leather, not suitable for the manufacture of leather articles, excluding leather sludges

M. OTHER WASTES

8908 00 Vessels and other floating structures for breaking up, properly emptied of any cargo which may have been classified as a dangerous substance or waste

Motor vehicle wrecks, drained of liquids

0501 00 Waste of human hair

ex 0511 91 Fish waste

Anode butts of petroleum coke and/or bitumen

Flue gas desulphurisation (FGD) gypsum

Waste gypsum wallboard or plasterboard arising from the demolition of buildings

ex 2621 Coal fired power station fly ash, bottom ash and slag tap (3)()

Waste straw

Broken concrete

Spent catalysts:

- Fluid catalytic cracking (FCC) catalysts

- Precious metal bearing catalysts

- Transition metal catalysts

Deactivated fungus mycelium from penicillin production to be used as animal feed

2618 00 Granulated slag arising from the manufacture of iron and steel

ex 2619 00 Slag arising from the manufacture of iron or steel (4)()

3103 20 Basic slag arising from the manufacture of iron or steel for phosphate fertilizer and other use

ex 2621 00 Slag from copper production, chemically stabilized, having a high iron content (above 20 %) and processed according to industrial specifications (e.g. DIN 4301 and DIN 8201) mainly for construction and abrasive applications

ex 2621 00 Neutralized red mud from alumina production
ex 2621 00 Spent activated carbon
Sulphur in solid form
ex 2836 50 Limestone from the production of calcium cyanamide (having a pH less than 9)
Sodium, calcium, potassium chlorides
Waste photographic film base and waste photographic film not containing silver
Single use cameras without batteries
ex 2818 10 Carborundum

(1)() The indicative 'ex' identifies a specific item contained within the harmonized customs code heading.

(2)() 'Non-dispersible' does not include any wastes in the form of powder, sludge, dust or solid items containing encased hazardous waste liquids.

(3)() Must be subject to certain specifications, these to be reviewed by the Review Mechanism.

(4)() This entry covers the use of such slags as a source of titanium dioxide and vanadium.

ANNEX III

AMBER LIST OF WASTES (1)() ex 2619 00 Dross, scalings and other wastes from the manufacture of iron and steel (2)()

2620 19 Zinc ash and residues

2620 20 Lead ash and residues

2620 30 Copper ash and residues

2620 40 Aluminium ash and residues

2620 50 Vanadium ash and residues

2620 90 Ash and residue containing metals or metal compounds not specified elsewhere

Residues from alumina production not specified elsewhere

2621 00 Other ash and residues, not specified elsewhere

Residues arising from the combustion of municipal wastes

2713 90 Waste from the production/processing of petroleum coke and bitumen, excluding anode butts

Lead-acid batteries, whole or crushed

Waste oils unfit for their originally intended use

Waste oils/water, hydrocarbons/water mixtures, emulsions

Wastes from production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish

Wastes from production, formulation and use of resins, latex, plasticizers, glues and adhesives

Wastes from production, formulation and use of reprographic and photographic chemicals and processing materials not otherwise listed

Single use cameras with batteries

Wastes from non-cyanide-based systems which arise from surface treatment of metals and plastics

Asphalt cement wastes

Phenols, phenol compounds including chlorophenol in the form of liquids or sludges

Treated cork and wood wastes

Used batteries or accumulators, whole or crushed, other than lead-acid batteries, and waste and scrap arising from the production of batteries and accumulators, not otherwise listed

ex 3915 90 Nitrocellulose

ex 7001 00 Glass from cathode-ray tubes and other activated glasses

ex 4110 00 Leather dust, ash, sludges and flours

ex 2529 21 Calcium fluoride sludge

Other inorganic fluorine compounds in the form of liquids or sludges

Zinc slags containing up to 18 weight percent zinc

Galvanic sludges

Liquors from the pickling of metals
Sands used in foundry operations
Thallium compounds
Polychlorinated naphthalenes
Ethers
Precious metal bearing residues in solid form which contain traces of inorganic cyanides
Hydrogen peroxide solutions
Triethylamine catalyst for setting foundry sands
ex 2804 80 Arsenic waste and residue
ex 2805 40 Mercury waste and residue
Precious metal ash, sludge, dust and other residues such as:
- Ash from incineration of printed circuit boards
- Film ash
Waste catalysts not on the green list
Leaching residues from zinc processing, dusts and sludges such as jarosite, hematite, goethite, etc.
Waste hydrates of aluminium
Waste alumina
Wastes that contain, consist of or are contaminated with any of the following:
- Inorganic cyanides, excepting precious metal-bearing residues in solid form containing traces or inorganic cyanides
- Organic cyanides
Wastes of an explosible nature, when not subject to specific other legislation
Wastes from the manufacture, formulation and use of wood preserving chemicals
Leaded petrol (gasoline) sludges
Used blasting grit
Chlorofluorocarbons
Halons
Fluff - light fraction from metal shredding
Thermal (heat transfer) fluids
Hydraulic fluids
Brake fluids
Antifreeze fluids
Ion exchange resins
Wastes on the amber list which will be re-examined as a priority matter by the Review
Mechanism of the OECD Organic phosphorous compounds
Non-halogenated solvents
Halogenated solvents
Halogenated or unhalogenated non-aqueous distillation residues arising from organic solvent recovery operations
Liquid pig manure; feces
Sewage sludge
Household wastes
Wastes from the production, formulation and use of biocides and phytopharmaceuticals
Wastes from the production and preparation of pharmaceutical products
Acidic solutions
Basic solutions
Surface active agents (surfactants)
Inorganic halide compounds, not specified elsewhere
Wastes from industrial pollution control devices for cleaning of industrial off-gases, not specified elsewhere
Gypsum arising from chemical industry processes

(1)() The indicative 'ex' identifies a specific item contained within the harmonized customs

code heading.

(2)() This listing includes ash, residue, slag, dross, skimming, scaling, dust, sludge and cake, unless a material is expressly listed elsewhere.

ANNEX IV

RED LIST OF WASTES Wastes, substances and articles containing, consisting of or contaminated with polychlorinated biphenyl (PCB) and/or polychlorinated terphenyl (PCT) and/or polybrominated biphenyl (PBB), including any other polybrominated analogues of these compounds, at a concentration level of 50 mg/kg or more

Wastes that contain, consist of or are contaminated with any of the following:

- Any congener of polychlorinated dibenzo-furan
- Any congener of polychlorinated dibenzo-dioxin

Asbestos (dusts and fibres)

Ceramic based fibres similar to those of asbestos

Leaded anti-knock compound sludges

Wastes on the red list which will be re-examined as a priority matter by the Review

Mechanism of the OECD Waste tarry residues (excluding asphalt cements) arising from refining, distillation and any pyrolytic treatment

Peroxides other than hydrogen peroxide



Appendix EUD
Council Regulation (EC) 120/97 Amending Directive 259/93

**31997R0120**

Council Regulation (EC) No 120/97 of 20 January 1997 amending Regulation (EC) No 259/93 on the supervision and control of shipments of waste within, into and out of the European Community

Official Journal L 022 , 24/01/1997 P. 0014 - 0015

MORE INFO

TEXT:

COUNCIL REGULATION (EC) No 120/97 of 20 January 1997 amending Regulation (EC) No 259/93 on the supervision and control of shipments of waste within, into and out of the European Community

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 130s (1) thereof,

Having regard to the proposal from the Commission (1),

Having regard to the opinion of the Economic and Social Committee (2),

Acting in accordance with the procedure laid down in Article 189c (3),

Having regard to Council Regulation (EEC) No 259/93 of 1 February 1993 on the supervision and control of shipments of waste within, into and out of the European Community (4), and in particular Article 16 thereof,

Whereas the European Community has been a Party to the Basle Convention on the control of transboundary movements of hazardous waste and their disposal since 7 February 1994;

Whereas at the Second Conference of the Parties to the Basle Convention a Decision ('Decision II/12') was adopted by consensus to prohibit immediately all exports of hazardous wastes which are destined for final disposal from OECD to non-OECD States and to prohibit as of 1 January 1998, all exports of hazardous wastes which are destined for recycling or recovery operations from OECD to non-OECD States;

Whereas at the Third conference of the Parties to the Basle Convention a Decision ('Decision III/1') was adopted by consensus to amend the Convention to prohibit all exports of hazardous wastes which are destined for disposal from States listed in Annex VII to the Convention to States not so listed, and to prohibit as of 1 January 1998 all exports of hazardous wastes referred to in Article 1 (1) (a) of the Convention which are destined for recovery operations from States listed in Annex VII to the Convention to States not so listed;

Whereas Community definitions of hazardous waste do not entirely concur at the present time with those of the Basle Convention and as this could result in waste covered by the Basle Convention's export ban still being exported from the Community, the Community definitions and lists in this respect must be adjusted;

Whereas it is necessary to establish an Annex V to Regulation (EEC) No 259/93, comprising hazardous wastes to which the Basle Convention's export ban shall apply;

Whereas the Commission should, not later than 1 January 1998, review and amend the said Annex V, taking into full consideration those wastes featuring on the list of wastes adopted in accordance with Article 1 (4) of Council Directive 91/689/EEC of 12 December 1991 on hazardous waste (5) and any lists of wastes characterized as hazardous for the purposes of the

Basle Convention; whereas exports of wastes listed in the said Annex V for recovery, except exports to countries to which the OECD Decision applies, should be prohibited from 1 January 1998 onwards;

Whereas it may be necessary from time to time to review and amend the said Annex V to reflect agreement among the Parties to the Basle Convention as to what wastes should be characterized as hazardous for the purposes of the Convention;

Whereas the Parties are requested to cooperate and work actively to ensure the effective implementation of Decisions II/12 and III/1 of the conferences of the Parties to the Basle Convention;

Whereas with respect to waste destined for final disposal, Article 14 of Regulation (EEC) No 259/93 already prohibits all exports of such kind of waste to non-OECD States; whereas Article 18 of that Regulation prohibits all exports of waste to ACP States;

Whereas currently the said Regulation does not provide for a total prohibition of exports of hazardous waste destined for recycling or recovery operations to non-OECD States;

Whereas the said Regulation should therefore be amended,

HAS ADOPTED THIS REGULATION:

Article 1

Article 16 (1) of Regulation (EEC) No 259/93 shall be replaced by the following:

'1. All exports for recovery of waste listed in Annex V for recovery shall be prohibited except those to:

(a) countries to which the OECD Decision applies;

(b) other countries:

- which are Parties to the Basle Convention and/or with which the Community, or the Community and its Member States, have concluded bilateral or multilateral or regional agreements or arrangements in accordance with Article 11 of the Basle Convention and paragraph 2 of this Article. Any such exports shall however be prohibited from 1 January 1998 onwards,

- with which individual Member States have concluded bilateral agreements and arrangements prior to the date of application of this Regulation, insofar as these are compatible with Community legislation and in accordance with Article 11 of the Basle Convention and paragraph 2 of this Article. These agreements and arrangements shall be notified to the Commission within three months of the date of application of this Regulation or of the date that such agreements are brought into effect, whichever is earlier, and shall expire when agreements or arrangements are concluded in accordance with the first indent. Any such exports shall however be prohibited as from 1 January 1998 onwards.

The Commission, in accordance with the procedure laid down in Article 18 of Directive 75/442/EEC, shall, as soon as possible, and at the latest before 1 January 1998, review and amend Annex V to this Regulation taking into full consideration those wastes featuring on the list of wastes adopted in accordance with Article 1 (4) of Council Directive 91/689/EEC of 12 December 1991 on hazardous waste (*) and any lists of wastes characterized as hazardous for the purposes of the Basle Convention.

Annex V shall be reviewed and further amended as appropriate under the same procedure. In particular, the Commission shall review the Annex in order to give effect to decisions of the Parties to the Basle Convention as to what waste should be characterized as hazardous for the purposes of the Convention and to amendments of the list of wastes adopted in accordance with Article 1 (4) of Directive 91/689/EEC.

(*) OJ No L 377, 31. 12. 1991, p. 20. Directive as amended by Directive 94/31/EC (OJ No L 168, 2. 7. 1994, p. 28).`

Article 2

The following shall be inserted as Annex V to Regulation (EEC) No 259/93:

'ANNEX V

Wastes listed in Annex III to this Regulation.

Wastes listed in Annex IV to this Regulation.`

Article 3

This Regulation shall enter into force on the third day following that of its publication in the Official Journal of the European Communities.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 20 January 1997.

For the Council

The President

J. VAN AARTSEN

(1) OJ No C 164, 30. 6. 1995, p. 8.

(2) OJ No C 18, 22. 1. 1996, p. 18.

(3) Opinion of the European Parliament of 16 January 1996 (OJ No C 32, 5. 2. 1996, p. 32), Council Common Position of 28 May 1996 (OJ No C 219, 27. 7. 1996, p. 19) and Decision of the European Parliament of 18 September 1996 (OJ No C 320, 28. 10. 1996, p. 75).

(4) OJ No L 30, 6. 2. 1993, p. 1. Regulation as amended by Commission Decision 94/721/EC (OJ No L 288, 9. 11. 1994, p. 36).

(5) OJ No L 377, 31. 12. 1991, p. 20. Directive as amended by Directive 94/31/EC (OJ No L 168, 2. 7. 1994, p. 28).



Appendix EUE
Council Directive 85/337/EEC of 27 June 1985 on the
Assessment of the Effects of Certain Public and
Private Projects on the Environment

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The European Commission

Environmental Assessment -
EIA - legal context

Environment

**Council Directive of 27
June 1985 on the
assessment of the effects
of certain public and
private projects on the
environment**

85/337/EEC

Reference: Official Journal NO. L 175 , 05/07/1985 P. 0040 - 0048

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Articles 100 and 235 thereof,

Having regard to the proposal from the Commission (1),

Having regard to the opinion of the European Parliament (2),

Having regard to the opinion of the Economic and Social Committee (3),

Whereas the 1973 (4) and 1977 (5) action programmes of the European Communities on the environment, as well as the 1983 (6) action programme, the main outlines of which have been approved by the Council of the European Communities and the representatives of the Governments of the Member States, stress that the best environmental policy consists in preventing the creation of pollution or nuisances at source, rather than subsequently trying to counteract their effects;

whereas they affirm the need to take effects on the environment into account at the earliest possible stage in all the technical planning and decision-making processes; whereas to that end, they provide for the implementation of procedures to evaluate such effects;

Whereas the disparities between the laws in force in the various Member States with regard to the assessment of the environmental effects of public and private projects may create unfavourable competitive conditions and thereby directly affect the functioning of the common market; whereas, therefore, it is necessary to approximate national laws in this field pursuant to Article 100 of the Treaty;

Whereas, in addition, it is necessary to achieve one of the Community's objectives in the sphere of the protection of the environment and the quality of life;

Whereas, since the Treaty has not provided the powers required for this end, recourse should be had to Article 235 of the Treaty;

Whereas general principles for the assessment of environmental effects should be introduced with a view to supplementing and coordinating development consent procedures governing public and private projects likely to have a major effect on the environment;

Whereas development consent for public and private projects which are likely to have significant effects on the environment should be granted only after prior assessment of the likely significant environmental effects of these projects has been carried out; whereas this assessment must be conducted on the basis of the appropriate information supplied by the developer, which may be supplemented by the authorities and by the people who may be concerned by the project in question;

Whereas the principles of the assessment of environmental effects should be harmonized, in particular with reference to the projects which should be subject to assessment, the main obligations of the developers and the content of the assessment;

Whereas projects belonging to certain types have significant effects on the environment and these projects must as a rule be subject to systematic assessment;

Whereas projects of other types may not have significant effects on the

environment in every case and whereas these projects should be assessed where the Member States consider that their characteristics so require; Whereas, for projects which are subject to assessment, a certain minimal amount of information must be supplied, concerning the project and its effects;

Whereas the effects of a project on the environment must be assessed in order to take account of concerns to protect human health, to contribute by means of a better environment to the quality of life, to ensure maintenance of the diversity of species and to maintain the reproductive capacity of the ecosystem as a basic resource for life;

Whereas, however, this Directive should not be applied to projects the details of which are adopted by a specific act of national legislation, since the objectives of this Directive, including that of supplying information, are achieved through the legislative process;

Whereas, furthermore, it may be appropriate in exceptional cases to exempt a specific project from the assessment procedures laid down by this Directive, subject to appropriate information being supplied to the Commission,

HAS ADOPTED THIS DIRECTIVE:

Article 1

1. This Directive shall apply to the assessment of the environmental effects of those public and private projects which are likely to have significant effects on the environment.

2. For the purposes of this Directive:

'project' means:

- the execution of construction works or of other installations or schemes,
- other interventions in the natural surroundings and landscape including those involving the extraction of mineral resources;

'developer' means:

the applicant for authorization for a private project or the public authority which initiates a project;

'development consent' means:

the decision of the competent authority or authorities which entitles the developer to proceed with the project.

3. The competent authority or authorities shall be that or those which the Member States designate as responsible for performing the duties arising from this Directive.

4. Projects serving national defence purposes are not covered by this Directive.

5. This Directive shall not apply to projects the details of which are adopted by a specific act of national legislation, since the objectives of this Directive, including that of supplying information, are achieved through the legislative process.

Article 2

1. Member States shall adopt all measures necessary to ensure that, before consent is given, projects likely to have significant effects on the environment by virtue inter alia, of their nature, size or location are made subject to an assessment with regard to their effects.

These projects are defined in Article 4.

2. The environmental impact assessment may be integrated into the existing procedures for consent to projects in the Member States, or, failing this, into other procedures or into procedures to be established to comply with the aims of this Directive.

3. Member States may, in exceptional cases, exempt a specific project in whole or in part from the provisions laid down in this Directive.

In this event, the Member States shall:

(a) consider whether another form of assessment would be appropriate and whether the information thus collected should be made available to the public;

(b) make available to the public concerned the information relating to the exemption and the reasons for granting it;

(c) inform the Commission, prior to granting consent, of the reasons justifying the exemption granted, and provide it with the information made available, where appropriate, to their own nationals.

The Commission shall immediately forward the documents received to the other Member States.

The Commission shall report annually to the Council on the application of this paragraph.

Article 3

The environmental impact assessment will identify, describe and assess in an appropriate manner, in the light of each individual case and in accordance with the Articles 4 to 11, the direct and indirect effects of a project on the following factors:

- human beings, fauna and flora,
- soil, water, air, climate and the landscape,
- the inter-action between the factors mentioned in the first and second indents,
- material assets and the cultural heritage.

Article 4

1. Subject to Article 2 (3), projects of the classes listed in Annex I shall be made subject to an assessment in accordance with Articles 5 to 10.

2. Projects of the classes listed in Annex II shall be made subject to an assessment, in accordance with Articles 5 to 10, where Member States consider that their characteristics so require. To this end Member States

may inter alia specify certain types of projects as being subject to an assessment or may establish the criteria and/or thresholds necessary to determine which of the projects of the classes listed in Annex II are to be subject to an assessment in accordance with Articles 5 to 10.

Article 5

1. In the case of projects which, pursuant to Article 4, must be subjected to an environmental impact assessment in accordance with Articles 5 to 10, Member States shall adopt the necessary measures to ensure that the developer supplies in an appropriate form the information specified in Annex III inasmuch as:

(a) the Member States consider that the information is relevant to a given stage of the consent procedure and to the specific characteristics of a particular project or type of project and of the environmental features likely to be affected;

(b) the Member States consider that a developer may reasonably be required to compile this information having regard inter alia to current knowledge and methods of assessment.

2. The information to be provided by the developer in accordance with paragraph 1 shall include at least:

- a description of the project comprising information on the site, design and size of the project,
 - a description of the measures envisaged in order to avoid, reduce and, if possible, remedy significant adverse effects,
 - the data required to identify and assess the main effects which the project is likely to have on the environment,
 - a non-technical summary of the information mentioned in indents 1 to 3.
3. Where they consider it necessary, Member States shall ensure that any authorities with relevant information in their possession make this information available to the developer.

Article 6

1. Member States shall take the measures necessary to ensure that the authorities likely to be concerned by the project by reason of their specific environmental responsibilities are given an opportunity to express their opinion on the request for development consent. Member States shall designate the authorities to be consulted for this purpose in general terms or in each case when the request for consent is made. The information gathered pursuant to Article 5 shall be forwarded to these authorities. Detailed arrangements for consultation shall be laid down by the Member States.

2. Member States shall ensure that:

- any request for development consent and any information gathered pursuant to Article 5 are made available to the public,
- the public concerned is given the opportunity to express an opinion before the project is initiated.

3. The detailed arrangements for such information and consultation shall be determined by the Member States, which may in particular, depending on the particular characteristics of the projects or sites concerned:

- determine the public concerned,
- specify the places where the information can be consulted,
- specify the way in which the public may be informed, for example by bill-posting within a certain radius, publication in local newspapers, organization of exhibitions with plans, drawings, tables, graphs, models,
- determine the manner in which the public is to be consulted, for example, by written submissions, by public enquiry,
- fix appropriate time limits for the various stages of the procedure in order to ensure that a decision is taken within a reasonable period.

Article 7

Where a Member State is aware that a project is likely to have significant effects on the environment in another Member State or where a Member State likely to be significantly affected so requests, the Member State in whose territory the project is intended to be carried out shall forward the information gathered pursuant to Article 5 to the other Member State at

the same time as it makes it available to its own nationals. Such information shall serve as a basis for any consultations necessary in the framework of the bilateral relations between two Member States on a reciprocal and equivalent basis.

Article 8

Information gathered pursuant to Articles 5, 6 and 7 must be taken into consideration in the development consent procedure.

Article 9

When a decision has been taken, the competent authority or authorities shall inform the public concerned of:

- the content of the decision and any conditions attached thereto,
- the reasons and considerations on which the decision is based where the Member States' legislation so provides. The detailed arrangements for such information shall be determined by the Member States.

If another Member State has been informed pursuant to Article 7, it will also be informed of the decision in question.

Article 10

The provisions of this Directive shall not affect the obligation on the competent authorities to respect the limitations imposed by national regulations and administrative provisions and accepted legal practices with regard to industrial and commercial secrecy and the safeguarding of the public interest.

Where Article 7 applies, the transmission of information to another Member State and the reception of information by another Member State shall be subject to the limitations in force in the Member State in which the project is proposed.

Article 11

1. The Member States and the Commission shall exchange information on the experience gained in applying this Directive.
2. In particular, Member States shall inform the Commission of any criteria and/or thresholds adopted for the selection of the projects in question, in accordance with Article 4 (2), or of the types of projects concerned which, pursuant to Article 4 (2), are subject to assessment in accordance with Articles 5 to 10.
3. Five years after notification of this Directive, the Commission shall send the European Parliament and the Council a report on its application and effectiveness. The report shall be based on the aforementioned exchange of information.
4. On the basis of this exchange of information, the Commission shall submit to the Council additional proposals, should this be necessary, with a view to this Directive's being applied in a sufficiently coordinated manner.

Article 12

1. Member States shall take the measures necessary to comply with this Directive within three years of its notification (1).
2. Member States shall communicate to the Commission the texts of the provisions of national law which they adopt in the field covered by this Directive.

Article 13

The provisions of this Directive shall not affect the right of Member States to lay down stricter rules regarding scope and procedure when assessing environmental effects.

Article 14

This Directive is addressed to the Member States.

Done at Luxembourg, 27 June 1985.

For the Council

The President

A. BIONDI

(1) OJ No C 169, 9. 7. 1980, p. 14.

(2) OJ No C 66, 15. 3. 1982, p. 89.

(3) OJ No C 185, 27. 7. 1981, p. 8.

(4) OJ No C 112, 20. 12. 1973, p. 1.

(5) OJ No C 139, 13. 6. 1977, p. 1.

(6) OJ No C 46, 17. 2. 1983, p. 1.

(1) This Directive was notified to the Member States on 3 July 1985.

ANNEX I

PROJECTS SUBJECT TO ARTICLE 4 (1)

1. Crude-oil refineries (excluding undertakings manufacturing only lubricants from crude oil) and installations for the gasification and liquefaction of 500 tonnes or more of coal or bituminous shale per

- day.
2. Thermal power stations and other combustion installations with a heat output of 300 megawatts or more and nuclear power stations and other nuclear reactors (except research installations for the production and conversion of fissionable and fertile materials, whose maximum power does not exceed 1 kilowatt continuous thermal load).
 3. Installations solely designed for the permanent storage or final disposal of radioactive waste.
 4. Integrated works for the initial melting of cast-iron and steel.
 5. Installations for the extraction of asbestos and for the processing and transformation of asbestos and products containing asbestos: for asbestos-cement products, with an annual production of more than 20 000 tonnes of finished products, for friction material, with an annual production of more than 50 tonnes of finished products, and for other uses of asbestos, utilization of more than 200 tonnes per year.
 6. Integrated chemical installations.
 7. Construction of motorways, express roads (1) and lines for long-distance railway traffic and of airports (2) with a basic runway length of 2 100 m or more.
 8. Trading ports and also inland waterways and ports for inland-waterway traffic which permit the passage of vessels of over 1 350 tonnes.
 9. Waste-disposal installations for the incineration, chemical treatment or land fill of toxic and dangerous wastes.

(1) For the purposes of the Directive, 'express road' means a road which complies with the definition in the European Agreement on main international traffic arteries of 15 November 1975.

(2) For the purposes of this Directive, 'airport' means airports which comply with the definition in the 1944 Chicago Convention setting up the International Civil Aviation Organization (Annex 14).

ANNEX II

PROJECTS SUBJECT TO ARTICLE 4 (2)

1. Agriculture

- (a) Projects for the restructuring of rural land holdings.
- (b) Projects for the use of uncultivated land or semi-natural areas for intensive agricultural purposes.
- (c) Water-management projects for agriculture.
- (d) Initial afforestation where this may lead to adverse ecological changes and land reclamation for the purposes of conversion to another type of land use.
- (e) Poultry-rearing installations.
- (f) Pig-rearing installations.
- (g) Salmon breeding.
- (h) Reclamation of land from the sea.

2. Extractive industry

- (a) Extraction of peat.
- (b) Deep drillings with the exception of drillings for investigating the stability of the soil and in particular:
 - geothermal drilling,
 - drilling for the storage of nuclear waste material,
 - drilling for water supplies.
- (c) Extraction of minerals other than metalliferous and energy-producing minerals, such as marble, sand, gravel, shale, salt, phosphates and potash.
- (d) Extraction of coal and lignite by underground mining. (e) Extraction of coal and lignite by open-cast mining. (f) Extraction of petroleum.
- (g) Extraction of natural gas.
- (h) Extraction of ores.

- (i) Extraction of bituminous shale.
- (j) Extraction of minerals other than metalliferous and energy-producing minerals by open-cast mining.
- (k) Surface industrial installations for the extraction of coal, petroleum, natural gas and ores, as well as bituminous shale.
- (l) Coke ovens (dry coal distillation).
- (m) Installations for the manufacture of cement.

3. Energy industry

- (a) Industrial installations for the production of electricity, steam and hot water (unless included in Annex I).
- (b) Industrial installations for carrying gas, steam and hot water; transmission of electrical energy by overhead cables.
- (c) Surface storage of natural gas.
- (d) Underground storage of combustible gases.
- (e) Surface storage of fossil fuels.
- (f) Industrial briquetting of coal and lignite.
- (g) Installations for the production or enrichment of nuclear fuels.
- (h) Installations for the reprocessing of irradiated nuclear fuels.
- (i) Installations for the collection and processing of radioactive waste (unless included in Annex I).
- (j) Installations for hydroelectric energy production.

4. Processing of metals

- (a) Iron and steelworks, including foundries, forges, drawing plants and

rolling mills (unless included in Annex I).

(b) Installations for the production, including smelting, refining, drawing and rolling, of nonferrous metals, excluding precious metals.

(c) Pressing, drawing and stamping of large castings.

(d) Surface treatment and coating of metals.

(e) Boilermaking, manufacture of reservoirs, tanks and other sheet-metal containers.

(f) Manufacture and assembly of motor vehicles and manufacture of motor-vehicle engines.

(g) Shipyards.

(h) Installations for the construction and repair of aircraft.

(i) Manufacture of railway equipment.

(j) Swaging by explosives.

(k) Installations for the roasting and sintering of metallic ores.

5. Manufacture of glass

6. Chemical industry

(a) Treatment of intermediate products and production of chemicals (unless included in Annex I).

(b) Production of pesticides and pharmaceutical products, paint and varnishes, elastomers and peroxides.

(c) Storage facilities for petroleum, petrochemical and chemical products.

7. Food industry

(a) Manufacture of vegetable and animal oils and fats.

- (b) Packing and canning of animal and vegetable products.
- (c) Manufacture of dairy products.
- (d) Brewing and malting.
- (e) Confectionery and syrup manufacture.
- (f) Installations for the slaughter of animals.
- (g) Industrial starch manufacturing installations.
- (h) Fish-meal and fish-oil factories.
- (i) Sugar factories.

8. Textile, leather, wood and paper industries

- (a) Wool scouring, degreasing and bleaching factories.
- (b) Manufacture of fibre board, particle board and plywood.
- (c) Manufacture of pulp, paper and board.
- (d) Fibre-dyeing factories.
- (e) Cellulose-processing and production installations.
- (f) Tannery and leather-dressing factories.

9. Rubber industry

Manufacture and treatment of elastomer-based products.

10. Infrastructure projects

- (a) Industrial-estate development projects.
- (b) Urban-development projects.

- (c) Ski-lifts and cable-cars.
- (d) Construction of roads, harbours, including fishing harbours, and airfields (projects not listed in Annex I).
- (e) Canalization and flood-relief works.
- (f) Dams and other installations designed to hold water or store it on a long-term basis.
- (g) Tramways, elevated and underground railways, suspended lines or similar lines of a particular type, used exclusively or mainly for passenger transport.
- (h) Oil and gas pipeline installations.
- (i) Installation of long-distance aqueducts.
- (j) Yacht marinas.

11. Other projects

- (a) Holiday villages, hotel complexes.
- (b) Permanent racing and test tracks for cars and motor cycles.
- (c) Installations for the disposal of industrial and domestic waste (unless included in Annex I).
- (d) Waste water treatment plants.
- (e) Sludge-deposition sites.
- (f) Storage of scrap iron.
- (g) Test benches for engines, turbines or reactors.
- (h) Manufacture of artificial mineral fibres.
- (i) Manufacture, packing, loading or placing in cartridges of gunpowder and explosives.

(j) Knackers' yards.

12. Modifications to development projects included in Annex I and projects in Annex I undertaken exclusively or mainly for the development and testing of new methods or products and not used for more than one year.

ANNEX III

INFORMATION REFERRED TO IN ARTICLE 5 (1)

1. Description of the project, including in particular:

- a description of the physical characteristics of the whole project and the land-use requirements during the construction and operational phases,
- a description of the main characteristics of the production processes, for instance, nature and quantity of the materials used,
- an estimate, by type and quantity, of expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the proposed project.

2. Where appropriate, an outline of the main alternatives studied by the developer and an indication of the main reasons for his choice, taking into account the environmental effects.

3. A description of the aspects of the environment likely to be significantly affected by the proposed project, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the inter-relationship between the above factors.

4. A description (1) of the likely significant effects of the proposed project on the environment resulting from:

- the existence of the project,

- the use of natural resources,
- the emission of pollutants, the creation of nuisances and the elimination of waste;

and the description by the developer of the forecasting methods used to assess the effects on the environment.

5. A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.

6. A non-technical summary of the information provided under the above headings.

7. An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the developer in compiling the required information.

(1) This description should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the project.

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Appendix EUF
Council Directive 96/61/EC of 24 September 1996
concerning integrated pollution prevention and control

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Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control

Official Journal L 257 , 10/10/1996 P. 0026 - 0040

COUNCIL DIRECTIVE 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 130s (1) thereof,

Having regard to the proposal from the Commission (1),

Having regard to the opinion of the Economic and Social Committee (2),

Acting in accordance with the procedure laid down in Article 189c of the Treaty (3),

1. Whereas the objectives and principles of the Community's environment policy, as set out in Article 130r of the Treaty, consist in particular of preventing, reducing and as far as possible eliminating pollution by giving priority to intervention at source and ensuring prudent management of natural resources, in compliance with the 'polluter pays' principle and the principle of pollution prevention;

2. Whereas the Fifth Environmental Action Programme, the broad outline of which was approved by the Council and the Representatives of the Governments of the Member States, meeting within the Council, in the resolution of 1 February 1993 on a Community programme of policy and action in relation to the environment and sustainable development (4), accords priority to integrated pollution control as an important part of the move towards a more sustainable balance between human activity and socio-economic development, on the one hand, and the resources and regenerative capacity of nature, on the other;

3. Whereas the implementation of an integrated approach to reduce pollution requires action at Community level in order to modify and supplement existing Community legislation concerning the prevention and control of pollution from industrial plants;

4. Whereas Council Directive 84/360/EEC of 28 June 1984 on the combating of air pollution from industrial plants (5) introduced a general framework requiring authorization prior to any operation or substantial modification of industrial installations which may cause air pollution;

5. Whereas Council Directive 76/464/EEC of 4 May 1976 on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community (6) introduced an authorization requirement for the discharge of those substances;

6. Whereas, although Community legislation exists on the combating of air pollution and the prevention or minimization of the discharge of dangerous substances into water, there is no comparable Community legislation aimed at preventing or minimizing emissions into soil;

7. Whereas different approaches to controlling emissions into the air, water or soil separately may encourage the shifting of pollution between the various environmental media rather than protecting the environment as a whole;

8. Whereas the objective of an integrated approach to pollution control is to prevent emissions into air, water or soil wherever this is practicable, taking into account waste management, and, where it is not, to minimize them in order to achieve a high level of protection for the environment as a whole;

9. Whereas this Directive establishes a general framework for integrated pollution prevention

and control; whereas it lays down the measures necessary to implement integrated pollution prevention and control in order to achieve a high level of protection for the environment as a whole; whereas application of the principle of sustainable development will be promoted by an integrated approach to pollution control;

10. Whereas the provisions of this Directive apply without prejudice to the provisions of Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of public and private projects on the environment (7); whereas, when information or conclusions obtained further to the application of that Directive have to be taken into consideration for the granting of authorization, this Directive does not affect the implementation of Directive 85/337/EEC;

11. Whereas the necessary steps must be taken by the Member States in order to ensure that the operator of the industrial activities referred to in Annex I is complying with the general principles of certain basic obligations; whereas for that purpose it would suffice for the competent authorities to take those general principles into account when laying down the authorization conditions;

12. Whereas some of the provisions adopted pursuant to this Directive must be applied to existing installations after a fixed period and others as from the date of implementation of this Directive;

13. Whereas, in order to tackle pollution problems more effectively and efficiently, environmental aspects should be taken into consideration by the operator; whereas those aspects should be communicated to the competent authority or authorities so that they can satisfy themselves, before granting a permit, that all appropriate preventive or pollution-control measures have been laid down; whereas very different application procedures may give rise to different levels of environmental protection and public awareness; whereas, therefore, applications for permits under this Directive should include minimum data;

14. Whereas full coordination of the authorization procedure and conditions between competent authorities will make it possible to achieve the highest practicable level of protection for the environment as a whole;

15. Whereas the competent authority or authorities will grant or amend a permit only when integrated environmental protection measures for air, water and land have been laid down;

16. Whereas the permit is to include all necessary measures to fulfil the authorization conditions in order thus to achieve a high level of protection for the environment as a whole; whereas, without prejudice to the authorization procedure, those measures may also be the subject of general binding requirements;

17. Whereas emission limit values, parameters or equivalent technical measures should be based on the best available techniques, without prescribing the use of one specific technique or technology and taking into consideration the technical characteristics of the installation concerned, its geographical location and local environmental conditions; whereas in all cases the authorization conditions will lay down provisions on minimizing long-distance or transfrontier pollution and ensure a high level of protection for the environment as a whole;

18. Whereas it is for the Member States to determine how the technical characteristics of the installation concerned, its geographical location and local environmental conditions can, where appropriate, be taken into consideration;

19. Whereas, when an environmental quality standard requires more stringent conditions than those that can be achieved by using the best available techniques, supplementary conditions will in particular be required by the permit, without prejudice to other measures that may be taken to comply with the environmental quality standards;

20. Whereas, because best available techniques will change with time, particularly in the light of technical advances, the competent authorities must monitor or be informed of such progress;

21. Whereas, changes to an installation may give rise to pollution; whereas the competent authority or authorities must therefore be notified of any change which might affect the environment; whereas substantial changes to plant must be subject to the granting of prior authorization in accordance with this Directive;

22. Whereas the authorization conditions must be periodically reviewed and if necessary updated; whereas, under certain conditions, they will in any event be re-examined;
23. Whereas, in order to inform the public of the operation of installations and their potential effect on the environment, and in order to ensure the transparency of the licensing process throughout the Community, the public must have access, before any decision is taken, to information relating to applications for permits for new installations or substantial changes and to the permits themselves, their updating and the relevant monitoring data;
24. Whereas the establishment of an inventory of principal emissions and sources responsible may be regarded as an important instrument making it possible in particular to compare pollution activities in the Community; whereas such an inventory will be prepared by the Commission, assisted by a regulatory committee;
25. Whereas the development and exchange of information at Community level about best available techniques will help to redress the technological imbalances in the Community, will promote the worldwide dissemination of limit values and techniques used in the Community and will help the Member States in the efficient implementation of this Directive;
26. Whereas reports on the implementation and effectiveness of this Directive will have to be drawn up regularly;
27. Whereas this Directive is concerned with installations whose potential for pollution, and therefore transfrontier pollution, is significant; whereas transboundary consultation is to be organized where applications relate to the licensing of new installations or substantial changes to installations which are likely to have significant negative environmental effects; whereas the applications relating to such proposals or substantial changes will be available to the public of the Member State likely to be affected;
28. Whereas the need for action may be identified at Community level to lay down emission limit values for certain categories of installation and pollutant covered by this Directive; whereas the Council will set such emission limit values in accordance with the provisions of the Treaty;
29. Whereas the provisions of this Directive apply without prejudice to Community provisions on health and safety at the workplace,
- HAS ADOPTED THIS DIRECTIVE:**

Article 1

Purpose and scope

The purpose of this Directive is to achieve integrated prevention and control of pollution arising from the activities listed in Annex I. It lays down measures designed to prevent or, where that is not practicable, to reduce emissions in the air, water and land from the abovementioned activities, including measures concerning waste, in order to achieve a high level of protection of the environment taken as a whole, without prejudice to Directive 85/337/EEC and other relevant Community provisions.

Article 2

Definitions

For the purposes of this Directive:

1. 'substance` shall mean any chemical element and its compounds, with the exception of radioactive substances within the meaning of Directive 80/836/Euratom (8) and genetically modified organisms within the meaning of Directive 90/219/EEC (9) and Directive 90/220/EEC (10);
2. 'pollution` shall mean the direct or indirect introduction as a result of human activity, of substances, vibrations, heat or noise into the air, water or land which may be harmful to human health or the quality of the environment, result in damage to material property, or

impair or interfere with amenities and other legitimate uses of the environment;

3. 'installation` shall mean a stationary technical unit where one or more activities listed in Annex I are carried out, and any other directly associated activities which have a technical connection with the activities carried out on that site and which could have an effect on emissions and pollution;

4. 'existing installation` shall mean an installation in operation or, in accordance with legislation existing before the date on which this Directive is brought into effect, an installation authorized or in the view of the competent authority the subject of a full request for authorization, provided that that installation is put into operation no later than one year after the date on which this Directive is brought into effect;

5. 'emission` shall mean the direct or indirect release of substances, vibrations, heat or noise from individual or diffuse sources in the installation into the air, water or land;

6. 'emission limit values` shall mean the mass, expressed in terms of certain specific parameters, concentration and/or level of an emission, which may not be exceeded during one or more periods of time. Emission limit values may also be laid down for certain groups, families or categories of substances, in particular for those listed in Annex III.

The emission limit values for substances shall normally apply at the point where the emissions leave the installation, any dilution being disregarded when determining them. With regard to indirect releases into water, the effect of a water treatment plant may be taken into account when determining the emission limit values of the installation involved, provided that an equivalent level is guaranteed for the protection of the environment as a whole and provided this does not lead to higher levels of pollution in the environment, without prejudice to Directive 76/464/EEC or the Directives implementing it;

7. 'environmental quality standard` shall mean the set of requirements which must be fulfilled at a given time by a given environment or particular part thereof, as set out in Community legislation;

8. 'competent authority` shall mean the authority or authorities or bodies responsible under the legal provisions of the Member States for carrying out the obligations arising from this Directive;

9. 'permit` shall mean that part or the whole of a written decision (or several such decisions) granting authorization to operate all or part of an installation, subject to certain conditions which guarantee that the installation complies with the requirements of this Directive. A permit may cover one or more installations or parts of installations on the same site operated by the same operator;

10. (a) 'change in operation` shall mean a change in the nature or functioning, or an extension, of the installation which may have consequences for the environment;

(b) 'substantial change` shall mean a change in operation which, in the opinion of the competent authority, may have significant negative effects on human beings or the environment;

11. 'best available techniques` shall mean the most effective and advanced stage in the development of activities and their methods of operation which indicate the practical suitability of particular techniques for providing in principle the basis for emission limit values designed to prevent and, where that is not practicable, generally to reduce emissions and the impact on the environment as a whole:

- 'techniques` shall include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned,

- 'available` techniques shall mean those developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or produced inside the Member State in question, as long as they are reasonably accessible to the operator,

- 'best` shall mean most effective in achieving a high general level of protection of the environment as a whole.

In determining the best available techniques, special consideration should be given to the items listed in Annex IV;

12. 'operator' shall mean any natural or legal person who operates or controls the installation or, where this is provided for in national legislation, to whom decisive economic power over the technical functioning of the installation has been delegated.

Article 3

General principles governing the basic obligations of the operator

Member States shall take the necessary measures to provide that the competent authorities ensure that installations are operated in such a way that:

- (a) all the appropriate preventive measures are taken against pollution, in particular through application of the best available techniques;
- (b) no significant pollution is caused;
- (c) waste production is avoided in accordance with Council Directive 75/442/EEC of 15 July 1975 on waste(11); where waste is produced, it is recovered or, where that is technically and economically impossible, it is disposed of while avoiding or reducing any impact on the environment;
- (d) energy is used efficiently;
- (e) the necessary measures are taken to prevent accidents and limit their consequences;
- (f) the necessary measures are taken upon definitive cessation of activities to avoid any pollution risk and return the site of operation to a satisfactory state.

For the purposes of compliance with this Article, it shall be sufficient if Member States ensure that the competent authorities take account of the general principles set out in this Article when they determine the conditions of the permit.

Article 4

Permits for new installations

Member States shall take the necessary measures to ensure that no new installation is operated without a permit issued in accordance with this Directive, without prejudice to the exceptions provided for in Council Directive 88/609/EEC of 24 November 1988 on the limitation of emissions of certain pollutants into the air from large combustion plants (12).

Article 5

Requirements for the granting of permits for existing installations

1. Member States shall take the necessary measures to ensure that the competent authorities see to it, by means of permits in accordance with Articles 6 and 8 or, as appropriate, by reconsidering and, where necessary, by updating the conditions, that existing installations operate in accordance with the requirements of Articles 3, 7, 9, 10, 13, the first and second indents of 14, and 15 (2) not later than eight years after the date on which this Directive is brought into effect, without prejudice to specific Community legislation.

2. Member States shall take the necessary measures to apply the provisions of Articles 1, 2, 11, 12, 14, third indent, 15 (1), (3) and (4), 16, 17 and 18 (2) to existing installations as from the date on which this Directive is brought into effect.

Article 6

Applications for permits

1. Member States shall take the necessary measures to ensure that an application to the competent authority for a permit includes a description of:

- the installation and its activities,
- the raw and auxiliary materials, other substances and the energy used in or generated by the

installation,

- the sources of emissions from the installation,
- the conditions of the site of the installation,
- the nature and quantities of foreseeable emissions from the installation into each medium as well as identification of significant effects of the emissions on the environment,
- the proposed technology and other techniques for preventing or, where this not possible, reducing emissions from the installation,
- where necessary, measures for the prevention and recovery of waste generated by the installation,
- further measures planned to comply with the general principles of the basic obligations of the operator as provided for in Article 3,
- measures planned to monitor emissions into the environment.

An application for a permit shall also include a non-technical summary of the details referred to in the above indents.

2. Where information supplied in accordance with the requirements provided for in Directive 85/337/EEC or a safety report prepared in accordance with Council Directive 82/501/EEC of 24 June 1982 on the major-accident hazards of certain industrial activities (13) or other information produced in response to other legislation fulfils any of the requirements of this Article, that information may be included in, or attached to, the application.

Article 7

Integrated approach to issuing permits

Member States shall take the measures necessary to ensure that the conditions of, and procedure for the grant of, the permit are fully coordinated where more than one competent authority is involved, in order to guarantee an effective integrated approach by all authorities competent for this procedure.

Article 8

Decisions

Without prejudice to other requirements laid down in national or Community legislation, the competent authority shall grant a permit containing conditions guaranteeing that the installation complies with the requirements of this Directive or, if it does not, shall refuse to grant the permit.

All permits granted and modified permits must include details of the arrangements made for air, water and land protection as referred to in this Directive.

Article 9

Conditions of the permit

1. Member States shall ensure that the permit includes all measures necessary for compliance with the requirements of Articles 3 and 10 for the granting of permits in order to achieve a high level of protection for the environment as a whole by means of protection of the air, water and land.

2. In the case of a new installation or a substantial change where Article 4 of Directive 85/337/EEC applies, any relevant information obtained or conclusion arrived at pursuant to Articles 5, 6 and 7 of that Directive shall be taken into consideration for the purposes of granting the permit.

3. The permit shall include emission limit values for pollutants, in particular, those listed in Annex III, likely to be emitted from the installation concerned in significant quantities, having regard to their nature and their potential to transfer pollution from one medium to another (water, air and land). If necessary, the permit shall include appropriate requirements ensuring protection of the soil and ground water and measures concerning the management of waste

generated by the installation. Where appropriate, limit values may be supplemented or replaced by equivalent parameters or technical measures.

For installations under subheading 6.6 in Annex I, emission limit values laid down in accordance with this paragraph shall take into account practical considerations appropriate to these categories of installation.

4. Without prejudice to Article 10, the emission limit values and the equivalent parameters and technical measures referred to in paragraph 3 shall be based on the best available techniques, without prescribing the use of any technique or specific technology, but taking into account the technical characteristics of the installation concerned, its geographical location and the local environmental conditions. In all circumstances, the conditions of the permit shall contain provisions on the minimization of long-distance or transboundary pollution and ensure a high level of protection for the environment as a whole.

5. The permit shall contain suitable release monitoring requirements, specifying measurement methodology and frequency, evaluation procedure and an obligation to supply the competent authority with data required for checking compliance with the permit.

For installations under subheading 6.6 in Annex I, the measures referred to in this paragraph may take account of costs and benefits.

6. The permit shall contain measures relating to conditions other than normal operating conditions. Thus, where there is a risk that the environment may be affected, appropriate provision shall be made for start-up, leaks malfunctions, momentary stoppages and definitive cessation of operations.

The permit may also contain temporary derogations from the requirements of paragraph 4 if a rehabilitation plan approved by the competent authority ensures that these requirements will be met within six months and if the project leads to a reduction of pollution.

7. The permit may contain such other specific conditions for the purposes of this Directive as the Member State or competent authority may think fit.

8. Without prejudice to the obligation to implement a permit procedure pursuant to this Directive, Member States may prescribe certain requirements for certain categories of installations in general binding rules instead of including them in individual permit conditions, provided that an integrated approach and an equivalent high level of environmental protection as a whole are ensured.

Article 10

Best available techniques and environmental quality standards

Where an environmental quality standard requires stricter conditions than those achievable by the use of the best available techniques, additional measures shall in particular be required in the permit, without prejudice to other measures which might be taken to comply with environmental quality standards.

Article 11

Developments in best available techniques

Member States shall ensure that the competent authority follows or is informed of developments in best available techniques.

Article 12

Changes by operators to installations

1. Member States shall take the necessary measures to ensure that the operator informs the competent authorities of any changes planned in the operation of the installation as referred to in Article 2 (10) (a). Where appropriate, the competent authorities shall update the permit or the conditions.

2. Member States shall take the necessary measures to ensure that no substantial change in the operation of the installation within the meaning of Article 2 (10) (b) planned by the operator is made without a permit issued in accordance with this Directive. The application for a permit and the decision by the competent authority must cover those parts of the installation and those aspects listed in Article 6 that may be affected by the change. The relevant provisions of Articles 3 and 6 to 10 and Article 15 (1), (2) and (4) shall apply mutatis mutandis.

Article 13

Reconsideration and updating of permit conditions by the competent authority

1. Member States shall take the necessary measures to ensure that competent authorities periodically reconsider and, where necessary, update permit conditions.
2. The reconsideration shall be undertaken in any event where:
 - the pollution caused by the installation is of such significance that the existing emission limit values of the permit need to be revised or new such values need to be included in the permit,
 - substantial changes in the best available techniques make it possible to reduce emissions significantly without imposing excessive costs,
 - the operational safety of the process or activity requires other techniques to be used,
 - new provisions of Community or national legislation so dictate.

Article 14

Compliance with permit conditions

Member States shall take the necessary measures to ensure that:

- the conditions of the permit are complied with by the operator when operating the installation,
- the operator regularly informs the competent authority of the results of the monitoring of releases and without delay of any incident or accident significantly affecting the environment,
- operators of installations afford the representatives of the competent authority all necessary assistance to enable them to carry out any inspections within the installation, to take samples and to gather any information necessary for the performance of their duties for the purposes of this Directive.

Article 15

Access to information and public participation in the permit procedure

1. Without prejudice to Council Directive 90/313/EEC of 7 June 1990 on the freedom of access to information on the environment (14), Member States shall take the necessary measures to ensure that applications for permits for new installations or for substantial changes are made available for an appropriate period of time to the public, to enable it to comment on them before the competent authority reaches its decision.

That decision, including at least a copy of the permit, and any subsequent updates, must be made available to the public.

2. The results of monitoring of releases as required under the permit conditions referred to in Article 9 and held by the competent authority must be made available to the public.

3. An inventory of the principal emissions and sources responsible shall be published every three years by the Commission on the basis of the data supplied by the Member States. The Commission shall establish the format and particulars needed for the transmission of information in accordance with the procedure laid down in Article 19.

In accordance with the same procedure, the Commission may propose measures to ensure inter-comparability and complementarity between data concerning the inventory of emissions referred to in the first subparagraph and data from other registers and sources of data on emissions.

4. Paragraphs 1, 2 and 3 shall apply subject to the restrictions laid down in Article 3 (2) and

(3) of Directive 90/313/EEC.

Article 16

Exchange of information

1. With a view to exchanging information, Member States shall take the necessary measures to send the Commission every three years, and for the first time within 18 months of the date on which this Directive is brought into effect, the available representative data on the limit values laid down by specific category of activities in accordance with Annex I and, if appropriate, the best available techniques from which those values are derived in accordance with, in particular, Article 9. On subsequent occasions the data shall be supplemented in accordance with the procedures laid down in paragraph 3 of this Article.

2. The Commission shall organize an exchange of information between Member States and the industries concerned on best available techniques, associated monitoring, and developments in them. Every three years the Commission shall publish the results of the exchanges of information.

3. Reports on the implementation of this Directive and its effectiveness compared with other Community environmental instruments shall be established in accordance with the procedure laid down in Articles 5 and 6 of Directive 91/692/EEC. The first report shall cover the three years following the date on which this present Directive is brought into effect as referred to in Article 21. The Commission shall submit the report to the Council, accompanied by proposals if necessary.

4. Member States shall establish or designate the authority or authorities which are to be responsible for the exchange of information under paragraphs 1, 2 and 3 and shall inform the Commission accordingly.

Article 17

Transboundary effects

1. Where a Member State is aware that the operation of an installation is likely to have significant negative effects on the environment of another Member State, or where a Member State likely to be significantly affected so requests, the Member State in whose territory the application for a permit pursuant to Article 4 or Article 12 (2) was submitted shall forward the information provided pursuant to Article 6 to the other Member State at the same time as it makes it available to its own nationals. Such information shall serve as a basis for any consultations necessary in the framework of the bilateral relations between the two Member States on a reciprocal and equivalent basis.

2. Within the framework of their bilateral relations, Member States shall see to it that in the cases referred to in paragraph 1 the applications are also made available for an appropriate period of time to the public of the Member State likely to be affected so that it will have the right to comment on them before the competent authority reaches its decision.

Article 18

Community emission limit values

1. Acting on a proposal from the Commission, the Council will set emission limit values, in accordance with the procedures laid down in the Treaty, for:

- the categories of installations listed in Annex I except for the landfills covered by categories 5.1 and 5.4 of that Annex,

and

- the polluting substances referred to in Annex III,

for which the need for Community action has been identified, on the basis, in particular, of the exchange of information provided for in Article 16.

2. In the absence of Community emission limit values defined pursuant to this Directive, the relevant emission limit values contained in the Directives referred to in Annex II and in other Community legislation shall be applied as minimum emission limit values pursuant to this Directive for the installations listed in Annex I.

Without prejudice to the requirements of this Directive, the technical requirements applicable for the landfills covered by categories 5.1 and 5.4 of Annex I, shall be fixed by the Council, acting on a proposal by the Commission, in accordance with the procedures laid down in the Treaty.

Article 19

Committee procedure referred to in Article 15 (3)

The Commission shall be assisted by a committee composed of the representatives of the Member States and chaired by the representative of the Commission.

The representative of the Commission shall submit to the committee a draft of the measures to be taken. The committee shall deliver its opinion on the draft within a time limit which the chairman may lay down according to the urgency of the matter. The opinion shall be delivered by the majority laid down in Article 148 (2) of the Treaty in the case of decisions which the Council is required to adopt on a proposal from the Commission. The votes of the representatives of the Member States within the committee shall be weighted in the manner set out in that Article. The chairman shall not vote.

The Commission shall adopt the measures envisaged if they are in accordance with the opinion of the committee.

If the measures are not in accordance with the opinion of the committee, or if no opinion is delivered, the Commission shall, without delay, submit to the Council a proposal relating to the measures to be taken. The Council shall act by a qualified majority.

If, on the expiry of a period of three months from the date of referral to the Council, the Council has not acted, the proposed measures shall be adopted by the Commission.

Article 20

Transitional provisions

1. The provisions of Directive 84/360/EEC, the provisions of Articles 3, 5, 6 (3) and 7 (2) of Directive 76/464/EEC and the relevant provisions concerning authorization systems in the Directives listed in Annex II shall apply, without prejudice to the exceptions provided for in Directive 88/609/EEC, to existing installations in respect of activities listed in Annex I until the measures required pursuant to Article 5 of this Directive have been taken by the competent authorities.

2. The relevant provisions concerning authorization systems in the Directives referred to in paragraph 1 shall not apply to installations which are new in respect of the activities listed in Annex I on the date on which this Directive is brought into effect.

3. Directive 84/360/EEC shall be repealed 11 years after the date of entry into force of this Directive.

As soon as the measures provided for in Article 4, 5 or 12 have been taken in respect of an installation, the exception provided for in Article 6 (3) of Directive 76/464/EEC shall no longer apply to installations covered by this Directive.

Acting on a proposal from the Commission, the Council shall, where necessary, amend the relevant provisions of the Directives referred to in Annex II in order to adapt them to the requirements of this Directive before the date of repeal of Directive 84/360/EEC, referred to in the first subparagraph.

Article 21

Bringing into effect

1. Member States shall adopt the laws, regulations and administrative provisions necessary to comply with this Directive no later than three years after its entry into force. They shall forthwith inform the Commission thereof.

When Member States adopt these measures, they shall contain a reference to this Directive or shall be accompanied by such reference on the occasion of their official publication. The methods of making such reference shall be laid down by Member States.

2. Member States shall communicate to the Commission the texts of the main provisions of national law which they adopt in the field covered by this Directive.

Article 22

This Directive shall enter into force on the 20th day following its publication.

Article 23

This Directive is addressed to the Member States.

Done at Brussels, 24 September 1996.

For the Council

The President

E. FITZGERALD

(1) OJ No C 311, 17. 11. 1993, p. 6 and OJ No C 165, 1. 7. 1995, p. 9.

(2) OJ No C 195, 18. 7. 1995, p. 54.

(3) Opinion of the European Parliament of 14 December 1994 (OJ No C 18, 23. 1. 1995, p. 96), Council common position of 27 November 1995 (OJ No C 87, 25. 3. 1996, p. 8) and Decision of the European Parliament of 22 May 1996 (OJ No C 166, 10. 6. 1996).

(4) OJ No C 138, 17. 5. 1993, p. 1.

(5) OJ No L 188, 16. 7. 1984, p. 20. Directive as last amended by Directive 91/692/EEC (OJ No L 377, 31. 12. 1991, p. 48).

(6) OJ No L 129, 18. 5. 1976, p. 23. Directive as last amended by Directive 91/692/EEC.

(7) OJ No L 175, 5. 7. 1985, p. 40.

(8) Council Directive 80/836/Euratom of 15 July 1980 amending the Directives laying down the basic safety standards for the health protection of the general public and workers against the dangers of ionizing radiation (OJ No L 246, 17. 9. 1980, p. 1). Directive as amended by Directive 84/467/EEC (OJ No L 265, 5. 10. 1984, p. 4).

(9) Council Directive 90/219/EEC of 23 April 1990 on the contained use of genetically modified micro-organisms (OJ No L 117, 8. 5. 90, p. 1). Directive as amended by Commission Directive 94/51/EC (OJ No L 297, 18. 11. 1994, p. 29).

(10) Council Directive 90/220/EEC of 23 April 1990 on the deliberate release into the environment of genetically modified organisms (OJ No L 117, 8. 5. 1990, p. 15). Directive as amended by Commission Directive 94/15/EC (OJ No L 103, 22. 4. 1994, p. 20).

(11) OJ No L 194, 25. 7. 1975, p. 39. Directive as last amended by Directive 91/692/EEC (OJ No L 377, 31. 12. 1991, p. 48).

(12) OJ No L 336, 7. 12. 1988, p. 1. Directive as last amended by Directive 90/656/EEC (OJ No L 353, 17. 12. 1990, p. 59).

(13) OJ No L 230, 5. 8. 1982, p. 1. Directive as last amended by Directive 91/692/EEC (OJ No L 377, 31. 12. 1991, p. 48).

(14) OJ No L 158, 23. 6. 1990, p. 56.

ANNEX I

CATEGORIES OF INDUSTRIAL ACTIVITIES REFERRED TO IN ARTICLE 1

1. Installations or parts of installations used for research, development and testing of new

products and processes are not covered by this Directive.

2. The threshold values given below generally refer to production capacities or outputs. Where one operator carries out several activities falling under the same subheading in the same installation or on the same site, the capacities of such activities are added together.

1. Energy industries

1.1. Combustion installations with a rated thermal input exceeding 50 MW (1)

1.2. Mineral oil and gas refineries

1.3. Coke ovens

1.4. Coal gasification and liquefaction plants

2. Production and processing of metals

2.1. Metal ore (including sulphide ore) roasting or sintering installations

2.2. Installations for the production of pig iron or steel (primary or secondary fusion) including continuous casting, with a capacity exceeding 2,5 tonnes per hour

2.3. Installations for the processing of ferrous metals:

(a) hot-rolling mills with a capacity exceeding 20 tonnes of crude steel per hour

(b) smitheries with hammers the energy of which exceeds 50 kilojoule per hammer, where the calorific power used exceeds 20 MW

(c) application of protective fused metal coats with an input exceeding 2 tonnes of crude steel per hour

2.4. Ferrous metal foundries with a production capacity exceeding 20 tonnes per day

2.5. Installations

(a) for the production of non-ferrous crude metals from ore, concentrates or secondary raw materials by metallurgical, chemical or electrolytic processes

(b) for the smelting, including the alloyage, of non-ferrous metals, including recovered products, (refining, foundry casting, etc.) with a melting capacity exceeding 4 tonnes per day for lead and cadmium or 20 tonnes per day for all other metals

2.6. Installations for surface treatment of metals and plastic materials using an electrolytic or chemical process where the volume of the treatment vats exceeds 30 m³

3. Mineral industry

3.1. Installations for the production of cement clinker in rotary kilns with a production capacity exceeding 500 tonnes per day or lime in rotary kilns with a production capacity exceeding 50 tonnes per day or in other furnaces with a production capacity exceeding 50 tonnes per day

3.2. Installations for the production of asbestos and the manufacture of asbestos-based products

3.3. Installations for the manufacture of glass including glass fibre with a melting capacity exceeding 20 tonnes per day

3.4. Installations for melting mineral substances including the production of mineral fibres with a melting capacity exceeding 20 tonnes per day

3.5. Installations for the manufacture of ceramic products by firing, in particular roofing tiles, bricks, refractory bricks, tiles, stoneware or porcelain, with a production capacity exceeding 75 tonnes per day, and/or with a kiln capacity exceeding 4 m³ and with a setting density per kiln exceeding 300 kg/m³

4. Chemical industry

Production within the meaning of the categories of activities contained in this section means the production on an industrial scale by chemical processing of substances or groups of substances listed in Sections 4.1 to 4.6

4.1. Chemical installations for the production of basic organic chemicals, such as:

(a) simple hydrocarbons (linear or cyclic, saturated or unsaturated, aliphatic or aromatic)

(b) oxygen-containing hydrocarbons such as alcohols, aldehydes, ketones, carboxylic acids, esters, acetates, ethers, peroxides, epoxy resins

- (c) sulphurous hydrocarbons
 - (d) nitrogenous hydrocarbons such as amines, amides, nitrous compounds, nitro compounds or nitrate compounds, nitriles, cyanates, isocyanates
 - (e) phosphorus-containing hydrocarbons
 - (f) halogenic hydrocarbons
 - (g) organometallic compounds
 - (h) basic plastic materials (polymers synthetic fibres and cellulose-based fibres)
 - (i) synthetic rubbers
 - (j) dyes and pigments
 - (k) surface-active agents and surfactants
- 4.2. Chemical installations for the production of basic inorganic chemicals, such as:
- (a) gases, such as ammonia, chlorine or hydrogen chloride, fluorine or hydrogen fluoride, carbon oxides, sulphur compounds, nitrogen oxides, hydrogen, sulphur dioxide, carbonyl chloride
 - (b) acids, such as chromic acid, hydrofluoric acid, phosphoric acid, nitric acid, hydrochloric acid, sulphuric acid, oleum, sulphurous acids
 - (c) bases, such as ammonium hydroxide, potassium hydroxide, sodium hydroxide
 - (d) salts, such as ammonium chloride, potassium chlorate, potassium carbonate, sodium carbonate, perborate, silver nitrate
 - (e) non-metals, metal oxides or other inorganic compounds such as calcium carbide, silicon, silicon carbide
- 4.3. Chemical installations for the production of phosphorous-, nitrogen- or potassium-based fertilizers (simple or compound fertilizers)
- 4.4. Chemical installations for the production of basic plant health products and of biocides
- 4.5. Installations using a chemical or biological process for the production of basic pharmaceutical products
- 4.6. Chemical installations for the production of explosives

5. Waste management

Without prejudice of Article 11 of Directive 75/442/EEC or Article 3 of Council Directive 91/689/EEC of 12 December 1991 on hazardous waste (2):

- 5.1. Installations for the disposal or recovery of hazardous waste as defined in the list referred to in Article 1 (4) of Directive 91/689/EEC, as defined in Annexes II A and II B (operations R1, R5, R6, R8 and R9) to Directive 75/442/EEC and in Council Directive 75/439/EEC of 16 June 1975 on the disposal of waste oils (3), with a capacity exceeding 10 tonnes per day
- 5.2. Installations for the incineration of municipal waste as defined in Council Directive 89/369/EEC of 8 June 1989 on the prevention of air pollution from new municipal waste incineration plants (4) and Council Directive 89/429/EEC of 21 June 1989 on the reduction of air pollution from existing municipal waste-incineration plants (5) with a capacity exceeding 3 tonnes per hour
- 5.3. Installations for the disposal of non-hazardous waste as defined in Annex II A to Directive 75/442/EEC under headings D8 and D9, with a capacity exceeding 50 tonnes per day
- 5.4. Landfills receiving more than 10 tonnes per day or with a total capacity exceeding 25 000 tonnes, excluding landfills of inert waste

6. Other activities

- 6.1. Industrial plants for the production of:
 - (a) pulp from timber or other fibrous materials
 - (b) paper and board with a production capacity exceeding 20 tonnes per day
- 6.2. Plants for the pre-treatment (operations such as washing, bleaching, mercerization) or dyeing of fibres or textiles where the treatment capacity exceeds 10 tonnes per day
- 6.3. Plants for the tanning of hides and skins where the treatment capacity exceeds 12 tonnes

of finished products per day

6.4. (a) Slaughterhouses with a carcass production capacity greater than 50 tonnes per day

(b) Treatment and processing intended for the production of food products from:

- animal raw materials (other than milk) with a finished product production capacity greater than 75 tonnes per day

- vegetable raw materials with a finished product production capacity greater than 300 tonnes per day (average value on a quarterly basis)

(c) Treatment and processing of milk, the quantity of milk received being greater than 200 tonnes per day (average value on an annual basis)

6.5. Installations for the disposal or recycling of animal carcasses and animal waste with a treatment capacity exceeding 10 tonnes per day

6.6. Installations for the intensive rearing of poultry or pigs with more than:

(a) 40 000 places for poultry

(b) 2 000 places for production pigs (over 30 kg), or

(c) 750 places for sows

6.7. Installations for the surface treatment of substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating, with a consumption capacity of more than 150 kg per hour or more than 200 tonnes per year

6.8. Installations for the production of carbon (hard-burnt coal) or electrographite by means of incineration or graphitization

(1) The material requirements of Directive 88/609/EEC for existing installations still apply until 31 December 2003.

(2) OJ No L 377, 31. 12. 1991, p. 20. Directive as amended by Directive 94/31/EC (OJ No L 168, 2. 7. 1994, p. 28).

(3) OJ No L 194, 25. 7. 1975, p. 23. Directive as last amended by Directive 91/692/EEC (OJ No L 377, 31. 12. 1991, p. 48).

(4) OJ No L 163, 14. 6. 1989, p. 32.

(5) OJ No L 203, 15. 7. 1989, p. 50.

ANNEX II

LIST OF THE DIRECTIVES REFERRED TO IN ARTICLES 18 (2) AND 20

1. Directive 87/217/EEC on the prevention and reduction of environmental pollution by asbestos

2. Directive 82/176/EEC on limit values and quality objectives for mercury discharges by the chlor-alkali electrolysis industry

3. Directive 83/513/EEC on limit values and quality objectives for cadmium discharges

4. Directive 84/156/EEC on limit values and quality objectives for mercury discharges by sectors other than the chlor-alkali electrolysis industry

5. Directive 84/491/EEC on limit values and quality objectives for discharges of hexachlorocyclohexane

6. Directive 86/280/EEC on limit values and quality objectives for discharges of certain dangerous substances included in List 1 of the Annex to Directive 76/464/EEC, subsequently amended by Directives 88/347/EEC and 90/415/EEC amending Annex II to Directive 86/280/EEC

7. Directive 89/369/EEC on the prevention of air pollution from new municipal waste-incineration plants

8. Directive 89/429/EEC on the reduction of air pollution from existing municipal waste-incineration plants

9. Directive 94/67/EC on the incineration of hazardous waste
10. Directive 92/112/EEC on procedures for harmonizing the programmes for the reduction and eventual elimination of pollution caused by waste from the titanium oxide industry
11. Directive 88/609/EEC on the limitation of emissions of certain pollutants into the air from large combustion plants, as last amended by Directive 94/66/EC
12. Directive 76/464/EEC on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community
13. Directive 75/442/EEC on waste, as amended by Directive 91/156/EEC
14. Directive 75/439/EEC on the disposal of waste oils
15. Directive 91/689/EEC on hazardous waste

ANNEX III

INDICATIVE LIST OF THE MAIN POLLUTING SUBSTANCES TO BE TAKEN INTO ACCOUNT IF THEY ARE RELEVANT FOR FIXING EMISSION LIMIT VALUES

AIR

1. Sulphur dioxide and other sulphur compounds
2. Oxides of nitrogen and other nitrogen compounds
3. Carbon monoxide
4. Volatile organic compounds
5. Metals and their compounds
6. Dust
7. Asbestos (suspended particulates, fibres)
8. Chlorine and its compounds
9. Fluorine and its compounds
10. Arsenic and its compounds
11. Cyanides
12. Substances and preparations which have been proved to possess carcinogenic or mutagenic properties or properties which may affect reproduction via the air
13. Polychlorinated dibenzodioxins and polychlorinated dibenzofurans

WATER

1. Organohalogen compounds and substances which may form such compounds in the aquatic environment
2. Organophosphorus compounds
3. Organotin compounds
4. Substances and preparations which have been proved to possess carcinogenic or mutagenic properties or properties which may affect reproduction in or via the aquatic environment
5. Persistent hydrocarbons and persistent and bioaccumulable organic toxic substances
6. Cyanides
7. Metals and their compounds
8. Arsenic and its compounds
9. Biocides and plant health products
10. Materials in suspension
11. Substances which contribute to eutrophication (in particular, nitrates and phosphates)
12. Substances which have an unfavourable influence on the oxygen balance (and can be measured using parameters such as BOD, COD, etc.).

ANNEX IV

Considerations to be taken into account generally or in specific cases when determining best available techniques, as defined in Article 2 (11), bearing in mind the likely costs and benefits of a measure and the principles of precaution and prevention:

1. the use of low-waste technology;
2. the use of less hazardous substances;
3. the furthering of recovery and recycling of substances generated and used in the process and of waste, where appropriate;
4. comparable processes, facilities or methods of operation which have been tried with success on an industrial scale;
5. technological advances and changes in scientific knowledge and understanding;
6. the nature, effects and volume of the emissions concerned;
7. the commissioning dates for new or existing installations;
8. the length of time needed to introduce the best available technique;
9. the consumption and nature of raw materials (including water) used in the process and their energy efficiency;
10. the need to prevent or reduce to a minimum the overall impact of the emissions on the environment and the risks to it;
11. the need to prevent accidents and to minimize the consequences for the environment;
12. the information published by the Commission pursuant to Article 16 (2) or by international organizations.

Appendix EUG
Directive 96/61/EC Concerning
Integrated Pollution Prevention and Control

Europa Cast Dan Deu Grec Eng Frar Itali Ned Port Suo Sver**32001L0042**

Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001
on the assessment of the effects of certain plans and programmes on the environment
Official Journal L 197 , 21/07/2001 P. 0030 - 0037

Directive 2001/42/EC of the European Parliament and of the Council
of 27 June 2001
on the assessment of the effects of certain plans and programmes on the environment

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,
Having regard to the Treaty establishing the European Community, and in particular Article
175(1) thereof,

Having regard to the proposal from the Commission(1),

Having regard to the opinion of the Economic and Social Committee(2),

Having regard to the opinion of the Committee of the Regions(3),

Acting in accordance with the procedure laid down in Article 251 of the Treaty(4), in the light
of the joint text approved by the Conciliation Committee on 21 March 2001,

Whereas:

(1) Article 174 of the Treaty provides that Community policy on the environment is to
contribute to, inter alia, the preservation, protection and improvement of the quality of the
environment, the protection of human health and the prudent and rational utilisation of natural
resources and that it is to be based on the precautionary principle. Article 6 of the Treaty
provides that environmental protection requirements are to be integrated into the definition of
Community policies and activities, in particular with a view to promoting sustainable
development.

(2) The Fifth Environment Action Programme: Towards sustainability - A European
Community programme of policy and action in relation to the environment and sustainable
development(5), supplemented by Council Decision No 2179/98/EC(6) on its review, affirms
the importance of assessing the likely environmental effects of plans and programmes.

(3) The Convention on Biological Diversity requires Parties to integrate as far as possible and
as appropriate the conservation and sustainable use of biological diversity into relevant
sectoral or cross-sectoral plans and programmes.

(4) Environmental assessment is an important tool for integrating environmental
considerations into the preparation and adoption of certain plans and programmes which are
likely to have significant effects on the environment in the Member States, because it ensures
that such effects of implementing plans and programmes are taken into account during their
preparation and before their adoption.

(5) The adoption of environmental assessment procedures at the planning and programming
level should benefit undertakings by providing a more consistent framework in which to
operate by the inclusion of the relevant environmental information into decision making. The
inclusion of a wider set of factors in decision making should contribute to more sustainable
and effective solutions.

(6) The different environmental assessment systems operating within Member States should
contain a set of common procedural requirements necessary to contribute to a high level of

protection of the environment.

(7) The United Nations/Economic Commission for Europe Convention on Environmental Impact Assessment in a Transboundary Context of 25 February 1991, which applies to both Member States and other States, encourages the parties to the Convention to apply its principles to plans and programmes as well; at the second meeting of the Parties to the Convention in Sofia on 26 and 27 February 2001, it was decided to prepare a legally binding protocol on strategic environmental assessment which would supplement the existing provisions on environmental impact assessment in a transboundary context, with a view to its possible adoption on the occasion of the 5th Ministerial Conference "Environment for Europe" at an extraordinary meeting of the Parties to the Convention, scheduled for May 2003 in Kiev, Ukraine. The systems operating within the Community for environmental assessment of plans and programmes should ensure that there are adequate transboundary consultations where the implementation of a plan or programme being prepared in one Member State is likely to have significant effects on the environment of another Member State. The information on plans and programmes having significant effects on the environment of other States should be forwarded on a reciprocal and equivalent basis within an appropriate legal framework between Member States and these other States.

(8) Action is therefore required at Community level to lay down a minimum environmental assessment framework, which would set out the broad principles of the environmental assessment system and leave the details to the Member States, having regard to the principle of subsidiarity. Action by the Community should not go beyond what is necessary to achieve the objectives set out in the Treaty.

(9) This Directive is of a procedural nature, and its requirements should either be integrated into existing procedures in Member States or incorporated in specifically established procedures. With a view to avoiding duplication of the assessment, Member States should take account, where appropriate, of the fact that assessments will be carried out at different levels of a hierarchy of plans and programmes.

(10) All plans and programmes which are prepared for a number of sectors and which set a framework for future development consent of projects listed in Annexes I and II to Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment(7), and all plans and programmes which have been determined to require assessment pursuant to Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna(8), are likely to have significant effects on the environment, and should as a rule be made subject to systematic environmental assessment. When they determine the use of small areas at local level or are minor modifications to the above plans or programmes, they should be assessed only where Member States determine that they are likely to have significant effects on the environment.

(11) Other plans and programmes which set the framework for future development consent of projects may not have significant effects on the environment in all cases and should be assessed only where Member States determine that they are likely to have such effects.

(12) When Member States make such determinations, they should take into account the relevant criteria set out in this Directive.

(13) Some plans or programmes are not subject to this Directive because of their particular characteristics.

(14) Where an assessment is required by this Directive, an environmental report should be prepared containing relevant information as set out in this Directive, identifying, describing and evaluating the likely significant environmental effects of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme; Member States should communicate to the Commission any measures they take concerning the quality of environmental reports.

(15) In order to contribute to more transparent decision making and with the aim of ensuring that the information supplied for the assessment is comprehensive and reliable, it is necessary to provide that authorities with relevant environmental responsibilities and the public are to be

consulted during the assessment of plans and programmes, and that appropriate time frames are set, allowing sufficient time for consultations, including the expression of opinion.

(16) Where the implementation of a plan or programme prepared in one Member State is likely to have a significant effect on the environment of other Member States, provision should be made for the Member States concerned to enter into consultations and for the relevant authorities and the public to be informed and enabled to express their opinion.

(17) The environmental report and the opinions expressed by the relevant authorities and the public, as well as the results of any transboundary consultation, should be taken into account during the preparation of the plan or programme and before its adoption or submission to the legislative procedure.

(18) Member States should ensure that, when a plan or programme is adopted, the relevant authorities and the public are informed and relevant information is made available to them.

(19) Where the obligation to carry out assessments of the effects on the environment arises simultaneously from this Directive and other Community legislation, such as Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds(9), Directive 92/43/EEC, or Directive 2000/60/EC of the European Parliament and the Council of 23 October 2000 establishing a framework for Community action in the field of water policy(10), in order to avoid duplication of the assessment, Member States may provide for coordinated or joint procedures fulfilling the requirements of the relevant Community legislation.

(20) A first report on the application and effectiveness of this Directive should be carried out by the Commission five years after its entry into force, and at seven-year intervals thereafter. With a view to further integrating environmental protection requirements, and taking into account the experience acquired, the first report should, if appropriate, be accompanied by proposals for amendment of this Directive, in particular as regards the possibility of extending its scope to other areas/sectors and other types of plans and programmes,

HAVE ADOPTED THIS DIRECTIVE:

Article 1

Objectives

The objective of this Directive is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment.

Article 2

Definitions

For the purposes of this Directive:

(a) "plans and programmes" shall mean plans and programmes, including those co-financed by the European Community, as well as any modifications to them:

- which are subject to preparation and/or adoption by an authority at national, regional or local level or which are prepared by an authority for adoption, through a legislative procedure by Parliament or Government, and

- which are required by legislative, regulatory or administrative provisions;

(b) "environmental assessment" shall mean the preparation of an environmental report, the carrying out of consultations, the taking into account of the environmental report and the results of the consultations in decision-making and the provision of information on the decision in accordance with Articles 4 to 9;

(c) "environmental report" shall mean the part of the plan or programme documentation containing the information required in Article 5 and Annex I;

(d) "The public" shall mean one or more natural or legal persons and, in accordance with national legislation or practice, their associations, organisations or groups.

Article 3

Scope

1. An environmental assessment, in accordance with Articles 4 to 9, shall be carried out for plans and programmes referred to in paragraphs 2 to 4 which are likely to have significant environmental effects.
2. Subject to paragraph 3, an environmental assessment shall be carried out for all plans and programmes,
 - (a) which are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use and which set the framework for future development consent of projects listed in Annexes I and II to Directive 85/337/EEC, or
 - (b) which, in view of the likely effect on sites, have been determined to require an assessment pursuant to Article 6 or 7 of Directive 92/43/EEC.
3. Plans and programmes referred to in paragraph 2 which determine the use of small areas at local level and minor modifications to plans and programmes referred to in paragraph 2 shall require an environmental assessment only where the Member States determine that they are likely to have significant environmental effects.
4. Member States shall determine whether plans and programmes, other than those referred to in paragraph 2, which set the framework for future development consent of projects, are likely to have significant environmental effects.
5. Member States shall determine whether plans or programmes referred to in paragraphs 3 and 4 are likely to have significant environmental effects either through case-by-case examination or by specifying types of plans and programmes or by combining both approaches. For this purpose Member States shall in all cases take into account relevant criteria set out in Annex II, in order to ensure that plans and programmes with likely significant effects on the environment are covered by this Directive.
6. In the case-by-case examination and in specifying types of plans and programmes in accordance with paragraph 5, the authorities referred to in Article 6(3) shall be consulted.
7. Member States shall ensure that their conclusions pursuant to paragraph 5, including the reasons for not requiring an environmental assessment pursuant to Articles 4 to 9, are made available to the public.
8. The following plans and programmes are not subject to this Directive:
 - plans and programmes the sole purpose of which is to serve national defence or civil emergency,
 - financial or budget plans and programmes.
9. This Directive does not apply to plans and programmes co-financed under the current respective programming periods(11) for Council Regulations (EC) No 1260/1999(12) and (EC) No 1257/1999(13).

Article 4

General obligations

1. The environmental assessment referred to in Article 3 shall be carried out during the preparation of a plan or programme and before its adoption or submission to the legislative procedure.
2. The requirements of this Directive shall either be integrated into existing procedures in Member States for the adoption of plans and programmes or incorporated in procedures established to comply with this Directive.
3. Where plans and programmes form part of a hierarchy, Member States shall, with a view to avoiding duplication of the assessment, take into account the fact that the assessment will be carried out, in accordance with this Directive, at different levels of the hierarchy. For the purpose of, inter alia, avoiding duplication of assessment, Member States shall apply Article 5(2) and (3).

Article 5

Environmental report

1. Where an environmental assessment is required under Article 3(1), an environmental report shall be prepared in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated. The information to be given for this purpose is referred to in Annex I.
2. The environmental report prepared pursuant to paragraph 1 shall include the information that may reasonably be required taking into account current knowledge and methods of assessment, the contents and level of detail in the plan or programme, its stage in the decision-making process and the extent to which certain matters are more appropriately assessed at different levels in that process in order to avoid duplication of the assessment.
3. Relevant information available on environmental effects of the plans and programmes and obtained at other levels of decision-making or through other Community legislation may be used for providing the information referred to in Annex I.
4. The authorities referred to in Article 6(3) shall be consulted when deciding on the scope and level of detail of the information which must be included in the environmental report.

Article 6

Consultations

1. The draft plan or programme and the environmental report prepared in accordance with Article 5 shall be made available to the authorities referred to in paragraph 3 of this Article and the public.
2. The authorities referred to in paragraph 3 and the public referred to in paragraph 4 shall be given an early and effective opportunity within appropriate time frames to express their opinion on the draft plan or programme and the accompanying environmental report before the adoption of the plan or programme or its submission to the legislative procedure.
3. Member States shall designate the authorities to be consulted which, by reason of their specific environmental responsibilities, are likely to be concerned by the environmental effects of implementing plans and programmes.
4. Member States shall identify the public for the purposes of paragraph 2, including the public affected or likely to be affected by, or having an interest in, the decision-making subject to this Directive, including relevant non-governmental organisations, such as those promoting environmental protection and other organisations concerned.
5. The detailed arrangements for the information and consultation of the authorities and the public shall be determined by the Member States.

Article 7

Transboundary consultations

1. Where a Member State considers that the implementation of a plan or programme being prepared in relation to its territory is likely to have significant effects on the environment in another Member State, or where a Member State likely to be significantly affected so requests, the Member State in whose territory the plan or programme is being prepared shall, before its adoption or submission to the legislative procedure, forward a copy of the draft plan or programme and the relevant environmental report to the other Member State.
2. Where a Member State is sent a copy of a draft plan or programme and an environmental report under paragraph 1, it shall indicate to the other Member State whether it wishes to enter into consultations before the adoption of the plan or programme or its submission to the legislative procedure and, if it so indicates, the Member States concerned shall enter into consultations concerning the likely transboundary environmental effects of implementing the plan or programme and the measures envisaged to reduce or eliminate such effects. Where such consultations take place, the Member States concerned shall agree on detailed arrangements to ensure that the authorities referred to in Article 6(3) and the public referred to

in Article 6(4) in the Member State likely to be significantly affected are informed and given an opportunity to forward their opinion within a reasonable time-frame.

3. Where Member States are required under this Article to enter into consultations, they shall agree, at the beginning of such consultations, on a reasonable timeframe for the duration of the consultations.

Article 8

Decision making

The environmental report prepared pursuant to Article 5, the opinions expressed pursuant to Article 6 and the results of any transboundary consultations entered into pursuant to Article 7 shall be taken into account during the preparation of the plan or programme and before its adoption or submission to the legislative procedure.

Article 9

Information on the decision

1. Member States shall ensure that, when a plan or programme is adopted, the authorities referred to in Article 6(3), the public and any Member State consulted under Article 7 are informed and the following items are made available to those so informed:

(a) the plan or programme as adopted;

(b) a statement summarising how environmental considerations have been integrated into the plan or programme and how the environmental report prepared pursuant to Article 5, the opinions expressed pursuant to Article 6 and the results of consultations entered into pursuant to Article 7 have been taken into account in accordance with Article 8 and the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with, and

(c) the measures decided concerning monitoring in accordance with Article 10.

2. The detailed arrangements concerning the information referred to in paragraph 1 shall be determined by the Member States.

Article 10

Monitoring

1. Member States shall monitor the significant environmental effects of the implementation of plans and programmes in order, inter alia, to identify at an early stage unforeseen adverse effects, and to be able to undertake appropriate remedial action.

2. In order to comply with paragraph 1, existing monitoring arrangements may be used if appropriate, with a view to avoiding duplication of monitoring.

Article 11

Relationship with other Community legislation

1. An environmental assessment carried out under this Directive shall be without prejudice to any requirements under Directive 85/337/EEC and to any other Community law requirements.

2. For plans and programmes for which the obligation to carry out assessments of the effects on the environment arises simultaneously from this Directive and other Community legislation, Member States may provide for coordinated or joint procedures fulfilling the requirements of the relevant Community legislation in order, inter alia, to avoid duplication of assessment.

3. For plans and programmes co-financed by the European Community, the environmental assessment in accordance with this Directive shall be carried out in conformity with the specific provisions in relevant Community legislation.

Article 12

Information, reporting and review

1. Member States and the Commission shall exchange information on the experience gained

in applying this Directive.

2. Member States shall ensure that environmental reports are of a sufficient quality to meet the requirements of this Directive and shall communicate to the Commission any measures they take concerning the quality of these reports.

3. Before 21 July 2006 the Commission shall send a first report on the application and effectiveness of this Directive to the European Parliament and to the Council.

With a view further to integrating environmental protection requirements, in accordance with Article 6 of the Treaty, and taking into account the experience acquired in the application of this Directive in the Member States, such a report will be accompanied by proposals for amendment of this Directive, if appropriate. In particular, the Commission will consider the possibility of extending the scope of this Directive to other areas/sectors and other types of plans and programmes.

A new evaluation report shall follow at seven-year intervals.

4. The Commission shall report on the relationship between this Directive and Regulations (EC) No 1260/1999 and (EC) No 1257/1999 well ahead of the expiry of the programming periods provided for in those Regulations, with a view to ensuring a coherent approach with regard to this Directive and subsequent Community Regulations.

Article 13

Implementation of the Directive

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive before 21 July 2004. They shall forthwith inform the Commission thereof.

2. When Member States adopt the measures, they shall contain a reference to this Directive or shall be accompanied by such reference on the occasion of their official publication. The methods of making such reference shall be laid down by Member States.

3. The obligation referred to in Article 4(1) shall apply to the plans and programmes of which the first formal preparatory act is subsequent to the date referred to in paragraph 1. Plans and programmes of which the first formal preparatory act is before that date and which are adopted or submitted to the legislative procedure more than 24 months thereafter, shall be made subject to the obligation referred to in Article 4(1) unless Member States decide on a case by case basis that this is not feasible and inform the public of their decision.

4. Before 21 July 2004, Member States shall communicate to the Commission, in addition to the measures referred to in paragraph 1, separate information on the types of plans and programmes which, in accordance with Article 3, would be subject to an environmental assessment pursuant to this Directive. The Commission shall make this information available to the Member States. The information will be updated on a regular basis.

Article 14

Entry into force

This Directive shall enter into force on the day of its publication in the Official Journal of the European Communities.

Article 15

Addressees

This Directive is addressed to the Member States.

Done at Luxembourg, 27 June 2001.

For the European Parliament

The President

N. Fontaine

For the Council

The President
B. Rosengren

- (1) OJ C 129, 25.4.1997, p. 14 and OJ C 83, 25.3.1999, p. 13.
- (2) OJ C 287, 22.9.1997, p. 101.
- (3) OJ C 64, 27.2.1998, p. 63 and OJ C 374, 23.12.1999, p. 9.
- (4) Opinion of the European Parliament of 20 October 1998 (OJ C 341, 9.11.1998, p. 18), confirmed on 16 September 1999 (OJ C 54, 25.2.2000, p. 76), Council Common Position of 30 March 2000 (OJ C 137, 16.5.2000, p. 11) and Decision of the European Parliament of 6 September 2000 (OJ C 135, 7.5.2001, p. 155). Decision of the European Parliament of 31 May 2001 and Decision of the Council of 5 June 2001.
- (5) OJ C 138, 17.5.1993, p. 5.
- (6) OJ L 275, 10.10.1998, p. 1.
- (7) OJ L 175, 5.7.1985, p. 40. Directive as amended by Directive 97/11/EC (OJ L 73, 14.3.1997, p. 5).
- (8) OJ L 206, 22.7.1992, p. 7. Directive as last amended by Directive 97/62/EC (OJ L 305, 8.11.1997, p. 42).
- (9) OJ L 103, 25.4.1979, p. 1. Directive as last amended by Directive 97/49/EC (OJ L 223, 13.8.1997, p. 9).
- (10) OJ L 327, 22.12.2000, p. 1.
- (11) The 2000-2006 programming period for Council Regulation (EC) No 1260/1999 and the 2000-2006 and 2000-2007 programming periods for Council Regulation (EC) No 1257/1999.
- (12) Council Regulation (EC) No 1260/1999 of 21 June 1999 laying down general provisions on the Structural Funds (OJ L 161, 26.6.1999, p. 1).
- (13) Council Regulation (EC) No 1257/1999 of 17 May 1999 on support for rural development from the European Agricultural Guidance and Guarantee Fund (EAGGF) and amending and repealing certain regulations (OJ L 160, 26.6.1999, p. 80).

ANNEX I

Information referred to in Article 5(1)

The information to be provided under Article 5(1), subject to Article 5(2) and (3), is the following:

- (a) an outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes;
- (b) the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme;
- (c) the environmental characteristics of areas likely to be significantly affected;
- (d) any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC;
- (e) the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation;
- (f) the likely significant effects(1) on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors;

- (g) the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme;
- (h) an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information;
- (i) a description of the measures envisaged concerning monitoring in accordance with Article 10;
- (j) a non-technical summary of the information provided under the above headings.

(1) These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

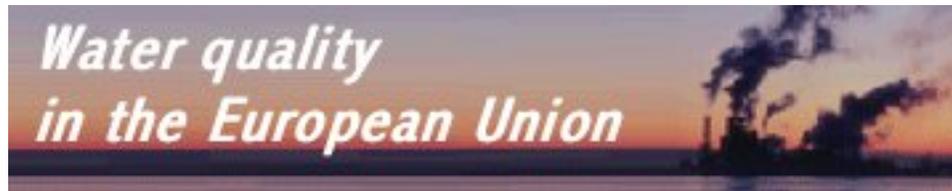
ANNEX II

Criteria for determining the likely significance of effects referred to in Article 3(5)

1. The characteristics of plans and programmes, having regard, in particular, to
 - the degree to which the plan or programme sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources,
 - the degree to which the plan or programme influences other plans and programmes including those in a hierarchy,
 - the relevance of the plan or programme for the integration of environmental considerations in particular with a view to promoting sustainable development,
 - environmental problems relevant to the plan or programme,
 - the relevance of the plan or programme for the implementation of Community legislation on the environment (e.g. plans and programmes linked to waste-management or water protection).
2. Characteristics of the effects and of the area likely to be affected, having regard, in particular, to
 - the probability, duration, frequency and reversibility of the effects,
 - the cumulative nature of the effects,
 - the transboundary nature of the effects,
 - the risks to human health or the environment (e.g. due to accidents),
 - the magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected),
 - the value and vulnerability of the area likely to be affected due to:
 - special natural characteristics or cultural heritage,
 - exceeded environmental quality standards or limit values,
 - intensive land-use,
 - the effects on areas or landscapes which have a recognised national, Community or international protection status.

Appendix EUH
Directive 2001/42/EEC on the Assessment of the Effects of Certain
Plans and Programmes on the Environment

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Environment

Directive 76/464/EEC - Water pollution by discharges of certain dangerous substances

The Directive [76/464/EEC](#) of 4 May 1976 *on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community* [[scanned PDF file](#)] was one of the first water related Directives to be adopted. It had the ambitious objective of regulating potential aquatic pollution by thousands of chemicals already produced in Europe at that time. The Directive covered discharges to *inland surface waters, territorial waters, inland coastal waters and ground water*. In 1980 the protection of groundwater was taken out of 76/464/EEC regulated under the separate Council Directive [80/68/EEC](#) *on the protection of groundwater against pollution caused by certain dangerous substances*.

The Directive introduced the concept of **list I** and **list II** substances, which were listed in the Annex to the Directive, and which are discussed below.

The purpose of the Directive is to **eliminate** pollution from **list I** substances and to **reduce** pollution from **list II** substances.

List I and 'Candidate list I'

[List I](#) included a number of groups and families of pollutants from which certain individual substances were to be selected on the basis of their

- persistence,
- toxicity and
- bioaccumulation.

In 1982, the Commission communicated a list to the Council (OJ C 176 of 14 July 1982, p. 3) that included 129 "[candidate list I substances](#)". Three more



substances were subsequently added to the list to bring the total up to 132.

Specific Directives for list I substances

Up to now, **18 individual substances** of the "[candidate list I](#)" have been regulated in **five [specific Directives](#)** (also called '[daughter' directives](#)) setting emission limit values and quality objectives on a Community level. These Directives were the first mandatory minimum requirements for an approach based on *best technical means* (later known as *best available techniques* or *BAT*).

The regulation of other "[candidate list I substances](#)" was suspended in the beginning of the 1990s due to the preparation of a more comprehensive and integrated permitting system for industrial installations. In 1996, the Directive on integrated pollution prevention and control, the [IPPC Directive](#) (96/61/EC) was adopted. The Directive includes the emission limit values for the 18 list I substances of the [specific directives](#) as minimum requirements for large installations.

Further information on this topic is available in the report of 1996: "*Impact of the Directive 76/464/EEC and its daughter Directives on the most important surface waters of the Community*" ([order](#)).

List II

[List II](#) includes groups and families of substances that have a deleterious effect on the aquatic environment. It also consists of all the individual list I substances that have not been regulated on Community level yet. As there are only 18 'real' list I substances, all the other 114 substances of the '[candidate list I](#)' and the groups and families of substances listed under [list I](#) **must be considered as list II substances**. For the relevant pollutants of list II, Member States must establish **pollution reduction programmes** including water quality objectives according to Article 7 of the Directive 76/464/EEC.

Progress in properly implementing list II substances that are regulated under Article 7 of the Directive proved to be very slow. In the beginning of the 1990s, the Commission decided to start **infringement procedures** against most of the Member States. Most of the cases are before the [European Court of Justice](#) and there have been already several rulings against Member States.

The Commission has recently assessed the pollution reduction programmes under Article 7 of Directive 76/464/EEC in all Member States. The final report "[Assessment of programmes under Article 7 of Council Directive 76/464/EEC](#)" (pdf ~2,350K) is now available. Due to many activities of the Member States since the finalisation of this evaluation, the Commission is preparing for an update of this report in 2002.

Further information on this topic is available in the report of 1996: "*Evaluation of Directive 76/464/EEC regarding list II substances on the quality of the most important surface waters in the Community*" ([order](#)).

Transition to the Water Framework Directive

The Council Directive 76/464/EEC will be integrated in the [Water Framework Directive](#). The following [transitional provisions](#) will apply for 13 years after entry into force of the Framework Directive.

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Appendix EUJ
Directive 76/464/EEC on Water Pollution by
Discharges of Certain Dangerous Substances

(available as hardcopy)

Appendix EUK
List of substances which could belong to
List I of Council Directive 76/464/EEC



List of substances which could belong to List I of Council Directive 76/464/EEC (Communication from the Commission to the Council, OJ C176, 14.07.1982, p. 3)

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No.*	List I substances	Specific Directives
1.	Aldrin	Council Directive 88/347/EEC amending 86/280/EEC
12.	Cadmium and its compounds	Council Directive 83/513/EEC
13.	Carbon tetrachloride	Council Directive 86/280/EEC
23.	Chloroform	Council Directive 88/347/EEC amending 86/280/EEC
46.	DDT (including metabolites DDD and DDE)	Council Directive 86/280/EEC
59.	1,2-Dichloroethane	Council Directive 90/415/EEC amending 86/280/EEC
71.	Dieldrin	Council Directive 88/347/EEC amending 86/280/EEC
77.	Endrin	Council Directive 88/347/EEC amending 86/280/EEC
83.	Hexachlorobenzene	Council Directive 88/347/EEC amending 86/280/EEC
84.	Hexachlorobutadiene	Council Directive 88/347/EEC amending 86/280/EEC
85.	Hexachlorocyclohexane (including all isomers and Lindane)	Council Directive 84/491/EEC
92.	Mercury and its compounds	Council Directive 82/176/EEC and Council Directive 84/156/EEC

102.	Pentachlorophenol	Council Directive 86/280/EEC
111.	Tetrachloroethylene	Council Directive 90/415/EEC amending 86/280/EEC
117.	Trichlorobenzene (technical mixture)	Council Directive 90/415/EEC amending 86/280/EEC
118.	1,2,4-Trichlorobenzene	Council Directive 90/415/EEC amending 86/280/EEC
121.	Trichloroethylene	Council Directive 90/415/EEC amending 86/280/EEC
130.	Isodrine	Council Directive 88/347/EEC amending 86/280/EEC
No.*	Candidate list I substances - now list II	Proposal of 1990
5.	Azinphos-ethyl	COM(90) 9 final
6.	Azinphos-methyl	COM(90) 9 final
70.	Dichlorvos	COM(90) 9 final
76.	Endosulfan	COM(90) 9 final
80.	Fenitrothion	COM(90) 9 final
81.	Fenthion	COM(90) 9 final
89.	Malathion	COM(90) 9 final
100.	Parathion (including Parathion-methyl)	COM(90) 9 final
106.	Simazine	COM(90) 9 final
115.	Tributyltin oxide	COM(90) 9 final
124.	Trifluralin	COM(90) 9 final
125.	Triphenyltin acetate (Fentin acetate)	COM(90) 9 final
126.	Triphenyltin chloride (Fentin chloride)	COM(90) 9 final
127.	Triphenyltin hydroxide (Fentin hydroxide)	COM(90) 9 final
131	Atrazine	COM(90) 9 final

No.*	Candidate list I substances ("99 substances") - now list II	
2.	2-Amino-4-chlorophenol	
3.	Anthracene	
4.	Arsenic and its mineral compounds	
7.	Benzene	
8.	Benzidine	
9.	Benzylchloride (Alpha-chlorotoluene)	
10.	Benzylidenechloride (Alpha, alpha-dichlorotoluene)	
11.	Biphenyl	
14.	Chloral hydrate	
15.	Chlordane	
16.	Chloroacetic acid	
17.	2-Chloroaniline	
18.	3-Chloroaniline	
19.	4-Chloroaniline	
20.	<i>Mono</i> -Chlorobenzene	
21.	1-Chloro-2,4-dinitrobenzene	
22.	2-Chloroethanol	
24.	4-Chloro-3-methylphenol	
25.	1-Chloronaphthalene	
26.	Chloronaphthalenes (technical mixture)	
27.	4-Chloronitroaniline	
28.	1-Chloro-2-nitrobenzene	
29.	1-Chloro-3-nitrobenzene	
30.	1-Chloro-4-nitrobenzene	

31.	4-Chloro-2-nitrotoluene	
32.	Chloronitrotoluenes (other than 4-Chloro-2-nitrotoluene)	
33.	2-Chlorophenol	
34.	3-Chlorophenol	
35.	4-Chlorophenol	
36.	Chloroprene (2-Chloro-1,3-butadiene)	
37.	3-Chloropropene (Allylchloride)	
38.	2-Chlorotoluene	
39.	3-Chlorotoluene	
40.	4-Chlorotoluene	
41.	2-Chloro-p-toluidine	
42.	Chlorotoluidines (other than 2-Chloro-p-toluidine)	
43.	Coumaphos	
44.	Cyanuric chloride (2,4,6-Trichloro-1,3,5-triazine)	
45.	2,4-D (including 2,4-D-salts and 2,4-D-esters)	
47.	Demeton (including Demeton-O, Demeton-S, Demeton-S-methyl and Demeton-S-methyl-sulphone)	
48.	1,2-Dibromoethane	
49.	Dibutyltin dichloride	
50.	Dibutyltin oxide	
51.	Dibutyltin salts (other than Dibutyltin dichloride and Dibutyltin oxide)	
52.	Dichloroanilines	
53.	1,2-Dichlorobenzene	

54.	1,3-Dichlorobenzene	
55.	1,4-Dichlorobenzene	
56.	Dichlorobenzidines	
57.	Dichloro-di-isopropyl ether	
58.	1,1-Dichloroethane	
60.	1,1-Dichloroethylene (Vinylidene chloride)	
61.	1,2-Dichloroethylene	
62.	Dichloromethane	
63.	Dichloronitrobenzenes	
64.	2,4-Dichlorophenol	
65.	1,2-Dichloropropane	
66.	1,3-Dichloropropan-2-ol	
67.	1,3-Dichloropropene	
68.	2,3-Dichloropropene	
69.	Dichlorprop	
72.	Diethylamine	
73.	Dimethoate	
74.	Dimethylamine	
75.	Disulfoton	
78.	Epichlorohydrin	
79.	Ethylbenzene	
82.	Heptachlor (including Heptachlorepoxyde)	
86.	Hexachloroethane	
87.	Isopropyl benzene	
88.	Linuron	
90.	MCPA	

91.	Mecoprop	
93.	Methamidophos	
94.	Mevinphos	
95.	Monolinuron	
96.	Naphthalene	
97.	Omethoate	
98.	Oxy-demeton-methyl	
99.	PAH (with special reference to: 3,4-Benzopyrene and 3,4-Benzofluoranthene)	
101.	PCB (including PCT)	
103.	Phoxime	
104.	Propanil	
105.	Pyrazon	
107.	2,4,5-T (including 2,4,5-T salts and 2,4,5-T esters)	
108.	Tetrabutyltin	
109.	1,2,4,5-Tetrachlorobenzene	
110.	1,1,2,2-Tetrachloroethane	
112.	Toluene	
113.	Triazophos	
114.	Tributyl phosphate	
116.	Trichlorfon	
119.	1,1,1-Trichloroethane	
120.	1,1,2-Trichloroethane	
122.	Trichlorophenols	
123.	1,1,2-Tri-chloro-tri-fluoro-ethane	
128.	Vinyl chloride (Chloroethylene)	

129.	Xylenes (technical mixture of isomers)	
132.	Bentazon	

*: The numbers refer to the alphabetic order in the Communication from the Commission to the Council (OJ C176, 14.07.1982, p. 3).

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Appendix EUL
White Paper: Strategy for a Future Chemicals Policy



COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 27.2.2001
COM(2001) 88 final

WHITE PAPER

Strategy for a future Chemicals Policy

(presented by the Commission)

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1. INTRODUCTION

This White Paper presents Commission proposals for a strategy on future chemicals policy in the Community with the overriding goal of *sustainable development*.

Chemicals¹ bring about benefits on which modern society is entirely dependent, for example, in food production, medicines, textiles, cars etc. They also make a vital contribution to the economic and social wellbeing of citizens in terms of trade and employment.

The global production of chemicals has increased from 1 million tonnes in 1930 to 400 million tonnes today. We have about 100,000 different substances registered in the EU market of which 10,000 are marketed in volumes of more than 10 tonnes², and a further 20,000 are marketed at 1-10 tonnes. The world chemical production in 1998 was estimated at € 1,244 billion, with 31% for the EU chemical industry, which generated a trade surplus of € 41 billion. In 1998, it was the world's largest chemical industry, followed by that of the US with 28% of production value and a trade surplus of € 12 billion.

The chemical industry is also Europe's third largest manufacturing industry. It employs 1.7 million people directly and up to 3 million jobs are dependent on it. As well as several leading multinationals, it also comprises around 36,000 SMEs. These SMEs represent 96% of the total number of enterprises and account for 28% of chemical production.

On the other hand, certain chemicals have caused serious damage to human health resulting in suffering and premature death and to the environment. Well-known examples amongst many are asbestos, which is known to cause lung cancer and mesothelioma or benzene which leads to leukaemia. Abundant use of DDT led to reproductive disorders in birds. Though these substances have been totally banned or subjected to other controls, measures were not taken until after the damage was done because knowledge about the adverse impacts of these chemicals was not available before they were used in large quantities.

The incidence of some diseases, e.g. testicular cancer in young men and allergies, has increased significantly over the last decades. While the underlying reasons for this have not yet been identified, there is justified concern that certain chemicals play a causative role for allergies. According to the Scientific Committee on Toxicity, Ecotoxicity and the Environment of the Commission (CSTEE), links have been reported between reproductive and developmental effects and endocrine disrupting substances in wildlife populations. The CSTEE concluded that there is a potential global problem. This concern is based on the recent findings of high levels of persistent potential endocrine disrupting chemicals in several marine mammalian species inhabiting oceanic waters³.

The lack of knowledge about the impact of many chemicals on human health and the environment is a cause for concern. Understandably, the public is worried when hearing about the exposure of their children to certain phthalates released from toys and about increasing amounts of the flame retardant pentabromo diphenyl ether in human breast milk. Though these too are the subject of Commission proposals for bans, legislative action takes too long before yielding a result.

¹ Substances and preparations as defined in Directive 67/548/EEC

² Tonnage thresholds refer to volumes produced per manufacturer (or imported per importer) per annum in this White Paper unless specified.

³ Opinion of the CSTEE on Human and Wildlife Effects of endocrine disrupting chemicals (March 1999)

These examples expose the weaknesses of the current EU chemicals policy. However, the problem is not unique to the Community. Government agencies in Canada and the United States have recently launched initiatives to acquire testing data for large numbers of chemical substances currently on their markets in high volumes on which little is known about the risks. In fact, not one country has yet been successful in overcoming the huge gap in knowledge of substances.

EU chemicals policy must ensure a *high level of protection of human health and the environment* as enshrined in the Treaty both for the present generation and future generations while also ensuring the efficient functioning of the internal market and the competitiveness of the chemical industry. Fundamental to achieving these objectives is the *Precautionary Principle*⁴. Whenever reliable scientific evidence is available that a substance may have an adverse impact on human health and the environment but there is still scientific uncertainty about the precise nature or the magnitude of the potential damage, decision-making must be based on precaution in order to prevent damage to human health and the environment. Another important objective is to encourage the substitution of dangerous by less dangerous substances where suitable alternatives are available.

It is also essential to ensure the efficient functioning of the internal market and the competitiveness of the chemical industry. EU policy for chemicals should provide incentives for technical innovation and development of safer chemicals. Recent experience has shown that innovation (e.g. in developing new and often safer chemicals) has been hindered by the burdens of the present notification system. Ecological, economic and social aspects of development have to be taken into account in an integrated and balanced manner in order to reach the goal of sustainability.

2. THE EU CHEMICALS POLICY

Increasing concern that current EU chemicals policy does not provide sufficient protection led to a debate at the informal Council of Environment Ministers in Chester in April 1998. Recognising that a review of the current policy on chemicals was necessary, the Commission made a commitment to assess the operation of four important legal instruments governing chemicals in the Community⁵. The report on the findings⁶ was adopted by the Commission in November 1998 and welcomed by the Council in December 1998.

These four instruments cover a broad range of substances of different origins (e.g. industrial chemicals, substances produced from natural products, metals, minerals etc.). They regulate the testing of these substances and determine risk reduction measures. Furthermore, they establish duties regarding the safety information to be provided to users (labelling, safety data sheets). Beyond these four instruments, specific legislation exists for certain sectors

⁴ Resolution of the European Council of Nice, December 2000 on the precautionary principle which welcomes the Communication from the Commission on the precautionary principle. COM(2000)1, 2.2.2000

⁵ Council Directive 67/548/EEC relating to the classification, packaging and labelling of dangerous substances, as amended [OJ L 196, 16.8.1967, p. 1].
Directive 88/379/EEC relating to the classification, packaging and labelling of dangerous preparations [OJ L 187, 16.7.1988, p. 14].
Council Regulation (EEC) 793/93 on evaluation and control of risks of existing substances [OJ L 84, 5.4.1993, p.1].

Directive 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations [OJ L 262, 27.9.1976, p. 201].

⁶ Commission Working Document SEC(1998) 1986 final.

and areas, for example plant protection products or cosmetics or the transport of dangerous goods.

In view of the findings, the Commission held a Brainstorming with more than 150 stakeholders in February 1999 – regulators, scientists, industry, environmental and consumer NGOs as well as representatives from applicant countries – providing the Commission with an all round view of the problems and potential solutions.

In June 1999, the Council adopted a set of conclusions for a future strategy on chemicals in the Community which provided important input to the recommendations in this White Paper, which concerns revision of the above mentioned four legal instruments.

2.1 Major problems identified by review

The present system for general industrial chemicals distinguishes between "existing substances" i.e. all chemicals declared to be on the market in September 1981, and "new substances" i.e. those placed on the market since that date.

There are some 2,700 new substances. Testing and assessing their risks to human health and the environment according to Directive 67/548 are required before marketing in volumes above 10 kg. For higher volumes more in-depth testing focussing on long-term and chronic effects has to be provided.

In contrast, existing substances amount to more than 99% of the total volume of all substances on the market, and are not subject to the same testing requirements. The number of existing substances reported in 1981 was 100,106, the current number of existing substances marketed in volumes above 1 tonne is estimated at 30,000. Some 140 of these substances have been identified as priority substances and are subject to comprehensive risk assessment carried out by Member State authorities.

There is a general lack of knowledge about the properties and the uses of existing substances. The risk assessment process is slow and resource-intensive and does not allow the system to work efficiently and effectively. The allocation of responsibilities is inappropriate because authorities are responsible for the assessment instead of enterprises which produce, import or use the substances. Furthermore, current legislation only requires the manufacturers and importers of substances to provide information, but not the downstream users (industrial users and formulators). Thus, information on uses of substances is difficult to obtain and information about the exposure arising from downstream uses is generally scarce. Decisions on further testing of substances can only be taken via a lengthy committee procedure and can only be requested from industry after authorities have proven that a substance may present a serious risk. Without test results, however, it is almost impossible to provide such proof. Final risk assessments have therefore only been completed for a small number of substances.

Under Directive 76/769 on restriction of marketing and use of dangerous substances and preparations, the Commission has committed itself to carry out risk assessments and adequate analyses of the costs and the benefits prior to any proposal or adoption of a regulatory measure affecting the chemical industry. Indications of unacceptable risk (typically arising from notifications of restrictions at national level) are the subject of reports, which are peer-reviewed by the Scientific Committee on Toxicology, Ecotoxicology and Environment (CSTEE) of the Commission.

Current liability regimes are insufficient to remedy the problems found by the review. Liability is usually based on the principle that those who cause damage should pay compensation for that damage. However, in order to be held liable, it is generally required

that a causal connection be proven between the cause and the resulting damage. This is often virtually impossible for injured parties if cause and effect occur far apart in time and if adequate test data on the effects of substances are not available. Even if a causal connection can be established, compensations awarded by courts of EU Member States are generally not as high as, for example, in the US, and hence have a limited deterrent effect. In order to improve this situation and to make producers assume responsibility for their products, the Commission has announced its intention to propose Community legislation in this field⁷.

2.2 Political objectives of the proposed Strategy

In order to achieve the overriding goal of sustainable development, the Commission has identified a number of objectives that must be met in order to achieve sustainable development in the chemicals industry within the framework of the Single Market.

- **Protection of human health and the environment.**
- **Maintenance and enhancement of the competitiveness of the EU chemical industry.**
- **Prevent fragmentation of the internal market.**
- **Increased transparency.** Consumers need access to information on chemicals to enable them to make informed decisions about the substances that they use and enterprises need to understand the regulatory process.
- **Integration with international efforts.** The global nature of the chemicals industry and the trans-boundary impact of certain chemical substances have made chemical safety an international issue.
- **Promotion of non-animal testing.** Protection of human health and the environment, including wildlife, should be balanced against protection of the welfare of laboratory animals. The Commission will therefore promote further development and validation of non-animal test methods.
- **Conformity with EU international obligations under the WTO.** No unnecessary barriers to trade should be created and there must not be discrimination against imported substances and products.

The strategy which is proposed must meet these objectives.

2.3 Key elements of the proposed strategy

Protection of human health and promotion of a non-toxic environment

The Commission proposes that existing and new substances should in the future, following the phasing in of existing substances until 2012, be subject to the same procedure under a **single system**. The current new substances system should be revised to become more effective and efficient and the revised obligations be extended to existing substances. The proposed system is called REACH, for the **R**egistration, **E**valuation and **A**uthorisation of **C**hemicals. The requirements, including the testing requirements, of the REACH-system depend on the proven or suspected hazardous properties, uses, exposure and volumes of chemicals produced or imported. All chemicals above 1 tonne should be registered in a central database. At higher tonnage special attention should be given to long-term and chronic effects.

Setting deadlines: The Commission proposes to implement a step by step process to address the 'burden of the past' and develop adequate knowledge for existing substances

⁷ White Paper on Environmental Liability, COM(2000)66 final, 9.2.2000

that industry wants to continue marketing. Given the vast number of existing substances on the market, the Commission proposes that first priority is given to substances that lead to a high exposure or cause concern by their known or suspected dangerous properties - physical, chemical, toxicological or ecotoxicological. All such substances should be tested within five years and subsequently be properly assessed for their impact on human health and the environment. The other existing substances should follow in accordance with the proposals in Chapter 6.

Making industry responsible for safety: Responsibility to generate knowledge about chemicals should be placed on industry. Industry should also ensure that only chemicals that are safe for the intended uses are produced and/or placed on the market. The Commission proposes to shift responsibility to enterprises, for generating and assessing data and assessing the risks of the use of the substances. The enterprises should also provide adequate information to downstream users.

Extending the responsibility along the manufacturing chain: Downstream users, as well as manufacturers and importers, of chemicals should be responsible for all the aspects of the safety of their products and should provide information on use and exposure for the assessments of chemicals. Producers of preparations and other downstream users will be obliged to assess the safety of their products for the part of the life cycle to which they contribute, including disposal and waste management.

Authorisation of substances of very high concern: Substances with certain hazardous properties that give rise to very high concern will have to be given use-specific permission before they can be employed in particular uses. Evidence demonstrating that the specific use only presents a negligible risk or, in other cases, that the use is acceptable taking into account socio-economic benefits, lack of 'safer' chemicals for the same task and measures minimising the exposure of consumers, workers, the general public and the environment will be considered before granting an authorisation. Uses which do not give rise to concern may be subject to general exemptions from the authorisation procedure.

Substitution of hazardous chemicals: Another important objective is to encourage the *substitution* of dangerous by less dangerous substances where suitable alternatives are available. The increased accountability of downstream users and better public information will create a strong demand for substitute chemicals that have been sufficiently tested and that are safe for the envisaged use.

Maintenance and enhancement of the competitiveness of the EU chemical industry

Stimulating innovation: It is essential to promote the competitiveness of the chemical industry and encourage innovation, and in particular the development of safer chemicals. Regulations are a major factor in shaping the innovation behaviour of firms in the chemical industry. The Commission proposes to increase the current thresholds for notification and testing of new substances, to extend the conditions for derogation for research and development and enable test data to be used and submitted in a flexible way.

Realistic timetable for submission of data: In proposing a timescale for the submission of data, the strategy takes account of resource implications. Together with the measures to increase testing thresholds and more flexible test data, this should limit the cost for enterprises to the absolute minimum needed.

Prevent fragmentation of the internal market

Any Commission strategy on chemicals should aim at ensuring a high level of health, safety and environmental protection while at the same time ensuring the proper functioning of the

Internal Market in that sector - as in any other industrial sector within the Union. The achievement of these objectives requires that the new policy be based on full harmonisation at Community level.

Increasing transparency

Providing full information to the public: The public has a right to access to information about the chemicals to which they are exposed. This will enable them to make informed choices and to avoid products containing harmful chemicals, so creating pressure on industry to develop safer substitutes. However, commercially sensitive information will be suitably protected.

A more transparent regulatory system: The creation of a single system to be applied to all chemicals, once the existing substances have been phased in, will improve the transparency of the regulation of chemicals.

Integration with international aspects

Contributing to safe use of chemicals at a global level: A global network of industrialised and developing countries and international organisations has developed over the past decades to promote global safe use of chemicals. The Intergovernmental Forum on Chemical Safety (IFCS) was established to co-ordinate the many national and international activities, to promote chemical safety and to oversee implementation of the programme on environmentally sound management of chemicals as set out in Chapter 19 of Agenda 21, adopted by the 1992 UN Conference on Environment and Development (UNCED) at the Earth Summit in Rio. The recommendations in this White Paper will feed into the international programmes and make a major contribution to achieving safe use of chemicals at a global level.

Testing in a global market: Testing obligations will not only affect the EU chemicals industry. Importers will also be obliged to assess the safety of their chemicals, to deliver information and to share the costs of testing. This avoids distortion of the global market and ensures that the competitiveness of the EU chemical industry is not compromised.

Recognising non-EU test results: The lack of data on existing chemicals is a global concern. For example, the US have recently launched initiatives. The US initiative aims to complete testing of 2,800 high production volume chemicals by 2004 (the Gore initiative). This initiative is regarded as the first approach to systematically obtain toxicological and ecotoxicological information about the most abundant existing chemicals on the US market. Studies on the dangerous properties of chemicals performed in the US will not have to be repeated in the Community and vice versa, since testing must be carried out using globally harmonised testing methodology. Accordingly, test results of the HPV/ICCA SIDS programme of the OECD will be taken into account to reduce the number of tests to be performed in the EU.

Complying with OSPAR: The Convention for the Protection of the Marine Environment of the North East Atlantic⁸ aims to prevent and eliminate pollution and to protect the maritime area of the North East Atlantic against the harmful effects of human activities (land-based sources, off-shore sources, dumping and incineration of wastes). The strategy supports this

⁸ Resulting from the merger of the Oslo 1972 *Convention for the Prevention of Marine Pollution by Dumping from Ships and aircraft* and of the Paris 1974 *Convention for the Prevention of Marine Pollution from Land-Based Sources* the OSPAR Convention entered into force in March 1998. With the exception of Austria, Greece and Italy all the Member States are all Contracting parties to the Convention. The Community is also a Contracting Party to the Convention.

aim, in particular through the proposals for improved controls on downstream users of chemicals.

Persistent organic pollutants (POPs): POPs represent a special threat since they persist in the environment for a long time, they travel over long distances from their sources, accumulate in the tissues of most living organisms and poison humans and wildlife. It has been internationally recognised that there is a need for strict control of these substances. Following a mandate issued by the Governing Council of the UNEP, negotiations on an international treaty to eliminate production, use, emissions and discharges of initially 12 specified POPs - a group of highly stable organic substances – have recently been concluded. Criteria have been developed to identify further POPs among the existing substances. Furthermore, parties to the Convention will be obliged to prevent the production and use of new substances with POPs characteristics⁹.

Developing countries: One of the Community's major objectives is to strengthen developing countries' capabilities and capacities for managing chemicals. Many developing countries do not have adequate legislation, administrative capacity or infrastructure to ensure the safe use of chemicals. The Rotterdam Convention on prior informed consent (PIC Convention, 1998) for certain hazardous industrial chemicals and pesticides obliged exporters of such chemicals to get the consent of the receiving country before delivery and by bilateral and multilateral programmes of training and technical assistance in respect of particular chemicals.

Developing countries are mostly importers and not exporters of chemicals. The testing requirements in the EU will ensure that imported chemicals, which constitute the large majority of chemicals used in these countries, have been evaluated. This benefit will by far outweigh the potential economic effort, such as for testing, required by chemical companies located in developing countries when manufacturing chemicals for export to the EU.

Promotion of non-animal testing

Maximising use of non-animal test methods: Testing requirements will be met as far as practicable through use of existing non-animal test methods.

Encouraging development of new non-animal test methods: Development of new non-animal test methods will be encouraged.

Minimising test programmes: Measures to increase testing thresholds and more flexible test regimes will limit the need for testing.

Conformity with EU international obligations under the WTO

Trade barriers: The new policy shall not discriminate against imported products. In that respect, the EU should conform with Article 2.1 of the WTO's Technical Barriers to Trade, which sets out that imported products shall be accorded treatment no less favourable than that accorded to like products on national origin. Without a sound scientific evaluation of the potential threats to human health and the environment, the EU will not be able to defend a measure being challenged by third countries. In accordance with Article 2.2 of the TBT, the EU shall ensure that "technical regulations will not create unnecessary obstacles to international trade".

⁹ As defined in annex D to the POPs Convention

3. KNOWLEDGE ABOUT CHEMICALS

The principal objective of assessing the risks of chemicals is to provide a reliable basis for deciding on adequate safety measures (risk management) when using them. The risk assessment provides an evaluation of whether a chemical used in a particular way could cause adverse effects. This encompasses a description of the nature of these effects and a calculation of the probability that they will occur, as well as an estimation of their extent.

Any risk assessment on chemicals is composed of two distinct elements, (1) an evaluation of the properties which are intrinsic to the chemical, called *hazard assessment*, and (2) an estimation of the *exposure* which depends on the use of the chemical. The hazard assessment identifies the *hazardous properties* (e.g. sensitising, carcinogenic, toxic for the aquatic environment) and determines the *potency* of the chemical with respect to these hazardous properties. The exposure assessment identifies the sources of the chemicals which lead to exposure and calculates the dose taken up by an exposed organism or estimates the releases of the chemical into a particular compartment of the environment.

Precise knowledge on the intrinsic properties as well as on the exposure arising as a result of a particular use and of the disposal is an indispensable prerequisite for decision making on the safe management of chemicals. Reliable knowledge on intrinsic properties is important because it also constitutes the basis for the *classification* of chemicals. A large part of the management measures laid down in sector specific legislation to protect human health or the environment are directly linked to the classification of chemicals:

- it triggers the *labelling* of the packaging of the chemicals to inform the user about the properties of the chemicals and gives advice for the safe use,
- a chemical classified as carcinogenic, mutagenic or toxic for reproduction currently initiates an examination of *restriction measures* in the consumer sector,
- it triggers *numerous safety measures* laid down in sector specific legislation in respect of occupational health, water protection, waste management, prevention of major accident hazards and air pollution.

3.1 Intrinsic Properties

The extent of testing required for detecting the intrinsic hazardous properties of a substance is often the subject of controversy. While, at first glance, it would seem reasonable to test chemicals until all hazardous properties (i.e. all adverse effects on all organisms at all potential doses) are known, theoretical and practical considerations reveal that it is neither possible nor desirable to meet this objective. First, the available testing methodology has limitations, as demonstrated by the recent discussion on the identification of endocrine disrupters. The review and the development of our testing methodology must therefore be regarded as a continual challenge. Second, ethical considerations on animal welfare as well as on the costs of testing strongly advocate for a balanced approach to the testing of chemicals so that the acquired knowledge offers proportionate benefits in terms of managing risks. This is particularly important for testing requirements for substances marketed in low volumes where extensive testing is not compensated by the income from sales.

New substances: Current EU legislation on new substances is generally considered to have been successful in testing and assessing chemicals. The testing requirements are tiered according to the volume placed on the market. The lowest volume triggering the need for testing amounts to 10 kg. More extensive testing is required when the volume reaches 100 kg, 1 t, 10 t, 100 t and 1,000 t, respectively. Generally, testing requirements at the lower volumes (10 kg to 1 t) focus on acute hazards (immediate or slightly delayed effects after short term exposure) while those at the higher tonnage levels include more expensive

studies on the effects of (sub-) chronic exposure, on reproductive toxicity and on carcinogenicity. The testing package at 1 t is termed 'base set' while those triggered by higher tonnage are called Level 1 (100 t) and Level 2 (1,000 t).

Existing substances: In contrast to new substances, existing substances have never been subjected to such a systematic testing regime. When the requirement for testing and notification of new substances was introduced in 1981, substances already on the market were exempted. A study performed by the European Chemicals Bureau on the availability of the data for high production volume existing substances¹⁰ (substances exceeding a production volume of 1,000 t) revealed significant gaps in publicly available knowledge about these chemicals. This lack of public knowledge was identified as the major deficiency throughout the entire review process.

Action 3A: *Equivalent level of information on new and existing substances*

The gap in knowledge about intrinsic properties for existing substances should be closed to ensure that equivalent information to that on new substances is available. According to the timetable presented in chapter 6, existing substances will be subjected to the same procedure as for new substances. The available information should be thoroughly examined and best use made of it in order to waive testing, wherever appropriate.

Action 3B: *Testing of new and existing substances*

Testing and assessment of the many existing substances will require a substantial effort from industry and authorities. To meet this challenge available resources must be focussed on the most relevant chemicals. The current 10 kg threshold for mandatory testing of new substances should be increased. The following general testing regime for new and existing substances is recommended. Waiving of testing will be acceptable on due justification according to recommendations 3A and 3C. Further testing may be required by the authorities as described in chapter 4.2:

- Substances produced/imported in quantities between 1 – 10 t: data on the physico-chemical, toxicological and ecotoxicological properties of the substance; testing should generally be limited to in vitro methods,
- Substances produced/imported in quantities between 10 – 100 t: 'base set' testing according to Annex VII A of Directive 67/548/EEC. Waiving of testing will be acceptable on due justification according to Action 3A. This will in particular apply for existing substances,
- Substances produced/imported in quantities between 100 – 1000 t: 'Level 1' testing (substance-tailored testing for long-term effects). The scope of the additional testing will be based on the requirements set out in Annex VIII of Directive 67/548/EEC. Guidelines, including decision trees for the testing strategy will be developed tailoring testing according to the results of the available information, physico-chemical properties, the use and the exposure to the substance.
- Substances produced/imported in quantities above 1000 t: 'Level 2' testing (further substance-tailored testing for long-term effects). The scope of the additional testing will be based on the requirements set out in Annex VIII of Directive 67/548/EEC. Guidelines, including decision trees for the testing strategy will be developed tailoring testing according to the results of the available information, physico-chemical properties, the use and the exposure to the substance.

¹⁰ 'Public Availability of Data on EU High Production Volume Chemicals' European Commission Joint Research Centre EUR 18996

Action 3C: *Exposure-triggered testing*

The current testing regime for new substances has been criticised for not taking sufficiently into account differences in the exposure to chemicals. Hence, the future system should include sufficient flexibility to waive or extend the needed testing as appropriate on the basis of particular exposure scenarios. For example, testing requirements for strictly controlled and rigorously contained intermediates should be reduced.

Action 3D: *Exemptions for substances used in research and development*

The volume threshold of 100 kg currently in place for research and development should be increased to 1 t. For substances undergoing process-oriented research and development, the current time period limit should be extended from one to three years. This three-year period should be extendable up to a maximum of five years.

Action 3E: *Obligations for substances marketed as constituents of products*

Current notification requirements cover substances placed on the market on their own or as constituents of preparations. Substances used and placed on the market as constituents of products (e.g. toys, textiles) other than preparations, however, are exempted. Nevertheless, most of the substances included in such products are covered as they are marketed either as such or as components of preparations before being included into products. However, some products, in particular products where the whole manufacturing process has been carried out outside the Community, may contain untested and unregistered substances. Where such substances may be released during use and disposal in significant amounts thus causing exposure of humans and of the environment, they cannot generally be neglected. The issue needs to be properly addressed.

As regards substances in products that can lead to significant exposure of humans and environment, the Commission proposes to set up a working group which would identify the product categories (e.g. toys or textiles), the relevant exposure situations and all other practical implications. On the basis of this working group's findings, producers or importers should be requested to identify products containing such substances and provide any information, as appropriate.

3.2 Research and Validation

Development of alternative methods

International acceptance of results of animal tests has been a major breakthrough in minimising animal testing. This has been achieved by complying with methods developed by the OECD under its Test Guidelines Programme and obtained in accordance with the principles of Good Laboratory Practice. Once a company has carried out such a test, the results can be used for notification purposes in the Community as well as in Australia, Japan or the USA.

The Community has already taken steps to reduce duplicate testing: both Directive 67/548 and Regulation 793/93 contain provisions which avoid the need for different companies to carry out the same test. Chapter 5 describes actions to develop this approach further.

The Commission is fully committed to the legislation on the protection of animals used for experimental and other scientific purposes¹¹. According to this legislation, experiments using animals must be replaced by other scientific satisfactory methods not entailing the use of animals, requiring fewer animals or causing less pain to the animals wherever possible.

¹¹ Council Directive 86/609/EEC, OJ L 358, 18.12.1986, p. 1

The following elements of the new system have been developed with a view to keep animal testing to a minimum:

- existing information on the toxicity and ecotoxicity of substances, including epidemiological studies, will be taken into account,
- the general testing requirements will be modified to incorporate exposure-driven testing where appropriate,
- tailor-made testing programmes for substances will be developed under the control of authorities for Level 1 and 2 testing,
- the development of further alternative testing methods using fewer or no animals will be fostered,
- existing substances will be grouped to minimise testing, where appropriate.

One of the major tasks of the European Centre for the Validation of Alternative Methods (ECVAM) of the Joint Research Centre of the Commission is to validate alternative methods that reduce, refine or replace animal experiments ('3 R approach'). Once these methods are established the Commission proposes their inclusion in the relevant Community legislation. Furthermore it submits them to the OECD Test Guidelines Programme, through which the Commission makes every effort to ensure that the methods are recognised internationally. Some international test methods have already been amended to reduce the number of animals required or the distress caused.

Research to minimise the use of animal tests and develop methods that do not require animal experiments is also a priority within the OECD Test Guidelines Programme, which is actively supported by the Commission.

Action 3 F: To foster research on development and validation of alternative methods both at the Community and at the level of Member States and to enhance the relevant information that can be obtained from testing without simultaneously increasing the number of animals involved.

ECVAM's central role will be maintained and the development of alternative methods should be accelerated. Further research will be carried out both at Community and national level in order to develop and validate novel testing strategies involving fewer or no animals and enhancing the relevant information that can be obtained from testing without simultaneously increasing the number of animals involved.

Other research priorities

In order to meet the goals of this White Paper, a continuous effort of research has to be made both at the Community and at the national level in order to cover the many knowledge gaps. At the community level, the Commission, through its Framework Programmes for Research, Technological Development and Demonstration, is supporting research in several other areas, like:

- Improvement and simplification of risk-assessment procedures.
- Improvement and development of new toxicological and eco-toxicological methods;
- particular research efforts need to be made for developing and validating in-vivo and in-vitro test methods as well as modelling (e.g. QSAR) and screening methods for assessing the potential adverse effects of chemicals on endocrine systems of humans and animals. Research on endocrine disruptors is also – among others - addressing the effect of low doses, long term exposure and exposure to mixtures of chemicals, and the impact of the endocrine alterations on carcinogenesis.

- Development of clean chemical production processes to reduce and to eliminate the use and generation of hazardous substances.
- Research on improved Life Cycle Assessment methodologies for chemicals.

3.3 Exposure and Use

Adequate knowledge about exposure is an absolute requirement for any reliable risk assessment. However, the process under Regulation 793/93 highlighted a general lack of knowledge on the exposure to the existing substances under review. Furthermore, in many cases, the Member State authorities responsible for the assessment were not able to establish all the relevant uses of these chemicals. This lack of knowledge and restricted access by authorities to these data hampers efficient surveillance of the chemical sector.

Action 3 G: *Obligation of manufacturers, importers and downstream users to assess exposure*

The general shortage of exposure data must be addressed. Exposure estimates or, if appropriate, analytical determination of the exposure should be obligatory for manufacturers and downstream users (formulators and industrial users) of chemicals. Further detail on this proposal is given in chapters 4 and 5.

Action 3 H: *Information system on environmental concentrations*

An information system should be established on environmental concentrations and releases. Monitoring data ascertained by the Member States or by industry should be made available in an easily accessible form.

3.4 Cost and benefit

It is estimated that base-set testing will cost about € 85,000 per substance. The cost of long-term testing is more uncertain as there is less experience. However, level 1 testing for new substances costs approximately € 250,000 per substance and level 2 testing costs approximately € 325,000 per substance. It would not only be EU industry that has to pay these costs: everyone who imports substances into the Community would make a fair contribution to these costs ensuring a global approach, see section 5.5 below. It is estimated that the testing of the approximately 30,000 existing substances would result in total costs of about € 2.1 billion, over the next 11 years until 2012.¹²

The administrative costs of the system will be recovered through a fee-based system.

As a result of the systematic testing of new substances about 70% have been identified as being dangerous. On the other hand, as little is known about the intrinsic properties of existing substances it can be assumed that the majority of these chemicals cannot be properly classified today and adequate risk management measures cannot be taken. Introducing mandatory testing for these substances would generate the necessary information to substantially improve the risk management for existing substances. If as a result the adverse impacts could be even slightly reduced, the money spent for these tests would have proven to be well spent.

The potential benefits of this policy would stem from improved risk management, in all likelihood leading to safer handling of substances, and to less exposure of consumers and

¹²

A net increase in public resources is not expected since the REACH model refocuses the resources and removes resource intensive tasks from the authorities (general conformity check for substances below 100 t, comprehensive risk assessment on existing substances).

the environment to dangerous substances. Although it is difficult to estimate accurately and in monetary terms the potential benefits from this change some indications are possible. Indeed, if as a result of this improved risk management some human lives could be saved or the incidence and prevalence of allergic or chronic diseases could be reduced by some percent the money would have been well spent.¹³ Further details are given in annex I.

4. A NEW SYSTEM OF CHEMICALS CONTROL – THE REACH SYSTEM

The current volume-triggered notification system for new substances has resulted in substantial and reliable knowledge about these chemicals. However, it involves a considerable workload for the authorities requiring a large amount of their resources even though all this effort only addresses a limited part of the chemicals on the market. Existing substances dominate the market over new substances by a factor of 15. The challenge therefore is to establish a system that can cope with the large number of existing substances. The overriding goal must be to ensure adequate information, made publicly available, and appropriate risk management of existing and new substances within the timeframe set out in chapter 6.

Action 4: To establish a single coherent system focussing public resources on those substances, where, according to experience, the involvement of authorities is indispensable and the added value in terms of the provision of safety is substantial.

The system, called REACH, will be composed of the following three elements:

- (a) **Registration** of basic information for around 30,000 substances (all existing and new substances exceeding a production volume of 1 t) submitted by companies in a central database. It is estimated that around 80 % of these substances would only require registration;
- (b) **Evaluation** of the registered information for all substances exceeding a production volume of 100 t (around 5,000 substances corresponding to 15 %) or, in case of concern, also for substances at lower tonnage; the evaluation will be carried out by authorities and include the development of substance-tailored testing programmes focussing on the effects of long-term exposure;
- (c) **Authorisation** of substances with certain hazardous properties that give rise to very high concern (CMR substances¹⁴ (categories 1 and 2)¹⁵ and POPs). Authorisation requires authorities to give a specific permission before a substance can be used for particular purposes demonstrated to be safe. The number of substances subject to authorisation is estimated at 1,400 (5% of the registered substances). This estimate is based on
 - 850 substances currently classified as CMR substances (categories 1 and 2)
 - Substances with POPs characteristics¹⁶
 - 500 additional CMR substances (categories 1 and 2) which may be identified through future testing.

¹³ The German ‘Sachverständigenrat für Umweltfragen’ (Advisory Council on the Environment) estimated in 1999 that the socio-economic costs of allergies alone for Europe were € 29 billion per year.

¹⁴ Carcinogenic, mutagenic or reprotoxic substances;

¹⁵ As defined in Directive 67/548

¹⁶ As laid down in the future Stockholm convention on POPs (see chapter 2.3)

The REACH-system will be applied to new and existing substances. However, in contrast to new substances, a transitional period of 11 years is required to phase in the large number of existing substances. In general, existing substances produced in higher volumes will have to be registered first. Yet the system will be flexible enough to allow for earlier registration of substances of concern produced in lower tonnage. The work programme and timetable for the transitional phase is described in detail in chapter 6.

4.1 Registration

Registration requires a manufacturer or importer to notify an authority¹⁷ of the intention to produce or import a substance and to submit a dossier containing the information required by the legislation. The authority puts this information into an electronic database, assigns a registration number and performs spot-checks and computerised screening of the registered substances for properties raising particular concern.

Registration will be obligatory for new and existing (according to the time table set out in chapter 6) substances produced in volumes exceeding 1 t. The currently required general conformity check for new notified substances above 1 t will be replaced by spot-checks and computerised screening. The registration dossier will include the following information:

- Data/information on the identity and properties of the substance (including data on toxicological and ecotoxicological properties as set out in chapter 3),
- Intended uses, estimated human and environmental exposure,
- Production quantity envisaged,
- Proposal for the classification and labelling of the substance,
- Safety Data Sheet,
- Preliminary risk assessment covering the intended uses,
- Proposed risk management measures.

4.2 Evaluation

Evaluation requires authorities to carefully examine the data provided by industry. It also requires them to decide on substance-tailored testing programmes, following industry proposals, as set out in chapter 3 .

Substances above 100 t: When the quantity produced or imported reaches 100 t or 1,000 t (or, for existing substances, already exceeds these volume thresholds), the manufacturer or importer will be required to submit to an authority all available information and to propose a strategy for further testing based on the general information requirements defined in the legislation. The authority will evaluate the information and the testing strategy submitted by industry and will decide on the appropriate course of action.

In essence, the current approach for new substances will be maintained for substances above 100 t. The availability of a risk assessment drawn up by the manufacturer or importer will reduce the workload of the authorities. Testing programmes at Level 1 (100 t) and Level 2 (1,000 t) will be substance-tailored as set out in chapter 3.

¹⁷ Chapter 8 sets out the allocation of responsibilities between the Member States authorities and the Commission

Substances below 100 t: Substances which are suspected to be persistent and liable to bioaccumulation, substances with certain hazardous properties such as mutagenicity or high toxicity, or substances with molecular structures giving rise to concern (e.g. identified by quantitative structure activity relationships, QSAR) will require an evaluation by the authorities at volume levels below 100 t. Based on this evaluation, immediate safety measures and/or further testing may be needed. Thus, the authorities' right to request additional information for low volume substances on a case by case basis, as possible under the current notification system, will be retained. Furthermore, authorities should be empowered to require additional testing, when the aggregate volume produced and/or imported by all manufacturers and/or importers exceeds the next higher tonnage threshold for a single producer or importer to a considerable degree.

4.3 Authorisation of substances of very high concern

For substances of very high concern, authorities will have to give a specific permission before such a substance can be used for a particular purpose, marketed as such or as a component of a product. The scope will be clearly defined and strict deadlines will be set for both industry and authorities.

Substances subject to authorisation: The following new and existing substances, including those produced in volumes below 100 t, which either have hazardous properties giving rise to very high concern will be progressively subjected to an authorisation regime. However, uses that do not give rise to concern will generally be exempted:

- Substances that are carcinogenic, mutagenic or toxic to reproduction (CMR substances categories 1 and 2)
- Substances with POPs characteristics¹⁸.

Further research: Further research is needed to develop criteria for the identification of PBT and VPVB¹⁹ substances other than POPs. The Commission will decide at a later stage how substances with these properties should be treated.

Endocrine disrupters: The majority of the endocrine disrupting chemicals would have to undergo authorisation in the REACH system. Serious human health effects which have so far been associated with endocrine disrupting chemicals are testicular cancer, breast cancer, prostate cancer, decrease in sperm concentration and semen volume, cryptorchidism, hypospadias and impaired development of the immune system and the nervous system. All these effects would qualify a substance either to be classified as carcinogenic or as toxic for reproduction and so would trigger its submission to authorisation. Furthermore, adverse effects on the endocrine system of wildlife species have been causally linked to certain POPs, which will be subject to authorisation.

Implementation of the authorisation process: A substantial number of substances qualifying for authorisation will be identified only through Level 1 and Level 2 testing when they are already used in substantial amounts. In order to allow for implementation of the authorisation procedure, transition periods to generate the required information and to draw up the dossiers for authorisation are necessary. Also, the time period needed to decide

¹⁸ Fulfilling the criteria defined in annex D of the future Stockholm Convention on POPs (see chapter 2.3)

¹⁹ substances which are persistent, bioaccumulative and toxic, substances which are very persistent and very bioaccumulative

upon the authorisation needs to be taken into account. A two-step decision-making process is therefore proposed:

- Step 1 - identification of the substances, or particular uses of substances, which will be subject to authorisation. Once identified, a precise date when all unauthorised uses of the substance will be prohibited. Furthermore, step 1 will identify, as appropriate, the scope of the uses to be exempted generally from the requirement for authorisation. Relevant substances will be fed into the system as soon as practicable, with substances of most concern being considered first.
- Step 2 - particular uses of a substance will be authorised on the basis of a risk assessment submitted by the applicant to the authorities. This assessment will cover the whole life-cycle of the substance, including disposal, with respect to the particular use. Manufacturers and importers will be permitted to submit jointly this information and/or to submit simultaneously for the use of several substances (group applications). The authorities will generally not require the applicant to carry out further testing but to establish the required exposure data to allow authorities to take a decision. An authorisation will be granted if the use presents a negligible risk. A conditioned authorisation may be granted if this is justified by the overall socio-economic benefits arising from the use. The authorities will be required to decide upon the authorisation within a reasonable time from submission of the risk assessment to avoid banning of substances by default.

Exemptions: Uses which do not give rise to concern - such as well controlled industrial uses or uses in research laboratories - may be subject to general exemptions from the authorisation procedure.

Pro-active role of industry: The current approach requires authorities to provide convincing arguments, usually in the context of a risk assessment, before restriction measures are taken. Their task is further complicated because the current system does not encourage industry to support the assessment. On the contrary, delaying the process is "rewarded" with an extended marketing period. Industry has usually provided data when such data were deemed suitable to avoid the restrictions under consideration. An apparent lack of data aggravates the situation and often leads to a risk assessment conclusion that 'further information is required' before an informed decision on risk management can be taken. Other delays are caused in cases where analytical methods must be developed to check compliance with a potential restriction. Authorities have to carry the main burden of the development of the analytical methodology. Such an approach is not amenable to attaining a high level of safety.

Authorisation, in contrast, requires industry to take a pro-active role in the evaluation process. If analytical tools need to be developed to control exposure, their availability should be a prerequisite for authorisation.

Increased flexibility: At the authorisation stage, a consideration of the socio-economic impact may be required. In contrast to the current system, which requires authorities to carry out cost/benefit analyses, the producer or user of the substance should be obliged to provide information substantiating any claim that the benefits from the continued use of a substance outweighs the potential adverse effects on human health and the environment. The REACH-system offers clear advantages to industry. Currently, Directive 76/769 restricts certain uses of substances without providing a mechanism to reverse such provisions on a case by case basis. In this perspective the REACH-system offers increased flexibility on condition that adequate safety measures are taken. It is more open to technological developments and will lead to a custom-tailored safety net for problematic substances.

4.4 Accelerated risk management of other substances

Specific uses of substances which do not have one of the properties listed under the authorisation system but for which restrictions are needed should be addressed in an improved and accelerated procedure.

Accelerated risk assessments: the following four elements will bring about the necessary acceleration of assessments:

- (1) Due to the registration requirement of all chemicals above 1 t there will be extensive data available on the health and safety properties of all substances marketed (see chapter 5 below).
- (2) The obligation on enterprises to submit a preliminary risk assessment will provide the authorities with valuable and comprehensive information on whether or not the chemical substance in question can be handled safely thereby avoiding unacceptable risks for workers, the population at large and the environment. Thus, for the large majority of substances (estimated at more than 80 %), there would be no need for further assessment. In the minority of cases where there is need for further assessment, it would be clear where the further assessment should be focussed. The gain in time would be substantial compared to the present system.
- (3) Under the new system, the industry will be responsible for preliminary risk assessments and will assume responsibility for the safety of its products. It will be under an obligation to co-operate on the establishment of Community Risk Assessments where these are considered necessary. The delays encountered under the present system, where Member State authorities assumed full responsibility for risk assessments without the necessary means at their disposal, will be eliminated.
- (4) Targeted risk assessments will in most cases replace the comprehensive risk assessments of the past. The latter were the main cause of delays under Regulation 793/93 as they required consideration of all dangerous effects, all exposed populations and all environmental compartments.

These four factors taken together will substantially reduce the time needed for assessment.

Accelerated legislation: two factors will contribute to an acceleration of the legislative process:

- (1) The precautionary principle will be invoked whenever the risk assessment process is unduly delayed and where there is an indication of unacceptable risk. In particular, should a producer of a given substance delay the filing of information or test results, the central entity would be entitled to conclude the assessment. It would then pass the dossier to the Commission with a recommendation to apply the precautionary principle and to proceed to risk management measures to the possible extent of a total ban.
- (2) A further acceleration is needed in order to proceed to risk management decisions for other substances in a reasonably short time frame. Thus, the Commission should be authorised to use the Committee procedure under Directive 76/769 more extensively than in the past.

This approach would take account of the full range of implications of possible restrictions; in particular, it would consider whether possible substitutes are more or less dangerous.

5. ROLE, RIGHTS AND RESPONSIBILITIES OF INDUSTRY

There is already legislation in place along the whole manufacturing chain generally allocating the responsibility for the safe use of chemicals to manufacturers and users of

chemicals. Directive 92/59/EEC on General Product Safety²⁰ extends the responsibility to products intended for consumer use, which should not present unacceptable risks under normal or reasonably foreseeable conditions of use. The review found that this general allocation of responsibilities has not led to a satisfactory evaluation of the safety of chemicals. Additional legal provisions stating more precisely the obligations of industry are essential. These provisions shall include ensuring that the substances they place on the market are safe for their intended use, irrespective of the tonnage produced.

5.1 Data Generation

The current system only established duties for producers and manufacturers to test chemicals, but not for downstream users. The role of downstream users in testing of chemicals needs to be further considered.

Action 5A: Obligation of downstream users to perform testing

Downstream users must assume responsibility for the safety of their products. Authorities should be empowered to require downstream users to carry out additional testing where uses differ from those originally envisaged by manufacturers or importers and the resulting exposure patterns also differ substantially from those evaluated by them. Additional testing programmes should be developed in close consultation with the authorities.

5.2 Risk/safety Assessment

Directive 67/548 and Regulation 793/93 oblige the authorities to carry out risk assessment. This imposes a considerable burden on them, particularly in assessing existing substances. As industry is responsible for safe use and disposal of chemicals and risk assessment is the preferred method to assess safety, the current work distribution between authorities and industry is inappropriate. Chemicals are used in millions of products so it is impractical for authorities to perform or be involved in these assessments. Instead, the Commission believes that, as the Council suggested, authorities should focus on areas of *major* concern.

Action 5B: Manufacturers and downstream users to perform risk assessment

Industry should have responsibility for performing risk assessments. This will require the manufacturer or importer as well as the downstream user to carry out adequate risk assessments for substances and preparations.

5.3 Information to be provided by Industry to the Authorities

Industry should provide authorities with information about all substances as set out in Chapter 4. Below the Chapter 4 thresholds, industry should generate the necessary safety data and keep the records available.

Action 5C: Obligation of downstream users to inform authorities

The Commission proposes that the authorities must be informed about any downstream use which has not been envisaged by a manufacturer or importer and which has not therefore been addressed in the preliminary risk assessment.

²⁰ OJ L 228, 11.8.1992, p.24

5.4 Information to be provided by manufacturers and importers to downstream users, other professional users and consumers

Information relevant for the safe use of chemicals must be available to all users, including consumers. Fundamentally, the safety system depends on the quality and the comprehensibility of the information passed on down the production chain. *Safety data sheets and the Labelling of the packaging* are the main carriers of this information. Shortcomings have been identified in both information systems. Safety data sheets are considered below while *classification and labelling* is addressed in chapter 7.

Action 5D: Information to industrial and professional users through safety data sheets

Safety data sheets are generally considered to be suitable communication tools to provide safety information to users, in spite of the noted shortcomings. The Commission proposes to establish a working group of Member States experts including participation of the European Chemicals Bureau to advise it on:

- ensuring better quality of safety data sheets,
- examining the current information requirements with a view to expand them in order to enable users to carry out risk assessment.

5.5 Property rights for test data

The specific provisions in Directive 67/548 and Regulation 793/93 for the sharing of test data and testing costs were designed to avoid duplicate animal testing. However, such provisions also have a benefit for industry because they reduce the overall testing costs. Furthermore, legislation for sharing of test data and the costs of testing is essential to ensure fair competition, otherwise some companies might delay testing in the hope that competitors producing the same substance would be obliged to do it before them and pick up the full costs.

The introduction of exposure-triggered testing and new obligations on downstream users to test could accentuate this problem. For example, if a downstream user carried out additional testing because of substantially different exposure patterns than those foreseen by a manufacturer of the substance, the latter might use these data to enlarge the scope of the uses of the substance. This would increase the number of potential customers and the marketed volumes, in some cases at a disadvantage to the original downstream user. Such a system would encourage the manufacturers to strictly limit the number of intended uses to a minimum, waive testing as far as possible and wait for downstream users to complete the testing. This would be a clear distortion of the market.

Action 5E: Property rights for test data

Anybody who generates testing data under the new system should be encouraged to share them and anyone who uses such data obliged to pay a fair and equitable contribution to the generator of the data.

Action 5F: Discouragement of duplicate testing

Specific provisions should be included in the legislation that duplicate tests involving vertebrate animals should be avoided. Any duplicate testing will not result in an exemption from the duty to reimburse the party who owns the property rights for the first test.

6. TIMETABLE FOR EXISTING SUBSTANCES

The testing and evaluation of the large number of existing substances on the market requires a phased approach. This chapter describes the necessary provisions and a timeframe for the testing and evaluation of existing substances. It also addresses the future role of the authorities in risk assessment.

Action 6A : *Tiered approach for registration*

Precise deadlines will be established for the submission of registration dossiers for existing substances. In general, substances produced in higher volumes will have to be registered first. However, the system will be flexible enough to allow for earlier registration of substances of concern (e.g. intended for consumer use or having particular proven or suspected hazardous properties) produced in lower tonnage. Under these presumptions and given rapid progress in adoption of the revised legislation, the suggested deadlines for submission of registration dossiers are basically:

- substances exceeding a production volume of 1,000 t - at the latest by end of 2005,
- substances exceeding a production volume of 100 t - at the latest by end of 2008,
- substances exceeding a production volume of 1 t - at the latest by end of 2012.

Dossiers drawn up in the context of the voluntary initiative on the part of the International Council of Chemicals Associations (ICCA) which comply with the OECD format will be valid for this purpose. However, the information contained in these dossiers will have to be supplemented in order to meet the requirements described in the previous chapters.

Action 6B: *Tiered approach for testing and evaluation of high production volume existing substances*

There should be a tiered approach for the testing and evaluation of high production volume existing substances. Level 2 testing should be completed for substances above 1,000 t by 2010 and Level 1 testing of substances above 100 t should be completed by 2012.

Action 6C: *Establishment of a task force to review available data*

An advisory task force composed of around 15 Member States experts, should be seconded to the European Chemicals Bureau in the interim period before the new legislation is implemented. This task force will be assigned the following responsibilities:

- evaluation of the information of the IUCLID database submitted by industry for substances exceeding 1,000 t:
 - (a) examination of the proposed classification and labelling
 - (b) assessment of IUCLID information on properties, exposure and uses
 - (c) proposal of additional testing programmes in co-operation with ECVAM
- examination of the dossiers submitted to OECD under the ICCA voluntary initiative,
- recommendation of substances which should be grouped for registration or be exempted from the general obligation of registration.

7. CLASSIFICATION AND LABELLING

Current legislation requires that dangerous substances are either classified and labelled in accordance with Annex I of Directive 67/548 (*harmonised classification*) or, if they are not

included in this Annex, in accordance with the principles laid down in Annex VI of this Directive by industry (*self-classification*). Annex I covers around 5,000 dangerous chemicals and has been established over several decades.

Systematic evaluation of new substances has revealed that around 70 % of them are classified as dangerous (e.g. carcinogenic, toxic, sensitising, irritant, dangerous for the environment). In view of the large number of existing substances and assuming that a comparable percentage of them need to be classified, the establishment of a comprehensive harmonised list of all substances is not a viable option using the current approach.

Classification according to some hazardous properties has automatic consequences for the risk management of these substances (see chapter 3). To avoid ambiguities in respect of the required management measures, the new system must retain parts of the harmonised classification .

Action 7A: *Restrict harmonised classification to the most relevant properties*

Authorities' resources should be focussed on the most relevant hazardous properties, such as carcinogenicity, mutagenicity and reproduction toxicity (CMR), where classification gives rise to important risk management measures.

Action 7B: *Commission to seek industry list of dangerous substances*

The Commission will ask Industry to provide a list containing comprehensive information about the classification and the labelling of all dangerous substances on the market. This list should be made available on the Internet and be publicly accessible free of charge.

Action 7C: *To simplify the current labelling system and improving comprehensibility through Globally Harmonised System.*

The current negotiations on the elaboration of a Globally Harmonised System provides an opportunity to fundamentally review the current labelling provisions, to consider simplification and to improve comprehensibility of the labels.

8. ADMINISTRATION OF THE SYSTEM

This chapter summarises the administration of the REACH system presented in chapter 4.

8.1 Decision-making in the REACH system

There are basically two different kinds of decision to be taken under the REACH-system: decisions on the information to be submitted following the evaluation of the substances and decisions on risk management in the context of the authorisation procedure.

Decision-making at the Evaluation stage: The system must provide a mechanism to ensure that, on the basis of the preliminary risk assessments provided by industry, decisions on further information or substance-tailored testing programmes can rapidly be taken for a large number of substances. The procedure under Regulation 793/93 to request additional testing for existing substances from industry has proven extremely slow and cumbersome. Under the new system, the approach taken for new substances will be followed: Member State authorities will be responsible for deciding on the additional testing and a committee procedure will only be invoked in cases where agreement cannot be reached between Member States authorities.

Decision-making

Decision making at the authorisation stage: Depending on the anticipated impact of a substance, an authorisation for actual use should either be granted by Member States or by a decision at Community level. Member States should grant authorisations for uses, which mainly need to be considered for their potential impact on workers and on the local environment. In contrast, the authorisation of the use of a substance of concern in products marketed in the Community may have a wider impact on human health or the environment as well as on the functioning of the internal market. This would imply that a Community-wide decision on the actual use of a substance is justified.

As described in chapter 4, the authorisation would encompass a two step procedure:

- Step 1 - the identification of substances or particular uses of a substance which will be subject to future authorisation, establishing a precise date when all uses which have not been authorised will be prohibited;
- Step 2 - the actual authorisation of particular uses.

Given the Community-wide internal market impact of prohibiting the use of a substance, the step 1 decision, together with identification of the uses that Member States may authorise, should be taken at Community level. Step 2, the authorisation of specific uses, would be taken at the appropriate level defined in step 1. Generally, a committee driven mechanism will be applied for all decisions taken at Community level.

Decision making in the accelerated risk management procedure:

The accelerated risk management procedure will work as follows:

- Step 1 - the identification of substances or particular uses of a substance which will be subject to future restriction, defining the scope of the restriction,
- Step 2 - the actual decision restricting or banning the use of the substance.

Given the Community-wide internal market impact of prohibiting the use of a substance, both decisions should be taken at Community level. Step 2 would imply legislation in the framework of a modernised Directive 76/769. Generally, a committee driven mechanism will be applied for all decisions taken at Community level. It would leave present working arrangements intact.

8.2 Establishment of a central entity

The Commission proposes at this stage to establish a central entity (an expanded European Chemicals Bureau) for the administration of the REACH-system and the provision of technical and scientific support. Building on its existing experience, the expanded European Chemicals Bureau should be a receiving body for the registration dossier, and forward the copies of the registration dossiers to the Member State authorities, establish and maintain a comprehensive central database on all registered chemicals, perform spot-checks and computerised screening of the registered substances for properties raising particular concern. It will also support Member States authorities in the evaluation of substances.

The central entity will provide access to non-confidential submitted information for the general public and establish an efficient and secure data exchange network with Member States for commercially sensitive information. It should support and co-ordinate the Member States with respect to the decision-making at the evaluation stage in order to ensure a coherent approach. Furthermore, the European Chemicals Bureau would provide the operational framework for the authorisation procedure and seek the views of Member State experts and of the CSTEE. Prior to the establishment of the central entity, the Commission will carry out a feasibility study and a cost/benefit analysis.

8.3 Role of Member States

Member States authorities would broadly retain their current responsibilities. They would be collectively responsible for substance registration and evaluation, similar to their current responsibilities for new substances notifications. Better consistency of decisions between Member States authorities would be achieved by the co-ordination through the European Chemicals Bureau and by developing guidelines for substances-tailored testing. The experience gained by the task force (see chapter 6) will help to prepare such guidelines.

To rectify the current unequal workload distribution between Member States authorities, the registered substances will be allocated to Member States on a proportionate basis. Current provisions concerning information exchange and the option to invoke a committee procedure in cases where agreement cannot be reached between Member States authorities should be retained.

9. INFORMATION TO THE PUBLIC

The Commission has consulted and involved all stakeholders and in particular the NGOs representing consumer interests. Full openness is essential if the public is to understand the intended benefits of the Strategy and to ensure the Commission has addressed the public interest. The Commission is therefore committed to ensuring the continued involvement of stakeholders representing the full range of interests in the implementation, management and review stages of the Strategy.

EU citizens should have access to information about chemicals to which they are exposed. Information must be presented in such a way that it enables a person to understand the risks and to develop a sense of proportion in order to make a judgement on the acceptability of those risks. Better public access to information on chemicals will increase public awareness and will lead in turn to greater accountability on the part of industry and authorities. The Commission already publishes an up-to-date multi-lingual collection of chemical substances data and this could be further developed. Furthermore, indicators on the risk of chemical use should be established.

The Commission acknowledges consumers 'right of choice'. Information should enable the consumer to make a judgement on whether alternative products on the market are more favourable in terms of their intrinsic properties and risks.

The findings of the review highlighted the need of consumers for information about the health effects, environmental effects, other serious hazards and safe instructions for use of chemical products. The Commission believes that industry, including downstream users, should mainly be responsible for providing this information to consumers. This will lead to better informed purchasing decisions about such products.

There is currently no central tracking system by which the public can determine whether regulatory measures are in place or in progress for individual chemicals. There is a lack of public awareness of the requirements of current chemicals legislation. The new system should be more easily understood by the general public helping to address this lack of awareness.

Action 9A: *Stakeholder access to non-confidential information in the new-system database*

All stakeholders, including the general public and SMEs (small and medium sized enterprises employing less than 250 workers), should have access to the non-confidential information on the central system database (see Chapter 4). Easy to read summaries for

substances will promote use by the general public. These summaries will include a short profile of the hazardous properties, labelling requirements and relevant Community legislation, including authorised uses and risk management measures.

10. IMPLEMENTATION AND ENFORCEMENT

The Commission proposes to review the effectiveness and the efficiency of the chemicals strategy following implementation of the new legislation. The review will include an element of testing and questioning of all stakeholders.

Member States will be responsible for the enforcement of the new legislation in their territories. However, a number of enforcement projects and studies have highlighted shortcomings in compliance by industry of the current legislation on chemicals and inconsistencies in the level of enforcement activities by the Member States. Even if non-compliance can be demonstrated and damage to human health or environment has occurred, compensations awarded by courts of EU Member States often have a limited deterrent effect. The Community must address these problems by requiring Member States to establish dissuasive, effective and proportionate sanctions.

Recent studies in the Netherlands and the United Kingdom found high levels of non-compliance with the Safety Data Sheets legislation. Flaws in compliance and enforcement activities related to current legislation for new and existing substances were also noted by recent Community-wide enforcement projects (SENSE, NONS and EUREX²¹).

Action 10 A: Review of the chemicals policy

The Commission proposes to review the effectiveness and the efficiency of the chemicals policy including all the different elements that constitute its information policy, following implementation of the new legislation. The review will include an element of testing and questioning of all stakeholders.

Action 10B: Network of Enforcement Authorities

The Commission proposes to create a network of the Member States and Candidate Countries authorities responsible for enforcement of new legislation on chemicals to spread good practice and to highlight problems at Community level. This will be of increased importance when the current Candidate Countries join the Community, thus enlarging the Internal Market. One of the issues this network will be asked to consider is the need to develop minimum criteria for enforcement of the proposed legislation in the Member States. Such criteria might be set out in a Commission Recommendation in future.

²¹ Referring to Dir. 92/32/EEC, EUREX found (of 1,400 substances at 178 companies) only a small fraction of companies directly broke the legislation but companies could not identify around 30% of substances as either 'new' or 'existing'. This was similar to findings of the SENSE and NONS projects.

GLOSSARY OF TERMS AND ABBREVIATIONS

Burden of the Past: The 30,000 ‘existing’ chemicals estimated to be on the EU market, for which little or no information is available, in particular about their long-term effects on human health or the environment.

Chemicals: General term to cover both substances and preparations (see separate entries).

Competent Authorities: A national authority or authorities designated by each Member State to implement legislation.

CMR chemicals: Chemicals classified as carcinogenic, mutagenic or toxic to reproduction under Directive 67/548 (see ‘legislation’).

CSTEE: Scientific Committee on the Toxicity, Ecotoxicity and the Environment of the Commission.

Downstream users: Formulators and industrial users of chemicals.

ECVAM: the JRC’s European Centre for the Validation of Alternative Methods.

ELINCS: European List of Notified Chemical Substances. ELINCS, currently contains some 2,700 substances and is an ever expanding list, following notification to Competent Authorities of the placing of a ‘new’ substance on the market.

EINECS: European Inventory of Existing Commercial Chemical Substances, deemed to be on the EU Market between 1 January 1971 and 18 September 1981. It is a closed list of 100,106 ‘existing’ chemicals governed by Regulation 793/93 (see ‘legislation’).

Existing substances: Substances in use within the EU before September 1981 and listed in EINECS. EINECS contains 100,106 entries including chemicals, substances produced from natural products by chemical modifications or purification, such as metals, minerals, cement, refined oil and gas; substances produced from animals and plants; active substances of pesticides, medicaments, fertilisers and cosmetic products; food additives; a few natural polymers; some waste and by-products. They can be mixtures of different chemicals occurring naturally or as an unintentional result of the production process.

‘Existing’ substances do not include: synthetic polymers (which are registered in EINECS under their building block monomers), intentional mixtures, medical preparations, cosmetic preparations and pesticide preparations as intentional mixtures; food; feedstuffs; alloys, such as stainless steel (but individual components of alloys are included); most naturally occurring raw materials, including coal and most ores.

Global Harmonisation: The Community together with its trading partners is committed to developing a global system for managing chemicals. Work is underway with the candidate countries for accession to the EU, in the framework of the OECD and at a global level in the framework of the United Nations.

Hazard assessment: Hazard identification and establishment of dose-response relationship for observed adverse effects in the specified (eco)toxicological endpoints.

Hazard identification: Identification of the adverse effects that a substance has the inherent capacity to cause.

HPV chemicals: High Production Volume chemicals. Chemicals placed on the EU market in volumes exceeding 1000 tonnes per year per manufacturer or importer.

ICCA: International Council of Chemical Associations.

IFCS: Intergovernmental Forum on Chemical Safety.

ILO: International Labour Organisation.

IUCLID: International Uniform Chemical Information Database. A Commission database used to store and distribute information collected under Regulation 793/93.

JRC: Joint Research Centre of the Commission.

Legislation: Reference in the White Paper mainly refers to four legal instruments on chemicals currently in force in the Community:

- Council Directive 67/548/EEC relating to the classification, packaging and labelling of dangerous substances, as amended,
- Directive 88/379/EEC relating to the classification, packaging and labelling of dangerous preparations, recently replaced by 1999/45/EC,
- Council Regulation (EEC) 793/93 on the evaluation and control of the risks of existing substances,
- Directive 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations.

LPV chemicals: Low Production Volume chemicals. Chemicals placed on the market in volumes between 10 tonnes and 1000 tonnes per year per producer/importer.

New substances: Substances not in use in the EU before September 1981 and so not in EINECS. They must be notified before being placed on the market, after which they are registered in ELINCS. New substances are governed by Directive 67/548, as amended by Directive 92/32.

NGOs: Non-governmental organisations representing particular stakeholders' interests (e.g. consumers, environment).

Notification procedure for a new substance: Submission of a technical dossier by industry to a Competent Authority, containing information specified by Directive 67/548, as amended by Directive 92/32 (see 'legislation').

OECD: Organisation for Economic Co-operation and Development.

OSPAR: Oslo - Paris Convention for the Protection of the Marine Environment of the North East Atlantic.

PBT chemicals: Persistent, bio-accumulative and toxic chemicals.

POPs: Persistent Organic Pollutants.

Precautionary Principle: This principle is contained in Article 174 of the Treaty and the subject of a Commission Communication of 2 February 2000. It applies when there is a preliminary objective scientific evaluation indicating reasonable grounds for concern that the potentially dangerous effects on the environment, human, animal or plant health may be inconsistent with the high level of protection chosen for the Community.

Preparations: Intentional mixtures or solutions composed of two or more chemicals. They are governed by Directive 88/379/EEC, recently replaced by Directive 1999/45/EC.

QSAR: Quantitative Structure Activity Relationship. Models used to predict the properties of chemicals from the molecular structure.

REACH System: Registration, Evaluation and Authorisation of Chemicals.

Regulatory Committee: A committee composed of representatives from the EU Member States and chaired by the representative of the Commission. Its opinion is delivered by a qualified majority.

Risk Assessment: A process to determine the relationship between the predicted exposure and adverse effects in four steps: hazard identification, dose-response assessment, exposure assessment and risk characterisation. See also ‘targeted risk assessment’.

Risk characterisation: Estimation of the incidence and severity of the adverse effects likely to occur in a human population or environmental compartment due to actual or predicted exposure to a substance.

SIDS: Screening Information Data Set (SIDS) outlining the minimum data elements for determining whether an existing HPV chemical requires further investigation in the OECD’s HPV/ICCA programme.

SMEs: Small to medium size enterprises employing less than 250 workers.

Substances: Substances are chemical elements and their compounds in the natural state or obtained by any production process, including any additive necessary to preserve the stability of the product and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition. While ingredients of pesticides, biocides, medicaments or cosmetics might be included in this definition, intentional mixtures or preparations of them for final use would not.

Sustainable Development: Enshrined in Articles 2 and 6 of the Treaty, it was defined by the World Commission on Environment and Development (the Brundtland Commission) as development that ‘meets the needs of the present generation without compromising the ability of future generations to meet their own needs’. This objective includes the economic, social and ecological aspects of development as set out in the Final Document of the 19th Extra Session of the UN General Assembly, which was held on 23-27 June 1997. These three aspects are mutually dependent, and in order to achieve sustainable development they must be integrated and taken into account in a balanced manner. These notions are at the core of the Fifth EU Environment Action Program ‘Towards Sustainability’ and the Cardiff Strategy on Integration.

Targeted risk assessment: A less extensive, more specifically focused evaluation (because of a specific concern) than a comprehensive risk assessment.

Tiered Approach: Proportionate effort in relation to the volumes, intrinsic properties, exposure and/or use of chemicals; see chapter 3 for further explanation.

UN: United Nations.

UNCED: UN Conference on Environment and Development at the 1992 Earth Summit in Rio.

VPVB chemicals: Very persistent and very bio-accumulative chemicals.

WHO: World Health Organisation.

ANNEX I

Costs and Benefits of the new Chemicals Policy

Model
<ul style="list-style-type: none">• Single coherent system for all chemical substances. REACH model (registration, evaluation and authorisation/rapid restriction of chemicals);• Management by Member States and European Chemicals Bureau (ECB).
Coverage
<ul style="list-style-type: none">• 30,000 existing substances (= all existing substances above 1tonne/year/manufacturer);• Acute and long-term toxicity tested. Tailor-made testing for long-term effects (such as cancer, reproductive effects) for substances above 100 tonne/year/manufacturer;• Waiving of testing on due justification, all available test data used and registered;• Reduced testing for low exposure substances and R&D (research and development) substances.• Limited in vitro testing for substances between 1 and 10 t.
Costs
<p>Cost of action. It is very difficult to give a reliable estimate of the "cost of action" implied, such as for the testing of existing substances where availability of test data generated earlier is largely unknown. However, a first estimate is given in the following.</p> <ul style="list-style-type: none">• Testing costs for existing substances. € 2.1 billion over <i>11 years</i> = € 0.2 billion/year, to be borne by the chemicals industry.• Human resources for an expanded European Chemicals Bureau (ECB). A staff of 190 people at the ECB to provide the technical and administrative framework.• Public human resources in the Member States. Member States will reallocate their current staff. Extra resources will be allocated to evaluation of existing substances. These resources will be freed from their current tasks by the following measures:<ul style="list-style-type: none">– Computerised screening and sport checks will replace the current general conformity check for new substances below 100 t– Risk assessments will generally be carried out by industry rather than authorities– in view of the expanded ECB and the reduced efforts needed for the authorisation process instead of the current restrictions process under Directive 76/769.• Industry human resources. An estimate is hardly possible because an increase can be expected for processes such as the authorisation process, but a reduction can be expected because of<ul style="list-style-type: none">– no notification of substances between 10 kg and 1 tonne/year/manufacturer;– less strict requirements for certain substances such as intermediates with low exposure;– less strict requirements for R&D substances (research and development).(The staff for the testing of existing substances is already covered by the above-mentioned testing costs.)

Benefits

- **Better protection of the environment and human health** through appropriate risk management based on adequate information about the dangerous properties of chemicals. This will reduce the incidence of certain diseases related to chemicals (such as cancer or allergies) and reduce the risks that chemicals can pose to the environment (such as through the accumulation of persistent chemicals in the food chains). The main difficulty is that neither the dangerous properties nor the uses of chemicals are sufficiently known. For illustrative purposes reference is made to allergies.
- **Allergy costs** are estimated at € 29 billion/year in Europe²². Chemical substances are considered to play a major role in inducing allergies either directly or by increasing susceptibility to natural allergens (e.g. pollen). For example a US study has shown that asthma cases have risen by 40% since the 1970s. If the new strategy makes even a small reduction in the € 29 billion of allergy costs, this will outweigh the costs of the strategy.
- Improved framework for **innovation** in the chemicals sector. This will
 - contribute to the development of novel chemicals that may **substitute** current chemicals of concern, thus decreasing the risks from chemicals;
 - strengthen the **competitiveness** of the EU chemicals industry.
- Increased **transparency** and better access of the public to information, thus enabling them to make an "informed choice" about the chemicals they want to use.

²² The German 'Sachverständigenrat für Umweltfragen' (Advisory Council on the Environment) estimated in 1999 that the socio-economic costs of allergies alone for Europe were € 29 billion per year.

Appendix EUM
Towards a Strategy to Protect and Conserve
the Marine Environment



COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 02.10.2002
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**COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE
EUROPEAN PARLIAMENT**

Towards a strategy to protect and conserve the marine environment

COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT

Towards a strategy to protect and conserve the marine environment

1. INTRODUCTION AND SETTING THE SCENE

1. The 6th Environment Action Programme (6th EAP) stipulates the development of a thematic strategy for the protection and conservation of the marine environment with the overall aim *"to promote sustainable use of the seas and conserve marine ecosystems"*, because the marine environment is subject to a variety of threats. These threats include loss or degradation of biodiversity and changes in its structure, loss of habitats, contamination by dangerous substances and nutrients and possible future effects of climate change. The related pressures include: commercial fishing, oil and gas exploration, shipping, water borne and atmospheric deposition of dangerous substances and nutrients, waste dumping, physical degradation of the habitat due to dredging and extraction of sand and gravel.

2. While measures to control and reduce these pressures and impacts do exist, they have been developed in a sector by sector approach resulting in a patchwork of policies, legislation, programmes and action plans at national, regional, EU and international level, which contribute to the protection of the marine environment. At the EU level, there exists no overall, integrated policy for marine protection.

3. At a global level the seas and oceans play key roles in climate and weather patterns. The oceans and seas also generate wealth, they provide important food resources and provide employment for a significant number of people. However, our oceans and seas are under threat: in some cases to the extent that their structure and function is being jeopardised. If our oceans and seas are not preserved their ecological capital will erode and the wealth generation and employment opportunities of future generations will be put at risk.

4. The 6thEAP establishes a programme of Community action on the environment. It addresses the key environmental objectives and priorities based on an assessment of the state of the environment and of prevailing trends including emerging issues that require a lead from the Community. The Programme promotes the integration of environmental concerns in all Community policies and contributes to the achievement of sustainable development throughout the current and future enlarged Community.

5. This programme represents the environmental dimension of the Community's Strategy for Sustainable Development (SDS). The Strategy for Sustainable Development (SDS) builds upon the political commitment of the European Union: *"to become the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion"*.

6. This recognises that in the long term, economic growth, social cohesion and environmental protection must go hand in hand. Promoting the health and proper functioning of marine ecosystems will increase their intrinsic values and contribute significantly to sustainable development.

7. This has been further strengthened by the outcome of the World Summit on Sustainable Development in Johannesburg. In its implementation plan the Summit agreed, *inter alia*,

- to encourage the application by 2010 of the ecosystem approach to oceans;
- to maintain or restore fish stocks to maximum sustainable yields with the aim of achieving these goals for depleted stocks on an urgent basis and where possible before 2015;
- to implement the FAO plan for managing fishing capacity by 2005;
- to implement the FAO plan to prevent illegal fishing by 2004;
- to establish a regular UN process for assessing the state of the marine environment by 2004.

8. The political commitment to sustainable development should lead to a more integrated approach to policy making and management because each policy sector should consider also the side effects, positive or negative, on other sectors and the marine ecosystem. Evaluating and managing the long- term consequences of current and future practices on other sectors and on the marine environment, even without full knowledge, will be equivalent to adopting an ecosystem-based approach based on the precautionary principle. The fundamental of the ecosystem-based approach lies in the integration of sometimes conflicting demands in protecting and exploiting the marine environment in such a way that it can continue to support these demands in the long-term.

9. One of the particular features of the marine environment is the number of organisations, regional conventions and international bodies, which are concerned with its protection. In addition the EU itself has an extensive body of legislation, policies and programmes which directly or indirectly impact upon the quality of our oceans and seas. The institutional and legal complexity of marine protection is indeed one of the main challenges to be confronted in developing an EU strategy and will be addressed in the document.

10. In addressing the protection of the marine environment, we must also define the geographical scope of our actions. The strategy we are setting out to establish is intended to contribute to the protection of oceans and seas and their biodiversity throughout the world. Clearly the opportunity for concrete measures and actions will be much greater in those parts of the oceans and seas which are part of the territorial waters and Exclusive Economic Zones (EEZs) of the Member States and Candidate Countries (North East Atlantic, Baltic Sea, Mediterranean Sea and Black Sea). However, the EU can have a

significant influence on the health of marine ecosystems of other seas such as the Barents and Arctic seas and at international level. This would be through its bilateral agreements, its political co-operation, its legal approximation, its fishing agreements with third countries, its development programme and also its participation in international treaties and conventions.

11. The title of the present document is "*Towards a strategy to protect and conserve the marine environment*". As this is the first communication addressing a marine strategy it is premature to provide the integrated approach that will be needed in the future. At present not all the information needed for developing such an integrated policy is available. It is therefore action and sector oriented in order to describe the complexity and it is intended to establish the foundation upon which a thematic strategy can be built. In particular the present document will:

- (1) review the current information concerning the environmental status of the seas and oceans and identify the main threats (Chapter 2 and Annex 1);
- (2) review the present situation with regard to the development and implementation of policies to control these threats, both within the EU and at regional and international level (Chapter 3 and Annex 2);
- (3) identify gaps in knowledge and review the present situation with regard to monitoring assessment and research (Chapter 4 and Annex 3);
- (4) draw operational conclusions as to what needs to be done to improve the current situation (Chapters 3, 4 and 5);
- (5) identify the appropriate operational and institutional objectives for the EU (Chapter 6 and 7);
- (6) set out an action plan and a work-programme for the Commission, the Member States, Candidate Countries and all relevant stakeholders to work together between now and 2004 in order to define and develop a thematic strategy for the protection and sustainable use of the marine environment (Chapter 8 and Annex 5).

2. THE ENVIRONMENTAL QUALITY STATUS OF OUR SEAS AND OCEANS

12. The following is a brief summary of the environmental quality status of the marine environment. The presentation is focussed primarily on Europe's regional seas. This summary and the more extensive description to be found in Annex 1, is based extensively on the reports of the regional marine conventions¹, reports from the European Environment Agency as well as the information collected and reported in the context of the EU's own policy actions such as the common fisheries policy.

13. Although there is information on the different pressures on the marine environment as described, it is not always clear to what extent these pressures have actually resulted in environmental impacts. Lack of knowledge and the fact that environmental changes take place over long time-scales means that impacts can be unnoticed for long periods of time.

14. Marine biodiversity² is under significant pressure. Overfishing is a common problem worldwide in all European seas and in many sea areas of developing and of developed countries, although management systems for the exploitation of these resources have been implemented (such as the Common Fisheries Policy, CFP). The main environmental concerns are:

- several important commercial fish stocks such as cod and hake have reached critical low levels and the majority of fish stocks is fished well above what is sustainable;
- significant damage to non-target fish species and to other, non-fish species such as cetaceans, seals, birds and turtles mainly as a result of high fishing intensity;
- in addition to these direct impact on species, commercial fishing activities are also responsible for damage to sensitive habitat types such as maerl beds, posedonia meadows and deep-sea reefs;
- alterations of the structure and function of marine ecosystem by fishing down the marine food chains.

¹ These reports include; the Fourth Periodic Assessment of the Helsinki Commission (to be published in 2002), the "QSR2000" of the OSPAR Commission (published in 2000), which includes a contribution made by AMAP, the "State and Pressures of the Marine and Coastal Mediterranean Environment" of the EEA and UNEP/MAP (published in 1999), the "Black Sea Pollution Assessment" of the Black Sea Environmental Programme (published by the Black Sea Environmental Programme in 1998) and information taken from the website of the Black Sea Environmental Programme and "Europe's Environment: The Second Assessment", published by the EEA in 1998. Information regarding the impact of fisheries on the main commercial fish stocks was updated taking into account the Commission's Green Paper on the Review of the Common Fisheries Policy.

² For the purpose of this Communication marine biodiversity is used in accordance with relevant parts of the UN Convention of Biodiversity Article 2 that states: "Biodiversity means the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic organisms and the ecological complexes of which they are part: this includes diversity within species between species and of ecosystems."

15. Another threat to marine biodiversity is associated with the (unintentional) introduction of non-indigenous species, genetically modified or disease bearing organisms. The main vector for these introductions is the discharge of ballast waters from ships and organisms carried on ships' hulls. Aquaculture is also a significant source. When introduced into an ecosystem, non-indigenous species can have a catastrophic effect on indigenous plant and animal communities.

16. Further, the increasing intensity of human activities along the coasts (such as the development of ports and harbours, coastal protection, land reclamation, tourism and sand and gravel extraction) has a severe impact on coastal habitats and associated ecological processes. These impacts may extend for a significant distance offshore. In addition to increasing levels of urbanisation and tourism, developments such as barrages and wind-parks may also have an impact on habitats and sensitive species. The development of wind and wave power installations should respect sustainability principles.

17. Various hazardous substances reach the marine environment following their discharge, emission and loss from a number of industrial processes and commercial and domestic uses. Given their intrinsic properties of toxicity, persistence, and liability to bioaccumulate, there is evidence that a diverse range of natural and man-made substances have the potential to impair biological processes in aquatic organisms.

18. Although some of the more dangerous substances such as PCB's and DDT and other older pesticides have not been produced or used in the EU for some time, they continue to be detected in the marine environment. Emissions may have stopped, marine water and its associated sediments have a long "memory". As sediments act as sinks for many pollutants, these chemicals continue to be a public health concern and impede the use of marine resources for human use. For example, dioxins are appearing in fish taken from the Baltic Sea. In addition endocrine disrupters associated with decreased human fertility and of fish and other marine species are of increasing concern. On the positive side, there are trends of reduced pollution of some hazardous substances in particular the heavy metals.

19. Eutrophication is caused by excessive inputs of nutrients (nitrogen and phosphorous). Where this is predominantly from agricultural and urban sources, atmospheric deposition of NO_x from seagoing ships, may also be a relevant input. In combination with other conditions these inputs can give rise to (increased) algal blooms. These algal blooms can result in the release of substances which are toxic both to man and to other marine life affecting i.a. fisheries, aquaculture and tourism. Decomposing algae can also deplete the oxygen in benthic waters which, in turn, can also have a severely detrimental effect on marine ecosystems in sensitive areas. Finally eutrophication can also result in spectacular growth of macroscopic algae which is then washed onto the shore where it rots causing nuisance and public health risks. Examples of this type of impact can be observed in the coastal regions of Brittany where the tourist industry in some towns and villages has been blighted as a result.

20. Eutrophication is considered as the most significant cause of the Black Sea's environmental decline since the 1960s and has contributed to the proliferation of

Mnemiopsis. It also has caused marked changes in the Baltic Sea. In the Northeast Atlantic impacts are mainly confined to coastal areas of the eastern part of the North Sea, the Wadden Sea, the German Bight, the Kattegat, and the eastern Skagerrak. In the Mediterranean, the most endangered area is the northern and west coast of the Adriatic Sea.

21. Progress has been made in reducing inputs of nutrients. However, in most cases this has not yet resulted in clear reductions in nutrient concentrations in the areas of concern due to a long time lag. There are also no reductions in concentrations of chlorophyll-a, which is an indicator of eutrophication. Inputs in particular of nitrogen from diffuse agricultural sources and untreated urban wastewater remains a problem to be solved.

22. Violations of existing regulations aimed at preventing discharges of oil at sea are frequent in all European seas, resulting in the oiling of seabirds, shellfish, other organisms and the coastline. In general this type of pollution results from the deliberate washing of tanks or the flushing of bilge or ballast water. So far, there is no clear downward trend. Operational discharges from refineries are decreasing. With regard to the offshore industry in the North Sea, total inputs of oil have been reduced substantially since 1985. However, there is a need for continual vigilance as drilling platforms extend into new sectors in deeper waters and into waters seasonally affected by ice.

23. Further accidents involving ships are unfortunately and despite all the preventive measures which have been put in place, to be expected. Associated with these accidents are the attendant risks of pollution by oil and chemicals. Where major shipping lanes and port facilities are located near to sensitive or special habitats the potential for environmental damage is significantly increased.

24. There is continued public concern with regard to discharges of radionuclides, particularly those arising from nuclear-fuel reprocessing plants. Compared to many other areas of the world, some of Europe's regional seas have received significant discharges of nuclear material. There are few data concerning the impact on marine ecosystems.

25. Contamination with litter is believed to be a general problem in all European Seas. The main sources are shipping (fishing and commercial) and tourist and recreational activities. Impacts on marine life include the drowning of birds entangled in plastic sheeting, and the death of birds, turtles and cetaceans caused by ingested plastic objects. Litter has also been found to carry a variety of epiphytic organisms to sea areas that these organisms would not normally reach. As tourism, urban development and industrial pressure for development in the coastal zone increase, the problem of litter may also increase.

26. There are still a number of Community beaches where problems with microbiological pollution exist. These result from deficiencies in implementing the Urban Waste Water Treatment Directive and as a result the standards of even the present EC Bathing Water Directive, let alone the likely provisions of the new directive, are not met. Problems also exist in non-Community regions in the Mediterranean and are severe in the Black Sea.

27. There are clear linkages between the health and proper functioning of the marine environment and human health. Contamination by marine phytoplankton biotoxins or by pathogens associated with inadequately treated sewage, may have a direct and very obvious impact on human wellbeing.

28. For instance, some countries bordering the Baltic Sea have issued guidelines for consumption by sensitive groups (pregnant women, nursing mothers, children) of certain species of fish due to contamination by dioxins but nevertheless allow for high levels of contaminants in fish products. In certain areas of the European coast the concentrations of heavy metals in carnivorous fish sometimes exceed maximum acceptable levels. Human beings are at the top of the food chain and as such are the ultimate sinks for contaminants which bio-accumulate and bio-magnify.

29. The potential consequences of climate change are far reaching and may include changes in ocean current strength and transport, water mass formation rates, sea level height, the strength and frequency of weather systems, and rainfall and run-off with downstream effects on ecosystems and fisheries.

3. REVIEW OF THE PRESENT SITUATION – EXISTING POLICIES AND LEGISLATION ON PROTECTION AND CONSERVATION OF THE MARINE ENVIRONMENT

30. From the review of current EU policies and legislation in Annex 2, it is apparent is that there exists a wide variety of EU measures which contribute to the protection of the marine environment. However, as most of this is sectoral and as the geographic scope varies, there is no integrated policy focussed on the protection of our seas and oceans.

Threat/Pressure	Legislation, policy or programme
Biodiversity Decline/ Habitat Destruction	A Sustainable Europe for a Better World: A European Union Strategy for Sustainable Development (SDS), Directive on the conservation of natural habitats and of wild fauna and flora (92/43, Habitats Directive), Directive on the conservation of wild birds (79/409, Birds Directive), Council Regulation establishing a Community system for fisheries and aquaculture (No 3760/92 of 20 December 1992, CFP), Agricultural Policy (CAP), Directive establishing a framework for Community action in the field of water policy (2000/60, WFD), draft Recommendation concerning the implementation of Integrated Coastal Zone Management in Europe (ICZM); proposed Directive amending the Recreational Craft Directive 94/25 to include noise and exhaust emission limits for engines used in recreational craft

Threat/Pressure	Legislation, policy or programme
Hazardous Substances	Directive on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances (67/548) and related legislation, Directive 76/769 relating to restrictions on the marketing and use of certain dangerous substances and preparations, Directive concerning the placing of plant protection products on the market (91/414), Directive concerning the placing of biocidal products on the market (98/8), Directive on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community (76/464, plus daughter directives), Directive concerning integrated pollution prevention and control (96/61, IPPC), WFD, Chemicals Policy, emissions legislation especially national emission ceilings
Eutrophication	Council Directive concerning the protection of waters against pollution caused by nitrates from agricultural sources (91/676, Nitrates Directive), Council Directive concerning urban waste-water treatment (91/271, UWWT), WFD, CAP, emissions legislation/national emission ceilings
Chronic Oil Pollution	Directive on port reception facilities for ship-generated waste and cargo residues (2000/59), Community Framework for cooperation in the field of accidental or deliberate marine pollution
Radionuclides	Basic safety standards established under the Euratom Treaty establishing the European Atomic Energy Community
Health and Environment	Directive concerning the quality of bathing water (76/160), UWWT, Directive 91/492 on shellfish, Directive 91/493 on fish and fishery products and Directive 96/23 on monitoring of residues in food (Food Safety Framework), Directive laying down the health conditions for the production and the placing on the market of live bivalve molluscs (91/492), Commission Strategy with regard to Dioxins, Furans and PCB; proposed Directive amending the Recreational Craft Directive 94/25 to include noise and exhaust emission limits for engines used in recreational craft (COM (2000) 639); Proposal for a directive on the Protection of the Environment through Criminal Law (COM (2001) 139)
Maritime Transport (limited to measures most directly linked to the protection of the marine environment)	Directive 93/75 concerning minimum requirements for vessels carrying dangerous or polluting goods; Directive 94/57 on common rules and standards for ship inspection and survey organisations, Directive 95/21 concerning Port State Control; Directive 2000/59 on port reception facilities for ship-generated waste and cargo residues; Directive 2001/25 on the minimum level of training of seafarers; Regulation 417/2002 on the accelerated phasing-in of double hull or equivalent design requirements for single hull oil tankers;

31. The mandates, objectives and activities of the major regional and international conventions, commissions, organisations and agreements are described in Annex 2 with further detailed background information in Annex 4.

Threat/Pressure	International Conventions / Commissions / Organisations
General	Convention for the Protection of Marine Environment of the North East Atlantic (OSPAR), Convention for the Protection of the Marine Environment of the Baltic Sea (HELCOM), Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (BARCELONA), Convention for the Protection of the Black Sea against Pollution (Bucharest), North Sea Conference
Biodiversity Decline / Habitat Destruction	OSPAR, HELCOM, BARCELONA, Agreement on the conservation of small cetaceans of the Baltic and the North Seas (ASCOBANS), Agreement on the conservation of cetaceans in the Black and Mediterranean Seas and contiguous areas of the North East Atlantic (ACCOBAMS), International Baltic Sea Fisheries Convention (IBSFC), North East Atlantic Fisheries Commission (NEAFC), North Atlantic Salmon Conservation Organisation (NASCO), International Commission for the Protection of Atlantic Tunas (ICCAT), Convention on Biological Diversity (CBD), Food and Agriculture Organisation (FAO), Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention), Convention on the Conservation of Wildlife and Natural Habitats in Europe (Bern Convention), UN Convention of the Law of the Sea (UNCLOS)
Hazardous Substances	OSPAR, HELCOM, BARCELONA, Bucharest, Convention on the Prevention of Marine Pollution by Dumping Wastes and other Matters (London Convention), Stockholm Convention on Persistent Organic Pollutants (POPs), International Convention for the Prevention of Pollution from Ships (MARPOL 73/78), UN-ECE Convention on Long-range Transboundary Air Pollution (LRTAP); Rotterdam Convention on Prior Informed Consent for certain Hazardous Chemicals in International Trade
Eutrophication	OSPAR, HELCOM, BARCOM, Bucharest
Chronic Oil Pollution	OSPAR, Agreement for Cooperation in Dealing with Pollution of the North Sea by Oil and Other Harmful Substances (Bonn Agreement), Agreement concerning Cooperation in taking Measures against Pollution of the Sea by Oil (Copenhagen Agreement), Agreement for Cooperation in Dealing with Pollution due to Hydrocarbons or Other Harmful Substances (Lisbon Agreement, not yet in force), HELCOM, BARCELONA, Bucharest, MARPOL 73/78
Radionuclides	OSPAR, HELCOM, BARCELONA, Bucharest, International Atomic Energy Agency, London Convention
Health and Environment	HELCOM, BARCELONA, Bucharest, European Environment and Health Committee, World Health Organisation; Convention for the protection of environment through criminal law of the Council of Europe
Maritime Transport	International Maritime Organisation (IMO) administering several global conventions related to maritime transport, Paris Memorandum on Port State Control (Paris MOU), HELCOM, BARCELONA

32. The large number of different organisations contributing to the protection of the marine environment is apparent. The geographical area covered by these organisations overlap to a large extent with Community waters. Also in terms of membership there is overlap, albeit to a different extent in the different organisations.

33. In relation to the specific threats and pressures impinging upon the marine environment the following conclusions can be drawn with regard to EU and regional/international activities

Biodiversity Decline and Habitat Protection

34. The most significant policies and actions addressing the protection of species and habitats within the EU are the Habitat and Birds Directives, the Common Fisheries Policy, the Common Agricultural Policy and the Biodiversity Action Plans. The OSPAR, Helsinki and Barcelona Conventions activities are being carried out regarding the protection of species and habitats. In the Baltic region actions and targets have been established in the Baltic 21 agenda. Activities regarding the biodiversity and habitat protection in the Black Sea are not very well developed yet.

35. International conventions on fisheries (e.g. Atlantic salmon under NASCO) and on biodiversity protection (e.g. the Biodiversity Convention (BDC) and ASCOBANS) are either of a general nature or directed at specific stocks and are the principal driver. There are inconsistencies between decisions taken under ASCOBANS and the provisions of the Habitats directive. Where there is further potential for parallel activities, an integrated and consistent approach should be developed to avoid further inconsistencies.

Hazardous Substances

36. EU measures for controlling pollution with hazardous substances include as the most significant the directives on new and existing substances, IPPC, the Water Framework directive and the New Chemicals Policy. All regional marine conventions address measures to control hazardous substances, sometimes to a high level of detail. A fruitful co-operation between the EU and OSPAR has recently been developed in the field of the selection and prioritisation of hazardous substances and in assessments of these substances with OSPAR addressing its concerns to the Commission where the Community is in a better position to regulate. Relative risk rankings of priority substances in EU and in the regional marine conventions may vary as a result of different relevance of substances in the marine and in freshwater environments or to different usage patterns of substances in countries across Europe.

37. Where a large part of the regulatory effort of marine Conventions attempts to control chemical products and industrial installations which are also covered by Community legislation, there is a large duplication of effort as well as confusion given the divergent positions taken by the same countries in different fora. Usefully, there have recently been some efforts to co-ordinate the respective work programmes and work according to common methodology. Further afield international action in the context of the recently agreed POP's Convention and the LRTAP Protocols will be of relevance.

Eutrophication

38. The main EU instruments to combat eutrophication are the Nitrates Directive, the Urban Wastewater Directive, the Water Framework Directive and the CAP. Both OSPAR (under its Strategy to Combat Eutrophication) and HELCOM stress the need to implement these measures and undertake to identify what additional measures would be

required. Regulation by both the EU and the regional marine conventions leads to a degree of confusion as well as duplication of effort. In the field of assessing the status of eutrophication in the marine environment, activities of the regional marine conventions would be beneficial for the Community.

Chronic Oil Pollution

39. Although the IPPC and the EIA Directives are applicable, there is no specific EU policy or legislation addressing the offshore oil and gas industry. Measures to control emission and discharges from this sector are mainly developed by OSPAR. Furthermore, Annex 1 (oil) of MARPOL73/78 is applicable on a worldwide scale as far as prevention of ship-source pollution is concerned. These rules are complemented by EC rules for ships bound for EU ports (mainly the Port State Control and reception facilities Directives). There is at present no real competition or wasteful policy overlap in this area.

40. The main activity in the EU on combating pollution at sea is the action programme on controlling and reducing marine pollution by discharges of hydrocarbons and hazardous and noxious substances. Also HELCOM, the Bonn and Lisbon Agreements, and the Barcelona Convention are active in this field. In general it can be concluded that these activities are well coordinated and beneficial to all.

Contamination with Radionuclides

41. There exists a global moratorium on sea dumping of radioactive wastes. In European seas dumping of such wastes is banned completely. Euratom provides for the possibility to adopt recommendations on the levels of radioactivity in water, air and soil. However, this provision has so far not been utilised for the marine environment. Under its Strategy with regard to Radioactive Substances, OSPAR is carrying out activities to identify, prioritise, monitor and control the emissions, discharges and losses of radioactive substances. HELCOM has started the monitoring of radioactive substances in 1985 as a continuation of the previous work coordinated by IAEA. The programme includes monitoring of inputs of artificial radioactive substances and their concentrations in water, biota and sediments. The European Commission is carrying out an update of the MARINA Project on the Radiological Exposure of the European Community from Radioactivity in North European Marine Waters. Results of this project are and will be used by the regional conventions. Overlap or duplication of efforts is not an issue in this area. Community and work of the regional marine conventions on radioactive substances appears to be complementary.

Health and Environment

42. The main pieces of EU legislation controlling microbiological pollution are the Bathing Water Directive and Urban Wastewater Directive. However, the main problems occur in the non-EU parts of the Mediterranean and in the Black Sea due to lack of adequate treatment facilities in these regions. Enhanced cooperation could benefit these regions. Overlap of activities is not an issue.

43. There is no overlap between the activities of the food safety framework of the Community and those of the regional marine conventions as these organisations are not involved in issues related to health and environment.

44. Two legal instruments, one at EU level, the other one at European level, could improve the protection of the marine environment at European level by obliging Member or Contracting States to provide for criminal sanctions to deter and prevent conduct which is harmful to it. However, neither of these instruments has entered into force; the first instrument has not yet been adopted by Council and the second one has not yet been ratified.

Maritime Transport

45. Shipping is a highly regulated field at international level. Community legislation regulating maritime transport and the safety and environmental aspects thereof is inevitably often related to legislation adopted at the global level. The Community's main role has been to identify weaknesses and gaps in the international regulations and their implementation and to adopt specific Community measures, where considered necessary. Therefore overlap of activities is not an issue. Where ships are considered products, the overall impact on the environment in terms of material consumption, emissions and waste generation in their construction, operation and disposal could be addressed in a more integrated way.

4. REVIEW OF THE PRESENT SITUATION – THE KNOWLEDGE BASE

4.1. Do we have the Information Necessary to Protect and Conserve the Marine Environment-Gaps in Knowledge

46. An outline of our understanding of the quality status of the marine environment is given in Chapter 2. This section outlines a short summary of the main gaps in our knowledge. It has already been mentioned in Chapter 2 that even where there is information on the pressures on the marine environment, there is often no information on any actual impact resulting from these pressures. This summary takes account of current monitoring programmes and information presented in the assessment reports of the regional marine conventions.

47. Considering that the conservation and sustainable use of biodiversity should be based on an ecosystem-based approach the following four main gaps in knowledge can be identified:

- (1) how is biodiversity affected by human induced changes and natural processes and what is the recovery potential and speed once the drivers of the impact have been reduced or eliminated;
- (2) how does the change in species diversity and structure influence the functioning of marine and coastal ecosystem;

- (3) what is the impact on the elements of marine biodiversity e.g. in terms of decline, losses and timescales;
- (4) how should sustainability be defined in relation to biodiversity and how to monitor changes.

48. In relation to fisheries management there is a need for more reliable and accurate data to manage fish stocks better in marine waters. In addition information on the effects of fishing on non-target species such as benthic organisms, sharks, rays, turtles, seabirds and marine mammals and on benthic habitats, including deep-sea environments is incomplete. Furthermore information is lacking on the effect of changes in size and species structure as well disturbance in trophic levels.

49. Inventories of species and habitats in need of protection are available for some areas but lacking for other areas. There is also an urgent need to integrate mapping of elements of marine biodiversity.

50. Data concerning marine mammal populations are incomplete, in particular with regard to population abundance and trends and the impact of human activities.

51. Information is lacking to identify, monitor and assess the impact of the introduction of non-indigenous species.

52. For a large number of chemicals reliable data on the intrinsic properties as well as on concentrations in the marine environment is either lacking or not easily accessible. There are no routine monitoring programmes for a large number of the chemicals considered to be of possible concern to the marine environment. The spatial distribution of the available information for those that are covered in monitoring programmes is such that it does not appear to provide an overall picture of the chemical status of the marine environment. On the basis of available data, it has been difficult to establish reliable trends regarding chemical contamination. This is mainly due to the fact that time series are too short and/or that data were not comparable or not reliable.

53. Little information on the range and concentrations of anthropogenic chemicals released into the marine environment that may cause endocrine disruption in marine organisms is available. The way in which potential endocrine-disrupting chemicals affect organisms is not fully understood and more information is needed on endocrine-disrupting effects other than oestrogenic effects. Furthermore, an assessment of the long-term risks posed to marine ecosystems by hazardous substances is lacking.

54. HELCOM and the BONN Agreement collect since long information regarding illegal oil discharges from ships into the sea. Information for other areas is incomplete and not fully representative.

55. The understanding of the response of the marine ecosystem (for example, through the formation of harmful algal blooms, changing algal community structure and succession) to inputs of nutrients, especially the impact of changing nutrient ratios and the contribution of dissolved and particulate nitrogen and phosphorus is rather limited.

56. Information is lacking on natural variability in nutrients and ecosystem response, including the measurement and assessment of long-term trends. More research is also needed on the extent to which atmospheric deposition of NO_x, including from seagoing ships, are contributing to marine eutrophication.

57. Information on the extent of pollution by radioactive substances as well as the effects of these substances in the marine environment, the extent of marine litter and its effects on marine species, the extent of contamination of fish and shellfish products is also incomplete

4.2. Programmes on Monitoring, Assessment, Reporting and Research

58. A review of current activities regarding monitoring, assessment, reporting / data management and research, is presented in Annex 3.

59. From this review, it is apparent that most of the organisations involved in the development of measures to protect the marine environment are also involved in monitoring and assessment activities. In addition, at the European level, the EEA and ICES are involved in assessment activities. Further afield on the global level, organisations such as IOC, GESAMP and UNEP produce or intend to produce regular assessments of the state of the marine environment. Focussing on the European level the following conclusions can be drawn.

Monitoring

60. When seen in a European context, the existing monitoring programmes of the regional marine conventions are not very coherent in terms of scope, content (issues covered) and detail (geographic and temporal density). However, some of the divergence can be attributed to differences in environmental conditions and differences in socio-economic and political situations in the countries bordering these seas. Activities carried out in the context of the implementation of the Water Framework Directive can give an impetus for a more coherent approach.

Assessment

61. A certain level of duplication of effort can be observed in reading the most recent assessment products of the EEA and of the regional marine conventions. This duplication might be reduced by synchronising the frequency and timing and streamlining the content of assessment products and by harmonising the way assessments are made. Where several assessments are based on the same raw data, procedures to make contributions to assessment products of other organisations are lacking and there are barriers to access to publicly funded monitoring data.

Reporting and Handling of Data and Information

62. There is a need to improve the situation with regard to reporting, handling and management of data and information. This could be usefully realised on a European level and be based upon a common policy on generation of, access to and use of the different types of data and information.

Research

63. Research has generated valuable insights into the state of the marine environment and its ecosystems but much more will be needed. As the results of publicly funded research are often not available nor fully exploited in operational work, there is scope for improving the communication between the research community and those engaged in operational activity both in establishing the research priorities and in applying results to operational monitoring and assessment in the regions.

5. OVERALL CONCLUSIONS REGARDING THE PRESENT SITUATION

64. As indicated in the previous sections, a large number of problems have yet to be fully addressed and major threats still persist notwithstanding the work of different bodies over the last three decades. Some significant improvements in the quality status of European seas have been realised and some of the trends towards worsening pollution have been halted and in some cases reversed.

65. The overview of existing monitoring and assessment programmes and the knowledge they have generated reveals a significant number of information gaps on the state of the marine environment and on the effectiveness of the existing measures. Consequently it is, in many cases, unclear whether and which additional protection measures should be considered as well as the administrative level at which they should be considered.

66. Most of the Community legislation that contributes to addressing the protection of the marine environment was not designed specifically for protection of the marine environment. The control measures of the regional marine conventions aimed at protecting the marine environment are, while in some cases legally binding, difficult to enforce. Consequently it is unclear whether the aggregate of these measures is sufficient to afford the desired level of protection and conservation.

67. Furthermore, the existing situation described in chapters 3 and 4 does or may lead to: differences in assessments about the need to control environmental threats, lack of coherence and uncertain adequacy in overall policies of the different organisations and in specific measures adopted under such policies, breaks in the chain of the policy cycle when one organisation transfers certain issues to another for follow-up action, disputes about matters of competence, lack of coherence in Member States positions in different fora and duplication of efforts and waste of resources.

68. Although the analysis outlined in chapters 2-4 focused more on the regional than on the global dimension, many of the overall conclusions would also apply at the global level. While there are various sectoral instruments at UN level in the framework of UNCLOS and UNEP, there is a need to improve the ratification and implementation of these and for a better co-ordination of the global programmes. There is similarly a need for a comprehensive assessment of the state of the marine environment which should be based on regional and sectoral inputs. In addition there is a need for reinforced capacity building, particularly in developing countries, both to develop the knowledge base and to implement management measures.

69. The global dimension also includes the external role of the Community. In substantive terms, the strategy will have implications for the Community's trade, development and external fisheries agreements. The Community should project its policy at a global level both in its participation in multilateral meetings of UN agencies and in its bilateral and multilateral agreements.

6. THE WAY FORWARD

70. Taken together, these conclusions would suggest that the Marine Strategy should set an ambitious, clear and coherent set of objectives with a view to promoting sustainable use of the seas and conserving marine ecosystems (cf. chapter 7). The activities to achieve these objectives (cf. chapter 8) should include the following elements:

- development of a coherent marine policy by moving towards an ecosystem-based approach building on the existing policies;
- improving implementation and enforcement of both existing and new legislation in an integrated way;
- mechanisms and actions aimed at facilitating the co-ordination of these measures and the co-ordination of the different organisations and other stakeholders;
- initiatives to improve knowledge, on past trends in and likely future scenarios for the quality status of European seas and the procedures and methodologies to assess this information;
- promotion of the use and improvement of the co-ordination between the different funding instruments towards the protection of the marine environment;
- application of these strategic elements both regionally and globally.

7. OBJECTIVES

Overall objective

The Marine Strategy should constitute a contribution to the Community Strategy for Sustainable Development. Therefore, and as indicated in the 6th EAP, **it should promote the sustainable use of the seas and conservation of marine ecosystems, including sea beds, estuarine and coastal areas, paying special attention to sites holding a high biodiversity value.**

71. This overarching objective should be made operational by setting specific (intermediate) sectoral or issue objectives which should include time-lines for their achievement. Achieving this will require an integrated approach to address all threats and a careful assessment of their negative impact on marine environment and an identification of emerging threats.

72. In endeavouring to achieve this, the regional diversity in the ecological characteristics of the different seas and their sub-regions, the actual quality status thereof, the pressures and threats acting on these seas, the political, social and economic situations in the different regions and existing international institutional arrangements should be recognised and taken into account.

73. Several specific objectives have already been agreed in EC policy from the Treaty and specific legislation as well as by regional marine conventions. These objectives which are in many cases of a political value or aspirational nature have been used as a basis in the following overall set of objectives. Implementation of these objectives should reflect the overall high level of ambition but recognise regional variation on the actual need and opportunities for remedial action.

Loss of Biodiversity and Destruction of Habitats

Objective 1

The European summit in Gothenburg in June 2001 concluded in the context of the debate on sustainable development that a political objective of the EU was **to halt biodiversity decline by 2010**. This is an extremely ambitious and challenging objective which will drive environmental policy over the next 8 years.

Objective 2

In the longer term, the objective is **to ensure a sustainable use of biodiversity through the protection and conservation of natural habitats and of wild fauna and flora** in the first instance in the European seas, *inter alia*, by restoring marine ecosystems and re-establishing certain trophic levels which have been affected by human activities and by preventing the human induced introduction of new non-indigenous species, genetically modified organisms and disease organisms.

Objective 3

In relation to the reform of the Common Fisheries Policy which is currently underway the environmentally relevant objectives have already been identified and included in the Commission's proposal on this reform, namely **a change in fisheries management to reverse the decline in stocks and ensure sustainable fisheries and healthy ecosystem, both in EU and globally**.

Hazardous Substances

Objective 4

The objective is to progressively reduce discharges, emissions and losses of substances hazardous to the marine environment with the ultimate aim to **reach concentrations of such substances in the marine environment near background values for naturally occurring substances and close to zero for man-made synthetic substances**.

Eutrophication

Objective 5

The objective with regard to eutrophication is to **eliminate human induced eutrophication problems by 2010** by a progressive reduction of anthropogenic inputs of nutrient to areas in the marine environment where these inputs are likely, directly or indirectly, to cause such problems. Where no regional objectives on eutrophication have been set, regional specific action and timeframes for achieving this objective will be developed in collaboration with the regional marine conventions.

Radionuclides

Objective 6

The objective with regard to radionuclides is to prevent pollution from ionising radiation through progressive and substantial reductions of discharges, emissions and losses of radioactive substances, with the **ultimate aim to reach concentrations in the marine environment near background values for naturally occurring radioactive substances and close to zero for artificial radioactive substances. This objective should be achieved by 2020.**

Chronic Oil Pollution

Objective 7

The objective in this case is to **ensure compliance with existing discharges limits of oil from ships and offshore installations by 2010 at the latest and to eliminate all discharges from these sources by 2020.**

Litter

Objective 8

The objective is to **eliminate marine litter** arising from illegal disposal at sea by 2010.

Maritime Transport

Objective 9

The objective is to **reduce the environmental impact of shipping** by developing the concept of the "Clean Ship".

Health and Environment

Objective 10

The objective is to **achieve a quality of the environment where levels of contaminants do not give rise to significant impacts on or risks to human health and wellbeing.**

Climate Change

Objective 11

The objective is to **implement Community commitments made in the Kyoto Protocol.**

Enhancing Co-ordination and Co-operation

74. In addition to objectives concerning environmental threats and pressures set out above, the EU should actively pursue objectives to improve the tools, processes and institutional arrangements which are employed to protect the marine environment.

Objective 12

The objective is to **realise more effective co-ordination and cooperation between the different institutions and regional and global conventions, commissions and agreements** governing marine protection.

Objective 13

The objective is to **pursue this strategy at global level**, by building capacity, in particular in developing countries, to facilitate a better understanding of the state of the marine environment and to **implement international Conventions and codes of practice.**

Improving the Knowledge Base

Objective 14

The objective is to **improve the knowledge base** on which marine protection policy is based.

8. ACTION TO ACHIEVE THE OBJECTIVES

75. As the above objectives are often of a political and aspirational nature rather than specific, measurable or time related, their realisation could involve a range of different measures. At this stage with the gaps in knowledge as indicated above, it is not feasible to indicate a complete or precise set of actions to reach the objectives. In addition, as some non Community bodies and various stakeholders have a role to play and dialogue is at an early stage, it would be premature to itemise all the actions even if the knowledge base were more complete. The actions to achieve these ambitions detailed hereunder should be seen as a proposition for further discussion. An overview of the time schedule of these actions is presented in Annex 5.

8.1. Policy Action

76. With greater focus on prevention and by applying the precautionary principle, Commission proposals for control measures will be based on improved knowledge on

the state of the marine environment and the actual threats of particular human activities to it and an overview of the effectiveness of the implementation of existing measures. Scenarios reflecting planned or foreseen developments and their likely impacts should also be taken into account.

77. Where Treaty provisions on environmental protection allow Member States to introduce national control measures that go beyond the common Community level of protection, this implicitly provides opportunities for groups of Member States to do so in concert. The regional diversity of socio-economic and environmental conditions may warrant specific measures and different timeframes may be required to address certain environmental problems. However, such measures should be based on the principles of sustainable development and not jeopardise the effective functioning of the internal market.

78. The remit of the Community has certain geographic limits and some problems have their source beyond these. Therefore, the Commission will, in co-operation with the relevant non-Community bodies, ensure the most opportune locus of regulation. Where appropriate, this will take the form of agreements in the framework of other bodies.

79. While such agreements are generally difficult to enforce, they provide an opportunity to address regional specificity and aspirations and they have a role in influencing EC and national legislation. Where the Community is best placed to regulate, the Commission will ensure that concerns identified by these conventions, based on regional assessments are fully taken into account in developing Community policies.

80. The Commission will also put more emphasis on implementation and enforcement. In doing so, and in addition to essentially retrospective implementation reporting required under many pieces of legislation, the Commission will actively promote the Common Implementation Strategy for the Water Framework Directive as a model for a forward looking and co-ordinated implementation effort involving the relevant organisations and other stakeholders.

Conserving Biodiversity and Ensuring Habitat Protection

Action 1

The Commission will make proposals for developing an ecosystem-based approach, including ecosystem benchmarks and targets to ensure conservation and sustainable use of biodiversity. It will build on the concepts of favourable status of conservation and good ecological status as required by the Habitat and Water Framework Directives and various initiatives regarding the definition of ecological quality objectives.

Action 2

The Commission will pursue its efforts to fully implement the EU Habitat and Bird Directives in the marine environment including Exclusive Economic Zones. The Commission will develop by 2005, together with the regional marine conventions, a

programme aimed at enhancing the protection of species and habitats in European waters. Consequently, the Commission will develop proposals to adapt the annexes to the Habitat Directive containing marine habitats and species to be protected under the Natura 2000 Network to scientific and technical progress.

81. Where this is likely to lead to designation of Special Areas of Conservation which would have implication for ongoing sectoral activities, the Commission will address the integration of nature protection measures and the various sectoral activities impacting on the marine environment including spatial planning and the application of strategic environment assessments.

Action 3

The Commission will, following its proposals in 2002, pursue its effort to adjust the fishing effort and capacity in line with long-term management plans to secure sustainable harvest of fish resources and propose measures to reduce discards, incidental by-catches and impact on habitats.

Action 4

The Commission will, in relation to the introduction on non-indigenous species:

- support the initiative to prepare in the IMO framework an international convention for the control and management of ships' ballast water and sediments;
- develop, in close collaboration with the regional marine conventions, in 2005-2006 regional ballast water management plans as far as such plans are foreseen under this agreement with a view to their early implementation once the agreement has entered into force;
- review in 2004-2005 if and to which extent a complementary initiative for controlling the introduction of new non-indigenous species by ships ballast water will be necessary;
- propose measures to limit escapes of farmed fish from aquaculture.

Hazardous Substances

Action 5

The Commission will actively pursue the implementation of the objectives set in the Water Framework Directive.

Action 6

It will also aim to integrate these objectives into Community policies regarding chemicals and pesticides and other relevant policies so as to achieve a progressive reduction of discharges, emissions and losses of these substances from all land and sea-based sources and sectors with the ultimate aim of halting these.

Action 7

In the context of its implementation of its strategy with regard to Dioxins, Furans and PCBs, the Commission will consider the development of an integrated pilot programme for monitoring of dioxins in the environment and in food in relation to human health in the Baltic area.

Action 8

The Commission will, in 2002, make proposals for the implementation of the IMO Convention on Harmful Antifoulants and will, in 2005, consider the need for possible further action.

Eutrophication

Action 9

To facilitate a more systematic approach towards combating marine eutrophication, the Commission will:

- pursue a more vigorous enforcement and implementation of the nitrates and urban wastewater directives;
- review latest information concerning the processes of eutrophication in the context of current legislation;
- in collaboration with the regional marine conventions establish a more comprehensive assessment in 2006 of the extent of marine eutrophication including a harmonised identification of areas where anthropogenic inputs of nutrients may or do lead to eutrophication problems;
- in the context of the strategy to reduce air pollution from seagoing ships, propose new, complementary instruments, including reduction of ship NO_x emissions. It will initiate in 2002 activities to model depositions of NO_x in the marine environment and if necessary, will make proposals for further reducing NO_x emissions into the atmosphere.

Radionuclides

Action 10

By 2004, the Commission will review the relationship between the OSPAR Strategy with regard to Radioactive Substances and existing EC measures in particular with respect to the reduction of discharges arising from nuclear-fuel reprocessing plants. Based on the results of the updated MARINA project it will determine whether any Community action should be considered.

Chronic Oil Pollution

Action 11

By 2004, the Commission will explore ways to improve surveillance of illegal discharges of oil at sea and means to facilitate prosecution of offenders. In doing so, it will seek enhanced co-operation with the regional Bonn and Lisbon agreements, HELCOM and Barcelona.

Action 12

In addition, by 2004 the Commission will elaborate, in collaboration with all relevant organisations and other stakeholders, a strategy aimed at eliminating all discharges of oil from all sources. In this context, the Commission will review the different approaches regarding the use and financing of port reception facilities.

Litter

Action 13

Where the implementation of the previously mentioned directive is also relevant in reducing litter, the Commission will, in addition by 2004 and in collaboration with all relevant organisations prepare a report on the extent and sources of marine litter and consider possible remedial measures.

Maritime Transport

Action 14

The Commission will:

- in the future assisted by the European Maritime Safety Agency, continue to review the effectiveness of EU legislation in the maritime safety field with special emphasis being given on the recently adopted measures to prevent maritime pollution accidents;
- continue to actively promote initiatives aimed at minimising environmental harm caused by maritime transport and will support efforts to develop the concept of a Clean Ship.

Health and Environment

Action 15

The Commission will, in co-operation with Member States, assess by 2004 the results of the monitoring of the levels of contaminants in wild and farmed fish and shellfish and will make in 2006 proposals for maximum contaminant levels in the framework of food safety legislation.

Action 16

In 2002 the Commission will come forward with a proposal for a revision of the Directive on bathing water. This proposal will strengthen current levels of health protection.

Action 17

The Commission will also undertake to achieve a rapid entry into force of Annex IV of MARPOL 73/78 related to discharges of sewage from ships.

Climate Change

Action 18

The Commission will continue to pursue its implementation of the Kyoto protocol, in particular, the policy on emissions trading and the promotion and development of renewable energy sources including the environmentally sensitive sea-based sources.

8.2. Enhancing Co-ordination and Co-operation

Action 19

The Commission will:

- establish an interservice group to consider all issues related to marine protection and ensure effective co-ordination of the sectoral regulations;
- establish a workprogramme involving a sharing of work with Member States, regional organisations and other stakeholders to realise the objectives of the Marine Strategy;
- publish a report by June 2004 on the results of these initiatives together with recommendations for further action.

Action 20

Where the Commission, within the reform of the CFP, has proposed to establish Regional Advisory Councils with a broad membership including representatives from fisheries and aquaculture sectors, environmental and consumer interests, national and/or regional administrations, and scientists, it will seek to apply this model in other sectors.

Action 21

The Commission will promote the use of and improve the co-ordination between the different funding instruments towards the protection of the marine environment. At regional level, where there is already co-ordination of the selection, funding and implementation of projects, there may be a utility in further reinforcing this.

82. Co-ordination could be facilitated by a forum of discussion involving the Community and representatives of organisations and other stakeholders. It could possibly use the model of the Inter Regional Forum (IRF)³. Co-operation with other bodies could be based on various forms of co-operation agreements or contracts between different actors. It could also involve Community instruments such as resolutions, recommendations and framework legislation.

83. Further detailed proposals for this collaboration will be prepared for discussion at a Conference with all organisations and other stakeholders which the Commission intends to organise in December 2002 in collaboration with the Danish Presidency.

Action 22

At global level, the Commission will:

- promote improved co-ordination between all bodies dealing with marine protection in the framework of UNCLOS and Agenda 21 chapter 17;
- ensure co-ordinated Community position in intergovernmental organisations to facilitate a broad pan European consensus and European influence;
- pursue on-going dialogue and international scientific and technological research cooperation with partner countries and regions interested in promoting the ecosystem-based approach to the marine environment;
- utilise the framework of various programmes of political co-operation and legal approximation with third countries and the various bilateral and multilateral trade, fisheries and development agreements to pursue the objectives of this strategy;
- strengthen at global, regional and sub-regional level, developing countries' capacities for better understanding and management of their marine resources and protection and conservation of their marine environment;
- seek Community membership in some vital organisations, such as the International Maritime Organisation.

8.3. Improving the Knowledge Base

84. At present, there are three main types of marine monitoring and assessment work: (i) the regional monitoring and assessment strategies and programmes; (ii) the Community's implementation strategy on the monitoring and assessment requirements under the EC Water Framework Directive, the food safety framework and other relevant directives; and (iii) the EEA work to develop on a pan-European level indicator based assessments.

³ The IRF is an informal framework for co-operation between regional marine conventions, the EEA and JRC.

Action 23

The Commission will, based on its Communication on the Precautionary Principle and the more recent Communication on (Sustainability) Impact Assessment and the knowledge based approach stipulated in the Sixth Environment Action Programme:

- initiate in 2002 the development of an ecosystem-based approach based on ecosystem indicators and benchmarks and promote the development of integrated advice to facilitate ecosystem based management;
- promote research in order to enhance the understanding of the link between the pressures on the marine environment and impacts of these;
- with a view to further enhancing the understanding of the relationships between pressures on and the resulting impact in the marine environment, take initiatives to improve the linkages between Community funded research activities and operational application of the fruits of this research;
- develop in 2002 proposals for a common approach on the type of the data and information to be collected, how this should be handled and the basis on which it would be assessed to monitor the performance against the benchmarks;
- initiate the development by 2004 of a common monitoring and assessment strategy to set a framework for regional and sectoral monitoring and assessment programmes;
- evaluate the provision of training and identify good practice, with a view to enhance governance;
- play an active role in a process recently started by UNEP aimed at establishing a regular process for assessing the state of the marine environment at a global scale.

85. The Commission envisages this action could result in the following products:

- comprehensive and integrated reports on the quality status of European Seas which should be prepared in a joint programme involving the Community and the other key stakeholders;
- topic assessments to, *inter alia*, inform fisheries management discussions on the effects of fisheries on the marine environment and facilitate better efforts to combat eutrophication;
- indicator based reports on the main trends and developments.

86. The Commission proposes to use as a starting point for the development of the first comprehensive assessment the relevant guidance documents, prepared in the context of the common implementation strategy for the Water Framework Directive, monitoring and assessment programmes of the regional conventions, the EEA and build upon the Inter-Regional Forum.

87. The development of the monitoring and assessment strategy should address, *inter alia*:

- a functional integration of monitoring and assessment activities and requirements of the Community, including the food safety and environment monitoring programmes, and those of the regional marine conventions and the roles of EEA and ICES. While monitoring and assessment should basically be performed regionally, there are questions on the methodology and process on how assessments are being prepared and reviewed;
- a streamlining of the content of assessments, synchronisation of assessment schedules and the harmonisation of assessment tools, of quality assurance, of data collection and handling, of reporting and data-management policies and procedures. A common information infrastructure comprising a common data policy, common standards and structures should be established with a view to removing the obstacles for accessing and using publicly funded data and for the assessments that are based on this data;
- mechanisms to link research priorities and results to operational monitoring and assessment in the regions, *inter alia*, by preparing syntheses of results of relevant funded research, making this available to those performing assessments on the state of the marine environments and by considering knowledge gaps in assessments in establishing new research priorities.

9. CONCLUSIONS

88. In developing the Marine Strategy, the Commission has taken an ambitious and pragmatic approach. Ambitious objectives have been set or proposed which should ensure sustainable and healthy seas and oceans and their ecosystems as well as a sustainable exploitation of their resources. Meeting these objectives requires an efficient development and effective implementation of a coherent set of measures founded on the application of an ecosystem based approach whereby each policy sector through impact assessment will contribute to sustainable development. This in turn requires a pragmatic co-operation and co-ordination of activities of all institutions and organisations, which are concerned with the protection and sustainable use of the marine environment.

89. The publication of this document marks the first step in the development of the Marine Strategy. With this as a starting point, the Marine Strategy will be developed in an open and collaborative process involving the Community institutions and relevant regional organisations and other stakeholders.

90. The Commission requests the Council and the European Parliament to endorse the approach it has set out in this Communication.

ANNEX 1
TO THE COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND
THE EUROPEAN PARLIAMENT

Towards a strategy to protect and conserve the marine environment

Overview of the Quality Status of European Seas

1. INTRODUCTION

The following is a summary of the environmental status/quality of the marine environment. The presentation is focussed primarily on Europe's regional seas. This summary is based extensively on the reports of the regional marine conventions⁴, reports from the European Environment Agency as well as the information collected and reported in the context of the EU's own policy actions such as the common fisheries policy.

2. BIODIVERSITY ALTERATIONS (DIVERSITY, ABUNDANCE AND STRUCTURE)

Changes in populations of commercially exploited fish species represent the most evident information the impact of fisheries on the marine environment.

Analysis of the main target species over the period 1994-98 indicates that the status of populations of cod, herring, wild salmon and eel fishery was unsustainable in the Baltic Sea. Whereas improvement has been achieved for wild salmon in the larger rivers there is still concern about the development in salmon in smaller rivers, herring and cod. The populations of the commercially important cod are declining due to overexploitation and environmental degradation. The Baltic sturgeon is presumed to have disappeared from Baltic waters.

Among the stocks of the commercially exploited fish species of the NE Atlantic, many are either exploited beyond their safe biological limit or are exploited within that limit to an extent that risks the limit being breached. In specific areas, fisheries for 40 out of 60 stocks of these species are believed to be unsustainable and an increasing number of stocks have fallen to critical low levels. Even for stocks that are still within safe biological limits, fishing has altered the size composition. Age compositions have also become truncated. In regions where commercial stocks decline, fishing pressure is often

⁴ These reports include; the Fourth Periodic Assessment of the Helsinki Commission (to be published in 2002), the "QSR2000" of the OSPAR Commission (published in 2000), which includes a contribution made by AMAP, the "State and Pressures of the Marine and Coastal Mediterranean Environment" of the EEA and UNEP/MAP (published in 1999), the "Black Sea Pollution Assessment" of the Black Sea Environmental Programme (published by the Black Sea Environmental Programme in 1998) and information taken from the website of the Black Sea Environmental Programme and "Europe's Environment: The Second Assessment", published by the EEA in 1998. Information regarding the impact of fisheries on the main commercial fish stocks was updated taking into account the Commission's Green Paper on the Review of the Common Fisheries Policy.

transferred to other stocks or to deep-sea populations where management is particularly difficult and to a large extent non-existing. The slow growth rates and low fecundity of many deep-sea fish makes them particularly vulnerable to overexploitation and several of the deep-sea populations show signs of overfishing. The declining trend in eel landings and recruitment has raised concern about the status of the European eel and the eel fisheries.

Although poor statistics make it difficult to follow marine populations of the Mediterranean and to assess stocks, there is evidence that the demersal stocks are being over-exploited. There is concern about the situation for larger pelagic species (such as tuna and swordfish) as large numbers of immature fish are being caught and there are signs that the stocks are overfished and declining.

A stable total of 168 different fish species have been found in the Black Sea. The introduction of two non-indigenous species has been recorded. Changes in ichthyofaunal composition of the Black Sea primarily involved the alterations in the number of individuals in specific populations. In the past three decades from the about 26 commercially exploited fish species some six species remained their commercial importance. Apart from overfishing, an invasion of *Mnemiopsis* undermined the feeding resources of fish stocks. The fish productivity of the Sea of Azov suffered most. Most commercially exploited stocks such as sturgeons collapsed mainly due to illegal fishing. Fishing fleets of Bulgaria, Georgia, Romania, Ukraine and Russia collapsed partly due to the lack of fish and difficulties in overcoming the transition to a market economy. Much of the anchovy population moved to the Turkish coast, less impacted by eutrophication and *Mnemiopsis*, and the Turkish fleet expanded considerably to benefit from this fortuitous situation. Information suggests that this expanded fleet is already over-fishing.

Fisheries also have an impact on other parts of the marine ecosystem. Although there are gaps in knowledge, this is best documented for parts of the NE Atlantic. By-catch of undersized or unwanted commercial species, mortality of non-target species including benthic animals and marine mammals and high levels of discards are continuing problems in many areas. Discarding half the weight of the catch (as happens in fisheries for some stocks) results in many more fish (in terms of numbers) being discarded than actually landed. The discards can also alter the competitive relationships within communities by favouring scavenging species.

Harbour porpoises, dolphins and seals are the most common mammals entangled in fishing gear. Harbour porpoises are particularly vulnerable to bottom-set gillnets. Dolphins are vulnerable to drift nets and towed pelagic gears. There are strong indications that the mortality rates of harbour porpoises caught in fishing nets, which have been estimated for parts of the NE Atlantic and in the Baltic Sea are unsustainable. Increase in the population of grey seals in some parts of the Baltic Sea has created problems for fishermen mainly because seals are damaging fishing gears. Due to disturbance of their habitats, monk seals became almost extinct and are only seen very seldom. The two major factors are critical to the fate of the monk seal population – availability of adequate habitats for reproduction and sufficient food supply. At present there is a little scope for optimism that this situation might improve. Although all Black

Sea countries imposed a ban on hunting of the Black Sea dolphin in 70s and 80s of last century, recent observations conducted in the northern part of the Black Sea reported a dramatic reduction in the population compared to the 60s.

Disturbance of the seabed by fishing gear can change the species and size composition of the benthos especially where the disturbance is repeated. For example, where bottom trawling has occurred in the North Sea over a long period of time, there has been a shift in benthic diversity and composition from larger, more long-lived benthic species to smaller, more opportunistic species. The damage caused to deepwater coral formations by past trawling activities is quite extensive.

High fishing pressure over long time has led to fishing down the food chain and excessive impact on habitats which has resulted in less effective and possibly simplified food-webs. Possible consequences are less resilient and less stable ecosystem. In addition there is a risk that such ecosystem may have reduced capacity to adjust to changes driven by natural or human induced climatic processes. Moreover there is a growing concern that the genetic variability has been reduced. The extent of the seriousness is not fully understood, as our understanding of the marine biodiversity in relation to function, structure and genetics remains poor.

During the last few decades intensive forms of aquaculture have increased considerably in the NE Atlantic, in particular salmon farming. In some countries, aquaculture production has become comparable in economic value to that of the demersal and pelagic fishing. It is likely to expand in the future both in the volume and range of fish species cultivated.

Concerns exist over the potential impacts of aquaculture. The introduction and transfer of marine organisms create risks of transporting competitors, predators, parasites, pests and diseases, and can result in the introduction of non-indigenous species. A few non-indigenous species have been deliberately introduced to the maritime area, mainly for aquaculture purposes. Interbreeding from escaped cultured salmonids can affect the genetics of wild stocks.

Changes to benthic communities have been identified over areas surrounding established oil and gas production platforms. Impacts are largely caused by past disposals of cuttings contaminated with oil and chemicals in the immediate vicinity of some platforms. There is a consequent reduction in species diversity near platforms, with opportunistic species dominating the biomass. Biological changes have been detected up to 3 km from such installations. However, it should be noted that these impacts are not irreversible and that natural recovery does take place, albeit rather slowly in the deeper parts of the northern North Sea.

In the NE Atlantic, over 100 non-indigenous species have been recorded, mainly in the North Sea, the Celtic Sea, the Bay of Biscay and along the Iberian coast. The main vectors of such unintentional introductions are ships' ballast water and associated sediments, and fouling on ships' hulls, although aquaculture is also a significant vector.

Over the past twenty years, a growing number of non-indigenous species have been transported into the Baltic Sea from around the world. As ship traffic increases, more and more "stowaway species" arrive in the Baltic Sea from abroad. In some cases, alien species have been intentionally introduced. Due to its naturally low species diversity, the Baltic Sea is considered very vulnerable for introduction of non-indigenous species.

More than 50 non-indigenous species of algae, invertebrates and fish penetrate to the Black Sea during last century. Some of them (and in particular the comb jelly *Mnemiopsis leidyi*) are the main reason of collapse in the fisheries in the area since 1990. *Mnemiopsis* is the main consumer of zooplankton and of larvae of benthic invertebrates and fish resulting, *inter alia*, in a 30% decline of zoobenthos biomass in the Sea of Azov.

Impacts on biodiversity resulting from enhanced inputs of nutrients are described in section 6.

3. HABITAT MODIFICATIONS AND DISTURBANCE

Along the coasts of European seas habitats and associated ecological processes have been changed and, occasionally, destroyed by coastal protection, land reclamation, sand and gravel extraction, recreational activities and development of industries, ports and harbours. Many of these coastal areas are also densely populated and tourism has been growing steadily. Many of the habitats and locations are jeopardised by the sheer number of visitors they attract, increased traffic and growing demands for accommodation and improved services.

Several salmon populations have been brought to extinction due to loss of habitat. Some of the Baltic wild salmon populations still face extinction, partly due to physical obstructions in salmon rivers that hinder adult fish from reaching their spawning grounds and partly due to the impact of fisheries. Loss of habitats might in combination with other factors such as fishing be responsible for the observed decline in European eel.

The majority of offshore oil and gas installations are located in the North Sea. There is scope for considerable expansion in other regions, for example, the Arctic, the wider Atlantic and in Irish waters. Offshore exploration in these areas is at an early stage of development but it is anticipated that the sector will continue to expand there in future. Offshore oil and gas activities can cause impacts at all stages of exploration, development and operation. Discharges of oil and other chemicals are the main problems (see Section 5).

There are extensive searches in progress for new sites for coastal wind power stations, where human population would not be disturbed. Apart from the space required, the impact of this activity includes some visual and acoustic disturbance. The impact on the marine environment during the construction phase should be minimised.

4. POLLUTION (HAZARDOUS SUBSTANCES)

Inputs of hazardous substances to the marine environment arise from a number of industrial processes and commercial and domestic uses. Given their intrinsic properties of toxicity, persistence, and liability to bioaccumulate, there is clear evidence that a diverse range of natural and man-made substances have the potential to impair biological processes in aquatic organisms, for example through interference with their endocrine (hormonal) systems.

There is a significant correlation between shipping intensity and TBT (originating from antifouling treatments of ships) levels in biota/sediments and the occurrence of imposex (development of the sexual characteristics of the other sex) in gastropods. This suggests that vessels using TBT-based antifouling paints (i.e. those longer than 25 m) represent the main source of TBT for the marine environment.

PCBs emitted and deposited during the years of intensive production and use are still a diffuse source of pollution and contamination of the global environment, despite a ban on the production of, and the introduction of controls on the marketing and use of, PCBs in many countries. PCBs can disturb enzyme and endocrine systems in marine mammals as, for example, observed in harbour seals in the Wadden Sea. High levels have also been shown to affect the immune system of the polar bear. In the Baltic Sea, many female seals are unable to produce pups due to uterine occlusion related to PCBs and dioxins in the environment.

From mesocosm studies, there is evidence of a correlation between the occurrences of pre-stages of liver tumours in North Sea flatfish and of contaminants, particularly PAHs and possibly chlorinated hydrocarbons.

Various studies indicate that some organochlorine pesticides are detected in various marine species at low levels, which may give rise to concern. While levels are generally decreasing and restricted to local situations further work is needed on toxaphenes. Although the use of most organochlorine pesticides has been phased out for sometime, they are still detected in the marine environment, due to their extreme persistence, to illegal use or to use elsewhere. In addition, leakage from inadequate storage facilities of obsolete pesticides cannot be excluded as a source.

In the Baltic Sea, an emerging problem is that an increasing number of young grey seals are affected with chronic intestinal ulcers. While these are probably caused by contaminants disrupting the seals' immune system, the precise mechanism remains unknown.

In the Black Sea concentrations of DDT congeners in sediment are reported to be lower than those reported for the Baltic Sea. The ratio of DDT/DDE indicates that DDT is still used in spite of existing bans in most Black Sea countries. Elevated concentrations of lindane in samples near the Romanian shore indicate an intensive use of this pesticide in the Danube basin.

Other persistent organic substances identified are not yet included in any long-term monitoring programme. Their occurrence in the marine environment can either be

predicted on the basis of information about their production and use, or has been demonstrated in various national studies or one-off surveys, either of actual concentrations in water or biota, or of biological effects on particular species. These substances include: brominated flame-retardants, chlorinated paraffins, synthetic musks, octyl- and nonylphenol ethoxylates (known endocrine disrupters) and dioxins.

Apart from the known effects of the above-mentioned substances, there is however relatively little information on actual incidences of effects of other substances.

5. POLLUTION (OIL)

Oil inputs from produced water from offshore installations in the NE Atlantic have increased progressively as oil fields have matured and the number of installations has increased, particularly in the North Sea. They now constitute the largest source of oil for the oil and gas sector. Oil discharged as part of the disposal of cuttings contaminated with oil-based drilling muds has ceased at the end of 1996. Leaching from old drill cuttings is a possible source of oil, but quantities released will be very small if the cuttings are not disturbed. Overall, inputs of oil from the offshore industry have reduced by over 60% in the period 1985 to 1997.

In spite of various restrictions aimed at preventing discharges of oil at sea, violations in all European seas are frequent and there are still many ships cleaning tanks or discharging bilge water with an oil content of more than 15 ppm at sea, resulting in the oiling of seabirds, shellfish, other organisms and the coastline. Pollution from such illegal activities remains at an unacceptably high level, so far without a clear downward trend. Only a small proportion of ships illegally discharging are actually detected and of these only a small proportion are eventually prosecuted.

The risks associated with accidental spills are addressed in section 10 below.

6. POLLUTION (METALS)

The concentrations of most heavy metals measured in organisms inhabiting the Baltic Sea are either stable or even decreasing. An exception is cadmium, the concentration of which increased in fish living in the central Baltic Sea during the 1990s. The reason is unclear, however. The concentrations are higher in organisms living in the southern part of the Gulf of Bothnia and in the Baltic Proper.

Trends in levels of metal contamination in the NE Atlantic are generally decreasing. Effects are normally localised and occur most frequently in estuaries and in the coastal zone.

In the Mediterranean Sea, heavy metals are considered to come mainly from natural processes, while anthropogenic sources are deemed to have a limited and spatially restricted effect. The relative importance of the various sources is, however, difficult to estimate due to the limited data available. Total mercury values in Mediterranean species

were generally higher than those found in the Atlantic, deemed to be the result of the region being in the Mediterranean -Himalayan mercuriferous belt.

In the early 1970s, very high mercury concentrations were observed in some coastal areas, in 'hot spots', near harbors and industrial areas. As a result of dramatic reductions, starting in the late 1970s, in mercury releases from chlor-alkali plants there have been quick recoveries (2-5 years for half-life of mercury) in biota and indications of slower (6-33 years) reductions of concentrations in sediments.

Contamination by trace metals does not appear to be a basin wide problem in the Black Sea. Slightly elevated levels of some metals are reported for areas influenced by the Danube and Dnister rivers. Elevated levels of lead are reported from the Bosphorus area.

7. EUTROPHICATION

Eutrophication resulting from enhanced inputs of nutrients has caused marked changes in the species composition in the Baltic Sea. As a result the abundance and distribution of eelgrass and bladder wrack has been reduced. Dinoflagellates have increased the biomass of the phytoplankton in the central and western part of the Baltic Proper since the 1980s, whereas diatom biomass has decreased.

After a chain of unfortunate events, the stage was set in the Gulf of Finland (with probably the highest nutrient loading anywhere in the Baltic Sea) for the development of a record bloom of toxic blue-green algae in the warm and calm summer of 1997, which was the most extensive ever recorded. Since then, the process has reoccurred with increasing frequency.

In the NE Atlantic, eutrophication is mainly confined to coastal areas of the eastern part of the North Sea, the Wadden Sea, the German Bight, the Kattegat, and the eastern Skagerrak. More localised, specific estuaries and fjords are or may be showing signs of eutrophication.

Inputs of nutrients into the Mediterranean are significantly lower than the outflow through the Gibraltar Strait, making it one of the most nutrient-poor seas. However, eutrophication problems occur in semi-enclosed bays, many of which still receive large amounts of untreated sewage. The most endangered area is the northern and west coast of the Adriatic Sea, which receives the nutrient load of the River Po.

Eutrophication is regarded as the most significant cause of the Black Sea's environmental decline since the 1960s. During the 1970s and 1980s, the NW Shelf ecosystem catastrophically collapsed due to eutrophication. Changes in the structure of the ecosystem as a result of eutrophication can be seen throughout the whole Black Sea. Organisms, which are specialised in feeding on surplus organic matter, have appeared in large numbers all around the Black Sea coast. Such species are often regarded as "dead end" species as they do not serve as food for zooplankton and the rest of the food chain.

In the Baltic Sea, the 50 % reduction target with regard to nutrients was achieved by 1995 for phosphorus from point sources by almost all the Baltic Sea countries. Most

countries did not reach the target for nitrogen from point sources. In general, the reductions were biggest both for point and non-point sources in the transition countries, due to fundamental changes in their political and economical systems in the early 1990s. In EU Member States, the observed decrease was usually smaller and was based on water protection measures implemented during the period. For some countries, like Denmark, Finland, Germany (western part) and Sweden substantial reductions from point sources took place already before the declaration was adopted in 1988. Contributions from agricultural sources usually showed smaller decreases than contributions from other sources. Overall, reductions in inputs of nitrogen were generally smaller than reductions in inputs of phosphorus. Reductions in fertilization have not yet resulted in reductions in soil phosphorus concentrations. There will therefore be a long time lag before any changes can be seen in the Baltic Sea.

The 50% reduction commitments by North Sea states were achieved for phosphorus, but reductions for nitrogen were estimated to be of the order of 25% between 1985 and 1995. Efforts to collect and treat urban and industrial wastewater have resulted in reductions in direct inputs of nitrogen of 30% and of phosphorus of 20% between 1990 and 1996. However, because of fluctuations in river flow over the same period, no consistent reductions in riverine or atmospheric inputs to the North Sea were detected. No reductions have been achieved in inputs from other diffuse sources such as the leaching of fertilisers and slurry from agricultural land. In coastal areas directly influenced by anthropogenic inputs, the reductions are reflected in reductions in nutrient levels. However, there are no clear trends in nutrient levels for the North Sea as a whole.

In the Black Sea region, about half the nutrients discharged to rivers are from agriculture, one quarter from industry and a similar proportion from domestic sources. The current loads of nutrients entering the Black Sea from the Danube has fallen in recent years due to the collapse of the economies of most lower Danubian and former Soviet countries (resulting, *inter alia*, in a reduced use of mineral and organic fertilisers), the measures taken to reduce nutrient discharge in the Danube countries, the implementation of a ban in polyphosphate detergents in some countries. Current phosphate levels appear to be roughly the same as in the 1960s but total nitrogen levels are still at least four times as high as those observed during that period. There is evidence of some recovery in Black Sea ecosystems but this remains limited.

8. POLLUTION (RADIONUCLIDES)

The question of radioactive contamination, particularly that arising from the Cap de la Hague and Sellafield nuclear-fuel reprocessing plants, is a matter of public concern. This stems from the higher levels of radioactivity discharged in the past and from recent increases in the discharge of certain less radiologically significant radionuclides, particularly technetium-99. Low concentrations of some man-made radionuclides are found in seaweed, shellfish and wildlife far from their sources. Impacts of radionuclides on wildlife have not been assessed.

The levels of ^{90}Sr and ^{137}Cs are high in the Baltic Sea compared with other water bodies in the world. The calculated radiation doses from man-made radioisotopes are, however, below the limits of the EU Basic Safety Standards.

Pollution with radionuclides in the Black Sea is, in general, one order of magnitude higher than in Mediterranean but does not lead to risks to man. The major inputs of man-made radionuclides occur through the Dnieper and Danube rivers. The perceived risk and public concerns are related to potential increase of radionuclides inputs through the Dnieper river and to the safety of ageing reactors in the Black Sea basin.

The greatest threats in the future are accidents in the civilian and military nuclear sectors. Releases from disposal sites are considered to pose negligible radiological risk to man, although it is difficult to draw firm conclusions about environmental impacts.

9. POLLUTION (MICROBIOLOGICAL)

Microbiological pollution is principally the direct result of the discharge of untreated or partially treated sewage into the immediate coastal zone.

In 1995 the total amount of untreated municipal wastewater direct discharge to the Baltic Sea was nearly 500 million m³ /year or 15 % of the total amount of wastewater generated, making bathing at some of the beaches in the Baltic Sea dangerous for the health of bathers. However the installation of new urban wastewater treatment plants and the upgrading of existing plants, continuously improves the sanitary conditions in the coastal waters of the Baltic States.

In the NE Atlantic, there are still a number of beaches where the standards of the EC Bathing Water Directive are not met. Contamination of shellfish with *E. coli* has led to restrictions on marketing shellfish. The associated increased processing costs have caused concern within the shellfish industry.

Microbial pollution and its effects have been mitigated along the EU Mediterranean coast since the installation of urban wastewater treatment plants in most of the European urban areas. However, elsewhere in the region, the problem remains as before.

Results of measuring campaigns in the Black Sea area are rarely published but health authorities try to close beaches when bacteriological sewage pollution reaches dangerous levels. However, these warnings are often ignored. Accidental discharges of untreated waste waters to the Black Sea is common in the northern and eastern parts due to worn out canalisation system and waste treatment facilities. The level of sewage treatment of small municipalities and villages still is very low.

10. POLLUTION (LITTER)

Sources of marine litter (for 95% consisting of non-degradable plastics) are mainly related to waste generated by shipping (fishing and commercial) and tourist and recreational activities. Floating litter and sunken pieces have been found in large

quantities in all regions of the North-East Atlantic. Information for other sea areas was not available but it could be assumed that the situation does not differ very much.

Impacts on marine life include the drowning of birds entangled in plastic sheeting, and the death of birds, turtles and cetaceans caused by ingested plastic objects. Litter has also been found to carry a variety of epiphytic organisms to sea areas that these organisms would not normally reach. As tourism, urban development and industrial pressure for development in the coastal zone increase, the problem of litter may also increase.

11. RISK ASSOCIATED WITH ACCIDENTS

The greatest potential for damage from shipping disasters lies in the spilling of hazardous materials close to ecologically sensitive areas (e.g. spawning grounds, bird colonies, nature conservation areas), or centres of human activities (e.g. aquaculture sites, tourist centres). Oil spills from tanker accidents or spills involving other hazardous and noxious substances do have major economic and biological impacts, including effects on aquaculture and loss of wildlife. Clean-up efforts to protect tourist interests and temporary restrictions on fixed fisheries are often required, particularly in the short-term.

Offshore oil and gas activities are expanding into deeper waters and into environments seasonally covered by ice. The risk of accidental releases of oil, and the potential effects of such releases, will increase because of the depth of operations and the difficulties of taking remedial actions in cold environments.

12. CLIMATE CHANGE

Potential consequences of climate change are far reaching. Changes may occur in ocean current strength and transport, water mass formation rates, sea level height, the strength and frequency of weather systems, and rainfall and run-off with downstream effects on ecosystems and fisheries. Predicted rises in sea level are of particular concern especially for the Dutch coastal zone, other low-lying areas and intertidal habitats of the NE Atlantic region. The formation of North Atlantic Deep Water in the Arctic Region constitutes one of the deepest branches of the thermohaline circulation of the world's oceans; any changes in the level of formation of this water in the Arctic may change the thermohaline circulation and result in a colder climate in Europe.

The predicted increase in rainfall and fresh-water run-off may change the water exchange between the North Sea and the Baltic Sea and thus affect the whole ecosystem of the Baltic Sea.

ANNEX 2
TO THE COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND
THE EUROPEAN PARLIAMENT

Towards a strategy to protect and conserve the marine environment

Description and Evaluation of Current Activities – Policy

1. EU POLICY AND LEGISLATION RELEVANT FOR THE PROTECTION OF MARINE ENVIRONMENT

1.1. Introduction

Apart from the Community legislation in preventing marine pollution and the complementary Community action programme in the field of response to accidental marine pollution at sea, there is no broad EU policy or specific legislation on protection of the marine environment. However, many policies and pieces of legislation on sustainable development, environmental protection, internal market, maritime transport, agriculture and fisheries indirectly contribute to the protection of the marine environment. The legal bases for this legislation vary according to the human activity.

EC environment legislation is based on arts 174 – 176 of the Treaty and generally aims at defining common minimum standards beyond which Member States may impose stricter regimes provided these are not inconsistent with competition and internal market rules. The relevant sectors are water, air, waste, chemicals, and nature protection.

The Treaty Revision in Nice explicitly refers to groups of Member States agreeing to common measures which would apply to that group. In addition there is Community legislation on free circulation of goods and services, on transport, agriculture and fisheries management, which is relevant for the protection of the marine environment.

Some of this legislation explicitly refers to geographic limitations cf. water legislation. In contrast, other pieces of legislation should be applied wherever activities of the Member State in the EEZ are subject to Community legislation. These include provisions for marketing and use of substances, Integrated Pollution Prevention and Control and Environmental Impact Assessment. These pieces of legislation apply to wherever the sectoral activity takes place within Community waters. Although actual controls may be effected onshore, Market based legislation per art 95 of the Treaty and Fisheries Management per Art 32 and Transport Policy per article 70 to 80 have direct effects on the sectoral activity offshore.

The Environmental Impact Assessment Directive provides for the assessment of the environmental impact of projects likely to have a significant effect on the environment. This directive applies to relevant projects within the territory of the EU and thus offshore oil and gas installations and windmills. In the Framework of the Strategy for Sustainable Development, the Commission has published a Communication on (Sustainability) Impact Assessment.

The Commission Proposal for a Directive on the Protection of the Environment through Criminal Law aims at establishing a minimum standard on constituent elements of criminal offences in breach of Community law protecting the environment. This proposal requires Member States to provide for criminal penalties against the most serious breaches of Community law protecting the environment.

1.2. Coastal Zones

The Commission adopted a cross sectoral strategy on integrated coastal zone management (ICZM) to improve the effectiveness of existing legislation and financial and planning tools in the coastal zone and the management of the diverse pressures on the coastal zone and its resources. Since many of the problems of the marine environment are most pronounced in the coastal zone, the importance of policy coordination, availability of information and the involvement of stakeholders in particular at local, regional and national levels, is stressed.

A European Parliament and Council Recommendation regarding Coastal Zone Management was adopted in 2002. This recommendation encourages Member States to develop, on the basis of a national stocktaking of all relevant issues, national strategies under which the roles of the different national administrative actors should be identified and which should include mechanisms for their coordination.

At the international level, the Recommendation encourages Member States and non-Member States in the same regional sea to enter into or maintain a dialogue with neighboring countries for better coordination of responses to cross-border issues.

1.3. Nature Protection

The main Community instruments on nature protection are the Birds and Habitats Directives. Under the former, protection of birds includes, *inter alia*, the creation of special protection areas. The latter provides for the protection of species and the establishment of a European ecological network of special areas of conservation, known as "Natura 2000". The Commission is of the opinion that both directives are to be applied in the Economic Exclusive Zone. The Fisheries Council has endorsed this interpretation.

The Natura 2000 network aims at the protection of habitats and habitats of species as listed in the directive, including those areas protected under the Birds directive. There is a chapter of "marine habitats" in the annexes of the directive and some marine species are also listed. Nevertheless, the Commission accepts that the classification system underlying these annexes as well as the list of habitats to be protected should be substantially revised after the network is implemented. Most of the areas containing these habitats or species already proposed by Member States are located within territorial waters.

Some problems have been already noticed when dealing with the management of marine protected areas. They mainly concern the competence to adopt measures in these areas on the grounds of nature conservation needs and which are aimed at regulating, *inter alia*, activities like fishing, transport or dredging. Commission services are considering

how to integrate these different policies, and the outcomes of some research and LIFE projects will undoubtedly contribute to that.

1.4. Fisheries management and Agriculture

The Common Fisheries Policy (CFP) based on art 32 has a direct impact on marine ecosystems in that it manages the abstraction of significant quantities of wild species from the marine environment. The CFP operates on the basis of a basic regulation, which provides for appraisal of the state of the commercially relevant stocks and the setting of total allowable catches on an annual basis. In addition CFP provides for technical measures on net mesh sizes, selection of gear and closed areas and closed seasons to reduce mortality of spawning fish, juveniles and non-target species.

This policy is presently under review following publication of various papers on the reform of the CFP, integration of environmental concerns into fisheries management and biodiversity action plans. Collectively these call for, *inter alia*, improvement in the conservation and protection of marine ecosystems by application of an ecosystem approach and governance, conservation and sustainable use of stocks, reduction of fishing effort and capacity, reducing the impact of aquaculture, promoting sustainable fisheries beyond Community waters.

In contrast to most environment and transport legislation, fisheries management is an exclusive competence of the Community and Member States are not at liberty to establish national regimes or to enter international agreements. More stringent national regimes can be established but could only be applicable to their own fishermen.

The Common Agriculture Policy (CAP) also based on art 32 is relevant to the extent that the Rural Development Regulation 1257/99 provides for support for environmental commitments which go beyond the respect of good farming practice. These aim, *inter alia*, to reduce inputs of, *inter alia*, nutrient fertilisers and plant protection products, which are also addressed in specific chemicals and water legislation. They also provide support for farming in less favoured areas provided that good farming practice is followed, which includes in any case the respect of environmental legislation.

Furthermore in relation to agricultural sectors eligible to direct support, Member States are required to take appropriate measures where there is failure to respect environmental requirements. These measures may include a reduction or the cancellation of the support. Within sectoral support there are also possibilities to extensify production, most notably in beef. As there is little or no CAP support regarding non-land intensive agricultural sectors (pigs and poultry), there is thus more reliance on environmental legislation itself to regulate nitrate pollution.

1.5. Prevention of pollution from maritime transport

Community legislation regulating maritime transport and the safety and environmental aspects thereof is based on four principles in relation to international legislation. With reference to the International Maritime Organisation (IMO), Community legislation may:

- ensure harmonised implementation and enforcement of IMO legislation across the EU, for instance on port state control;
- strengthen international legislation at Community level, for instance as regards waste reception facilities in ports;
- fill policy gaps in IMO legislation, for instance in relation to domestic trade;
- speed up the implementation of international legislation, for instance in relation to double-hull oil tankers.

Given the global nature of shipping, it is considered that legislation at a global level, generally is the preferable choice. However, should the international level falls short of meeting, the expectations on maritime safety and environmental protection, specific Community legislation will be considered.

The main Community instruments of relevance to marine protection and which apply to ships using Community ports are the Directives on requirements for vessels carrying dangerous goods, on port state control and on port reception facilities aimed at reducing discharges of ships' waste at sea and the Regulation on the phasing out of single-hull oil tankers.

Apart from these, other maritime safety legislation aiming at improving safety in general, are also of importance. Following the sinking of the oil-tanker Erika in December 1999, the Commission has made a series of proposals for improved monitoring of classification societies, a shipping information and monitoring system that would strengthen and replace the requirements for vessels carrying dangerous goods, an additional compensation scheme for victims of oil-spills and a European Maritime Safety and Pollution Prevention Agency. The Agency will have an important role for monitoring safety-related aspects of maritime transport in European waters, such as accidents that may cause pollution of the marine and coastal environments.

In addition, Community legislation for a harmonised implementation of the IMO Convention on harmful anti-fouling systems on ships (adopted in October 2001) is under preparation.

1.6. Response to accidental and deliberate marine pollution

The action programme on controlling and reducing marine pollution by hydrocarbon discharges agreed in 1978 was later extended to cover hazardous and noxious substances (HNS). This comprises various training programmes and a Community information system and later (when necessary) the mobilisation of experts to assist in response activities. More recently (in 2000), a Community framework was set up to support Member States efforts in responding to accidental and also deliberate marine pollution. One of the main elements of this is a contingency (response) plan with a 24-hour alert system, formation of task forces, the rapid acquisition of satellite images and co-ordination of observers.

Furthermore, in 2002 a Community mechanism to facilitate reinforced co-operation in civil protection assistance interventions, including accidental marine pollution, has been established.

1.7. Water Protection

The recently adopted Water Framework Directive introduced a regime for management of river basins and contiguous coastal areas based on their drainage basins rather than administrative barriers. It introduces the principle of the combined approach whereby emission controls and quality objectives are both applied. The objective of the directive is the attainment or preservation of good ecological and good chemical status.

This directive provides for the various monitoring, assessments and reporting requirements, which also apply in the coastal zone. An analysis of the pressures of human activities to the coasts and marine waters and their impacts will provide the basis for a programme of measures. Priority substances will be subject to control at Community level while management plans to restore or maintain good status will be based on measures at drainage basin level. This directive replaces some earlier legislation dealing with different types of water, but pre-existing legislation on nitrate pollution from agriculture, urban wastewater treatment, bathing water, integrated pollution prevention and control (IPPC) will be retained to address specific threats to water quality.

Member States, Norway and the Commission have agreed informally on a Common Implementation Strategy for the directive.

1.8. Air

Emissions of atmospheric pollutants affect water quality through deposition. The recent Directive on national emission ceilings for certain atmospheric pollutants introduced a new approach to improve air quality in setting upper limits on a country basis on SO₂, NO_x and NH₃ emissions. These aim to reduce acidification and eutrophication. Directives on Large Combustion Plant, Waste Incineration and the previously mentioned IPPC address the point source approach. The Commission is presently preparing a strategy to address emissions from maritime transport as ship SO₂ emissions are high and cause acidification while NO_x emissions may be a significant factor in marine eutrophication. The overall policy framework is being developed through the Clean Air for Europe (CAFE) thematic strategy which is due to be finalised by 2005. In contrast to some water legislation, which has a geographic delimitation, these directives apply to sources be they on- or offshore.

1.9. Hazardous Substances

Community Chemicals legislation is based on Article 95 and aims at a high level of protection of health, safety and the environment and consumer as well as the integrity of the internal market. This policy is presently under review. The objectives for the future are to have a single coherent and transparent system with the overall aim of sustainable development. This will be realised through shifting responsibility to industry for the generation of data and assessment of risks, addressing the gap in knowledge on the

properties and uses of substances and extending this responsibility along the distribution chain to downstream producers and users and importers.

Presently various pieces of legislation (based on the Directive 67/548 and 76/769), classification and labelling, provide for assessment and control of new and existing chemicals. Whereas these presently provide for different approaches to use of risk assessment, this is under review in the reform of the chemicals policy which aims at a common approach. Once Community control measures have been established, Member States must justify any further stricter rules at national level by demonstrating specific need and may not negotiate international agreements on restrictions.

Separate instruments for biocides and plant protection products include provisions for positive listing at Community level of which substances may be used, product authorisation is addressed at national level. In addition, there is also indirect regulation of chemicals through the previously mentioned Water Framework Directive and specifically its work on hazardous substances, Waste Legislation and IPPC as well as legislation on occupational safety, major accident hazards, consumer protection, food packaging, cosmetics and toys and the recently published strategy for dioxins, furans and PCB's.

1.10. Radioactive Substances

The Euratom Treaty provides a series of basic safety standards for the protection of workers and the general public from the effects of ionising radiation. While Euratom also provides for recommendations on the levels of radioactivity in water, air and soil, this provision has so far not been utilised for the marine environment. European Commission is carrying out an update of the MARINA Project on the Radiological Exposure of the European Community from Radioactivity in North European Marine Waters. This project addresses, *inter alia*, (i) discharge data from various sources and trends in α , β , γ emitters and tritium, (ii) Cs-137 concentrations in the periods 1976-1980 and 1986-1990, (iii) modelling trends in Cs-137 and Pu-239 concentrations, and (iv) radiological impact on mussels in the vicinity of discharges from a phosphate fertiliser plant and nuclear fuel reprocessing plants.

1.11. Waste Management and Resource Policy

The Community waste management strategy is based on the principles of prevention, re-use and recovery, optimisation of disposal and regulation of transport. The basic requirements are laid down in the Waste Framework Directive, which applies in the EEZs and which specifies that disposal or recovery should not endanger man or the environment. Further rules on ship generated waste and cargo residues are provided for in the directive on port reception facilities.

The offshore production of waste, the run off and land based discharges are addressed by the hazardous waste directive and the waste framework directive and specific instruments on waste oils, PCBs, batteries, sewage sludge, titanium dioxide and, recently, on waste electric and electronic equipment. The Commission's integrated

product policy aims at a reduction of the impact of products across the whole life cycle. This covers all products, which impact on the marine environment.

1.12. Funding Mechanisms

Where reference is made in the following section to funding by International Financing Institutions of projects on remediation in the Baltic, Black and Mediterranean sea, the Community contribution to this comprises the various programmes on ISPA and PHARE regarding accession States, TACIS, the Northern Dimension and EUROMED regarding third countries in the former USSR and Mediterranean. To the extent LIFE projects address the marine environment, the regional structural and cohesion funds in the Community are relevant.

2. POLICY AND LEGISLATION OF OTHER BODIES ON PROTECTION OF MARINE ENVIRONMENT

2.1. Introduction

The other bodies comprise regional marine conventions and regional instruments whose scope is protection of specific regional seas or sea areas in Europe, regional conventions whose objective is regional fisheries management as well as international bodies whose activities cover the law of the sea, maritime transport, water protection.

In most of these bodies where the Community is participating either as a contracting party or observer, the Presidency and Commission co-ordinate the views of the Member States to assure a common EU position consistent with Community legislation regardless of whether the Community itself is a member of the body or of whether the substance is of exclusive or mixed competence. The enunciation of that position depends on the nature of the competence.

2.2. United Nations Convention of the Law of the Sea

The United Nations Convention of the Law of the Sea (UNCLOS) can be considered the overarching instrument on the marine environment. In addition to delimiting national jurisdictions and establishing rights of navigation and the legal regime for the high seas, it provides the legal basis for the protection and sustainable development and addresses environmental control, scientific research, economic activities and settlement of disputes. States have the sovereign right to exploit their natural resources in accordance with a duty to protect and preserve the marine environment. UNCLOS introduced the concept of Exclusive Economic Zones and defined the limits of territorial seas and rights of passage, the freedom of navigation, fishing and laying of submarine pipelines and cables in the high seas, which are those outside territorial waters.

The UNCLOS provisions are reflected and reinforced by several other instruments including Agreement on the Conservation and Management of Straddling Stocks and Highly Migratory Fish Stocks which is aimed at the long term sustainability of these stocks based on the best scientific knowledge available and the precautionary approach.

To further develop the implementation process of UNCLOS and the regulation of ocean affairs per chapter 17 of Agenda 21, the UN General Assembly established an informal consultative process. This will report to the General Assembly and Rio + 10 on, *inter alia*, reinforced co-ordination of the various intergovernmental bodies and agencies addressing oceans.

On the environment side, UNEP has established a global programme of action (GPA) which addresses the reduction of impact on the marine environment of land based activities. It acts as a source of conceptual and practical guidance on e.g. wastewater treatment and provides a clearinghouse on activities and expertise. Other UNEP activities include the Global International Waters Assessment which aims to produce a comprehensive and global assessment of the ecological status of 66 water areas including marine and coastal waters.

2.3. Regional marine conventions

At regional level, the Community is a contracting party to the (OSPAR) Convention for the protection of the marine environment of the North-East Atlantic, the (Helsinki) Convention on the Protection of the marine Environment of the Baltic Sea Area (HELCOM) and the (Barcelona) Convention for the Protection of the Mediterranean sea against pollution.

All of these Conventions have a common aim to protect the marine environment and preventing and eliminating pollution. They were agreed in the 1970's and given renewed political impetus through revision in the 1990's. While their initiation coincided with the first EC action on the Environment, which did not address the marine, they currently complement and overlap to an extent with Community legislation. Nevertheless, they provide a mechanism for dealing with regional differences and for co-operation with non-EU Member States.

OSPAR whose contracting parties include 12 EU Member States, 2 EEA states, Switzerland and the Community has as its overall aim the prevention and elimination of marine pollution and the protection of the marine environment against the adverse effects of human activities (although it acknowledges that fisheries management should be dealt with under other arrangements). It has developed thematic strategies to address hazardous substances, radioactive substances, eutrophication, biodiversity and the offshore oil and gas industry as well as programme of monitoring and assessment. These strategies are of a political nature and serve to elaborate the corresponding annexes of the Convention.

While some of its programmes and measures are of an essentially political and influencing nature, several binding decisions have been taken regulating industrial emissions. While there the strategies are broadly comparable and consistent with EC legislation, there is a degree of duplication of effort given that these issues are also addressed in the EU. The large overlap in membership means that the OSPAR relation to the Community needs careful co-ordination, the relation is likely to evolve with EU enlargement, when it is likely that OSPAR will comprise less than half of the Member States.

In some cases, the different voting rules and representation have led to different and inconsistent outcomes on the same issues between the Community and OSPAR notwithstanding the large overlap in membership. However, more recently, OSPAR has usefully brought its concerns on the impact of fisheries and hazardous substances to the attention of the EC where the latter is better placed to act.

The Helsinki Convention's Contracting Parties comprise 4 EU Member States, 4 Candidate Countries, the Russian Federation and the Community. In terms of membership, EU enlargement will lead to a situation where with one exception, the Contracting Parties are EU Member States.

Its scope of activities include measures against harmful substances, the implementation of best environmental practice and best available technology to address pollution from land based sources, prevention of pollution by shipping and offshore activities and response to pollution incidents, nature conservation and coastal zone management as well as a monitoring and assessment programmes to assess the state of the Baltic sea. Through its Programme Implementation Task Force (PITF) under the Joint Comprehensive Environmental Action Programme (JCP) HELCOM also co-ordinates, in close co-operation with International Funding Instruments, investments and financial assistance directed towards reducing the pollution from hot spots in the Baltic Sea area. Its rule making is based on unanimously accepted recommendations.

Some of the HELCOM recommendations on hazardous substances, wastewater treatment and nutrients are not strictly equivalent to measures in the EU. The inconsistencies should disappear when HELCOM has completed a current exercise of harmonising its Recommendations with EU legislation and OSPAR measures.

The Barcelona Convention involves only 4 EU Member States, 4 Candidate Countries and the Community among its 21 contracting parties. It is a UNEP Convention in the context of its regional seas programme. It also differs from OSPAR and HELCOM in that the non-EU contracting parties are and will remain the majority.

Its contracting parties work to implement the Convention through the Mediterranean Action Plan (MAP), taking account of the advice of the Mediterranean Commission for Sustainable Development (MCSA), an advisory body through regional activity centres (RACs) each of which have a thematic focus. These include environment and development, integrated coastal area management, special protected areas, remote sensing, cleaner production and emergency response.

The decision making process involves adoption both of protocols to the Convention and recommendations. The protocols cover dumping, accidents (emergencies), land-based sources, specially protected areas, hazardous waste and offshore activities.

In the Mediterranean, the strategic action programme provides targets for the implementation of the land based sources protocol over 25 years. Similar action plans have been adopted to address the monk seal, cetaceans, marine turtles, and marine vegetation. The practical implementation is facilitated by the engagement of the International Financial Institutions and the EUROMED programme of the EU.

In contrast to OSPAR, HELCOM through its link to the Baltic Agenda 21 process and Barcelona through its link to the Mediterranean Commission for Sustainable Development have a scope that addresses the sustainable development of the region.

The 6 Black Sea countries, Bulgaria, Georgia, Romania, Russian Federation, Turkey, and Ukraine have adopted the (Bucharest) Convention on the Protection of the Black Sea against Pollution. The focus is on land based and vessel based sources of pollution, emergency and dumping on which it has agreed protocols. A Strategy on Conservation of Biological and Landscape Diversity is being prepared for adoption by the Ministers of Environment of the Black Sea states in 2002. The Contracting Parties implement the Convention through its Black Sea Strategic Action Plan (1996) the timetable for which will be revised in 2002. This implementation is to the great extent conditioned by active international support through regional programs and projects. A Regional Contingency Plan on Combating the Black Sea Pollution by oil is being negotiated.

The European Community is not a contracting party as no current EU Member State is a contracting party but since 2001, the Community has an official observer status and participates actively at all meetings and activities. Although not a contracting party, the EU is involved in support for the secretariat of the Convention and has recently been instrumental in establishing a task force to facilitate implementation of projects in the Danube river / Black sea basin (DABLAS). Upon the accession to the EU of two contracting parties, Romania and Bulgaria, the Community itself should become a contracting party. Independent of the state of play on enlargement, the strategy should not ignore the state of the Black Sea in its monitoring and assessment of European seas.

In its recent Communication on co-operation in the Danube - Black Sea region, the Commission invited Council and Parliament to consider a concerted EU initiative to facilitate the environment remediation and sustainable development in the Danube - Black Sea region. Governments of the region recently declared renewed commitment to improve the water quality of the region and a wish that the Commission and the International Financing Institutions further develop their partnership with the countries in the region in identifying, preparing and supporting projects.

On implementation, the work of four regional sea Conventions varies. Where in OSPAR, the focus is on implementation reporting which involves an element of naming and shaming, in Barcelona and Bucharest there is focus on practical implementation through funding projects on infrastructure and other capacity building programmes. HELCOM combines both approaches in its work.

Co-operation has been enhanced with a greater mutual recognition of the respective strengths. This has led to recognition of areas where the other organisation might take a lead. In the areas of marine monitoring and classification of marine habitats, the EC might benefit from the experience of HELCOM and OSPAR and the Barcelona Convention.

2.4. Other regional Agreements and Conferences

The Arctic Monitoring and Assessment Programme (AMAP) was established in the framework of the Arctic Council (with participation of the Nordic countries, USA, Canada and the Russian Federation) to monitor, assess, and prepare reports on the State of the Arctic Environment. The Arctic Council provides a mechanism to address the common concerns and challenges faced by the Arctic governments and the people of the Arctic. While the Arctic Council does not constitute a legal Convention, it has responsibility for implementing the Arctic Environmental Protection Strategy that was adopted in 1991, which addresses protection of all environmental compartments, including the marine. In the European region, the area covered by AMAP overlaps part of the OSPAR area. To avoid duplication of effort, the AMAP 1997 assessment provided the basis for the information that was reported in the QSR2000 for the OSPAR Arctic sub-region.

Where OSPAR does not address shipping, the Bonn Agreement and the Lisbon Agreement (which is not yet in force) on co-operation with pollution of respectively the North Sea and part of the North-East Atlantic have been agreed by the European Community and the countries bordering these areas.

In addition there are Ministerial Conferences for some regions and sub-regions, e.g. the North Sea and the Wadden Sea. These represent less structured and occasional gatherings of Ministers, which serve to steer discussion of concerns to implementing bodies.

2.5. Nature and Environmental Protection - Biodiversity

On Nature Protection, the Bonn Convention on the Conservation of Migratory Species of Wild Animals aims to conserve migratory species and their habitats. At regional level, ASCOBANS establishes a management plan for the conservation of small cetaceans of the Baltic and North Sea through, *inter alia*, modification of fishing gear and fishing practice. The related ACCOBAMS concerning cetaceans of the Black and Mediterranean seas provides for a network of protected areas for marine mammals. The Community is not a party to these regional agreements and measures adopted in these forums may not be integrated into Community acquis. Commission services, however, tries to meet regularly the secretariats to exchange views and information.

The Council of Europe adopted on 4 November 1998 a Convention for the protection of environment through criminal law, which establishes as criminal offences a number of acts committed intentionally or through negligence where they cause or are likely to cause lasting damage notably to the quality of the water, or result in the death of or serious injury to any person. It defines the concept of criminal liability of natural and legal persons, specifies the measures to be adopted by States and enable them to confiscate property and define the powers available to the authorities, and provides for international co-operation.

Within the framework of the Convention on Biodiversity, the Jakarta Mandate on marine and coastal biodiversity identified the thematic issues of resource management,

sustainable use, protected areas, and aquaculture and alien species. These issues were picked up in the Commission's Biodiversity Action Plan in 2001.

2.6. Fisheries management

On Fisheries, the Food and Agriculture Organisation (FAO, an autonomous agency of the UN) aims at the promotion sustainable development of responsible fisheries and contributing to food security. Its code of conduct provides a framework of principles and standards for the conservation, management and development of the sector. It recently organised a meeting on how ecosystems considerations can be further included in fisheries management.

At a regional level, the Convention on Fishing and Conservation of the Living Resources of the Baltic Sea is aimed at preserving and increasing the living resources of the Baltic Sea. Its regulating body, the International Baltic Sea Fisheries Commission (IBSFC), has given special attention to the wild Baltic salmon. The North-East Atlantic Fisheries Commission (NEAFC) provides for technical measures concerning the management of fishery resources within the area covered by the convention. In these bodies, the European Community represents the interests of Member States.

The General Fisheries Commission for the Mediterranean promotes the development, conservation, and management of living resources and aquaculture in the Mediterranean. The North Atlantic Salmon Conservation Organisation (NASCO) has as aim the conservation, restoration and enhancement of wild salmon stocks which migrate beyond the fisheries jurisdiction of coastal States. In 1997, it adopted guidelines on transgenic salmon. The International Commission for the Conservation of Atlantic Tunas (ICCAT) is responsible for the conservation of tuna and tun) like species in the Atlantic.

A Fisheries Convention for the Black Sea is being negotiated in the framework of the Black Sea Economic Co-operation.

2.7. Maritime Transport

The International Maritime Organisation (IMO) is the specialised UN agency responsible for the safety of international shipping and the prevention of pollution from shipping. Of its some 40 Conventions and protocols, the following are particularly relevant to this strategy. This includes the London Convention on the prevention of marine pollution by dumping wastes and other matter, the Convention for the Prevention of Pollution from Ships (MARPOL 73/78), the Convention on Intervention on the high seas in cases of oil casualties and the Convention on Oil Pollution Preparedness, Response and Co-operation. Under the latter the protocol on hazardous and noxious substances provides a framework for co-operation in combating marine accidents.

The Baltic Sea area, the Black Sea area, the Mediterranean Sea area and the North-West European waters have been designated and have become effective as special areas under Annex I (oil) of the MARPOL Convention. As a result, discharges of oily water, from any ship, may only be permitted if the oil content in the effluent does not exceed 15ppm. The designation as a special area is subject to the provision of adequate port reception facilities. There have also been enhancements of the adequacy of port reception facilities

in some of the areas, such as the Baltic Sea Area and the Northwest European waters. A Regional Contingency Plan for Combating Pollution of the Black Sea by Oil (developed with IMO assistance of IMO) is being negotiated currently in the Black Sea area. The North Sea and the Baltic Sea area have also been designated and become effective as a special area under Annexes II (noxious liquid substances carried in bulk) and V (garbage) of the MARPOL Convention.

Paris Memorandum on Port State Control covers the waters of the European coastal States and the North Atlantic basin from North America to Europe. It aims to eliminate the operation of sub-standard ships through a harmonised system of port state control.

2.8. Hazardous substances

On Chemicals, both UNEP and OECD are engaged at global and international level in regulatory activity. Where OECD focuses mainly on methodology development including testing methods and hazard and risk assessment, it has also regulated the mutual acceptance of test data. At UN level, the Stockholm Convention controls the production, import, export and use of a group of persistent organic pollutants and the Rotterdam Convention provides for a prior informed consent regime regulating export of domestically banned or heavily restricted substances.

At Regional level the UNECE Convention on the protection and use of Trans-boundary watercourses and international lakes which aims at reducing pollution from land based sources is also relevant for the abatement of pollution of the marine environment. It might also be considered as an analogue of the EU legislation on urban wastewater treatment and integrated pollution prevention and control. Similarly the UNECE Convention on Long Range Trans-boundary air pollution is relevant to protection of the marine environment where the pollutants addressed are also deposited in marine waters.

2.9. Nuclear safety

The International Atomic Energy Agency (IAEA) develops nuclear safety standards and promotes the achievement and maintenance of high levels of safety in applications of nuclear energy as well as protecting man and the environment from the effects of ionising radiation. These standards are endorsed by other international and UN agencies including the International Commission on Radiological Protection (ICRP), the United Nations Committee on the Effects of Atomic Radiation (UNSCEAR), the World Health Organisation (WHO) and the International Labour Organisation (ILO).

2.10. Non-Governmental Organisations

Non-governmental organisations have recently become more involved in the various activities described above. In general these include both green organisations and industry sector associations. Their involvement has been facilitated through new rules of procedure, which allows their presence in most of the meetings of many of these bodies. Their actual and legitimate contribution includes both influencing of process and outcome as well as technical contribution in which NGO's are sometimes more efficient in collating and presenting relevant information than regulators. They also play an important role in influencing the general public.

ANNEX 3
TO THE COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND
THE EUROPEAN PARLIAMENT

Towards a strategy to protect and conserve the marine environment

Description and Evaluation of Current Activities – Knowledge

This Annex outlines the marine monitoring, assessment and research and related reporting activities.

1. ACTIVITIES IN EUROPE

1.1. Monitoring

At present monitoring carried out by Member States does not provide comprehensive information to assess the status (in chemical or biological terms) of Community territorial waters nor the pressures on the marine environment (e.g. the loads of pollutants).

Under the Water Framework Directive (WFD) information to assess the quality of the coastal environment (chemical and ecological status) up to one nautical mile should become available. For the remaining part of the Community territorial waters, the Water Framework Directive only addresses chemical status.

While the Water Framework Directive itself does not provide details regarding monitoring to be carried out in these waters, the development of guidance on monitoring is one of the key points of the Common Implementation Strategy of the Directive. On marine monitoring, informal guidance documents on the design of a monitoring network will be developed. These will cover (i) criteria for the identification of significant water bodies of the basin or basin district; selection of monitoring sites in relation to pressures, impacts, and the presence of protected areas, (ii) network representation in geographical information systems, (iii) integration of national existing networks and integration of national network at European level and (iv) monitoring procedures/protocols in accordance to Annex V of WFD for rivers, lakes, transitional waters, coastal water, artificial and heavily modified water bodies, groundwater.

All regional marine conventions have established monitoring and assessment programmes. A detailed overview of these programmes will be published in a separate report. While they rely on the results thereof for their assessments and reports, the European Environment Agency (EEA) and the International Council for the Exploration of the Sea (ICES) do not manage monitoring programmes.

In the framework of food safety⁵, EU Members States are developing monitoring programmes addressing some of the pollutants. These programmes often use the same species (bivalve molluscs in particular) and additionally address the same pollutants: chemicals, heavy metals, radiation, nitrogen and bacteria. In the absence of co-ordination and guidelines for monitoring, such situation leads to duplication of efforts, and costs, but also to gaps as some pollutants are not being monitored at all.

When seen in a European context, the existing monitoring programmes of the regional marine Conventions are not very coherent in terms of scope, content (issues covered), approach of assessment and detail (geographic and temporal density). Some of the divergence may be attributed to differences in environmental conditions and differences in socio-economic and political situations in the countries bordering these seas.

In addition there are common problems including inadequate spatial coverage of monitoring stations and/or sampling frequency as the limited resources of Contracting Parties do not allow comprehensive and regular monitoring activities in offshore areas and consequently a lack of data, incomplete or non-reporting of available data and inadequacy of data. The latter includes uncertain reliability of the data, lack of consistency within data sets and lack of harmonisation between data sets, which makes their scientific analysis and comparison nearly impossible.

Although it need not be the aim to develop a single overall programme, there is scope for harmonising the strategic approach, overall structure and content of these monitoring programmes and the methodology of the related assessment activities. Activities carried out in the framework of the implementation of the Water Framework Directive could act a stimulus in leading to some form of integration of the monitoring programmes of the regional marine conventions with that of the Framework Directive.

1.2. Assessment

The EEA has established a network with its 31 member countries and with relevant international organisations on the MDIAR chain (Monitoring, Data, Information, Assessment, Reporting) to support policy action. The information relevant for marine policy development is provided in the marine chapters of EEAs reports: State and Outlook on Europe's Environment (SOE), the Environmental Signals series, sector/environment reporting mechanisms and Topic reports. A core set of 81 water indicators including marine and coastal indicators and covering the DPSIR assessment framework are being developed in order to answer policy questions related to the above policies. A core set of fisheries and environment integration indicators is under development as well as a core set on biodiversity indicators.

In the context of the implementation of the Water Framework Directive, activities with regard to developing guidance on (i) the development of typology and classification systems of transitional and coastal waters and (ii) criteria for the assessment of water

⁵ See Directive 91/492/EEC on shellfish, Directive 91/493/EEC on fish and fishery products and Directive 96/23/EC on monitoring of residues in food.

quality status for each water body type, are of particular importance for preparing marine assessments.

All regional marine conventions publish regular assessment reports concerning the state of the marine environment. These reports address the input of pollutants to the marine environment, the impacts of human activities on the marine environment and provide a picture of the state of the marine environment making use of all sources of information available to them.

In carrying out its advisory role for, *inter alia*, the Community and regional fisheries organisations, ICES is preparing annual assessments of the status of ca. 135 commercial fish stocks and their harvesting.

There is some degree of similarity in the content and method of assessment between the assessment products of the EEA on marine and coastal issues and assessment products of the regional marine conventions, and hence in the work required for producing such products.

There are also differences in the way the organisations work. Some reports are produced by a central actor and finalised by editorial groups and data verified by Member States after the assessment has been made and prior to publication. In other cases there is a more collective effort based on consensus of the Contracting Parties, which make voluntary contributions from these Contracting Parties.

Without endorsing either of these methods as the more effective method to influence policy development, the former may be more resource efficient and the latter's conclusions may be more easily incorporated in policy action.

A certain level of duplication of effort can be observed in reading the most recent assessment products of the EEA and of the marine conventions. This duplication might be reduced by synchronising the frequency and timing of and streamlining the content of assessment products and harmonising the way assessments are made. Where several assessments are based on the same raw data, procedures to make contributions to assessment products of other organisations should be established and barriers to access to publicly funded monitoring data should be removed.

1.3. Reporting and Handling of Data and Information

The situation with regard to reporting and management of data and information is also far from ideal. It is rather common that different international organisations are mandated to collect largely the same type of data and information from their member countries but in a different way and in different timeframes. This has led to a proliferation of reporting procedures and exercises and information systems and information centres. Data are then not always available in electronic form and data policies and conditions on use impede easy exchange of information.

There is a need to improve the situation with regard to reporting, the handling and the management of data and information. This could be usefully realised on a European

level and be based upon a common policy on generation of, access to and use of the different types of data and information

Some initial discussion on these issues has taken place in the Inter-Regional Forum (IRF) and in the implementation of the Water Framework Directive.

1.4. Research

Substantial amounts of scientific information on the understanding of coastal and marine ecosystems have been provided by EU funded environment research programmes (former Framework Programmes) in particular through the ELOISE projects cluster which comprises both contributions from the continent to the sea and understanding the processes in the coastal zone up to the ocean shelf.

The current EC framework for funding research projects related to the marine environment is the programme "Energy, Environment and Sustainable Development"(EESD) under the Fifth Framework Programme for Research and Technological Development (FP5, covering the period 1999-2002). In the EESD, there is a special Key Action called "Sustainable marine ecosystems and Infrastructure". Also the EESD Key Action "Sustainable management and quality of water", through "ELOISE", contributes to coastal and marine research. In addition, international scientific cooperation enabled numerous collaborations with developing and emerging economies to understand and manage marine ecosystems.

The Commission's proposal for the Sixth Framework Programme (2002-2006) was adopted in January 2002, and represents a deliberate break with past FPs with regard to ambition, scope and instruments to be used in its implementation. The aim is to achieve greater focus on questions of European importance and a better integration of research efforts on the basis of an improved partnership between the various actors (different research communities, national authorities, end-users and decision-makers) in the European research area. Marine research is one of the FP6 priorities within the Union.

The aim of EU funded marine research is to provide new concepts, tools and indicators for integrated management of European Seas in the open ocean as well as in the coastal zone and the catchment area relevant to land management, at scales ranging from local to basin-wide, and to contribute to relevant conventions. Research partnerships with third countries provide knowledge and mutual benefits in relation to often highly interconnected ecological and socio-economic issues. EU research creates the means to implement sustainable management of the coastal, pelagic and deep-sea environments and to understand the diversity of these ecosystems, not only by adding relevant knowledge and technology, but also by investigating interrelated processes, by considering socio-economic factors, and by enabling better forecasts of the anthropogenic and environmental parameters which have an impact on marine activities.

EU funded research on the landward side of land-ocean interactions aims to conceptualise, quantify and to predict the inputs from river basins and catchments to the sea, considering all routes (river outflow, atmospheric loads, groundwater seepage, diffuse releases) and assessing the underlying drivers, pressures and impacts.

The Union actively supports several international fora with developing and emerging economies on using international scientific and technological cooperation to harness the knowledge, policy, capacity and action to progress towards sustainable development, including in relation to the marine environment and its ecosystems. In the context of the Mediterranean, coastal ecosystems have been a priority over the last few years and will continue to be so in the foreseeable future. Likewise, other bi-regional dialogues between Europe and partner-regions have given attention to marine and coastal ecosystems and their sustainable management. These are in particular with NIS; Africa, Caribbean and Pacific countries (ACP); Asia (through ASEM – Asia-Europe Meetings); and Latin America and the Caribbean.

In addition, the Commission's Joint Research Centre (JRC) provides technical and scientific support needed for European policy-making. As the European Union's scientific and technical research laboratory, it combines short-term technical support with longer-term strategic research. Much of the work is carried out with partners across Europe, including Member States institutions, research institutes, universities and high-tech businesses.

Marine and coastal research is carried out in the Institute for Environment and Sustainability (IES) which concentrates on numerical modelling of physical and biogeochemical processes in coastal areas and regional seas, bio-optical modelling for quantitative retrieval of waterborne substances (e.g. chlorophyll-a, total suspended matter) from satellite data and subsequent processing on regional and global scale, development and validation of spatial indicators related to coastal/marine eutrophication, development of methods and tools for the assessment of the interactions between river catchments and coastal zone, and (atmospheric modelling (regional/global scale) including emission and sinks in the marine environment.

Of the other international organisations involved in marine research, ICES acts as a forum for the promotion, coordination, and dissemination of research on the physical, chemical, and biological systems in the North Atlantic and adjacent sea regions, including the Baltic Sea, and advice on human impact on its environment, in particular fisheries effects in the North-East Atlantic. ICES has an advisory role to regional marine conventions (AMAP, HELCOM and OSPAR) and to fisheries management authorities.

The regional marine conventions do not act as funding instruments. While the Conventions are also not directly engaged in marine research, some research institutes, which receive Community funding, are also involved in their work.

While much research has been funded by the Community as outlined above, it is not immediately evident that the results of this publicly funded research are available to or exploited by those engaged in monitoring and assessment of the marine environment. There is scope to increase the role of the Marine Conventions in identifying and stimulating EC funded marine research – and vice versa – EC funded marine research yields substance for policy options and future strategies.

2. ACTIVITIES AT GLOBAL LEVEL

On the global level, several international organisations and institutions are involved in monitoring, research and assessment of the marine environment and provide valuable information on the physical conditions and/or the state of the marine environment. Some of the most relevant organisations are described below.

The Intergovernmental Oceanographic Commission (IOC) under UNESCO has, over the last three decades, focused on promoting marine scientific investigations and related ocean services, with a view to learning more about the nature and resources of the oceans. It develops, promotes and facilitates international oceanographic research programmes and facilitates that ocean data and information obtained through research, observation and monitoring are efficiently handled and made widely available.

Programmes carried out under the IOC include, the Global Investigation of Pollution in the Marine Environment Programme (GIPME, an international co-operative programme of scientific investigations focussed on marine contamination and pollution co-sponsored by UNEP and IMO) and the Global Ocean Observing System (GOOS) and its regional sub-programmes (such as EUROGOOS, and in this frame the Baltic Operational Oceanographic System 1999-2003 (BOOS Plan)).

The Joint Group of Experts on the Scientific Aspects of Marine environmental Protection (GESAMP, is based on a secretariat at IMO and co-sponsored by FAO, UNESCO-IOC, WMO, WHO, IAEA, UN, UNEP) provides advice on scientific aspects of marine environmental protection, periodic reviews and assessments of the state of the marine environment and identifies problems and areas requiring special attention.

The Global International Water Assessment (GIWA), a programme led by UNEP is to produce a comprehensive and integrated global and systematic assessment of the environmental conditions and problems in international waters, comprising marine, coastal and freshwater areas, and surface water as well as groundwater.

UNEP recently started a process aimed at establishing regular assessments of the state of the marine environment at a global scale. As a first step, a feasibility study will be carried out.

The UNEP World Conservation Monitoring Centre (WCMC) was established in 2000 as the world biodiversity information and assessment centre of the United Nations Environment Programme. It provides information for policy and action to conserve the living world. Programmes concentrate, *inter alia*, on species, protected areas, marine waters and habitats affected by climate change such as polar regions.

ANNEX 4
TO THE COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT

Towards a strategy to protect and conserve the marine environment

Overview of a selection of Regional and Global Conventions, Agreements and Agencies

Name	Main objective/task	Contracting Parties / Membership	Website
General			
Convention for the Protection of Marine Environment of the North East Atlantic (OSPAR)	Taking of all possible steps to prevent and eliminate pollution and the necessary measures to protect the maritime area against the adverse effects of human activities so as to safeguard human health and to conserve marine ecosystems and, when practicable, restore marine areas which have been adversely affected.	Belgium, Denmark, European Union, Finland, France, Germany, Iceland, Ireland, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom	www.OSPAR.org
Convention for the Protection of the Marine Environment of the Baltic Sea (HELCOM)	Adoption of appropriate legislative, administrative or other relevant measures to prevent and eliminate pollution in order to promote the ecological restoration of the Baltic Sea Area and the preservation of its ecological balance. The Baltic Sea Joint Comprehensive Environmental Action Programme (JCP) focuses on investment activities in relation to particular polluted sites (Hot Spots) in the catchment area.	Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia and Sweden and the European Community	www.HELCOM.fi
Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (BARCOM)	Taking of concerted actions to prevent and eliminate marine pollution and sustainable management of the Mediterranean	20 Mediterranean countries, including France, Greece Italy and Spain and the European Union	www.unepmap.org
Convention for the Protection of the Black Sea against Pollution	Taking of all necessary measures consistent with international law and in accordance with the provisions of this Convention to prevent, reduce and control pollution thereof in order to protect and preserve the marine environment of the Black Sea.	Bulgaria, Georgia, Romania, Russian Federation, Turkey, Ukraine	http://www.blacksea-environment.org
Arctic Council	Forum to provide a mechanism to address the common concerns and challenges faced by the Arctic governments and the people of the Arctic.	Canada, Denmark-Greenland- Faroe Islands, Finland, Iceland, Norway, Russian Federation, Sweden, USA	www.arctic-council.org
UN Law of the Sea (UNCLOS)	Governance of all aspects of the ocean space	Global agreement	
Hazardous Substances			

Name	Main objective/task	Contracting Parties / Membership	Website
Convention on the Prevention of Marine Pollution by Dumping Wastes and other Matters (LC)	Control of all sources of marine pollution by dumping of wastes.	Global agreement	administered by IMO
Stockholm Convention on Persistent Organic Pollutants (POPs)	Setting out control measures covering the production, import, export, disposal, and use of POPs (not yet in force).	Global agreement	http://irptc.unep.ch/pops
Rotterdam Convention on Prior Informed Consent for certain Hazardous Chemicals in International Trade	Promoting shared responsibility between exporting and importing countries in protecting human health and the environment from the harmful effects of certain hazardous chemicals being traded internationally.	Global agreement	http://irptc.unep.ch/pic/
Radioactive Substances			
International Atomic Energy Agency	develops, <i>inter alia</i> , nuclear safety standards and, based on these standards, promotes the achievement and maintenance of high levels of safety in applications of nuclear energy, as well as the protection of human health and the environment against ionising radiation	Global organisation	www.iaea.org
Fisheries Management			
International Baltic Sea Fisheries Commission (IBSFC)	Co-operation with a view to preserving and increasing the living resources of the Baltic Sea and the Belts and obtaining the optimum yield, and, in particular to expanding and co-ordinating studies towards these ends.	Estonia, the European Union, Latvia, Lithuania, Poland and the Russian Federation	www.ibsfc.org
North East Atlantic Fisheries Convention (NEAFC)	Promotion of the conservation and optimum utilisation of the fishery resources of the Northeast Atlantic area within a framework appropriate to the regime of extended coastal state jurisdiction over fisheries, and accordingly to encourage international co-operation and consultation with respect to these resources.	Bulgaria, Cuba, Denmark (in respect of the Faroe Islands and Greenland), European Union, Iceland, Norway, Poland, and the Russian Federation	www.neafc.org
North Atlantic Salmon Conservation Organisation (NASCO)	Contribute through consultation and co-operation to the conservation, restoration, enhancement and rational management of salmon stocks taking into account the best scientific evidence available to it	Canada, Denmark (in respect of the Faroe Islands and Greenland), European Union, Iceland, Norway, Russian Federation, USA	www.nasco.org.uk
International Commission for the Protection of Atlantic Tunas (ICCAT)	Responsible for the conservation of tunas and tuna-like species in the Atlantic Ocean and its adjacent seas	32 countries, including the European Union	www.iccat.es

Name	Main objective/task	Contracting Parties / Membership	Website
Food and Agriculture Organisation (FAO)	Lead Agency for agriculture, forestry, fisheries and rural development FAO Code of Conduct for Responsible Fisheries	Global organisation	www.fao.org
Agreement for the Implementation of UNCLOS relating to the conservation and management of straddling stocks	Providing principles for the conservation and management of those fish stocks and establishing that such management must be based on the precautionary approach and the best available scientific information	Global agreement	www.un.org/depts/los/indx.htm
Nature Conservation			
Agreement on the conservation of small cetaceans of the Baltic and the North Seas (ASCOBANS)	Regional Agreement under CMS (see below) with a conservation and management plan stipulating measures regarding, <i>inter alia</i> , (a) prevention of pollution, (b) fishing practices, (c) regulation of activities affecting food resources, (d) prevention of disturbances, (e) conduct surveys and research, and (f) enforce legislation that prohibits the intentional taking and killing of small cetaceans.	Belgium, Denmark, Finland, Germany, the Netherlands, Poland, Sweden, United Kingdom	www.ascobans.org
Agreement on the conservation of cetaceans in the Black and Mediterranean Seas and contiguous areas of the North East Atlantic (ACCOBAMS)	Regional Agreement under CMS (see below), <i>inter alia</i> , providing for the protection of dolphins, porpoises and other whales, and establishing a network of protected areas important for their feeding, breeding and calving.	Albania, Bulgaria, Croatia, Spain, Georgia, Malta, Morocco, Monaco, Romania and Tunisia. The first meeting of parties was also attended by: Bosnia-Herzegovina, Egypt, France, United Kingdom, Greece, the Libyan Arab Jamahiriya, Lebanon, Portugal, Turkey, the Ukraine and the European Union.	www.accobams.mc
Convention for the protection of the environment through criminal law (Council of Europe)	European Convention establishing as criminal offences a number of acts committed intentionally or through negligence where they cause or are likely to cause lasting damage notably to the quality of the water, or result in the death of or serious injury to any person. It defines the concept of criminal liability of natural and legal persons, specifies the measures to be adopted by States and enable them to confiscate property and define the powers available to the authorities, and provides for international co-operation.	Contracting States of the Council of Europe	http://conventions.coe.int/Treaty/EN/CadreListeTraites.htm
Trilateral Co-operation on the Protection of the Wadden Sea (CWSS)	Co-operation on the protection and conservation of the Wadden Sea covering management, monitoring and research, as well as political matters	Denmark, Germany, the Netherlands	http://cwss.www.de

Name	Main objective/task	Contracting Parties / Membership	Website
Convention on Biological Diversity (CBD)	Conservation of biological diversity. Jakarta Mandate: Protection of marine and coastal diversity	Global agreement	
Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention)	Conservation of migratory species (avian, marine and terrestrial)	Global agreement	www.wcmc.org.uk/cms
Convention on the Conservation of Wildlife and Natural Habitats in Europe (Bern Convention)	Conservation of wild flora and fauna and their natural habitats, especially those species and habitats whose conservation requires the co-operation of several States, and to promote such co-operation.	Global agreement	www.nature.coe.int/english/cadres/berne
Shipping			
International Maritime Organisation (IMO)	Specialised agency of the United Nations, which is responsible for measures to improve the safety of international shipping and to prevent the pollution of ships. It also is involved in legal matters, including liability and compensation issues and the facilitation of international maritime traffic.	Global organisation	www.imo.org
Convention for the Prevention of Pollution from Ships (MARPOL 73/78)	Prevention and minimisation of pollution from ships from operational and accidental causes	Global agreement	administered by IMO (see above)
Paris Memorandum on Port State Control (Paris MOU)	Elimination of the operation of sub-standard ships through a harmonised system of port State control	Global agreement	www.parismou.org
International Convention on the Control of Harmful Anti-fouling Systems on Ships	Prohibition of the use of harmful organotins in anti-fouling paints used on ships and will establish a mechanism to prevent the potential future use of other harmful substances in anti-fouling systems (not yet in force)	Global agreement	administered by IMO (see below)
Combating Marine Pollution			
Agreement for Co-operation in Dealing with Pollution of the North Sea by Oil and Other Harmful Substances (Bonn Agreement)	International agreement by North Sea coastal states, together with the EC to offer mutual assistance and co-operation in combating pollution and execute surveillance as an aid to detecting and combating pollution and to prevent violations of anti-pollution regulations.	Belgium, Denmark, France, Germany, the Netherlands, Norway, Sweden, the United Kingdom, European Union. Ireland is in the process of becoming Contracting Party.	www.bonnagreement.org

Name	Main objective/task	Contracting Parties / Membership	Website
Agreement for Co-operation in Dealing with Pollution due to Hydrocarbons or Other Harmful Substances (Lisbon Agreement)	Co-operation for the protection of the coast and waters of the North-East Atlantic on taking appropriate measures in order to prepare to face marine pollution incidents by oil or other harmful substances (not yet in force).	France, Portugal and Spain	
Assessment & Monitoring			
European Environment Agency (EEA)	Support sustainable development and help achieve significant and measurable improvement in Europe's environment through the provision of timely, targeted, relevant and reliable information to policy making agents and the public	Austria, Belgium, Bulgaria, Czech Republic, Estonia, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Liechtenstein, Luxembourg, Macedonia, Netherlands, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, United Kingdom	www.eea.eu.int
Convention for the International Council for the Exploration of the Sea (ICES)	Forum for the promotion, co-ordination, and dissemination of research on the physical, chemical, and biological systems in the North Atlantic and advice on human impact on its environment, in particular fisheries effects in the Northeast Atlantic. Facilitation of data and information exchange through publications and meetings. Functioning as a marine data centre for oceanographic, environmental, and fisheries data.	Belgium, Canada, Denmark, Estonia, Finland, France, Germany, Iceland, Ireland, Latvia, Netherlands, Norway, Poland, Portugal, Russia, Spain, Sweden, United Kingdom, United States	www.ices.dk
Arctic Monitoring and Assessment Programme (AMAP)	Provision of reliable and sufficient information on the status of, and threats to, the Arctic environment, and providing scientific advice on actions to be taken in order to support Arctic governments in their efforts to take remedial and preventive actions relating to contaminants. (see also Arctic Council)	Canada, Denmark (Greenland and Faroe Islands), Finland, Iceland, Norway, Russian Federation, Sweden, USA	www.amap.no
Other			
International Conferences on the Protection of the North Sea (NSC)	Periodic ministerial conferences for a broad and comprehensive assessment of the measures needed to protect the North Sea environment.	Belgium, Denmark, France, Germany, the Netherlands, Norway, Sweden, the United Kingdom, European Union	www.dep.no/md/nsc

ANNEX 5
TO THE COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND
THE EUROPEAN PARLIAMENT

Towards a strategy to protect and conserve the marine environment

Timeschedule of Activities to Implement the Marine Strategy

Action	2002	2003	2004	2005	2006	2007	2008	2009	2010
Biodiversity									
1. proposals for developing ecosystem-based approach									
2. programme for implementing habitat and bird directives									
3. proposals for reform of Common Fisheries Policy									
4. development of regional ballast water management plans									
assessment of the need for additional measures on ballast water									
propose measures to limit escapes from fish farms									
Hazardous substances									
5. implementation of the Water Framework Directive									
6. proposals for chemicals policy and pesticides strategy									
7. pilot programme for monitoring of dioxins									
8. consider need for additional action on harmful antifouling									
Eutrophication									
9. assessment of marine eutrophication									
proposals for reduction of NOx emissions from shipping									
Radionuclides									
10. review of policy with regard to radioactive substances									
Chronic Oil Pollution									
11. exploring ways and means to eliminate illegal discharges									
12. strategy for elimination of operational discharges									
Litter									
13. report on extent and sources and possible remedial action									

Action	2002	2003	2004	2005	2006	2007	2008	2009	2010
Maritime Transport									
14. review of existing measures									
development of parameters for the concept of clean ships									
Health and Environment									
15. assessment of results of monitoring programmes									
proposals for maximum contaminant levels in food									
16. proposal for revision of Bathing Water Directive									
17. entry into force of Annex IV of MARPOL									
Climate change									
18. implementation of the Kyoto Protocol									
Enhancing Co-ordination and Co-operation									
19. establishment of interservice group									
establishment of workprogramme									
progress report									
20. review establishment of Regional Advisory Councils									
21. co-ordination of funding instruments									
22. promotion of objectives and approaches of Marine Strategy at global level									
seeking of membership in vital international organisations									
Improving the Knowledge Base									
23. initiate development of ecosystem approach									
promote research on link between pressures and impacts									
initiative to improve the link between research needs and research activities									
develop proposals for a common approach on data and information									
development of common monitoring and assessment strategy									
evaluate provision of training									
participation in global marine assessments									

Appendix EUN

**Conclusions from the conference working session on policy –
Framework for integration, co-ordination and coherence. Stakeholder
Conference, 4-6 December 2002, Koge, Denmark, 6 pp.**

(available as hardcopy)

Appendix EUP

Conclusions from the conference working session on an ecosystem approach to assessment and management.

Stakeholder Conference, 4-6 December 2002, Koge, Denmark, 5 pp.

(available as hardcopy)

Appendix EUQ

Conclusions from the conference working session on monitoring and assessment – How to streamline the generation, gathering and assessment of information.

Stakeholder Conference, 4-6 December 2002, Koge, Denmark, 5 pp.

(available as hardcopy)

Appendix RCA
Summary of the status of relevant regional conventions

APPENDIX RCA

SUMMARY INFORMATION ON REGIONAL CONVENTIONS

NOTE: Contracting Party information in these entries is not up to date. The dates of entry into force of regional conventions in the text of the report are based on more recent information.

THE ANTARCTIC TREATY

Objectives

To ensure that Antarctica is used for peaceful purposes, for international cooperation in scientific research, and does not become the scene or object of international discord.

Summary of provisions

- (a) No military bases, military manoeuvres or weapon testing in Antarctica (art. 1);
- (b) Freedom of scientific investigation and cooperation in the exchange of information regarding plans for such investigation and of personnel engaged in such investigation, and of information resulting from such investigation (arts. 2 and 3);
- (c) Territorial claims in Antarctica not affected by the Convention (art. 4);
- (d) Observers to inspect stations, installations and equipment, to be appointed by each party (art. 7);
- (e) Meetings of parties to be held for consultation and to formulate and recommend measures to further the objectives of the Treaty;
- (f) Detailed agreed measures for the conservation of Antarctic fauna and flora.

Membership

Open for accession by any State Member of the United Nations, or any other State by unanimous invitation of the parties. Instruments of accession to be deposited with the Government of the United States of America.

Date of adoption	1.12.1959
Place of adoption	Washington, USA
Date of entry into force	23. 6.1961
Languages	English, French, Russian, Spanish
Depositary	United States of America

Participant	Entry into force
-----	-----
Argentina	23. 6.1961
Australia	23. 6.1961
Austria	25. 8.1987
Belgium	23. 6.1961
Brazil	16. 5.1975
Bulgaria	11. 9.1978
Chile	23. 6.1961
China	8. 6.1983
Colombia	31. 1.1989
Cuba	16. 8.1984
Czechoslovakia	14. 6.1962
Denmark	20. 5.1965
Finland	15. 5.1984
France	23. 6.1961
Germany	5. 2.1979
Greece	8. 1.1987
Guatemala	31. 7.1991
Hungary	27. 1.1984
India	19. 8.1983

Italy	18. 3.1981
Japan	23. 6.1961
Korea (Democratic People's Republic of)	21. 1.1987
Korea, Republic of	28. 1.1986
Netherlands*	30. 3.1967
New Zealand	23. 6.1961
Norway	23. 6.1961
Papua New Guinea	16. 9.1975
Peru	10. 4.1981
Poland	23. 6.1961
Romania	15. 9.1971
Russian Federation	23. 6.1961
South Africa	23. 6.1961
Spain	31. 3.1982
Sweden	24. 4.1984
Switzerland	15.11.1990
United Kingdom of Great Britain and Northern Ireland	23. 6.1961
United States of America	23. 6.1961
Uruguay	11. 1.1980

* Extended to the Netherlands Antilles and Suriname.

CONVENTION ON THE CONSERVATION OF ANTARCTIC MARINE LIVING RESOURCES

Objectives

To safeguard the environment and protect the integrity of the ecosystem of the seas surrounding Antarctica, and to conserve Antarctic marine living resources.

Summary of provisions

A Commission for the Conservation of Antarctic Marine Living Resources, established, with the following functions:

- (a) To facilitate research into and comprehensive studies of Antarctic marine living resources and the Antarctic marine ecosystems;
- (b) To compile data on the status of and changes in populations of Antarctic marine living resources, and on factors affecting the distribution, abundance and productivity of harvested species and dependent or related species or populations;
- (c) To ensure the acquisition of catch and effort statistics on harvested populations;
- (d) To analyze, disseminate and publish the information referred to in subparagraphs (b) and (c) above, and the reports of the Scientific Committee;
- (e) To identify conservation needs and analyze the effectiveness of conservation measures;
- (f) To formulate, adopt and revise conservation measures on the basis of the best scientific evidence available;
- (g) To implement a system of observation and inspection;
- (h) To carry out such other activities as are necessary to fulfil the objective of the Convention.

Membership

Open for accession by any State interested in research or harvesting activities in relation to the marine living resources to which the Convention applies, and by regional economic integration organizations which include among their members one or more States members of the Commission and to which the States members of the organization have transferred, in whole or in part, competence with regard to the matters covered by the Convention.

Date of adoption	20. 5.1980
Place of adoption	Canberra, Australia
Date of entry into force	7. 4.1982
Languages	English, French, Russian, Spanish
Depositary	Australia

Participant -----	Entry into force -----
Argentina	27. 6.1982
Australia	7. 4.1982
Belgium	23. 3.1984
Brazil	27. 2.1986
Canada	31. 7.1988
Chile	31. 4.1982

Finland	6.10.1989
France	16.10.1982
Germany	23. 5.1982
Greece	14. 3.1987
India	17. 7.1985
Italy	28. 4.1989
Japan	7. 4.1982
Korea, Republic of	28. 4.1985
Netherlands	25. 3.1990
New Zealand	7. 4.1982
Norway	5. 1.1984
Peru	23. 7.1989
Poland	27. 4.1984
Russian Federation	7. 4.1982
South Africa	7. 4.1982
Spain	9. 5.1984
Sweden	6. 7.1984
United Kingdom of Great Britain and Northern Ireland	7. 4.1982
United States of America	7. 4.1982
Uruguay	21. 4.1984
European Economic Community	21. 5.1982

The objective of this Convention is the conservation of Antarctic marine living resources ; applies to all marine areas south of the Antarctic convergence and to all living organisms including birds found in that area ; whales and seals are, however, excluded to the extent that they are covered by other international agreements; the harvesting of species in the Convention area shall be conducted in accordance with the following principles of conservation: prevention of decrease in the size of any harvested population to levels below those which ensure its stable recruitment; maintenance of the ecological relationships between harvested, dependent and related populations; prevention of changes or minimization of the risk of changes in the marine ecosystem which are not potentially reversible over two or three decades; establishes a Commission to give effect to the objective of the Convention and to the principles mentioned above; empowers the Commission to facilitate research , collect scientific information and statistical data, analyze and disseminate such information, identify conservation needs, and adopt conservation measures ; conservation measures include the designation of protected species, allowable catch , open and closed seasons , open and closed areas , special areas for protection and scientific study, and regulation of harvesting effort; decisions of the Commission are taken by consensus; also establishes a Scientific Committee to assess regularly the status and trends of the populations of Antarctic marine living resources, establish criteria and methods for conservation measures, analyze data concerning the direct and indirect effects of harvesting, and assess the effects of proposed changes in the methods or levels of harvesting; also provides for a system of observation and inspection

PROTOCOL TO THE ANTARCTIC TREATY ON ENVIRONMENTAL PROTECTION

Objectives

To reaffirm the status of the Antarctica as a special conservation area, and to enhance the framework for the protection of the Antarctic environment with its dependent and associated ecosystems.

Summary of provisions

(a) A statement of the environmental principles governing the conduct of States Parties in relation to the Antarctica. The basic principle is to protect the Antarctic environment and dependent and associated ecosystems as well as the intrinsic value of the Antarctica with its aesthetic values, as well as its status as a place of research (art. 3);

(b) Requirement of cooperation among States Parties in the planning and conduct of activities in the Antarctic Treaty area (art. 6);

(c) Prohibition of mineral resource enterprises in the Antarctic Treaty area, save for purposes of scientific research (art. 7);

(d) Requirement of environmental impact assessment in the Antarctic Treaty area in respect of activities that are likely to entail significant adverse environmental consequences (art. 8);

(e) Machinery is established for effecting consultation and monitoring in respect of activities undertaken by States Parties in the Antarctica (arts. 10, 11, 12, 13 and 14);

(f) Responsibility is placed on States Parties for appropriate action to deal with any emergency that may ensue from their activities in the Antarctica (art. 15);

(g) Obligation is placed on States parties to report annually on actions taken by them to implement the Protocol (art. 17);

(h) Dispute settlement procedures are set out (arts. 18, 19 and 20);

(i) The Protocol has a schedule on arbitration.

(j) The Protocol has the following annexes: environment impact assessment; conservation of Antarctic fauna and flora; waste disposal and waste management; prevention of marine pollution.

Membership

The Protocol is open to any State which is a Contracting Party to the Antarctic Treaty.

Date of adoption	3.10.1991
Place of adoption	Madrid, Spain
Date of entry into force	Not yet in force
Languages	English, French, Russian, Spanish.
Depositary	United States of America

CONVENTION FOR THE PROTECTION OF THE MEDITERRANEAN SEA AGAINST POLLUTION

Objective

In the light of the special characteristics and vulnerability of the Mediterranean, to achieve international cooperation for a coordinated and comprehensive approach to the protection and enhancement of the marine environment in the Mediterranean area.

Summary of provisions

- (a) Parties to take all appropriate measures to prevent and abate pollution of the Mediterranean caused by dumping from ships and aircraft, or by discharges from ships, or resulting from exploration and exploitation of the sea bed and subsoil, or from discharges from rivers, coastal establishments or other land-based sources within their territories (arts. 5-8);
- (b) Parties to cooperate in taking measures to deal with pollution emergencies, whatever their cause (art. 9);
- (c) Parties to cooperate in establishing programmes for monitoring pollution in the area (art. 10);
- (d) Parties to cooperate in scientific and technical research relating to all types of marine pollution (art. 11);
- (e) Parties to cooperate in establishing procedures for the determination of liability and compensation for damage resulting from violations of the Convention and Protocols (art. 12);
- (f) Protocols for the Prevention of Pollution by Dumping from Ships and Aircraft, and for Cooperation in Dealing with Pollution Emergencies, have been adopted;
- (g) UNEP designated to discharge secretariat functions under the Convention.

Membership

Open to States which participated in the Barcelona Conference in February 1976, and to the European Economic Community and any similar regional economic grouping at least one member of which is a coastal State of the Mediterranean Sea area and which exercises competence in fields covered by the Convention. Instruments of ratification or accession to be deposited with the Government of Spain.

Date of adoption	16. 2.1976
Place of adoption	Barcelona, Spain
Date of entry into force	12. 2.1978
Languages	Arabic, English, French, Spanish
Depositary	Spain

Participant	Signature	Ratification Approval (Ap) Accession (Ac)	Entry into force
-----	-----	-----	-----
Albania		30. 5.1990 (Ac)	29. 6.1990
Algeria		16. 2.1981 (Ac)	18. 3.1981
Cyprus	16. 2.1976	19.11.1979	19. 12.1979
Egypt	16. 2.1976	24. 8.1978 (Ap)	23. 9.1978

France*	16. 2.1976	11. 3.1978 (Ap)	10. 4.1978
Greece	16. 2.1976	3. 1.1979	2. 2.1979
Israel*	16. 2.1976	3. 3.1978	2. 4.1978
Italy	16. 2.1976	3. 2.1979	5. 3.1979
Lebanon	16. 2.1976	8.11.1977 (Ac)	12. 2.1978
Libyan Arab Jamahiriya	31. 1.1977	31. 1.1977	2. 3.1979
Malta	16. 2.1976	30.12.1977	12. 2.1978
Monaco	16. 2.1976	20. 9.1977	12. 2.1978
Morocco	16. 2.1976	15. 1.1980	15. 2.1980
Spain	16. 2.1976	17.12.1976	12. 2.1978
Syrian Arab Republic*		26.12.1978 (Ac)	25. 1.1979
Tunisia	25. 5.1976	30. 7.1977	2. 2.1978
Turkey	16. 2.1976	6. 4.1981	6. 5.1981
Yugoslavia	15. 9.1976	13. 1.1978	12. 2.1978
EEC	13. 9.1976	16. 3.1978 (Ap)	15. 4.1978

* With a reservation.

Obliges Parties generally to take all appropriate measures to prevent and abate pollution by dumping from ships and aircraft, discharges from ships and land-based sources and during exploration and exploitation of the continental shelf. International cooperation is to be undertaken in dealing with pollution emergency, monitoring of pollution and in scientific and technical matters. UNEP has secretariat functions and procedural matters are provided for.

**PROTOCOL FOR THE PREVENTION OF POLLUTION OF THE MEDITERRANEAN
SEA BY DUMPING FROM SHIPS AND AIRCRAFT**

Objective

To control and in certain circumstances prohibit the dumping into the Mediterranean Sea area of wastes or other matter.

Summary of provisions

(a) Parties to take all appropriate measures to prevent and abate pollution of the Mediterranean Sea area caused by dumping from ships and aircraft (art. 1);

(b) The dumping into the Mediterranean Sea of wastes or other matter listed in annex I is prohibited (art. 2), except as mentioned in article 9. The dumping of wastes listed in annex II requires a prior special permit (art. 3). For all other wastes and matter a prior general permit is required from the competent national authorities (art. 4). All such permits given in accordance with criteria listed in annex III (art. 7) by competent authorities designated for each purpose by each Party (art. 10);

(c) Each party shall apply the measures required to implement this Protocol to all ships and aircraft registered in its territory or flying its flag, loading matter to be dumped, or believed to be engaged in dumping (art. 11);

(d) The Protocol will not apply to ships and aircraft used only on Government non-commercial service (art. 11);

(e) Each party shall issue instructions that reports shall be made to its authorities of any incidents or conditions which give rise to suspicions that dumping in contravention of this Protocol is occurring (art. 12).

Membership

Open to parties to the Convention for the Protection of the Mediterranean Sea Against Pollution.

Date of adoption	16. 2.1976
Place of adoption	Barcelona, Spain
Date of entry into force	12. 2.1978
Languages	Arabic, English, French, Spanish
Depositary	Spain

Participant	Signature	Ratification Approval (Ap) Accession (Ac)	Entry into force
-----	-----	-----	-----
Albania		30. 5.1990 (Ac)	29. 6.1990
Algeria		16. 3.1981 (Ac)	15. 4.1981
Cyprus	16. 2.1976	19.11.1979	19.12.1979
Egypt	16. 2.1976	24. 8.1978 (Ap)	23. 9.1978
France*	16. 2.1976	11. 3.1978 (Ap)	10.4.1978
Greece	11. 2.1977	3. 1.1979	2. 2.1979
Israel	16. 2.1976	1. 3.1984	31. 3.1984
Italy	16. 2.1976	3. 2.1979	5. 3.1979
Lebanon	16. 2.1976	8.11.1977 (Ac)	12.2.1978
Libyan Arab Jamahiriya	31. 1.1977	31. 1.1979	2. 3.1979
Malta	16. 2.1977	30.12.1977	12. 2.1978

Monaco	16. 2.1976	20. 9.1977	12. 2.1978
Morocco	16. 2.1976	15. 1.1980	15. 2.1980
Spain	16. 2.1976	17.12.1976	12. 2.1978
Syrian Arab Republic		26.12.1978 (Ac)	25.1.1979
Tunisia	25. 5.1976	30. 7.1977	12. 2.1978
Turkey	16. 2.1976	6. 4.1981	6. 5.1981
Yugoslavia	15. 9.1976	13. 1.1978	12. 2.1978
EEC	13. 9.1976	16. 3.1978 (Ap)	15. 4.1978

**PROTOCOL FOR THE PROTECTION OF THE MEDITERRANEAN SEA
AGAINST POLLUTION FROM LAND-BASED SOURCES**

Objectives

To prevent, abate, combat and control pollution of the Mediterranean Sea area by discharges from rivers, coastal establishments or outfalls, or emanating from any other land-based sources within their territories.

Summary of provisions

(a) Parties to establish programmes and measures, particularly including emission standards and standards for using and discharging substances listed in annexes I and II or wastes containing such substances (arts. 5-7);

(b) Parties to carry out activities to assess the levels of pollution along their coasts and to evaluate the effects of measures taken under the Protocol;

(c) Parties to cooperate as far as possible in scientific and technological fields (arts. 9 and 10) as well as in the case of conflicts (arts. 11 and 12);

(d) Parties to convene ordinary and extraordinary meetings to review the implementation of the Protocol and consider the efficacy of the measures adopted and the advisability of any other measures (art. 14);

Membership

Open to any State invited to the Conference of Plenipotentiaries of the Coastal States of the Mediterranean Region for the Protection of the Mediterranean Sea Against Pollution from Land-based Sources held in Athens from 12 to 17 May 1980, to the European Economic Community and to any similar regional economic grouping of which at least one member is a coastal State of the Mediterranean Sea area and which exercises competence in fields covered by the Protocol. Instruments of ratification, acceptance or approval to be deposited with the Government of Spain.

Date of adoption	17.5.1980
Place of adoption	Athens, Greece
Date of entry into force	17.6.1983
Languages	Arabic, English, French, Spanish
Depositary	Spain

Participant	Signature	Ratification Approval (Ap) Accession (Ac)	Entry into force
-----	-----	-----	-----
Albania		30. 5.1990 (Ac)	29. 6.1990
Algeria		2. 5.1983 (Ac)	17. 6.1983
Cyprus	17. 5.1980	28. 6.1988	28. 7.1988
Egypt		18. 5.1983 (Ac)	17. 6.1983
France*	17. 5.1980	13. 7.1982 (Ap)	17. 6.1983
Greece	17. 5.1980	26. 1.1987	25. 2.1987
Israel	17. 5.1980	21. 2.1991	23. 3.1991
Italy	17. 5.1980	4. 7.1985	3. 8.1985
Lebanon	17. 5.1980		
Libyan Arab Jamahiriya	17. 5.1980	6. 6.1989 (Ap)	5. 7.1989
Malta	17. 5.1980	2. 3.1989	31. 3.1989
Monaco	17. 5.1980	12. 1.1983	17. 6.1983

Morocco	17. 5.1980	9. 2.1987	11. 3.1987
Spain	17. 5.1980	6. 6.1984	5. 7.1984
Tunisia	17. 5.1980	29.10.1981	17. 6.1983
Turkey		21. 2.1983 (Ac)	17. 6.1983
Yugoslavia		16. 4.1990 (Ac)	16.4.1990
EEC	17. 5.1980	7.10.1983 (Ap)	6.11.1983

- With a reservation.

PROTOCOL CONCERNING MEDITERRANEAN SPECIALLY PROTECTED AREAS

Objective

To protect and improve the state of the natural resources and natural sites of the Mediterranean Sea.

Summary of provisions

Parties shall:

- (a) Establish, maintain and restore protected areas (arts. 3 and 4), including buffer areas in which activities are less severely restricted (art. 5);
- (b) Take the measures required to protect specified areas, such as the prohibition of the dumping or discharge of wastes (art. 7 (b)), the regulation of any act likely to harm or disturb the fauna or flora (art. 7 (f)) or the regulation of trade in and import and export of animals which originate in protected areas and are subject to measures of protection (art. 7 (j));
- (c) Give appropriate publicity to the establishment and significance of the protected areas (arts. 8 and 11);
- (d) Establish and develop scientific and technical research on protected areas and their ecosystems and archeological heritage (art. 10);
- (e) Cooperate in establishing and managing protected areas (arts. 6, 12, 13 and 15);
- (f) Convene ordinary and extraordinary meetings to review the implementation of the Protocol and the efficacy of the measures adopted (art. 17).

Membership

Open to any Contracting Party to the Convention for the Protection of the Mediterranean Sea against Pollution, any State invited to the Conference of Plenipotentiaries on the Protocol Concerning Mediterranean Specially Protected Areas and any regional economic grouping of which at least one member is a coastal State of the Mediterranean Sea area and which exercises competence in fields covered by this Protocol. Instruments of ratification, acceptance or approval to be deposited with the Government of Spain.

Date of adoption	3. 4.1982
Place of adoption	Geneva, Switzerland
Date of entry into force	23.3.1986
Languages	Arabic, English, French, Spanish
Depositary	Spain

Participant	Signature	Ratification Approval (Ap) Accession (Ac)	Entry into force
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Albania		30. 5.1990 (Ac)	29. 6.1990
Algeria		16. 5.1985 (Ac)	23. 3.1986
Cyprus		28. 6.1988 (Ac)	28. 7.1988
Egypt	16. 2.1983	8. 7.1983 (Ac)	23. 3.1986
France	3. 4.1982	2. 9.1986 (Ap)	2.10.1986
Greece	3. 4.1982	26. 1.1987	25. 2.1987
Israel	3. 4.1982	28.10.1987	27. 7.1987

Italy	3. 4.1982	4. 7.1985	23. 3.1986
Libyan Arab Jamahiriya		6. 6.1989 (Ac)	6. 7.1989
Malta	3. 4.1982	11. 1.1988	10. 2.1988
Monaco	3. 4.1982	29. 5.1989	28. 6.1989
Morocco	3. 4.1983	3. 4.1990	23. 3.1986
Spain	3. 4.1983	22.12.1987	21. 1.1988
Tunisia*	3. 4.1982	26. 5.1983	23. 3.1986
Turkey		6.11.1986 (Ac)	6.12.1986
Yugoslavia	30. 3.1983	21. 2.1986	23. 3.1986
EEC	30. 3.1983	30. 6.1984 (Ap)	23. 3.1986

* With a reservation.

**PROTOCOL CONCERNING SPECIALLY PROTECTED AREAS AND BIOLOGICAL
DIVERSITY IN THE MEDITERRANEAN**

Entry into force: 1999.12.12

No summary available but technical comments below

Provides for the establishment of Specially Protected Areas of Mediterranean Importance; lays down requirements for the conservation of such areas; provides for the establishment of a list of such areas and lays down criteria for the inclusion of areas into that list; requires Parties to manage fauna and flora species with the aim of maintaining them in a favorable conservation status, to identify endangered or threatened species and to regulate and, where appropriate, to prohibit any activities having adverse effects on such species or their habitats; lists endangered and threatened species and species whose exploitation must be regulated; requires Parties to prohibit the taking, possession, killing, commercial trade, transport and exhibition for commercial purposes of these species, their eggs, parts or products, as well as the destruction of and damage to their habitat; also requires Parties to formulate and implement action plans for the conservation or recovery of these species; requires Parties, in co-operation with competent inter-national organizations, to take all appropriate measures to ensure the conservation of the species listed as species whose exploitation must be regulated so as to ensure and maintain their favorable conservation status; requires Parties to regulate the intentional or accidental introduction of non-indigenous or genetically modified species into the wild and to prohibit those introductions that may have a harmful impact on ecosystems, habitats or other species; also requires Parties to endeavour to eradicate already introduced species when they are causing or are likely to cause damage to ecosystems, habitats or species; requires Parties to make inventories of rare or fragile ecosystems, of areas rich in biological diversity and of endangered or threatened fauna or flora species; requires Parties to make environmental impact assessments of projects that could significantly affect protected areas and species; requires Parties when formulating protective measures to take into account the traditional subsistence and cultural activities of their local populations ; requires Parties to develop greater awareness and education in nature conservation, to encourage scientific and technical research and to develop mutual co-operation and assistance ; provides for the periodic submission of reports by Parties on the implementation of the Protocol ; provides for the designation of National Focal Points; establishes a Meeting of the Parties to keep under review the implementation of the Protocol and to make recommendations to the Parties on implementation measures that should be taken.

**KUWAIT REGIONAL CONVENTION FOR COOPERATION ON THE PROTECTION
OF THE MARINE ENVIRONMENT FROM POLLUTION**

Objectives

To prevent, abate and combat pollution of the marine environment.

Summary of provisions

(a) Parties to take all appropriate measures to prevent, abate and combat pollution of the marine environment (arts. III-VIII);

(b) Parties to cooperate in taking necessary measures to deal with pollution emergencies (art. IX);

(c) Parties to cooperate in scientific and technical research relating to marine pollution (arts. X-XII);

(d) Parties to cooperate in establishing appropriate rules and procedures for the determination of civil liability and compensation for damage related to the subject-matter of the Convention (art. XIII).

Membership

Open to the States which participated in the Kuwait Conference held from 15 to 23 April 1978.

Date of adoption	23. 4.1978
Place of adoption	Kuwait, Kuwait
Date of entry into force	1. 7.1979
Languages	Arabic, English, Persian
Depositary	Kuwait

Participant	Entry into force
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Bahrain	1. 7.1979
Iran, Islamic Republic of	1. 6.1980
Iraq	1. 7.1979
Kuwait	1. 7.1979
Oman	1. 7.1979
Qatar	1. 7.1979
Saudi Arabia	26. 3.1982
United Arab Emirates	1. 3.1980

**PROTOCOL CONCERNING REGIONAL COOPERATION IN COMBATING POLLUTION
BY OIL AND OTHER HARMFUL SUBSTANCES IN CASES OF EMERGENCY***

Objective

To enhance on a national and regional basis the existing measures for responding to pollution emergencies.

Summary of provisions

(a) The parties shall cooperate in maintaining and promoting their contingency plans and means for combating pollution in the area and protecting the coastline and related interests (art. II);

(b) A Marine Emergency Mutual Aid Centre established (art. III);

(c) Each contracting State to inform other contracting States and the Centre of its laws, marine emergency contingency plans and appropriate authority, and of existing and new technical developments relating to marine emergency response, research and developments in these areas and their results, as well as the receipt of a report of a marine emergency (arts. V-VIII);

(d) Any contracting State faced with a marine emergency to take appropriate measures to combat pollution, inform the other States of the measures it has taken or intends to take, make an assessment of the nature and extent of the marine emergency and determine the necessary and appropriate action to be taken (art. X);

(e) Any contracting State may call for assistance from the others and from the Centre (art. XI);

(f) Each contracting State to establish and maintain an appropriate authority to carry out its obligations under this Protocol (art. XII).

Membership

Open to the States invited as participants to the Kuwait Conference, held from 15 to 23 April, 1978.

Date of adoption	24. 4.1978
Place of adoption	Kuwait, Kuwait
Date of entry into force	1. 7.1979
Languages	Arabic, English, Persian
Depositary	Kuwait

<u>Participant</u>	<u>Entry into force</u>
Bahrain	1. 7.1979
Iran, Islamic Republic of	1. 6.1980
Iraq	1. 7.1979
Kuwait	1. 7.1979
Oman	1. 7.1979
Qatar	1. 7.1979
Saudi Arabia	26. 3.1982
United Arab Emirates	1. 3.1980

* Protocol to the Kuwait Regional Convention for Cooperation on the Protection of the Marine Environment from Pollution

**PROTOCOL CONCERNING MARINE POLLUTION RESULTING FROM EXPLORATION
AND EXPLOITATION OF THE CONTINENTAL SHELF**

Arabian/Persian Gulf
No summary available
Entry into force: 1990.02.17

**CONVENTION FOR COOPERATION IN THE PROTECTION AND DEVELOPMENT
OF THE MARINE AND COASTAL ENVIRONMENT OF THE WEST
AND CENTRAL AFRICAN REGION**

Objective

To protect the marine environment, coastal zones and related internal waters falling within the jurisdiction of the States of the West and Central African region.

Summary of provisions

The Parties shall:

- (a) Take all necessary measures to prevent, reduce, combat and control pollution of the Convention area (art. 4), particularly pollution from ships and aircraft (arts. 5 and 6), land-based sources (art. 7), and activities relating to exploration and exploitation of the sea bed (art. 8) and pollution from or through the atmosphere (art. 9);
- (b) Prevent, reduce, combat and control coastal erosion (art. 10);
- (c) Protect and preserve rare or fragile ecosystems, as well as the habitat of depleted, threatened or endangered species and other marine life in specially protected areas (art. 11);
- (d) Cooperate in dealing with pollution emergencies in the Convention area (art. 12), and in exchanging data and other scientific information (art. 14);
- (e) Develop technical and other guidelines regarding environmental impact assessment of their development projects (art. 13);
- (f) Establish rules and procedures for the determination of liability and the payment of adequate and prompt compensation for pollution damage of the Convention area (art. 15).

Membership

Since 23 June 1981, the Convention is open for accession by any coastal or island State from Mauritania to Namibia inclusive, on condition that the State also becomes a party to at least one of its related Protocols. After the entry into force of the Convention, any other African State may accede to the Convention subject to the same condition. The instruments of ratification, acceptance, approval or accession must be deposited with the Government of Cote d'Ivoire.

Date of adoption	23. 3.1981
Place of adoption	Abidjan, Cote d'Ivoire
Date of entry into force	5. 5.1984
Languages	English, French, Spanish
Depositary	Cote d'Ivoire

Participant	Entry into force
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Cameroon	5. 8.1984
Congo	19. 2.1988
Cote d'Ivoire	5. 8.1984
Gabon	11. 2.1989
Gambia	5. 2.1985
Ghana	18. 9.1989
Guinea	5. 8.1984
Nigeria	5. 8.1984
Senegal	5. 8.1984
Togo	5. 8.1984

**PROTOCOL CONCERNING COOPERATION IN COMBATING
POLLUTION IN CASES OF EMERGENCY***

Objective

To protect the marine environment, the coastal zones and the related internal waters falling within the jurisdiction of the States of the West and Central African region against pollution in cases of emergency.

Summary of provisions

The Parties shall:

- (a) Cooperate in all matters relating to the protection of their respective coastline and related interests from the threat and effects of pollution resulting from marine emergencies, especially by exchanging relevant information (arts. 4, 5, 6, 7, 8 and 10);
- (b) Assist each other, on demand, in cases of marine emergencies (art. 8);
- (c) Endeavour to maintain and promote marine emergency contingency plans (art. 9), and take appropriate measures to prevent, reduce, combat and control the effects of pollution, including surveillance and monitoring of marine emergencies (art. 10).

Membership

Restricted to States which are parties to the Convention for cooperation in the protection and development of the Marine and Coastal Environment of the West and Central African region. The instruments of ratification, acceptance, approval or accession must be deposited with the Government of Cote d'Ivoire.

Date of adoption	23. 3.1981
Place of adoption	Abidjan, Cote d'Ivoire
Date of entry into force	5. 8.1984
Languages	English, French, Spanish
Depositary	Cote d'Ivoire

Participant	Entry into force
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Cameroon	5. 8.1984
Congo	19. 2.1988
Cote d'Ivoire	5. 8.1984
Gabon	11. 2.1989
Gambia	5. 2.1985
Ghana	18. 9.1989
Guinea	5. 8.1984
Nigeria	5. 8.1984
Senegal	5. 8.1984
Togo	5. 8.1984

* To the Convention for Cooperation for the Protection and Development of the Marine and Coastal Environment of the West and Central African Region.

CONVENTION FOR THE PROTECTION OF THE MARINE ENVIRONMENT AND COASTAL AREA OF THE SOUTH-EAST PACIFIC

Objective

To protect the marine environment and coastal zones of the South-East Pacific within the 200-mile area of maritime sovereignty and jurisdiction of the Parties, and beyond that area, the high seas up to a distance within which pollution of the high seas may affect that area.

Summary of provisions

The Parties agree to:

- (a) Take all necessary measures to prevent, reduce and control pollution of the Convention area (art. 3), particularly pollution from land-based sources, from or through the atmosphere, from vessels and from any other installations and devices operating in the marine environment (art. 4);
- (b) Prevent, reduce, combat and control coastal erosion (art. 10);
- (c) Cooperate in dealing with pollution emergencies in the Convention area (art. 6), and in exchanging data and other scientific information (arts. 9 and 10);
- (d) Cooperate in establishing programmes for monitoring pollution and assessing environmental impacts in the area (arts. 7 and 8);
- (e) Establish rules and procedures for the determination of civil liability and compensate for damage resulting from pollution of the environment and coastal area (art. 11);
- (f) Convene ordinary and extraordinary meetings, within the framework of the Permanent Commission of the South Pacific (CPPS), for reviewing the implementation of the Convention (art. 12);
- (g) Designate the Permanent Commission for the South Pacific to discharge secretariat functions under the Convention (art. 13).

Membership

Open to States bordering the South-East Pacific.

Date of adoption	12.11.1981
Place of adoption	Lima, Peru
Date of entry into force	19. 5.1986
Language	Spanish
Depositary	Permanent Commission for the South Pacific

Participant	Entry into force
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Chile	19. 5.1986
Colombia	19. 5.1986
Ecuador	19. 5.1986
Panama	21. 9.1986
Peru	25. 2.1989

**AGREEMENT ON REGIONAL COOPERATION IN COMBATING POLLUTION OF
THE SOUTH-EAST PACIFIC BY HYDROCARBONS OR OTHER HARMFUL
SUBSTANCES IN CASES OF EMERGENCY**

Objective

To protect the coastal States and marine ecosystem against pollution of the South-East Pacific by oil and other harmful substances in cases of emergency.

Summary of provisions

(a) The parties to combine their efforts in taking the necessary measures to neutralize or control harmful effects when the marine environment is threatened (art. I);

(b) The parties to maintain and promote their contingency plans and programmes aimed at combating marine pollution by oil and other harmful substances (art. IV);

(c) The parties to carry out monitoring activities (art. V) and cooperate in salvaging harmful substances (art. VI);

(d) The parties to exchange information regarding their competent national authorities for combating pollution, assistance programmes or measures to combat pollution and the development of related research programmes (art. VII);

(e) The parties to coordinate the use of their means of communication and issue instructions for the captains of ships and the pilots of aircraft to report, on the basis of the guidelines contained in the annex to the Agreement, the presence, characteristics and extent of oil slicks and other harmful substances observed in the area (art. IX);

(f) Parties faced with an emergency to make the necessary assessment, adopt all appropriate measures to avert or reduce the effects of the pollution, inform all other parties involved and report thereon (art. X);

(g) The parties designate the Permanent Mission for the South Pacific as secretariat for the Agreement (art. XIII).

Membership

Open to States bordering the South-East Pacific.

Date of adoption	12.11.1981
Place of adoption	Lima, Peru
Date of entry into force	14. 7.1986
Language	Spanish
Depositary	Permanent Commission for the South Pacific

Participant	Entry into force
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Chile	14. 7.1986
Colombia	14. 7.1986
Ecuador	14. 7.1986
Panama	21. 9.1986
Peru	18. 4.1989

**SUPPLEMENTARY PROTOCOL TO THE AGREEMENT ON REGIONAL COOPERATION
IN COMBATING POLLUTION OF THE SOUTH-EAST PACIFIC BY HYDROCARBONS
OR OTHER HARMFUL SUBSTANCES IN CASES OF EMERGENCY**

Objective

To protect the marine environment of the South-East Pacific area against pollution by oil and other harmful substances in cases of emergency.

Summary of provisions

(a) Parties to designate national authorities competent to provide or request assistance in cases of emergency, and to undertake an inventory of the available technical equipment and procedures to combat pollution (art. I);

(b) Parties to specify elements of the national contingency plans under art. 4 of the Agreement (art. II);

(c) Parties to undertake regular training programmes (art. III).

Membership

Open for accession by any coastal State of the South-East Pacific. Instruments of accession to be deposited with the Secretariat of the Permanent Commission for the South Pacific.

Date of adoption	22. 7.1983
Place of adoption	Quito, Ecuador
Date of entry into force	20. 5.1987
Language	Spanish
Depositary	Permanent Commission for the South Pacific

<u>Participant</u>	<u>Entry into force</u>
Chile	20. 5.1987
Colombia	20. 5.1987
Ecuador	11. 1.1988
Panama	20. 5.1987
Peru	18. 4.1989

**PROTOCOL FOR THE PROTECTION OF THE SOUTH-EAST PACIFIC
AGAINST POLLUTION FROM LAND-BASED SOURCES**

Objectives

To prevent, abate, combat and control pollution of the South-East Pacific area caused by discharges from rivers, coastal establishments or outfalls, or emanating from any other land-based sources within the territories of the coastal States.

Summary of provisions

(a) Parties to establish programmes and measures, including particularly emission standards and standards for using and discharging substances listed in annexes I and II or wastes containing such substances (arts. 3-6);

(b) Parties to carry out activities to assess the levels of pollution along their coasts and to evaluate the effects of measures taken under the Protocol (art. 8);

(c) Parties to cooperate in scientific and technological fields (arts. 7 and 10), the exchange of information and consultations (arts. 9 and 12);

(d) Parties to convene, within the framework of the Permanent Commission for the South Pacific (CPPS), ordinary and extraordinary meetings for considering the implementation of the Protocol, the efficacy of the measures adopted and the need for amendments (art. 15).

Membership

Open for accession by any coastal State of the South-East Pacific. Instruments of accession to be deposited with the secretariat of the Permanent Commission for the South Pacific.

Date of adoption	23. 7.1983
Place of adoption	Quito, Ecuador
Date of entry into force	23. 9.1986
Language	Spanish
Depositary	Permanent Commission for the South Pacific

<u>Participant</u>	<u>Entry into force</u>
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Chile	23. 9.1986
Colombia	23. 9.1986
Ecuador	11. 1.1988
Panama	23. 9.1986
Peru	25. 2.1989

PROTOCOL FOR THE CONSERVATION AND MANAGEMENT OF PROTECTED MARINE AND COASTAL AREAS OF THE SOUTH-EAST PACIFIC

Objective

To provide for the creation of Protected Marine and Coastal areas and ensure the conservation of wild fauna and flora in those areas.

Summary of provisions

Within the framework of the Convention for the Protection of the Marine Environment and Coastal Area of the South-East Pacific, 1981, the Parties:

- (a) Undertake to protect and preserve fragile, vulnerable, or unique ecosystems or areas of cultural value with emphasis on endangered species of fauna and flora;
- (b) Undertake to establish Protected areas in the form of parks, reserves, sanctuaries and buffer zones (arts. III, IV and V);
- (c) Agree to exchange information to adopt common criteria in establishing protected areas (arts. III, IV, and V);
- (d) Agree to prevent, reduce and control pollution of protected areas, to carry environmental impact assessments of any projects that may have deleterious effects on protected areas and to encourage exchange of information and promotion of public awareness of the value of protected areas.

Membership

Membership is open to any Coastal State in the South-East Pacific region (applies by extension to the Latin American States on the Eastern Pacific Coast).

Date of adoption	21. 9.1989
Place of adoption	Paipa, Colombia
Date of entry into force	Not yet in force
Language	Spanish
Depositary	Permanent Commission for the South Pacific

Participant	Signature
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Chile	21. 9.1989
Colombia	21. 9.1989
Ecuador	21. 9.1989
Panama	21. 9.1989
Peru	21. 9.1989

**PROTOCOL FOR THE PROTECTION OF THE SOUTH-EAST PACIFIC AGAINST
RADIOACTIVE CONTAMINATION**

Objective

To prohibit the dumping of radioactive wastes in the South-East Pacific region.

Summary of provisions

Within the framework of the Convention for the Protection of the Marine Environment and Coastal Area of the South-East Pacific, the Parties agree:

- (a) To prohibit the dumping or burial of radioactive wastes in the sea, the sea bed, or the subsoil thereof (arts. II and III);
- (b) To adopt measures to ensure against contamination in areas within and beyond the limits of their national jurisdiction (arts. III and IV);
- (c) To cooperate in Science and Technology, exchange of information, monitoring training programmes and in case of emergency and force majeure (arts. V, VI, VII, VIII and X);
- (d) To adopt national legislation and measures to prohibit dumping of radioactive wastes (arts. XI and XII).

Membership

Open to any Coastal State of the South-East Pacific.

Date of adoption	21. 9.1989
Place of Adoption	Paipa, Colombia
Date of entry into force	Not yet in force
Language	Spanish
Depositary	Permanent Commission for the South Pacific

Participant	Signature
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Chile	21. 9.1989
Colombia	21. 9.1989
Ecuador	21. 9.1989
Panama	21. 9.1989
Peru	21. 9.1989

**CONVENTION FOR THE PROTECTION OF THE NATURAL RESOURCES
AND ENVIRONMENT OF THE SOUTH PACIFIC REGION**

Objectives

To protect and manage the natural resources and environment of the South Pacific region.

Summary of provisions

The Parties agree to:

- (a) Take all appropriate measures to prevent, reduce and control pollution of the Convention area (art. 5), particularly pollution from vessels (art. 6), land-based sources (art. 7), exploration and exploitation of the sea bed (art. 8), airborne pollution (art. 9), dumping (art. 10) and the testing of nuclear devices (art. 12);
- (b) Ensure that the implementation of this Convention shall not result in an increase in pollution in the marine environment outside the Convention area (art. 5 (2));
- (c) Establish laws and regulations for the effective discharge of the obligations prescribed in this Convention (art. 5 (5));
- (d) Prohibit the storage of radioactive wastes in the Convention area (art. 11);
- (e) Take all appropriate measures to protect and preserve rare ecosystems and endangered flora and fauna, as well as their habitat, in the Convention area (art. 14);
- (f) Cooperate in taking all necessary measures to deal with pollution emergencies in the Convention area (art. 15).

Membership

Open for ratification, acceptance, approval or accession to States invited to participate in the High-level Conference on the Protection of the Natural Resources and Environment at Noumea, New Caledonia from 24-25 November 1986. Any State that was not invited to participate in the High-level Conference may accede to the Convention subject to prior approval by three-fourths of the Parties.

Date of adoption	24.11.1986
Place of adoption	Noumea, New Caledonia
Date of entry into force	18. 8.1990
Languages	English, French
Depositary	The South Pacific Bureau for Economic Cooperation

**PROTOCOL CONCERNING COOPERATION IN COMBATING POLLUTION
EMERGENCIES IN THE SOUTH PACIFIC REGION**

Objective

To enhance cooperation among the Parties to protect the South Pacific Region from threats and effects of pollution incidents.

Summary of provisions

The Parties agreed to:

(a) Cooperate in taking all necessary measures for the protection of the South Pacific Region from the threat and effects of pollution incidents (art. 3, para. 1);

(b) Establish and maintain or ensure the establishment and maintenance of the means of preventing and combating pollution incidents, and reducing the risk thereof. Such means shall include the enactment, as necessary, of relevant legislation, the preparation of contingency plans, the development and strengthening of the capability to respond to pollution incidents and the designation of a national authority responsible for the implementation of the Protocol (art. 3, para. 2);

(c) Periodically exchange with other Parties current information relating to the implementation of this Protocol, including the identification of the officials charged with carrying out the activities covered by it and information laws, institutions procedures aimed at combating marine pollution (art. 4);

(d) Establish appropriate procedures to ensure that information regarding pollution incidents is reported as rapidly as possible (art. 5, para. 1);

(e) In the event of receiving a report regarding a pollution incident, promptly inform all other Parties whose interests are likely to be affected by such incident, the flag State of any vessel involved in it and the competent international organizations (art. 5, para. 2);

(f) Each Party requiring assistance to deal with a pollution incident may request the assistance of other Parties (art. 6, para. 1).

Membership

Open to the Parties to the 1986 Convention for the Protection of the Natural Resources and Environment of the South Pacific Region.

Date of adoption	25.11.1986
Place of adoption	Noumea, New Caledonia
Date of entry into force	18. 8.1990
Languages	English, French
Depositary	South Pacific Bureau for Economic Cooperation

Participant	Entry into force
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Australia	18. 8.1990
Cook Islands	18. 8.1990
Federated States of Micronesia	18. 8.1990
Fiji	18. 8.1990
France	18. 8.1990

Marshall Islands	18. 8.1990
New Zealand	18. 8.1990
Papua New Guinea	18. 8.1990
Solomon Islands	18. 8.1990
Western Samoa	18. 8.1990

Participant	Signature	Ratification Acceptance Approval Accession	Entry into force
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Australia	24.11.1987	19. 7.1989	18. 8.1990
Cook Islands	25.11.1986	9. 9.1987	18. 8.1990
Federated States of Micronesia	9. 4.1987	29.11.1988	18. 8.1990
Fiji		18. 9.1989	18. 8.1990
France	25.11.1986	17. 7.1990	18. 8.1990
Marshall Islands	25.11.1986	4. 5.1987	18. 8.1990
New Zealand	25.11.1986	3. 5.1990	18. 8.1990
Papua New Guinea	3.11.1987	15. 9.1989	18. 8.1990
Solomon Islands		10. 8.1989	18. 8.1990
Western Samoa	25.11.1986	23. 7.1990	18. 8.1990
Nauru	15. 4.1987		
Palau	25.11.1986		
Tuvalu	14. 8.1987		
United Kingdom	16. 7.1987		
United States of America	25.11.1987	10. 6.1991	10. 6.1991

Parties shall endeavour to take all appropriate measures to prevent, reduce and control pollution from any source and to ensure sound environmental management and development of natural resources, using the best practicable means at their disposal, and in accordance with their capabilities.

PROTOCOL FOR THE PREVENTION OF POLLUTION OF THE SOUTH PACIFIC REGION BY DUMPING

Objective

To prevent, reduce and control pollution by dumping of wastes and other matter in the South Pacific.

Summary of provisions

The Parties agreed:

- (a) To take all appropriate measures to prevent, reduce and control pollution in the Protocol Area by dumping (art. 3, para. 1);
- (b) Dumping within the territorial sea and the exclusive economic zone or onto the continental shelf of a Party as defined in international law not to be carried out without the express prior approval of the Party (art. 3, para. 2);
- (c) National laws, regulations and measures adopted by the Parties not to be less effective in preventing, reducing and controlling pollution by dumping than the relevant internationally recognized rules and procedures relating to the control of dumping established within the framework of the Convention on the Prevention of Marine Pollution by Dumping of Waste and Other Matter 1972, (art. 3, para. 3);
- (d) The dumping in the Protocol Area of wastes or other matter listed in annex I to this Protocol is prohibited except as provided in this Protocol (art. 4, para. 1);
- (e) The dumping in the Protocol Area of wastes or other matter listed in annex II to this Protocol requires, in each case, a prior special permit (art. 5);
- (f) The dumping in the Protocol Area of all wastes or other matter not listed in annexes I and II to this Protocol requires a prior general permit (art. 6);
- (g) The permits referred to in articles 5 and 6 to be issued only after careful consideration of all the factors set forth in annex III to this Protocol (art. 7).

Membership

Open for ratification, acceptance, approval or accession to the States invited to participate in the High-level Conference on the Protection of the Natural Resources and Environment of the South Pacific Region, held at Noumea, New Caledonia from 24-25 November 1986. Any State that was not invited to participate in the High-level Conference may accede to the Convention subject to prior approval by three-fourths of the Parties.

Date of adoption	25.11.1986
Place of adoption	Noumea, New Caledonia
Date of entry into force	18. 8.1990
Languages	English, French
Depositary	South Pacific Bureau for Economic Cooperation

Participant -----	Entry into force -----
Australia	18. 8.1990
Cook Islands	18. 8.1990
Federated States of Micronesia	18. 8.1990
Fiji	18. 8.1990
France	18. 8.1990
Marshall Islands	18. 8.1990
New Zealand	18. 8.1990
Papua New Guinea	18. 8.1990
Solomon Islands	18. 8.1990
Western Samoa	18. 8.1990

CONVENTION ON THE PROTECTION OF THE BLACK SEA AGAINST POLLUTION

No summary available

Entry into force 1994.01.15

CONVENTION FOR THE PROTECTION AND DEVELOPMENT OF THE MARINE ENVIRONMENT OF THE WIDER CARIBBEAN REGION

Objectives

To protect and manage the marine environment and coastal areas of the Wider Caribbean region.

Summary of provisions

The Parties agreed to:

- (a) Take all necessary measures to prevent, reduce and control pollution of the Convention area (art. 4), particularly pollution from ships (art. 5), dumping (art. 6), land-based sources (art. 7), activities relating to exploration and exploitation of the sea bed (art. 8) and airborne pollution (art. 9);
- (b) Protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other marine life in specially protected areas (art. 10);
- (c) Cooperate in dealing with pollution emergencies in the Convention area (art. 11);
- (d) Cooperate in assessing environmental impacts in the Convention area (art. 12) and in exchanging data and other scientific and technical information (art. 13);
- (e) Establish rules and procedures for the determination for liability and compensation for damage resulting from pollution of the Convention area (art. 14);
- (f) Designate UNEP to discharge secretariat functions under the Convention (art. 15).

Membership

Open to the coastal States invited to the Cartagena Conference held from 21 to 24 March 1983, and to any regional economic organization invited to the Conference which exercises competence in the field covered by the Convention and at least one member of which belongs to the Caribbean region.

Date of adoption	24. 3.1983
Place of adoption	Cartagena de Indias, Colombia
Date of entry into force	11.10.1986
Languages	English, French, Spanish
Depositary	Colombia

<u>Participant</u>	<u>Entry into force</u>
Antigua and Barbuda	11.10.1986
Barbados	11.10.1986
Colombia	2. 4.1988
Cuba	15.10.1988
France	11.10.1986
Grenada	16. 9.1987
Guatemala	17. 1.1990
Jamaica	1. 5.1987
Mexico	11.10.1986
Netherlands*	11.10.1986
Panama	6.11.1987

St. Lucia	11.10.1986
Saint Vincent and Grenadines	9. 8.1990
Trinidad and Tobago	11.10.1986
United Kingdom**	11.10.1986
United States of America	11.10.1986
Venezuela	17. 1.1987

* Extended to the Netherlands Antilles on 16.4.1984.

** Included Cayman Islands, Turks and Caicos Islands, and the British Virgin Islands.

PROTOCOL CONCERNING COOPERATION IN COMBATING OIL SPILLS IN THE WIDER CARIBBEAN REGION

Objective

To provide a framework for regional cooperation and assistance in the event of an oil spill incident in the Caribbean region.

Summary of provisions

- (a) The Parties to combine their efforts in taking the necessary measures to protect the marine environment of the Caribbean region against pollution from oil spill incidents, and cooperate in maintaining and promoting contingency plans and means of combating pollution (art. 3);
- (b) The Parties to exchange information regarding their competent national authorities for combating pollution and on laws, institutions and procedures aimed at combating marine pollution by oil (art. 4);
- (c) Any contracting party faced with a marine emergency to take appropriate measures to combat pollution, inform other States of the measures it has taken or intends to take, make an assessment of the nature and extent of the marine emergency and determine the necessary and appropriate action to be taken (arts. 5 and 7);
- (d) Any contracting party may call on the others for assistance (art. 6);
- (e) To facilitate implementation of the Protocol, in particular arts. 6 and 7, the contracting parties should conclude bilateral or multilateral subregional arrangements, as appropriate (art. 8);
- (f) Parties agree to designate UNEP to discharge secretariat functions under the Protocol (art. 9).

Membership

Open to the coastal States invited to the Cartagena Conference held from 21 to 24 March 1983, and to any regional economic organization invited to the Conference which exercises competence in the field covered by the Convention and at least one member of which belongs to the Caribbean region.

Date of adoption	24. 3.1983
Place of adoption	Cartagena de Indias, Colombia
Date of entry into force	11.10.1986
Languages	English, French, Spanish
Depositary	Colombia

<u>Participant</u>	<u>Entry into force</u>
Antigua and Barbuda	11.10.1986
Barbados	11.10.1986
Colombia	2. 4.1988
Cuba	15.10.1988
France	11.10.1986
Grenada	16. 9.1987
Guatemala	17. 1.1990
Jamaica	1. 5.1987
Mexico	11.10.1986
Netherlands*	11.10.1986
Panama	16.11.1986
Saint Lucia	11.10.1986

Saint Vincent and the Grenadines	17. 1.1990
Trinidad and Tobago	11.10.1986
United Kingdom of Great Britain and Northern Ireland**	11.10.1982
United States of America	11.10.1986
Venezuela	17. 1.1987

* Extended to the Netherlands Antilles on 16.4.1984.

** Included Cayman Islands, Turks and Caicos Islands, and the British Virgin Islands.

**PROTOCOL CONCERNING SPECIALLY PROTECTED AREAS AND WILDLIFE TO THE
CONVENTION FOR THE PROTECTION AND DEVELOPMENT OF THE MARINE
ENVIRONMENT OF THE WIDER CARIBBEAN REGION**

Objective

To establish protected areas of coastal and marine areas of the Wider Caribbean region and to ensure the protection of endangered species of wild fauna and flora in the region.

Summary of provisions

(a) Each Party, with its laws and regulations to take necessary measures to protect, preserve and manage in a sustainable way areas, within its jurisdiction of special value and threatened species of fauna and flora (art. 3);

(b) Each Party undertakes to establish protected areas within its jurisdiction to conserve representative coastal and marine ecosystems and habitats critical to the survival of endangered species of flora and fauna (art. 4);

(c) Each Party undertakes appropriate protection measures in conformity with national laws and international law, in its jurisdiction, to ensure the sustainable management of the protected areas (art. 4 (2), art. 5, and art. 6);

(d) The Parties undertake to cooperate in establishing protected areas, establishing of a list of protected areas (art. 7) and establishing buffer zones in areas contiguous to international boundaries (arts. 8 and 9);

(e) The Parties undertake to protect wild flora and fauna by identifying threatened or endangered species and taking appropriate measures to prohibit the taking, killing, possession or disturbance of such species and to promote captive breeding of such species, where necessary (art. 10);

(f) The Parties undertake to cooperate in protecting wild fauna and flora by taking regulatory action with respect to species listed in annexes I, II and III (art. 11);

(g) The Parties undertake general measures of international cooperation, including environmental impact assessment, promotion of public awareness, and mutual assistance to achieve the objectives of the Protocol (arts. 13, 16, 17 and 18);

(h) The Parties establish a reporting system to the Organization and establish a Scientific and Technical Advisory Committee as institutional mechanisms of the Protocol (arts. 19, 20, 21 and 22).

Membership

Open for signature, ratification and accession by any Party to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean region.

Date of adoption	18. 1.1990
Place of adoption	Kingston, Jamaica
Date of entry into force	Not yet in force
Languages	English, French, Spanish
Depositary	Colombia

Participant -----	Signature -----
Antigua and Barbuda	18. 1.1990
Bahamas	18. 1.1990
Colombia	18. 1.1990
Cuba	18. 1.1990
France	18. 1.1990
Guatemala	18. 1.1990
Jamaica	18. 1.1990
Mexico	18. 1.1990
Netherlands	18. 1.1990
St. Lucia	18. 1.1990
Trinidad and Tobago	18. 1.1990
United Kingdom	18. 1.1990
United States of America	18. 1.1990
Venezuela	18. 1.1990

Comment

Applies to all marine waters under the jurisdiction of Parties as well as to such related territorial areas, including watersheds, as may be designated by the Party having sovereignty and jurisdiction over such areas; provides for the establishment of protected areas and for specific protection measures to be taken in respect of such areas; also provides for the formulation of management plans for these areas and for the establishment of a list of protected areas; listing of protected areas shall be based on guidelines and criteria to be adopted by the Parties and shall take place only if they have been met; requires Parties to identify endangered or threatened species of flora and fauna and to accord protected status to such species; also requires Parties to take appropriate action to prevent species from becoming endangered or threatened; lists plant and animal species to be protected by all Parties (Annexes I and II) and species, the taking of which must be regulated (Annex III); annexes may be amended by meetings of the Parties by a three-quarters majority; Parties may enter reservations in respect of the listing of particular species within 90 days of the vote; requires Parties to establish co-operation programmes to assist with the management and conservation of protected species and to develop and implement regional recovery programmes; requires Parties to regulate or prohibit the introduction into the wild of non-indigenous or genetically altered species; provides that environmental impact assessments must be carried out in respect of projects and activities that may significantly affect areas or species that have been afforded special protection under this protocol; requires Parties to report periodically on the status of protected areas and protected species in areas under their jurisdiction; provides for the development of common guidelines and criteria for the identification, selection and management of protected areas and species; also provides for institutional arrangements including meetings of the Parties and the establishment of a Scientific and Technical Advisory Committee; the Secretariat is provided by UNEP

REGIONAL CONVENTION FOR THE CONSERVATION OF THE RED SEA AND GULF OF ADEN ENVIRONMENT

Objectives

To ensure rational human use of living and non-living marine and coastal resources in a manner ensuring optimum benefit for the present generation, at the same time maintaining the potential of that environment to satisfy the needs and aspirations of future generations.

Summary of provisions

(a) The contracting parties to cooperate in the formulation of Protocols to implement the Convention, establish national standards, laws and regulations, endeavour to harmonize their national policies and cooperate with the competent international, regional and subregional organizations to establish and adopt regional standards and recommended practices and procedures (art. III);

(b) The contracting parties to prevent, abate and combat pollution from ships (art. IV), pollution caused by dumping from ships and aircraft (art. V); pollution from land-based sources (art. VI), pollution resulting from exploration and exploitation of the bed of the territorial sea, the continental shelf and the subsoil thereof (art. VII) and pollution from other human activities (art. VIII);

(c) The contracting parties to cooperate in dealing with pollution emergencies (art. IX), in the fields of science and technology (art. X) and in the formulation and adoption of rules regarding civil liability and compensation for pollution damage (art. XIII);

(d) A Regional Organization for the Conservation of the Red Sea and Gulf of Aden Environment established (art. XVI), to consist of the following organs:

- (i) A Council comprised of a representative of each contracting party;
- (ii) A General Secretariat;
- (iii) A Committee for Settlement of Disputes.

Membership

Open for signature, ratification, acceptance, approval or accession by Governments invited to the Jeddah Regional Conference of Plenipotentiaries on the Conservation of the Marine Environment and Coastal Areas in the Red Sea and Gulf of Aden convened from 13 to 15 February 1982.

Any Party which has ratified, accepted, approved or acceded to the Convention is deemed to have ratified, accepted, approval or acceded to the Protocol, and any State member of the Arab League has a right of accession to the Convention.

Date of adoption	14. 2.1982
Place of adoption	Jeddah, Saudi Arabia
Date of entry into force	20. 8.1985
Language	Arabic
Depositary	Saudi Arabia

Participant	Entry into force
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Egypt	20. 8.1990
Jordan	7. 2.1989
Palestine*	20. 8.1985
Saudi Arabia	20. 8.1985
Somalia	30. 5.1988
Sudan	20. 8.1985
Yemen	20. 8.1985

* Represented by the Palestine Liberation Organization.

**PROTOCOL CONCERNING REGIONAL COOPERATION IN COMBATING POLLUTION
BY OIL AND OTHER HARMFUL SUBSTANCES IN CASES OF EMERGENCY***

Objective

To enhance measures for responding to pollution emergencies on a national and regional basis.

Summary of provisions

- (a) The contracting parties to cooperate in combating pollution by oil and other harmful substances and shall maintain and promote contingency plans (arts. II and X);
- (b) The contracting parties to establish a Marine Emergency Mutual Aid Centre, which shall collect and disseminate to them information concerning matters covered by the Protocol, and assist them in the preparation of laws and regulations, contingency plans and transport procedures, in the transmission of reports concerning marine emergencies and in promoting as well as developing training programmes for combating pollution (art. III);
- (c) Any contracting party needing assistance in a marine emergency may request it directly from any other contracting party or through the Centre (art. XI);
- (d) Each contracting party establish and maintain an appropriate authority to fulfil its obligations (art. XII);
- (e) The contracting parties shall cooperate under the Protocol by exchanging relevant information (arts. V, VI, VII and VIII).

Membership

Any State which is entitled to become a party to the Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment is automatically entitled to become a party to this Protocol.

Date of adoption	14. 2.1982
Place of adoption	Jeddah, Saudi Arabia
Date of entry into force	20. 8.1985
Language	Arabic
Depositary	Saudi Arabia

Participant	Entry into force
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Egypt	20. 8.1990
Jordan	7. 2.1989
Palestine**	20. 8.1985
Saudi Arabia	20. 8.1985
Somalia	30. 5.1988
Sudan	20. 8.1985
Yemen	20. 8.1985

* To the Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment.

** Represented by the Palestine Liberation Organization.

CONVENTION FOR THE PROTECTION, MANAGEMENT AND DEVELOPMENT OF THE MARINE AND COASTAL ENVIRONMENT OF THE EASTERN AFRICAN REGION

Objectives

To protect and manage the marine environment and coastal areas of the Eastern African region.

Summary of provisions

The Parties agree to:

(a) Take all appropriate measures to prevent, reduce and combat pollution of the Convention area (art. 4), particularly pollution from ships (art. 5), dumping (art. 6), land-based sources (art. 7), exploration and exploitation of the sea bed (art. 8), and airborne pollution (art. 9);

(b) Protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other marine life in specially protected areas (art. 10);

(c) Cooperate in dealing with pollution emergencies in the Convention area (art. 11);

(d) Take all appropriate measures to prevent, reduce and combat environmental damage in the Convention area resulting from dredging, land reclamation, and other engineering activities (art. 12);

(e) Develop guidelines for the planning of major development projects in the Convention area, assess the environmental effects of development projects likely to cause significant adverse changes in the Convention area, and develop procedures for dissemination of information and consultation among the parties in such assessments (art. 13);

(f) Cooperate in scientific research and monitoring in the Convention area and exchange of data collected (art. 14);

(g) Cooperate in the development of rules and procedures to govern liability and compensation for damage caused by pollution in the Convention area (art. 15);

(h) Designate UNEP to discharge Secretariat functions under the Convention (art. 16).

The Convention includes an annex, establishing arbitration procedures for resolution of disputes between Contracting Parties.

Membership

Open to any State invited as a participant to the Nairobi Conference held from 17 and 21 June 1985, and to any regional intergovernmental integration organization invited to the Conference which exercise competence in the field covered by the Convention and having at least one member which belongs to the Eastern African region.

Date of adoption	21. 6.1985
Place of adoption	Nairobi, Kenya
Date of entry into force	Not yet in force
Languages	English, French
Depositary	Kenya

Participant	Signature	Ratification Accession (Ac)
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France	21. 6.1985	18. 8.1989
Madagascar	21. 6.1985	

Seychelles	21. 6.1985	22. 6.1990
Somalia	21. 6.1985	
Kenya		11. 9.1990 (Ac)
EEC	19. 6.1986	

PROTOCOL CONCERNING PROTECTED AREAS AND WILD FAUNA AND FLORA IN THE EASTERN AFRICAN REGION

Objectives

To provide for the protection of threatened and endangered species of flora and fauna, and important natural habitats, in the Eastern African region.

Summary of provisions

The Parties agree to:

- (a) Take all appropriate measures to protect the endangered species of flora and fauna listed in annexes I and II to the Protocol against capture, killing, destruction of habitat, possession, and sale (arts. 3 and 4);
- (b) Regulate the harvest and sale of threatened or depleted fauna species, listed in annex III, and protect critical habitats of breeding stocks of such species (art. 5);
- (c) Coordinate efforts to protect migratory species, listed in annex IV (art. 6);
- (d) Take measures to prevent the introduction of potentially harmful alien species (art. 7);
- (e) As necessary, establish protected areas to safeguard important ecosystems, including particularly those ecosystems that provide habitat for species of fauna and flora that are endangered, endemic, migratory, or economically important (art. 8), taking into account traditional activities of local populations (art. 11);
- (f) Cooperate in development of guidelines for selection and management of such areas (arts. 9 and 10), and coordinate establishment of protected areas to ensure adequate protection for frontier areas and creation of a representative network of protected areas in the region (arts. 13 and 16);
- (g) Take measures to ensure that the public is informed about protected areas, and has the opportunity to participate in protection efforts (arts. 14 and 15), and to encourage scientific research (art. 17);
- (h) Provide the Convention secretariat with information about their activities under this Protocol and relevant scientific research, and cooperate in providing technical and management assistance to each other (arts. 18 and 19).

The Protocol has four annexes, listing the protected species of wild flora (annex I), the species of wild fauna requiring special protection (annex II), the harvestable species of wild fauna requiring protection (annex III), and the protected migratory species (annex IV).

Membership

The Protocol is open to Contracting Parties to the Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African region.

Date of adoption	21. 6.1985
Place of adoption	Nairobi, Kenya
Date of entry into force	Not yet in force
Languages	English, French
Depositary	Kenya

Participant -----	Signature -----	Ratification Accession (Ac)
France	21. 6.1985	18. 8.1989
Madagascar	21. 6.1985	
Seychelles	21. 6.1985	22. 6.1990
Somalia	21. 6.1985	
Kenya		11. 9.1990 (Ac)
EEC	19. 6.1986	

Comment

Applies to the waters of the East African Region including coastal areas and internal waters related to the marine and coastal environment ; provides that contracting parties shall endeavour to protect rare or fragile ecosystems as well as rare, depleted , threatened or endangered species of wild fauna and flora and their habitats in the region as defined; lists endangered plant species; provides for the prohibition of activities having adverse effects on the habitats of such species as well as the uncontrolled picking , collecting , cutting or uprooting of these species, the possession or sale of such species; lists endangered animal species; provides that each Party shall strictly regulate and, where required, prohibit activities having adverse effects on the habitats of such species and in particular all forms of capture , keeping or killing , damage to, or destruction of critical habitats, disturbance of wild fauna, destruction or taking of eggs and possession of and internal trade in these animals and any readily recognizable part or derivative thereof; also lists harvestable depleted or threatened species; provides that any exploitation of such species shall be regulated in order to restore and maintain their population at optimum levels ; also provides for the development and implementation of management plans ; such management plans may include the prohibition of the use of indiscriminate means of capture and killing, closed seasons , temporary or local prohibitions of exploitation, regulation of domestic trade, safeguarding of breeding stocks , and exploitation in captivity ; refers to migratory species; provides that parties shall co- ordinate their efforts for the protection of migratory species listed as endangered or threatened; requires parties to take all appropriate measures to prohibit the intentional or accidental introduction of alien or new species which may cause significant or harmful changes to the East African region as defined; provides for the establishment of protected areas ; provides for the regulation of trade in and import and export of animals, plants or parts thereof which originate in protected areas; also provides for public information and education measures , scientific and technical research , regional co-operation, technical co-operation and exchange of information; meetings of the parties are to take place regularly to keep under review the implementation of the Protocol, adopt, review or amend annexes, and monitor the establishment and development of the network of protected areas.

**Appendix RCB
OSPAR Convention**

CONVENTION FOR THE PROTECTION OF THE MARINE ENVIRONMENT OF THE NORTH-EAST ATLANTIC

The Convention for the Protection of the Marine Environment of the North-East Atlantic was opened for signature at the Ministerial Meeting of the Oslo and Paris Commissions, Paris, 21-22 September 1992.

The Convention has been signed by all Contracting Parties to the Oslo Convention and to the Paris Convention (Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, the Netherlands, Norway, Portugal, Spain, Sweden and the United Kingdom of Great Britain and Northern Ireland), Luxembourg, Switzerland and the Commission of the European Communities.

The signatures on behalf of Denmark and the United Kingdom of Great Britain and Northern Ireland were accompanied by declarations, the text of which are also attached (see footnotes 4 and 5).

After the ratification by all above-mentioned States and the European Community, the Convention entered into force on 25 March 1998. The Ministerial Meeting of the OSPAR Commission, Sintra, 22-23 July 1998 adopted a new Annex V on the Protection and Conservation of the Ecosystems and Biological Diversity of the Maritime Area and a new Appendix 3: Criteria for Identifying Human Activities for the Purpose of Annex V (see footnotes 2 and 3).

The integral text of the Convention is attached.

TEXT OF THE OSPAR CONVENTION

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CONVENTION FOR THE PROTECTION OF THE MARINE ENVIRONMENT OF THE NORTH-EAST ATLANTIC

THE CONTRACTING PARTIES,

RECOGNISING that the marine environment and the fauna and flora which it supports are of vital importance to all nations;

RECOGNISING the inherent worth of the marine environment of the North-East Atlantic and the necessity for providing coordinated protection for it;

RECOGNISING that concerted action at national, regional and global levels is essential to prevent and eliminate marine pollution and to achieve sustainable management of the maritime area, that is, the management of human activities in such a manner that the marine ecosystem will continue to sustain the legitimate uses of the sea and will continue to meet the needs of present and future generations;

MINDFUL that the ecological equilibrium and the legitimate uses of the sea are threatened by pollution;

CONSIDERING the recommendations of the United Nations Conference on the Human Environment, held in Stockholm in June 1972;

CONSIDERING also the results of the United Nations Conference on the Environment and Development held in Rio de Janeiro in June 1992;

RECALLING the relevant provisions of customary international law reflected in Part XII of the United Nations Law of the Sea Convention and, in particular, Article 197 on global and regional cooperation for the protection and preservation of the marine environment;

CONSIDERING that the common interests of States concerned with the same marine area should induce them to cooperate at regional or sub-regional levels;

RECALLING the positive results obtained within the context of the Convention for the prevention of marine pollution by dumping from ships and aircraft signed in Oslo on 15th February 1972, as amended by the protocols of 2nd March 1983 and 5th December 1989, and the Convention for the prevention of marine pollution from land-based sources signed in Paris on 4th June 1974, as amended by the protocol of 26th March 1986;

CONVINCED that further international action to prevent and eliminate pollution of the sea should be taken without delay, as part of progressive and coherent measures to protect the marine environment;

RECOGNISING that it may be desirable to adopt, on the regional level, more stringent measures with respect to the prevention and elimination of pollution of the marine environment or with respect to the protection of the marine environment against the adverse effects of human activities than are provided for in international conventions or agreements with a global scope;

RECOGNISING that questions relating to the management of fisheries are appropriately regulated under international and regional agreements dealing specifically with such questions;

CONSIDERING that the present Oslo and Paris Conventions do not adequately control some of the many sources of pollution, and that it is therefore justifiable to replace them with the present Convention, which addresses all sources of pollution of the marine environment and the adverse effects of human activities upon it, takes into account the precautionary principle and strengthens regional cooperation;

HAVE AGREED as follows:

ARTICLE 1 DEFINITIONS

For the purposes of the Convention:

- (a) "Maritime area" means the internal waters and the territorial seas of the Contracting Parties, the sea beyond and adjacent to the territorial sea under the jurisdiction of the coastal state to the extent recognised by international law, and the high seas, including the bed of all those waters and its sub-soil, situated within the following limits:
 - (i) those parts of the Atlantic and Arctic Oceans and their dependent seas which lie north of 36° north latitude and between 42° west longitude and 51° east longitude, but excluding:
 - (1) the Baltic Sea and the Belts lying to the south and east of lines drawn from Hasenore Head to Gniben Point, from Korshage to Spodsbjerg and from Gilbjerg Head to Kullen,
 - (2) the Mediterranean Sea and its dependent seas as far as the point of intersection of the parallel of 36° north latitude and the meridian of 5° 36' west longitude;
 - (ii) that part of the Atlantic Ocean north of 59° north latitude and between 44° west longitude and 42° west longitude.
- (b) "Internal waters" means the waters on the landward side of the baselines from which the breadth of the territorial sea is measured, extending in the case of watercourses up to the freshwater limit.
- (c) "Freshwater limit" means the place in a watercourse where, at low tide and in a period of low freshwater flow, there is an appreciable increase in salinity due to the presence of seawater.
- (d) "Pollution" means the introduction by man, directly or indirectly, of substances or energy into the maritime area which results, or is likely to result, in hazards to human health, harm to living resources and marine ecosystems, damage to amenities or interference with other legitimate uses of the sea.
- (e) "Land-based sources" means point and diffuse sources on land from which substances or energy reach the maritime area by water, through the air, or directly from the coast. It includes sources associated with any deliberate disposal under the sea-bed made accessible from land by tunnel, pipeline or other means and sources associated with man-made structures placed, in the maritime area under the jurisdiction of a Contracting Party, other than for the purpose of offshore activities.
- (f) "Dumping" means
 - (i) any deliberate disposal in the maritime area of wastes or other matter
 - (1) from vessels or aircraft;
 - (2) from offshore installations;
 - (ii) any deliberate disposal in the maritime area of
 - (1) vessels or aircraft;
 - (2) offshore installations and offshore pipelines.

- (g) "Dumping" does not include:
- (i) the disposal in accordance with the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, or other applicable international law, of wastes or other matter incidental to, or derived from, the normal operations of vessels or aircraft or offshore installations other than wastes or other matter transported by or to vessels or aircraft or offshore installations for the purpose of disposal of such wastes or other matter or derived from the treatment of such wastes or other matter on such vessels or aircraft or offshore installations;
 - (ii) placement of matter for a purpose other than the mere disposal thereof, provided that, if the placement is for a purpose other than that for which the matter was originally designed or constructed, it is in accordance with the relevant provisions of the Convention; and
 - (iii) for the purposes of Annex III, the leaving wholly or partly in place of a disused offshore installation or disused offshore pipeline, provided that any such operation takes place in accordance with any relevant provision of the Convention and with other relevant international law.
- (h) "Incineration" means any deliberate combustion of wastes or other matter in the maritime area for the purpose of their thermal destruction.
- (i) "Incineration" does not include the thermal destruction of wastes or other matter in accordance with applicable international law incidental to, or derived from the normal operation of vessels or aircraft, or offshore installations other than the thermal destruction of wastes or other matter on vessels or aircraft or offshore installations operating for the purpose of such thermal destruction.
- (j) "Offshore activities" means activities carried out in the maritime area for the purposes of the exploration, appraisal or exploitation of liquid and gaseous hydrocarbons.
- (k) "Offshore sources" means offshore installations and offshore pipelines from which substances or energy reach the maritime area.
- (l) "Offshore installation" means any man-made structure, plant or vessel or parts thereof, whether floating or fixed to the seabed, placed within the maritime area for the purpose of offshore activities.
- (m) "Offshore pipeline" means any pipeline which has been placed in the maritime area for the purpose of offshore activities.
- (n) "Vessels or aircraft" means waterborne or airborne craft of any type whatsoever, their parts and other fittings. This expression includes air-cushion craft, floating craft whether self-propelled or not, and other man-made structures in the maritime area and their equipment, but excludes offshore installations and offshore pipelines.
- (o) "Wastes or other matter" does not include:
- (i) human remains;
 - (ii) offshore installations;
 - (iii) offshore pipelines;
 - (iv) unprocessed fish and fish offal discarded from fishing vessels.

- (p) "Convention" means, unless the text otherwise indicates, the Convention for the Protection of the Marine Environment of the North-East Atlantic, its Annexes and Appendices.
- (q) "Oslo Convention" means the Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft signed in Oslo on 15th February 1972, as amended by the protocols of 2nd March 1983 and 5th December 1989.
- (r) "Paris Convention" means the Convention for the Prevention of Marine Pollution from Land-based Sources, signed in Paris on 4th June 1974, as amended by the protocol of 26th March 1986.
- (s) "Regional economic integration organisation" means an organisation constituted by sovereign States of a given region which has competence in respect of matters governed by the Convention and has been duly authorised, in accordance with its internal procedures, to sign, ratify, accept, approve or accede to the Convention.

ARTICLE 2

GENERAL OBLIGATIONS

1.
 - (a) The Contracting Parties shall, in accordance with the provisions of the Convention, take all possible steps to prevent and eliminate pollution and shall take the necessary measures to protect the maritime area against the adverse effects of human activities so as to safeguard human health and to conserve marine ecosystems and, when practicable, restore marine areas which have been adversely affected.
 - (b) To this end Contracting Parties shall, individually and jointly, adopt programmes and measures and shall harmonise their policies and strategies.
2. The Contracting Parties shall apply:
 - (a) the precautionary principle, by virtue of which preventive measures are to be taken when there are reasonable grounds for concern that substances or energy introduced, directly or indirectly, into the marine environment may bring about hazards to human health, harm living resources and marine ecosystems, damage amenities or interfere with other legitimate uses of the sea, even when there is no conclusive evidence of a causal relationship between the inputs and the effects;
 - (b) the polluter pays principle, by virtue of which the costs of pollution prevention, control and reduction measures are to be borne by the polluter.
3.
 - (a) In implementing the Convention, Contracting Parties shall adopt programmes and measures which contain, where appropriate, time-limits for their completion and which take full account of the use of the latest technological developments and practices designed to prevent and eliminate pollution fully.
 - (b) To this end they shall:
 - (i) taking into account the criteria set forth in Appendix 1, define with respect to programmes and measures the application of, *inter alia*,
 - best available techniques
 - best environmental practiceincluding, where appropriate, clean technology;
 - (ii) in carrying out such programmes and measures, ensure the application of best available techniques and best environmental

practice as so defined, including, where appropriate, clean technology.

4. The Contracting Parties shall apply the measures they adopt in such a way as to prevent an increase in pollution of the sea outside the maritime area or in other parts of the environment.

5. No provision of the Convention shall be interpreted as preventing the Contracting Parties from taking, individually or jointly, more stringent measures with respect to the prevention and elimination of pollution of the maritime area or with respect to the protection of the maritime area against the adverse effects of human activities.

ARTICLE 3

POLLUTION FROM LAND-BASED SOURCES

The Contracting Parties shall take, individually and jointly, all possible steps to prevent and eliminate pollution from land-based sources in accordance with the provisions of the Convention, in particular as provided for in Annex I.

ARTICLE 4

POLLUTION BY DUMPING OR INCINERATION

The Contracting Parties shall take, individually and jointly, all possible steps to prevent and eliminate pollution by dumping or incineration of wastes or other matter in accordance with the provisions of the Convention, in particular as provided for in Annex II.

ARTICLE 5

POLLUTION FROM OFFSHORE SOURCES

The Contracting Parties shall take, individually and jointly, all possible steps to prevent and eliminate pollution from offshore sources in accordance with the provisions of the Convention, in particular as provided for in Annex III.

ARTICLE 6

ASSESSMENT OF THE QUALITY OF THE MARINE ENVIRONMENT

The Contracting Parties shall, in accordance with the provisions of the Convention, in particular as provided for in Annex IV:

- (a) undertake and publish at regular intervals joint assessments of the quality status of the marine environment and of its development, for the maritime area or for regions or sub-regions thereof;
- (b) include in such assessments both an evaluation of the effectiveness of the measures taken and planned for the protection of the marine environment and the identification of priorities for action.

ARTICLE 7

POLLUTION FROM OTHER SOURCES

The Contracting Parties shall cooperate with a view to adopting Annexes, in addition to the Annexes mentioned in Articles 3, 4, 5 and 6 above, prescribing measures, procedures and standards to protect the maritime area against pollution from other sources, to the extent that such pollution is not already the subject of effective measures agreed by other international organisations or prescribed by other international conventions.

ARTICLE 8

SCIENTIFIC AND TECHNICAL RESEARCH

1. To further the aims of the Convention, the Contracting Parties shall establish complementary or joint programmes of scientific or technical research and, in accordance with a standard procedure, to transmit to the Commission:
 - (a) the results of such complementary, joint or other relevant research;
 - (b) details of other relevant programmes of scientific and technical research.
2. In so doing, the Contracting Parties shall have regard to the work carried out, in these fields, by the appropriate international organisations and agencies.

ARTICLE 9

ACCESS TO INFORMATION

1. The Contracting Parties shall ensure that their competent authorities are required to make available the information described in paragraph 2 of this Article to any natural or legal person, in response to any reasonable request, without that person's having to prove an interest, without unreasonable charges, as soon as possible and at the latest within two months.
2. The information referred to in paragraph 1 of this Article is any available information in written, visual, aural or data-base form on the state of the maritime area, on activities or measures adversely affecting or likely to affect it and on activities or measures introduced in accordance with the Convention.
3. The provisions of this Article shall not affect the right of Contracting Parties, in accordance with their national legal systems and applicable international regulations, to provide for a request for such information to be refused where it affects:
 - (a) the confidentiality of the proceedings of public authorities, international relations and national defence;
 - (b) public security;
 - (c) matters which are, or have been, *sub judice*, or under enquiry (including disciplinary enquiries), or which are the subject of preliminary investigation proceedings;
 - (d) commercial and industrial confidentiality, including intellectual property;
 - (e) the confidentiality of personal data and/or files;
 - (f) material supplied by a third party without that party being under a legal obligation to do so;
 - (g) material, the disclosure of which would make it more likely that the environment to which such material related would be damaged.
4. The reasons for a refusal to provide the information requested must be given.

ARTICLE 10

COMMISSION

1. A Commission, made up of representatives of each of the Contracting Parties, is hereby established. The Commission shall meet at regular intervals and at any time when, due to special circumstances, it is so decided in accordance with the Rules of Procedure.
2. It shall be the duty of the Commission:
 - (a) to supervise the implementation of the Convention;
 - (b) generally to review the condition of the maritime area, the effectiveness of the measures being adopted, the priorities and the need for any additional or different measures;
 - (c) to draw up, in accordance with the General Obligations of the Convention, programmes and measures for the prevention and elimination of pollution and for the control of activities which may, directly or indirectly, adversely affect the maritime area; such programmes and measure may, when appropriate, include economic instruments;
 - (d) to establish at regular intervals its programme of work;
 - (e) to set up such subsidiary bodies as it considers necessary and to define their terms of reference;
 - (f) to consider and, where appropriate, adopt proposals for the amendment of the Convention in accordance with Articles 15, 16, 17, 18, 19 and 27;
 - (g) to discharge the functions conferred by Articles 21 and 23 and such other functions as may be appropriate under the terms of the Convention;
3. To these ends the Commission may, *inter alia*, adopt decisions and recommendations in accordance with Article 13.
4. The Commission shall draw up its Rules of Procedure which shall be adopted by unanimous vote of the Contracting Parties.
5. The Commission shall draw up its Financial Regulations which shall be adopted by unanimous vote of the Contracting Parties.

ARTICLE 11

OBSERVERS

1. The Commission may, by unanimous vote of the Contracting Parties, decide to admit as an observer:
 - (a) any State which is not a Contracting Party to the Convention;
 - (b) any international governmental or any non-governmental organisation the activities of which are related to the Convention.
2. Such observers may participate in meetings of the Commission but without the right to vote and may present to the Commission any information or reports relevant to the objectives of the Convention.
3. The conditions for the admission and the participation of observers shall be set in the Rules of Procedure of the Commission.

ARTICLE 12

SECRETARIAT

1. A permanent Secretariat is hereby established.

2. The Commission shall appoint an Executive Secretary and determine the duties of that post and the terms and conditions upon which it is to be held.
3. The Executive Secretary shall perform the functions that are necessary for the administration of the Convention and for the work of the Commission as well as the other tasks entrusted to the Executive Secretary by the Commission in accordance with its Rules of Procedure and its Financial Regulations.

ARTICLE 13

DECISIONS AND RECOMMENDATIONS

1. Decisions and recommendations shall be adopted by unanimous vote of the Contracting Parties. Should unanimity not be attainable, and unless otherwise provided in the Convention, the Commission may nonetheless adopt decisions or recommendations by a three-quarters majority vote of the Contracting Parties.
2. A decision shall be binding on the expiry of a period of two hundred days after its adoption for those Contracting Parties that voted for it and have not within that period notified the Executive Secretary in writing that they are unable to accept the decision, provided that at the expiry of that period three-quarters of the Contracting Parties have either voted for the decision and not withdrawn their acceptance or notified the Executive Secretary in writing that they are able to accept the decision. Such a decision shall become binding on any other Contracting Party which has notified the Executive Secretary in writing that it is able to accept the decision from the moment of that notification or after the expiry of a period of two hundred days after the adoption of the decision, whichever is later.
3. A notification under paragraph 2 of this Article to the Executive Secretary may indicate that a Contracting Party is unable to accept a decision insofar as it relates to one or more of its dependent or autonomous territories to which the Convention applies.
4. All decisions adopted by the Commission shall, where appropriate, contain provisions specifying the timetable by which the decision shall be implemented.
5. Recommendations shall have no binding force.
6. Decisions concerning any Annex or Appendix shall be taken only by the Contracting Parties bound by the Annex or Appendix concerned.

ARTICLE 14

STATUS OF ANNEXES AND APPENDICES

1. The Annexes and Appendices form an integral part of the Convention.
2. The Appendices shall be of a scientific, technical or administrative nature.

ARTICLE 15

AMENDMENT OF THE CONVENTION

1. Without prejudice to the provisions of paragraph 2 of Article 27 and to specific provisions applicable to the adoption or amendment of Annexes or Appendices, an amendment to the Convention shall be governed by the present Article.
2. Any Contracting Party may propose an amendment to the Convention. The text of the proposed amendment shall be communicated to the Contracting Parties by the Executive Secretary of the Commission at least six months before the meeting of the Commission at which it is proposed for adoption. The Executive Secretary shall also communicate the proposed amendment to the signatories to the Convention for information.

3. The Commission shall adopt the amendment by unanimous vote of the Contracting Parties.
4. The adopted amendment shall be submitted by the Depository Government to the Contracting Parties for ratification, acceptance or approval. Ratification, acceptance or approval of the amendment shall be notified to the Depository Government in writing.
5. The amendment shall enter into force for those Contracting Parties which have ratified, accepted or approved it on the thirtieth day after receipt by the Depository Government of notification of its ratification, acceptance or approval by at least seven Contracting Parties. Thereafter the amendment shall enter into force for any other Contracting Party on the thirtieth day after that Contracting Party has deposited its instrument of ratification, acceptance or approval of the amendment.

ARTICLE 16

ADOPTION OF ANNEXES

The provisions of Article 15 relating to the amendment of the Convention shall also apply to the proposal, adoption and entry into force of an Annex to the Convention, except that the Commission shall adopt any Annex referred to in Article 7 by a three-quarters majority vote of the Contracting Parties.

ARTICLE 17

AMENDMENT OF ANNEXES

1. The provisions of Article 15 relating to the amendment of the Convention shall also apply to an amendment to an Annex to the Convention, except that the Commission shall adopt amendments to any Annex referred to in Articles 3, 4, 5, 6 or 7 by a three-quarters majority vote of the Contracting Parties bound by that Annex.
2. If the amendment of an Annex is related to an amendment to the Convention, the amendment of the Annex shall be governed by the same provisions as apply to the amendment to the Convention.

ARTICLE 18

ADOPTION OF APPENDICES

1. If a proposed Appendix is related to an amendment to the Convention or an Annex, proposed for adoption in accordance with Article 15 or Article 17, the proposal, adoption and entry into force of that Appendix shall be governed by the same provisions as apply to the proposal, adoption and entry into force of that amendment.
2. If a proposed Appendix is related to an Annex to the Convention, proposed for adoption in accordance with Article 16, the proposal, adoption and entry into force of that Appendix shall be governed by the same provisions as apply to the proposal, adoption and entry into force of that Annex.

ARTICLE 19

AMENDMENT OF APPENDICES

1. Any Contracting Party bound by an Appendix may propose an amendment to that Appendix. The text of the proposed amendment shall be communicated to all Contracting Parties to the Convention by the Executive Secretary of the Commission as provided for in paragraph 2 of Article 15.
2. The Commission shall adopt the amendment to an Appendix by a three-quarters majority vote of the Contracting Parties bound by that Appendix.

3. An amendment to an Appendix shall enter into force on the expiry of a period of two hundred days after its adoption for those Contracting Parties which are bound by that Appendix and have not within that period notified the Depositary Government in writing that they are unable to accept that amendment, provided that at the expiry of that period three-quarters of the Contracting Parties bound by that Appendix have either voted for the amendment and not withdrawn their acceptance or have notified the Depositary Government in writing that they are able to accept the amendment.

4. A notification under paragraph 3 of this Article to the Depositary Government may indicate that a Contracting Party is unable to accept the amendment insofar as it relates to one or more of its dependent or autonomous territories to which the Convention applies.

5. An amendment to an Appendix shall become binding on any other Contracting Party bound by the Appendix which has notified the Depositary Government in writing that it is able to accept the amendment from the moment of that notification or after the expiry of a period of two hundred days after the adoption of the amendment, whichever is later.

6. The Depositary Government shall without delay notify all Contracting Parties of any such notification received.

7. If the amendment of an Appendix is related to an amendment to the Convention or an Annex, the amendment of the Appendix shall be governed by the same provisions as apply to the amendment to the Convention or that Annex.

ARTICLE 20

RIGHT TO VOTE

1. Each Contracting Party shall have one vote in the Commission.

2. Notwithstanding the provisions of paragraph 1 of this Article, the European Economic Community and other regional economic integration organisations, within the areas of their competence, are entitled to a number of votes equal to the number of their Member States which are Contracting Parties to the Convention. Those organisations shall not exercise their right to vote in cases where their Member States exercise theirs and conversely.

ARTICLE 21

TRANSBOUNDARY POLLUTION

1. When pollution originating from a Contracting Party is likely to prejudice the interests of one or more of the other Contracting Parties to the Convention, the Contracting Parties concerned shall enter into consultation, at the request of any one of them, with a view to negotiating a cooperation agreement.

2. At the request of any Contracting Party concerned, the Commission shall consider the question and may make recommendations with a view to reaching a satisfactory solution.

3. An agreement referred to in paragraph 1 of this Article may, *inter alia*, define the areas to which it shall apply, the quality objectives to be achieved and the methods for achieving these objectives, including methods for the application of appropriate standards and the scientific and technical information to be collected.

4. The Contracting Parties signatory to such an agreement shall, through the medium of the Commission, inform the other Contracting Parties of its purport and of the progress made in putting it into effect.

ARTICLE 22**REPORTING TO THE COMMISSION**

The Contracting Parties shall report to the Commission at regular intervals on:

- (a) the legal, regulatory, or other measures taken by them for the implementation of the provisions of the Convention and of decisions and recommendations adopted thereunder, including in particular measures taken to prevent and punish conduct in contravention of those provisions;
- (b) the effectiveness of the measures referred to in subparagraph (a) of this Article;
- (c) problems encountered in the implementation of the provisions referred to in subparagraph (a) of this Article.

ARTICLE 23**COMPLIANCE**

The Commission shall:

- (a) on the basis of the periodical reports referred to in Article 22 and any other report submitted by the Contracting Parties, assess their compliance with the Convention and the decisions and recommendations adopted thereunder;
- (b) when appropriate, decide upon and call for steps to bring about full compliance with the Convention, and decisions adopted thereunder, and promote the implementation of recommendations, including measures to assist a Contracting Party to carry out its obligations.

ARTICLE 24**REGIONALISATION**

The Commission may decide that any decision or recommendation adopted by it shall apply to all, or a specified part, of the maritime area and may provide for different timetables to be applied, having regard to the differences between ecological and economic conditions in the various regions and sub-regions covered by the Convention.

ARTICLE 25**SIGNATURE**

The Convention shall be open for signature at Paris from 22nd September 1992 to 30th June 1993 by:

- (a) the Contracting Parties to the Oslo Convention or the Paris Convention;
- (b) any other coastal State bordering the maritime area;
- (c) any State located upstream on watercourses reaching the maritime area;
- (d) any regional economic integration organisation having as a member at least one State to which any of the subparagraphs (a) to (c) of this Article applies.

ARTICLE 26

RATIFICATION, ACCEPTANCE OR APPROVAL

The Convention shall be subject to ratification, acceptance or approval. The instruments of ratification, acceptance or approval shall be deposited with the Government of the French Republic.

ARTICLE 27

ACCESSIONS

1. After 30th June 1993, the Convention shall be open for accession by the States and regional economic integration organisations referred to in Article 25.
2. The Contracting Parties may unanimously invite States or regional economic integration organisations not referred to in Article 25 to accede to the Convention. In the case of such an accession, the definition of the maritime area shall, if necessary, be amended by a decision of the Commission adopted by unanimous vote of the Contracting Parties. Any such amendment shall enter into force after unanimous approval of all the Contracting Parties on the thirtieth day after the receipt of the last notification by the Depositary Government.
3. Any such accession shall relate to the Convention including any Annex and any Appendix that have been adopted at the date of such accession, except when the instrument of accession contains an express declaration of non-acceptance of one or several Annexes other than Annexes I, II, III and IV.
4. The instruments of accession shall be deposited with the Government of the French Republic.

ARTICLE 28

RESERVATIONS

No reservation to the Convention may be made.

ARTICLE 29

ENTRY INTO FORCE

1. The Convention shall enter into force on the thirtieth day following the date on which all Contracting Parties to the Oslo Convention and all Contracting Parties to the Paris Convention have deposited their instrument of ratification, acceptance, approval or accession.
2. For any State or regional economic integration organisation not referred to in paragraph 1 of this Article, the Convention shall enter into force in accordance with paragraph 1 of this Article, or on the thirtieth day following the date of the deposit of the instrument of ratification, acceptance, approval or accession by that State or regional economic integration organisations, whichever is later.

ARTICLE 30 WITHDRAWAL

1. At any time after the expiry of two years from the date of entry into force of the Convention for a Contracting Party, that Contracting Party may withdraw from the Convention by notification in writing to the Depositary Government.
2. Except as may be otherwise provided in an Annex other than Annexes I to IV to the Convention, any Contracting Party may at any time after the expiry of two years from the date of entry into force of such Annex for that Contracting Party withdraw from such Annex by notification in writing to the Depositary Government.
3. Any withdrawal referred to in paragraphs 1 and 2 of this Article shall take effect one year after the date on which the notification of that withdrawal is received by the Depositary Government.

ARTICLE 31 REPLACEMENT OF THE OSLO AND PARIS CONVENTIONS

1. Upon its entry into force, the Convention shall replace the Oslo and Paris Conventions as between the Contracting Parties.
2. Notwithstanding paragraph 1 of this Article, decisions, recommendations and all other agreements adopted under the Oslo Convention or the Paris Convention shall continue to be applicable, unaltered in their legal nature, to the extent that they are compatible with, or not explicitly terminated by, the Convention, any decisions or, in the case of existing recommendations, any recommendations adopted thereunder.

ARTICLE 32 SETTLEMENT OF DISPUTES

1. Any disputes between Contracting Parties relating to the interpretation or application of the Convention, which cannot be settled otherwise by the Contracting Parties concerned, for instance by means of inquiry or conciliation within the Commission, shall at the request of any of those Contracting Parties, be submitted to arbitration under the conditions laid down in this Article.
2. Unless the parties to the dispute decide otherwise, the procedure of the arbitration referred to in paragraph 1 of this Article shall be in accordance with paragraphs 3 to 10 of this Article.
3.
 - (a) At the request addressed by one Contracting Party to another Contracting Party in accordance with paragraph 1 of this Article, an arbitral tribunal shall be constituted. The request for arbitration shall state the subject matter of the application including in particular the Articles of the Convention, the interpretation or application of which is in dispute.
 - (b) The applicant party shall inform the Commission that it has requested the setting up of an arbitral tribunal, stating the name of the other party to the dispute and the Articles of the Convention the interpretation or application of which, in its opinion, is in dispute. The Commission shall forward the information thus received to all Contracting Parties to the Convention.
4. The arbitral tribunal shall consist of three members: each of the parties to the dispute shall appoint an arbitrator; the two arbitrators so appointed shall designate by common agreement the third arbitrator who shall be the chairman of the tribunal. The latter shall not be a national of one of the parties to the dispute, nor

have his usual place of residence in the territory of one of these parties, nor be employed by any of them, nor have dealt with the case in any other capacity.

5. (a) If the chairman of the arbitral tribunal has not been designated within two months of the appointment of the second arbitrator, the President of the International Court of Justice shall, at the request of either party, designate him within a further two months' period.
- (b) If one of the parties to the dispute does not appoint an arbitrator within two months of receipt of the request, the other party may inform the President of the International Court of Justice who shall designate the chairman of the arbitral tribunal within a further two months' period. Upon designation, the chairman of the arbitral tribunal shall request the party which has not appointed an arbitrator to do so within two months. After such period, he shall inform the President of the International Court of Justice who shall make this appointment within a further two months' period.
6. (a) The arbitral tribunal shall decide according to the rules of international law and, in particular, those of the Convention.
- (b) Any arbitral tribunal constituted under the provisions of this Article shall draw up its own rules of procedure.
- (c) In the event of a dispute as to whether the arbitral tribunal has jurisdiction, the matter shall be decided by the decision of the arbitral tribunal.
7. (a) The decisions of the arbitral tribunal, both on procedure and on substance, shall be taken by majority voting of its members.
- (b) The arbitral tribunal may take all appropriate measures in order to establish the facts. It may, at the request of one of the parties, recommend essential interim measures of protection.
- (c) If two or more arbitral tribunals constituted under the provisions of this Article are seized of requests with identical or similar subjects, they may inform themselves of the procedures for establishing the facts and take them into account as far as possible.
- (d) The parties to the dispute shall provide all facilities necessary for the effective conduct of the proceedings.
- (e) The absence or default of a party to the dispute shall not constitute an impediment to the proceedings.
8. Unless the arbitral tribunal determines otherwise because of the particular circumstances of the case, the expenses of the tribunal, including the remuneration of its members, shall be borne by the parties to the dispute in equal shares. The tribunal shall keep a record of all its expenses, and shall furnish a final statement thereof to the parties.
9. Any Contracting Party that has an interest of a legal nature in the subject matter of the dispute which may be affected by the decision in the case, may intervene in the proceedings with the consent of the tribunal.
10. (a) The award of the arbitral tribunal shall be accompanied by a statement of reasons. It shall be final and binding upon the parties to the dispute.
- (b) Any dispute which may arise between the parties concerning the interpretation or execution of the award may be submitted by either party to the arbitral tribunal which made the award or, if the latter cannot be seized thereof, to another arbitral tribunal constituted for this purpose in the same manner as the first.

ARTICLE 33

DUTIES OF THE DEPOSITARY GOVERNMENT

The Depositary Government shall inform the Contracting Parties and the signatories to the Convention:

- (a) of the deposit of instruments of ratification, acceptance, approval or accession, of declarations of non-acceptance and of notifications of withdrawal in accordance with Articles 26, 27 and 30;
- (b) of the date on which the Convention comes into force in accordance with Article 29;
- (c) of the receipt of notifications of acceptance, of the deposit of instruments of ratification, acceptance, approval or accession and of the entry into force of amendments to the Convention and of the adoption and amendment of Annexes or Appendices, in accordance with Articles 15, 16, 17, 18 and 19.

ARTICLE 34**ORIGINAL TEXT**

The original of the Convention, of which the French and English texts shall be equally authentic, shall be deposited with the Government of the French Republic which shall send certified copies thereof to the Contracting Parties and the signatories to the Convention and shall deposit a certified copy with the Secretary General of the United Nations for registration and publication in accordance with Article 102 of the United Nations Charter.

IN WITNESS WHEREOF, the undersigned, being duly authorised by their respective Governments, have signed this Convention.

DONE at Paris, on the twenty-second day of September 1992

ANNEX I

ON THE PREVENTION AND ELIMINATION OF POLLUTION FROM LAND-BASED SOURCES

ARTICLE 1

1. When adopting programmes and measures for the purpose of this Annex, the Contracting Parties shall require, either individually or jointly, the use of

- best available techniques for point sources
- best environmental practice for point and diffuse sources

including, where appropriate, clean technology.

2. When setting priorities and in assessing the nature and extent of the programmes and measures and their time scales, the Contracting Parties shall use the criteria given in Appendix 2.

3. The Contracting Parties shall take preventive measures to minimise the risk of pollution caused by accidents.

4. When adopting programmes and measures in relation to radioactive substances, including waste, the Contracting Parties shall also take account of:

- (a) the recommendations of the other appropriate international organisations and agencies;
- (b) the monitoring procedures recommended by these international organisations and agencies.

ARTICLE 2

1. Point source discharges to the maritime area, and releases into water or air which reach and may affect the maritime area, shall be strictly subject to authorisation or regulation by the competent authorities of the Contracting Parties. Such authorisation or regulation shall, in particular, implement relevant decisions of the Commission which bind the relevant Contracting Party.

2. The Contracting Parties shall provide for a system of regular monitoring and inspection by their competent authorities to assess compliance with authorisations and regulations of releases into water or air.

ARTICLE 3

For the purposes of this Annex, it shall, *inter alia*, be the duty of the Commission to draw up:

- (a) plans for the reduction and phasing out of substances that are toxic, persistent and liable to bioaccumulate arising from land-based sources;
- (b) when appropriate, programmes and measures for the reduction of inputs of nutrients from urban, municipal, industrial, agricultural and other sources.

ANNEX II**ON THE PREVENTION AND ELIMINATION OF POLLUTION BY
DUMPING OR INCINERATION****ARTICLE 1**

This Annex shall not apply to any deliberate disposal in the maritime area of:

- (a) wastes or other matter from offshore installations;
- (b) offshore installations and offshore pipelines.

ARTICLE 2

Incineration is prohibited.

ARTICLE 3

1. The dumping of all wastes or other matter is prohibited, except for those wastes or other matter listed in paragraphs 2 and 3 of this Article.
2. The list referred to in paragraph 1 of this Article is as follows:
 - (a) dredged material;
 - (b) inert materials of natural origin, that is solid, chemically unprocessed geological material the chemical constituents of which are unlikely to be released into the marine environment;
 - (c) sewage sludge until 31st December 1998;
 - (d) fish waste from industrial fish processing operations;
 - (e) vessels or aircraft until, at the latest, 31st December 2004.
3. (a) The dumping of low and intermediate level radioactive substances, including wastes, is prohibited.
 - ¹ (b) As an exception to subparagraph 3(a) of this Article, those Contracting Parties, the United Kingdom and France, who wish to retain the option of an exception to subparagraph 3(a) in any case not before the expiry of a period of 15 years from 1st January 1993, shall report to the meeting of the Commission at Ministerial level in 1997 on the steps taken to explore alternative land-based options.
 - (c) Unless, at or before the expiry of this period of 15 years, the Commission decides by a unanimous vote not to continue the exception provided in subparagraph 3(b), it shall take a decision pursuant to Article 13 of the Convention on the prolongation for a period of 10 years after 1st January 2008 of the prohibition, after which another meeting of the Commission at Ministerial level shall be held. Those Contracting Parties mentioned in subparagraph 3(b) of this Article still wishing to retain the option mentioned in subparagraph 3(b) shall report to the Commission meetings to be held at Ministerial level at two yearly intervals from 1999 onwards about the progress in establishing alternative land-based options and on the results of scientific studies which show that any potential dumping operations would not result in hazards to human health, harm to living

¹ After the entry into force of OSPAR Decision 98/2 on Dumping of Radioactive Waste on 9 February 1999, subparagraphs (b) and (c) of this paragraph ceased to have effect.

resources or marine ecosystems, damage to amenities or interference with other legitimate uses of the sea.

ARTICLE 4

1. The Contracting Parties shall ensure that:
 - (a) no wastes or other matter listed in paragraph 2 of Article 3 of this Annex shall be dumped without authorisation by their competent authorities, or regulation;
 - (b) such authorisation or regulation is in accordance with the relevant applicable criteria, guidelines and procedures adopted by the Commission in accordance with Article 6 of this Annex;
 - (c) with the aim of avoiding situations in which the same dumping operation is authorised or regulated by more than one Contracting Party, their competent authorities shall, as appropriate, consult before granting an authorisation or applying regulation.
2. Any authorisation or regulation under paragraph 1 of this Article shall not permit the dumping of vessels or aircraft containing substances which result or are likely to result in hazards to human health, harm to living resources and marine ecosystems, damage to amenities or interference with other legitimate uses of the sea.
3. Each Contracting Party shall keep, and report to the Commission records of the nature and the quantities of wastes or other matter dumped in accordance with paragraph 1 of this Article, and of the dates, places and methods of dumping.

ARTICLE 5

No placement of matter in the maritime area for a purpose other than that for which it was originally designed or constructed shall take place without authorisation or regulation by the competent authority of the relevant Contracting Party. Such authorisation or regulation shall be in accordance with the relevant applicable criteria, guidelines and procedures adopted by the Commission in accordance with Article 6 of this Annex. This provision shall not be taken to permit the dumping of wastes or other matter otherwise prohibited under this Annex.

ARTICLE 6

For the purposes of this Annex, it shall, *inter alia*, be the duty of the Commission to draw up and adopt criteria, guidelines and procedures relating to the dumping of wastes or other matter listed in paragraph 2 of Article 3, and to the placement of matter referred to in Article 5, of this Annex, with a view to preventing and eliminating pollution.

ARTICLE 7

The provisions of this Annex concerning dumping shall not apply in case of *force majeure*, due to stress of weather or any other cause, when the safety of human life or of a vessel or aircraft is threatened. Such dumping shall be so conducted as to minimise the likelihood of damage to human or marine life and shall immediately be reported to the Commission, together with full details of the circumstances and of the nature and quantities of the wastes or other matter dumped.

ARTICLE 8

The Contracting Parties shall take appropriate measures, both individually and within relevant international organisations, to prevent and eliminate pollution resulting from the abandonment of vessels or aircraft in the maritime area caused by accidents. In the absence of relevant guidance from such international organisations, the measures taken by individual Contracting Parties should be based on such guidelines as the Commission may adopt.

ARTICLE 9

In an emergency, if a Contracting Party considers that wastes or other matter the dumping of which is prohibited under this Annex cannot be disposed of on land without unacceptable danger or damage, it shall forthwith consult other Contracting Parties with a view to finding the most satisfactory methods of storage or the most satisfactory means of destruction or disposal under the prevailing circumstances. The Contracting Party shall inform the Commission of the steps adopted following this consultation. The Contracting Parties pledge themselves to assist one another in such situations.

ARTICLE 10

1. Each Contracting Party shall ensure compliance with the provisions of this Annex:
 - (a) by vessels or aircraft registered in its territory;
 - (b) by vessels or aircraft loading in its territory the wastes or other matter which are to be dumped or incinerated;
 - (c) by vessels or aircraft believed to be engaged in dumping or incineration within its internal waters or within its territorial sea or within that part of the sea beyond and adjacent to the territorial sea under the jurisdiction of the coastal state to the extent recognised by international law.
2. Each Contracting Party shall issue instructions to its maritime inspection vessels and aircraft and to other appropriate services to report to its authorities any incidents or conditions in the maritime area which give rise to suspicions that dumping in contravention of the provisions of the present Annex has occurred or is about to occur. Any Contracting Party whose authorities receive such a report shall, if it considers it appropriate, accordingly inform any other Contracting Party concerned.
3. Nothing in this Annex shall abridge the sovereign immunity to which certain vessels are entitled under international law.

ANNEX III

ON THE PREVENTION AND ELIMINATION OF POLLUTION FROM OFFSHORE SOURCES

ARTICLE 1

This Annex shall not apply to any deliberate disposal in the maritime area of:

- (a) wastes or other matter from vessels or aircraft;
- (b) vessels or aircraft.

ARTICLE 2

1. When adopting programmes and measures for the purpose of this Annex, the Contracting Parties shall require, either individually or jointly, the use of:

- (a) best available techniques
- (b) best environmental practice

including, where appropriate, clean technology.

2. When setting priorities and in assessing the nature and extent of the programmes and measures and their time scales, the Contracting Parties shall use the criteria given in Appendix 2.

ARTICLE 3

1. Any dumping of wastes or other matter from offshore installations is prohibited.

2. This prohibition does not relate to discharges or emissions from offshore sources.

ARTICLE 4

1. The use on, or the discharge or emission from, offshore sources of substances which may reach and affect the maritime area shall be strictly subject to authorisation or regulation by the competent authorities of the Contracting Parties. Such authorisation or regulation shall, in particular, implement the relevant applicable decisions, recommendations and all other agreements adopted under the Convention.

2. The competent authorities of the Contracting Parties shall provide for a system of monitoring and inspection to assess compliance with authorisation or regulation as provided for in paragraph 1 of Article 4 of this Annex.

ARTICLE 5

1. No disused offshore installation or disused offshore pipeline shall be dumped and no disused offshore installation shall be left wholly or partly in place in the maritime area without a permit issued by the competent authority of the relevant Contracting Party on a case-by-case basis. The Contracting Parties shall ensure that their authorities, when granting such permits, shall implement the relevant applicable decisions, recommendations and all other agreements adopted under the Convention.

2. No such permit shall be issued if the disused offshore installation or disused offshore pipeline contains substances which result or are likely to result in hazards

to human health, harm to living resources and marine ecosystems, damage to amenities or interference with other legitimate uses of the sea.

3. Any Contracting Party which intends to take the decision to issue a permit for the dumping of a disused offshore installation or a disused offshore pipeline placed in the maritime area after 1st January 1998 shall, through the medium of the Commission, inform the other Contracting Parties of its reasons for accepting such dumping, in order to make consultation possible.

4. Each Contracting Party shall keep, and report to the Commission, records of the disused offshore installations and disused offshore pipelines dumped and of the disused offshore installations left in place in accordance with the provisions of this Article, and of the dates, places and methods of dumping.

ARTICLE 6

Articles 3 and 5 of this Annex shall not apply in case of *force majeure*, due to stress of weather or any other cause, when the safety of human life or of an offshore installation is threatened. Such dumping shall be so conducted as to minimise the likelihood of damage to human or marine life and shall immediately be reported to the Commission, together with full details of the circumstances and of the nature and quantities of the matter dumped.

ARTICLE 7

The Contracting Parties shall take appropriate measures, both individually and within relevant international organisations, to prevent and eliminate pollution resulting from the abandonment of offshore installations in the maritime area caused by accidents. In the absence of relevant guidance from such international organisations, the measures taken by individual Contracting Parties should be based on such guidelines as the Commission may adopt.

ARTICLE 8

No placement of a disused offshore installation or a disused offshore pipeline in the maritime area for a purpose other than that for which it was originally designed or constructed shall take place without authorisation or regulation by the competent authority of the relevant Contracting Party. Such authorisation or regulation shall be in accordance with the relevant applicable criteria, guidelines and procedures adopted by the Commission in accordance with subparagraph (d) of Article 10 of this Annex. This provision shall not be taken to permit the dumping of disused offshore installations or disused offshore pipelines in contravention of the provisions of this Annex.

ARTICLE 9

1. Each Contracting Party shall issue instructions to its maritime inspection vessels and aircraft and to other appropriate services to report to its authorities any incidents or conditions in the maritime area which give rise to suspicions that a contravention of the provisions of the present Annex has occurred or is about to occur. Any Contracting Party whose authorities receive such a report shall, if it considers it appropriate, accordingly inform any other Contracting Party concerned.

2. Nothing in this Annex shall abridge the sovereign immunity to which certain vessels are entitled under international law.

ARTICLE 10

For the purposes of this Annex, it shall, *inter alia*, be the duty of the Commission:

- (a) to collect information about substances which are used in offshore activities and, on the basis of that information, to agree lists of substances for the purposes of paragraph 1 of Article 4 of this Annex;
- (b) to list substances which are toxic, persistent and liable to bioaccumulate and to draw up plans for the reduction and phasing out of their use on, or discharge from, offshore sources;
- (c) to draw up criteria, guidelines and procedures for the prevention of pollution from dumping of disused offshore installations and of disused offshore pipelines, and the leaving in place of offshore installations, in the maritime area;
- (d) to draw up criteria, guidelines and procedures relating to the placement of disused offshore installations and disused offshore pipelines referred to in Article 8 of this Annex, with a view to preventing and eliminating pollution.

ANNEX IV**ON THE ASSESSMENT OF THE QUALITY OF THE MARINE ENVIRONMENT****ARTICLE 1**

1. For the purposes of this Annex "monitoring" means the repeated measurement of:
 - (a) the quality of the marine environment and each of its compartments, that is, water, sediments and biota;
 - (b) activities or natural and anthropogenic inputs which may affect the quality of the marine environment;
 - (c) the effects of such activities and inputs.
2. Monitoring may be undertaken either for the purposes of ensuring compliance with the Convention, with the objective of identifying patterns and trends or for research purposes.

ARTICLE 2

For the purposes of this Annex, the Contracting Parties shall:

- (a) cooperate in carrying out monitoring programmes and submit the resulting data to the Commission;
- (b) comply with quality assurance prescriptions and participate in intercalibration exercises;
- (c) use and develop, individually or preferably jointly, other duly validated scientific assessment tools, such as modelling, remote sensing and progressive risk assessment strategies;
- (d) carry out, individually or preferably jointly, research which is considered necessary to assess the quality of the marine environment, and to increase knowledge and scientific understanding of the marine environment and, in particular, of the relationship between inputs, concentration and effects;
- (e) take into account scientific progress which is considered to be useful for such assessment purposes and which has been made elsewhere either on the initiative of individual researchers and research institutions, or through other national and international research programmes or under the auspices of the European Economic Community or other regional economic integration organisations.

ARTICLE 3

For the purposes of this Annex, it shall, *inter alia*, be the duty of the Commission:

- (a) to define and implement programmes of collaborative monitoring and assessment-related research, to draw up codes of practice for the guidance of participants in carrying out these monitoring programmes and to approve the presentation and interpretation of their results;
- (b) to carry out assessments taking into account the results of relevant monitoring and research and the data relating to inputs of substances or energy into the maritime area which are provided by virtue of other Annexes to the Convention, as well as other relevant information;

- (c) to seek, where appropriate, the advice or services of competent regional organisations and other competent international organisations and competent bodies with a view to incorporating the latest results of scientific research;
- (d) to cooperate with competent regional organisations and other competent international organisations in carrying out quality status assessments.

ANNEX V**ON THE PROTECTION AND CONSERVATION OF THE ECOSYSTEMS
AND BIOLOGICAL DIVERSITY OF THE MARITIME AREA ²****ARTICLE 1**

For the purposes of this Annex and of Appendix 3 the definitions of “biological diversity”, “ecosystem” and “habitat” are those contained in the Convention on Biological Diversity of 5 June 1992.

ARTICLE 2

In fulfilling their obligation under the Convention to take, individually and jointly, the necessary measures to protect the maritime area against the adverse effects of human activities so as to safeguard human health and to conserve marine ecosystems and, when practicable, restore marine areas which have been adversely affected, as well as their obligation under the Convention on Biological Diversity of 5 June 1992 to develop strategies, plans or programmes for the conservation and sustainable use of biological diversity, Contracting Parties shall:

- a. take the necessary measures to protect and conserve the ecosystems and the biological diversity of the maritime area, and to restore, where practicable, marine areas which have been adversely affected; and
- b. cooperate in adopting programmes and measures for those purposes for the control of the human activities identified by the application of the criteria in Appendix 3.

ARTICLE 3

1. For the purposes of this Annex, it shall *inter alia* be the duty of the Commission:

- a. to draw up programmes and measures for the control of the human activities identified by the application of the criteria in Appendix 3;
- b. in doing so:
 - (i) to collect and review information on such activities and their effects on ecosystems and biological diversity;
 - (ii) to develop means, consistent with international law, for instituting protective, conservation, restorative or precautionary measures related to specific areas or sites or related to particular species or habitats;
 - (iii) subject to Article 4 of this Annex, to consider aspects of national strategies and guidelines on the sustainable use of components of biological diversity of the maritime area as they affect the various regions and sub-regions of that area;
 - (iv) subject to Article 4 of this Annex, to aim for the application of an integrated ecosystem approach.

² In accordance with Article 15.5 of the Convention, Annex V has entered into force:

- on 30 August 2000 for Finland, Spain, Switzerland, Luxembourg, European Community, United Kingdom and Denmark;
- on 5 October 2000 for Sweden.

Annex V will enter into force for any other Contracting Party on the thirtieth day after that Contracting Party has deposited its instrument of ratification, acceptance or approval.

- c. also in doing so, to take account of programmes and measures adopted by Contracting Parties for the protection and conservation of ecosystems within waters under their sovereignty or jurisdiction.
2. In the adoption of such programmes and measures, due consideration shall be given to the question whether any particular programme or measure should apply to all, or a specified part, of the maritime area.

ARTICLE 4

1. In accordance with the penultimate recital of the Convention, no programme or measure concerning a question relating to the management of fisheries shall be adopted under this Annex. However where the Commission considers that action is desirable in relation to such a question, it shall draw that question to the attention of the authority or international body competent for that question. Where action within the competence of the Commission is desirable to complement or support action by those authorities or bodies, the Commission shall endeavour to cooperate with them.
2. Where the Commission considers that action under this Annex is desirable in relation to a question concerning maritime transport, it shall draw that question to the attention of the International Maritime Organisation. The Contracting Parties who are members of the International Maritime Organisation shall endeavour to cooperate within that Organisation in order to achieve an appropriate response, including in relevant cases that Organisation's agreement to regional or local action, taking account of any guidelines developed by that Organisation on the designation of special areas, the identification of particularly sensitive areas or other matters.

APPENDIX 1**CRITERIA FOR THE DEFINITION OF PRACTICES AND TECHNIQUES MENTIONED IN PARAGRAPH 3(B)(I) OF ARTICLE 2 OF THE CONVENTION****BEST AVAILABLE TECHNIQUES**

1. The use of the best available techniques shall emphasise the use of non-waste technology, if available.
2. The term "best available techniques" means the latest stage of development (state of the art) of processes, of facilities or of methods of operation which indicate the practical suitability of a particular measure for limiting discharges, emissions and waste. In determining whether a set of processes, facilities and methods of operation constitute the best available techniques in general or individual cases, special consideration shall be given to:
 - (a) comparable processes, facilities or methods of operation which have recently been successfully tried out;
 - (b) technological advances and changes in scientific knowledge and understanding;
 - (c) the economic feasibility of such techniques;
 - (d) time limits for installation in both new and existing plants;
 - (e) the nature and volume of the discharges and emissions concerned.
3. It therefore follows that what is "best available techniques" for a particular process will change with time in the light of technological advances, economic and social factors, as well as changes in scientific knowledge and understanding.
4. If the reduction of discharges and emissions resulting from the use of best available techniques does not lead to environmentally acceptable results, additional measures have to be applied.
5. "Techniques" include both the technology used and the way in which the installation is designed, built, maintained, operated and dismantled.

BEST ENVIRONMENTAL PRACTICE

6. The term "best environmental practice" means the application of the most appropriate combination of environmental control measures and strategies. In making a selection for individual cases, at least the following graduated range of measures should be considered:
 - (a) the provision of information and education to the public and to users about the environmental consequences of choice of particular activities and choice of products, their use and ultimate disposal;
 - (b) the development and application of codes of good environmental practice which covers all aspect of the activity in the product's life;
 - (c) the mandatory application of labels informing users of environmental risks related to a product, its use and ultimate disposal;
 - (d) saving resources, including energy;
 - (e) making collection and disposal systems available to the public;
 - (f) avoiding the use of hazardous substances or products and the generation of hazardous waste;
 - (g) recycling, recovery and re-use;

- (h) the application of economic instruments to activities, products or groups of products;
- (i) establishing a system of licensing, involving a range of restrictions or a ban.

7. In determining what combination of measures constitute best environmental practice, in general or individual cases, particular consideration should be given to:

- (a) the environmental hazard of the product and its production, use and ultimate disposal;
- (b) the substitution by less polluting activities or substances;
- (c) the scale of use;
- (d) the potential environmental benefit or penalty of substitute materials or activities;
- (e) advances and changes in scientific knowledge and understanding;
- (f) time limits for implementation;
- (g) social and economic implications.

8. It therefore follows that best environmental practice for a particular source will change with time in the light of technological advances, economic and social factors, as well as changes in scientific knowledge and understanding.

9. If the reduction of inputs resulting from the use of best environmental practice does not lead to environmentally acceptable results, additional measures have to be applied and best environmental practice redefined.

APPENDIX 2**CRITERIA MENTIONED IN PARAGRAPH 2 OF ARTICLE 1 OF ANNEX I
AND IN PARAGRAPH 2 OF ARTICLE 2 OF ANNEX III**

1. When setting priorities and in assessing the nature and extent of the programmes and measures and their time scales, the Contracting Parties shall use the criteria given below:

- (a) persistency;
- (b) toxicity or other noxious properties;
- (c) tendency to bioaccumulation;
- (d) radioactivity;
- (e) the ratio between observed or (where the results of observations are not yet available) predicted concentrations and no observed effect concentrations;
- (f) anthropogenically caused risk of eutrophication;
- (g) transboundary significance;
- (h) risk of undesirable changes in the marine ecosystem and irreversibility or durability of effects;
- (i) interference with harvesting of sea-foods or with other legitimate uses of the sea;
- (j) effects on the taste and/or smell of products for human consumption from the sea, or effects on smell, colour, transparency or other characteristics of the water in the marine environment;
- (k) distribution pattern (i.e., quantities involved, use pattern and liability to reach the marine environment);
- (l) non-fulfilment of environmental quality objectives.

2. These criteria are not necessarily of equal importance for the consideration of a particular substance or group of substances.

3. The above criteria indicate that substances which shall be subject to programmes and measures include:

- (a) heavy metals and their compounds;
- (b) organohalogen compounds (and substances which may form such compounds in the marine environment);
- (c) organic compounds of phosphorus and silicon;
- (d) biocides such as pesticides, fungicides, herbicides, insecticides, slimicides and chemicals used, *inter alia*, for the preservation of wood, timber, wood pulp, cellulose, paper, hides and textiles;
- (e) oils and hydrocarbons of petroleum origin;
- (f) nitrogen and phosphorus compounds;
- (g) radioactive substances, including wastes;
- (h) persistent synthetic materials which may float, remain in suspension or sink.

APPENDIX 3

CRITERIA FOR IDENTIFYING HUMAN ACTIVITIES FOR THE PURPOSE OF ANNEX V³

1. The criteria to be used, taking into account regional differences, for identifying human activities for the purposes of Annex V are:
 - a. the extent, intensity and duration of the human activity under consideration;
 - b. actual and potential adverse effects of the human activity on specific species, communities and habitats;
 - c. actual and potential adverse effects of the human activity on specific ecological processes;
 - d. irreversibility or durability of these effects.
2. These criteria are not necessarily exhaustive or of equal importance for the consideration of a particular activity.

³ In accordance with Article 15.5 of the Convention, Appendix 3 has entered into force:

- on 30 August 2000 for Finland, Spain, Switzerland, Luxembourg, European Community, United Kingdom and Denmark;
- on 5 October 2000 for Sweden.

Appendix 3 will enter into force for any other Contracting Party on the thirtieth day after that Contracting Party has deposited its instrument of ratification, acceptance or approval.

**DECLARATIONS ACCOMPANYING THE SIGNATURE OF DENMARK
AND THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN
IRELAND TO THE CONVENTION FOR THE PROTECTION OF THE
MARINE ENVIRONMENT OF THE NORTH-EAST ATLANTIC**

Denmark's signature to the Convention for the Protection of the Marine Environment of the North-East Atlantic was accompanied by the following declaration⁴:

"The present Convention is subject to ratification and with reservation for application to the Faroe Islands and Greenland."

The United Kingdom's signature to the Convention for the Protection of the Marine Environment of the North-East Atlantic was accompanied by the following declaration⁵:

"The Government of the United Kingdom of Great Britain and Northern Ireland declares its understanding of the effect of the paragraph 3 of Article 3 of Annex II to the Convention to be amongst other things that, where the Commission takes a decision pursuant to Article 13 of the Convention, on the prolongation of the prohibition set out in subparagraph (3)(a), those Contracting Parties who wish to retain the option of the exception to that prohibition as provided for in subparagraph (3)(b) may retain that option, provided that they are not bound, under paragraph 2 of Article 13, by that decision."

⁴ Following Denmark's ratification of the OSPAR Convention, Denmark notified France as the Depository Government that Denmark had withdrawn its reservation from the Declaration accompanying Denmark's signature to the Convention.

⁵ See footnote 1

Appendix RCC
OSPAR Secretariat Working Paper on the Compatibility with the
OSPAR Convention of Possible Placements of Carbon Dioxide in the
Sea or the Sea-Bed.

(Not for attribution or citation)

DRAFT of 2 October 2002

COMPATIBILITY WITH THE OSPAR CONVENTION OF POSSIBLE PLACEMENTS OF CARBON DIOXIDE IN THE SEA OR THE SEA-BED

Memorandum by the OSPAR Group of Jurists and Linguists

1. [This memorandum sets out the views of the OSPAR Group of Jurists and Linguists] on the consistency with the 1992 OSPAR Convention for the Protection of the Marine Environment of the North East Atlantic of certain possible ways of placing carbon dioxide (CO₂) either into the water-column of the seas in the maritime area of the North East Atlantic covered by the OSPAR Convention, or into the underground strata beneath the sea-bed of that maritime area.

Background

2. The Group of Jurists and Linguists was asked for advice on these questions by the meeting of the OSPAR Commission in Amsterdam in June 2002. This request was prompted by an experiment proposed by the Norwegian Institute for Water Research (*Norsk Institutt for Vannforskning –NIVA*), which involved the release for 5,4 tonnes of carbon dioxide into the sea off the west coast of Norway at a depth of 800 metres.

3. The experiment was intended to increase knowledge about the chemical, physical and biological effects of releasing carbon dioxide in sea-water, against a background in which those proposing the experiment considered that it might in future be necessary for carbon dioxide to be released and dissolved in the deep ocean in order to reduce the build-up of carbon dioxide in the atmosphere.

4. Apart from the experiment, therefore, it is also necessary to consider whether a range of conceivable methods of placing large amounts of carbon dioxide into the sea or the sea-bed are consistent with the OSPAR Convention.

What does not need to be considered

5. Two possible practices involving carbon dioxide are not relevant to the issues addressed by this memorandum:

- a. the use of carbon dioxide (in place of the water that is often used) for injection into an oil-well, in order to produce (or increase) the pressure needed to make the oil flow to the surface;
- b. where the oil or gas produced by a well is mixed with significant quantities of carbon dioxide, separating out this carbon dioxide, as part of the production process, and discharging it back into the reservoir structure – in a manner analogous to what is often done with the more common produced water.

Possible means of placement to be considered

6. The proposed experiment which gave rise to the request for advice involved the release of CO₂ from a submerged device containing pressurised containers of CO₂. There was no connection carrying CO₂ between the device and any other vessel or structure. All the CO₂ to be released was contained in the device, which was to be lowered over the side of a vessel on a chain. This is clearly suitable for an experimental release, but would not be appropriate in the context of the placement of CO₂ on the scale that would be needed to have an effect on the build-up of CO₂ in the atmosphere.

7. In present circumstances, it seems likely that any placement of CO₂ on a major scale would be concerned with CO₂ produced in some major land-based installation (such as a power station) using fossil fuels. Only such a major point-source of CO₂ would justify the creation of the necessary infrastructure.

8. There seem to be four main routes that could be envisaged for the placement of such large quantities of CO₂ in the sea or the sea-bed. Any of these routes could be used either:

- a. to place CO₂ in the water-column of the sea – this might result in either CO₂-enriched water or (if the water were sufficiently deep and the pressure in consequence were sufficiently high) in CO₂ in some solid form;

- b. to place the CO₂ in the underground strata of the sea-bed – this is likely to result in re-filling a reservoir that has previously contained hydrocarbons in the form of oil, gas or condensate with CO₂.
9. The four conceivable routes are:
- a. ***a pipeline pure and simple*** – a pipeline could take the CO₂ from the collecting point in the land-based installation and deliver it to the point (in the water column or under the sea-bed) where it is to be placed;
 - b. ***a pipeline working with an installation in the sea*** – a pipeline could take the CO₂ from the collecting point in the land-based installation and deliver it to an installation placed in the sea, from where it could then be pumped to the point of placement (in the water column or under the sea-bed);
 - c. ***shipment in a vessel for disposal from the vessel***: at the collecting point in the land-based installation, the CO₂ could be compressed and loaded on a vessel, which could then take it out to sea and release the CO₂ either into the water column or into underground strata under the sea-bed;
 - d. ***shipment in a vessel for disposal from an installation***: at the collecting point in the land-based installation, the CO₂ could be compressed and loaded on a vessel, which could then take it to an installation placed in the sea, from where it could be pumped to the point of placement (in the water column or under the sea-bed).

Status of the CO₂ and its placement

10. What has to be evaluated is how the OSPAR Convention deals with the risks from the placement of CO₂ in the water column of the sea or in the sea-bed or the underground strata beneath it. The risk that has to be considered is that such placement may cause pollution – that is, in the words of Article 1(d), it may constitute “the introduction by man, directly or indirectly, of [a substance] into the maritime area which results, or is likely to result, in hazards to human health, harm to living resources and marine ecosystems, damage to amenities or interference with other legitimate uses of the sea”.
11. The OSPAR Convention institutes three separate régimes to control pollution:
- (a) pollution from land-based sources (Article 3 and Annex I);
 - (b) pollution from dumping and incineration (Article 4 and Annex II);
 - (c) pollution from offshore activities (Article 5 and Annex III).
12. These three régimes are mutually exclusive. This is brought about
- (a) by the definitions of “land-based sources”, “dumping” and “offshore activities”, which establishes the mutual exclusiveness between, on the one hand, pollution from land-based sources and, on the other hand, pollution from dumping and offshore activities (see further paragraphs ?? - ?? below); and
 - (b) by the provisions of Article 1 of Annex II and Article 1 of Annex III, which make the scope of the régimes established by those two annexes mutually exclusive, by excluding from the annex in question everything that falls under the scope of the other annex.

The régime for preventing pollution from dumping and incineration.

13. It is convenient to begin with the régime for preventing pollution from dumping and incineration. Incineration does not need to be considered further, since there is no question of incinerating CO₂.

“Dumping”

14. “Dumping” is defined by Article 1 as
- “(i) any deliberate disposal in the maritime area of wastes or other matter
 - (1) from vessels or aircraft;
 - (2) from offshore installations;
 - (ii) any deliberate disposal in the maritime area of

- (1) vessels or aircraft;
- (2) offshore installations and offshore pipelines.”

The effect of article 1 of Annex II is that the second item under both (i) and (ii) is not relevant for the régime under Article 4 and Annex II for preventing pollution from dumping or incineration. Disposal from aircraft is also not relevant in the context of CO₂. We are therefore concerned here with deliberate disposals in the maritime area of wastes or other matter from vessels.

15. It should be noted that the definition applies to all deliberate disposals “in the maritime area”. The maritime area is defined by Article 1(a) of the Convention to mean “the internal waters and the territorial seas of the Contracting Parties, the sea beyond and adjacent to the territorial sea under the jurisdiction of the coastal state to the extent recognised by international law, and the high seas, including the bed of all those waters and its sub-soil¹”, situated within the specified limits. The definition therefore applies both to placements into the water column of the sea and to placements into the sea-bed and the underground strata beneath it.

“Wastes or other matter”

16. The definition of “dumping” thus requires consideration whether CO₂, in the circumstances to be considered is covered by the term “wastes or other matter” (in the French version, “*déchets ou autres matières*”). This term is not defined in the Convention (the only relevant dining provision excludes from these terms “human remains, offshore installations, offshore pipelines and unprocessed fish and fish offal discarded from fishing vessels”).

17. These terms therefore have their normal meaning.

- a. the Oxford English Dictionary defines “waste”, in the sense relevant in this context, as “refuse matter; unserviceable material remaining over from any process of manufacture; the useless by-products of any industrial process; material or manufactured articles so damaged as to be useless or unsaleable”;
- b. it defines “matter”, in the sense relevant in this context, “the stuff of which anything is made;... in a wider sense, used as a vague designation for any physical substance not definitely particularised”;
- c. the *Dictionnaire de l’Académie française* defines “*déchets*” as “*Ce qui tombe d’une matière qu’on travaille, qu’on apprête. Des déchets de laine, de coton. Des déchets de fonte. Par anal[ogie]. Des déchets de viande. Par ext[ension]. Résidus ; rebuts. L’usine déverse ses déchets dans la rivière. Déchets radioactifs*”²;
- d. it defines “*matière*” in the relevant context as “*Substance particulière qui a les caractéristiques fondamentales de la matière*”³.

18. It is therefore reasonable to conclude that the natural meanings of “wastes” and “*déchets*” covers, *inter alia*, a substance which remains after the completion of an activity, and which cannot be put to some use. In general, such a meaning seems apt to cover CO₂ in the circumstances described in paragraph 9, but is probably not apt to describe the use of CO₂ in an experiment. Nevertheless, “other matter” and “*autres matières*” seem capable of covering CO₂ used for experimental purposes.

¹ The argument has been put forward that “sub-soil” (“*sous-sol*” in the French version) refers only to the zone immediately beneath the sea-bed, and not to the lower underground strata. This is based on the use of the word in relation to horticulture and agriculture, where it refers to the lower part of the workable soil. However, the word can also have the literal meaning of all that is beneath the ground, and there seems no reason why it should here have been intended in the more restricted sense which is not appropriate to a context in which there is no working of the soil.

² “That which falls from some material on which one is working or which one is preparing – “wool droppings”, “cotton droppings”, “foundry droppings”. By analogy – “meat waste”. By extension – leftovers, residue – “the factory discharges its waste into the river”, “radioactive waste”.

³ “A specific substance which shares the basic characteristics of the material” [that is, in this context, the basic characteristics of “*déchets*”]

“Disposal”

19. The second major component of the definition of “dumping” is “disposal” (in the French version, either “*déversement*” or “*élimination*”). Looking again at the normal meaning of these terms, we find:

- a. the Oxford English Dictionary defines “disposal” as “the action of disposing of, putting away, getting rid of, settling or definitely dealing with something”;
- b. the *Dictionnaire de l'Académie française* defines “*déversement*” as “*Action de déverser un liquide ; le fait de se déverser. Le déversement du trop-plein d'un barrage.*”⁴ and “*déverser*” as “*Faire couler un liquide d'un lieu dans un autre. Le réservoir déverse son trop-plein par une conduite. Les gargouilles et les gouttières déversaient les eaux de pluie dans la rue*”⁵;
- c. it defines “*élimination*” as “*Action de faire disparaître, de supprimer. L'élimination des possibilités d'erreur, de fraude. L'élimination de la corruption. L'élimination d'une espèce animale ou végétale par sélection naturelle. L'élimination de la presse d'opposition.*”⁶ It is also helpful to look at the word “*éliminer*”, about which the *Dictionnaire de l'Académie française* says “*Emprunté du latin eliminare, « faire sortir », d'où « mettre dehors, rejeter ». Mettre dehors, écarter.... Faire disparaître, supprimer en détruisant. Eliminer les impuretés d'un mélange. Eliminer des déchets industriels. Ce produit élimine l'humidité, la rouille. Eliminer des plantes, des animaux nuisibles*”⁷

20. The French version of the OSPAR Convention uses two alternatives to correspond to the English word “disposal” because the 1972 Oslo Convention had chosen “*déversement*” as the French equivalent in its definition of “dumping”. There was a wish to ensure that there was no implication of any change in the coverage of the parts of the OSPAR Convention relating to dumping. The texts were therefore maintained in the same form where they related to “dumping” (“*immersion*”), but the French word “*élimination*” was used as the equivalent of “disposal” in new contexts, since a more comprehensive term was needed⁸.

21. The natural meaning of “disposal” therefore seems to cover all forms of getting rid of a substance that is no longer wanted in its present form and in its present location.

22. However, the release of CO₂ into the sea from a container suspended from a vessel (as set out in the description of the proposed experiment off the Norwegian coast) does not appear to fit within that description, because the material of the CO₂ is being used for the purpose of improving knowledge of the effects of its release into the sea: it is not therefore being “disposed of”

Exclusions from the definition of “dumping”

23. Article 1(g) excludes three cases from the definition of dumping. Two of these (disposal of wastes incidental to the normal operations of ships (Article 1(g)(i)) and exclusions related only to the régime for the prevention of pollution from offshore activities (Article 1(g)(iii)) are clearly not relevant to the placement of CO₂ in the maritime area.

24. The third exclusion (the placement of matter for a purpose other than the mere disposal thereof – Article 1(g)(ii)) requires a little further consideration.

25. An argument might be made that the placement of the CO₂ is not merely for the purpose of disposal, but is a deliberate action to limit the impact of the gas on the rate of climate change. However, a little reflection suggests that this is nothing else than another way of describing “disposal”. The CO₂ is a substance that is not wanted in its present form in its present location. The placement of it in the maritime

⁴ “Action of pouring out a liquid, the fact of being poured out – the discharge of the overflow of a dam

⁵ “To make a liquid run from one place to another – the reservoir discharges its overflow by a conduit; the gargoyles and gutters discharge the rainfall into the street.”

⁶ “Action of making something disappear, or of stopping it - the elimination of the possibilities of mistake, of fraud; the elimination of corruption; the elimination of a species of animal or plant by natural selection. The elimination of the opposition press”

⁷ “Borrowed from the Latin *eliminare* “to make something go out” hence “to put outside, to reject”. To make something disappear. To bring something to an end by destroying it – to eliminate the impurities from a mixture; to dispose of industrial waste; this product eliminates damp, rust; to get rid of plants, dangerous animals”.

⁸ Communication from the chairman of the drafting group responsible in 1992 for the preparation of the authentic English and French texts of the OSPAR Convention.

area is therefore to change its form and location, and not to achieve some other purpose. The change of form and location of something that is not wanted in its present form and location is “disposal”.

Prohibition on dumping

26. Article 3(1) of Annex II to the OSPAR Convention prohibits the dumping of wastes and other matter unless it falls into one of the five categories in article 3(2). (Article 3(3) originally permitted further possible limited exceptions related to medium- and low-level radioactive substances, but this was always irrelevant to CO₂, and is now totally irrelevant, since OSPAR Commission Decision 98/2 has removed the possibilities covered by that paragraph). The five excepted categories are:

- (a) dredged material (*matériaux de dragage*);
- (b) inert materials of natural origin, that is solid, chemically unprocessed geological material the chemical constituents of which are unlikely to be released into the marine environment (*“matières inertes d'origine naturelle, constituées par du matériau géologique solide n'ayant pas subi de traitement chimique, et dont les constituants chimiques ne risquent pas d'être libérés dans le milieu marin*);
- (c) sewage sludge (*boues d'égouts*), until 31st December 1998;
- (d) fish waste from industrial fish processing operations (*déchets de poisson issus des opérations industrielles de transformation du poisson*);
- (e) vessels or aircraft (*navires ou aéronefs*) until, at the latest, 31st December 2004.

The disposal of CO₂ would not fit under any of those exceptions.

27. Shipment of CO₂ in a vessel for disposal from that vessel (or another one) (route (c) as described in paragraph 9 above) is a deliberate disposal in the maritime area of wastes or other matter from a vessel. The conclusion must therefore be that the placement of CO₂ into the sea or under the sea-bed by this route is prohibited by the OSPAR Convention.

The régime for preventing pollution from offshore activities

28. The separate régime for preventing pollution from offshore activities also covers “dumping” – taking up the part of the definition of “dumping” that covers the deliberate disposal of wastes or other matter from offshore installations. (The other limb of this part of the definition in relation to this régime – disposal of offshore installations and pipelines – is obviously not relevant to the disposal of CO₂).

29. Article 3(1) of Annex III prohibits – subject to a single exception under Article 3(2)– dumping of wastes or other matter from offshore installations.

30. The single exception relates to discharges and emissions from offshore sources. “Offshore sources” are defined by Article 1(k) of the Convention as offshore installations and offshore pipelines from which substances or energy reach the maritime area. “Offshore installations” and “offshore pipelines” are, in turn, defined by Article 1(l) and (m) respectively as any man-made structure, plant or vessel, or parts thereof, or (as the case may be) any pipeline, placed in the maritime area for the purposes of offshore activities – that is, according to Article 1(j), for the purposes of exploration, appraisal or exploitation of liquid and gaseous hydrocarbons.

31. The sole exception to the prohibition under Annex III on dumping is therefore not relevant to the placement of CO₂ in this context, since there is no way in which that CO₂ can be regarded as a discharge or emission from an offshore installation – all four routes described in paragraph 9 start from the assumption that the CO₂ arises from a major land-based installation.

32. The conclusion must therefore be that the placement of CO₂ into the sea or under the sea-bed by any route is prohibited by the OSPAR Convention if that route involves an offshore installation or an offshore pipeline. The definition of “offshore installation” and “offshore pipeline”, however, is important (see paragraphs ?? - ?? below)

The régime for preventing pollution from land-based sources

33. As has been seen, the two régimes established for preventing pollution from dumping and incineration and from offshore activities apply where vessels or offshore installations are involved. The régime under Article 3 and Annex I of the Convention for the prevention of pollution from land-based sources, on the other hand, cannot apply where vessels or offshore installations are involved as a source of inputs.

34. This follows from the definition of a “land-based source”. Article 1(c) defines these “point and diffuse sources on land from which substances or energy reach the maritime area by water, through the air, or directly from the coast.” It goes on to provide that the term “land-based sources” includes:

- a. sources associated with any deliberate disposal under the sea-bed made accessible from land by tunnel, pipeline or other means, and
- b. sources associated with man-made structures placed, in the maritime area under the jurisdiction of a Contracting Party, other than for the purpose of offshore activities.

35. Applying this definition to the other three routes described in paragraph 9, the following conclusions can be derived:

- a. ***a pipeline pure and simple*** – this has to be recognised as a land-based source: if the disposal is into the water column, it is a source from which a substance reaches the maritime area directly from the coast; if the disposal is into the sea-bed or its underground strata, it is a source associated with a deliberate disposal under the sea-bed made accessible from land by pipeline;
- b. ***a pipeline working with an installation in the sea*** – this has to be recognised as a land-based source, provided that the installation in the sea is not being used for the purposes of exploration, appraisal or exploitation of hydrocarbons it is a source associated with a man-made structure placed, in the maritime area under the jurisdiction of a Contracting Party, other than for the purpose of offshore activities.
- c. ***shipment in a vessel for disposal from an installation***: this cannot be recognised as a land-based source, since the means used for transporting the CO₂ to the installation is not a “pipeline, tunnel or other means” (see next paragraph for the reasons for reaching this conclusion). Even if the installation is *not* placed in the maritime area for the purposes of exploring for, appraising or exploiting hydrocarbons, it would appear that the whole procedure would be a “deliberate disposal from a vessel” and would therefore be treated as “dumping” and, as such, would be prohibited. (If the installation were dedicated to oil and gas purposes, then the régime for the protection from pollution from offshore activities would apply, with the same result).

36. The reason why transport by ship to an installation in the sea cannot be treated as an “other means” for the purposes of the definition of “land-based sources” lies in the *ejusdem generis* rule. This rule is summarised as:

“Where general words follow an enumeration of persons or things, by words of a particular and specific meaning, such general words are not to be construed in their widest extent, but are to be held as applying only to persons or things of the same general kind or class as those specifically mentioned.”⁹

Its application to international agreements has been widely recognised¹⁰. Given that approach to interpreting a list concluding with general words, it does not seem possible to treat transport by ship as of the same kind as a link by a tunnel or pipeline. Since the status of a land-based source is restricted to an installation where the substances for disposal reach it by “tunnel, pipeline or other means”, the implication must be that landing waste or other matter from a ship is to be regarded as part of the process of disposal from the ship. Any other reading would mean that the Convention would provide no basis for regulating disposal of this kind, and thus would mean that it would fail to provide the means needed to achieve its general objective of preventing pollution of the maritime area. Since the Convention must be read so that it achieves its declared objective, such a reading must be avoided.

37. It would therefore seem that two – but only two – of the four possible routes described in paragraph 9 should be regarded as land-based sources for the purposes of the OSPAR Convention. These are:

- a. ***a pipeline pure and simple*** – a pipeline taking the CO₂ from the collecting point in the land-based installation and delivering it to the point (in the water column or under the sea-bed) where it is to be placed; and

⁹ Black's Law Dictionary, page 517 (6th ed. 1990)

¹⁰ For example, *McNair*, The Law of Treaties, Oxford 1961, p. 287; International Court of Justice – *Anglo-Iranian Oil Co.* case 1952; Arbitral Commission in the *Ambatielos* case, 6 March 1951 – United Nations Collection of Arbitral Decisions vol. XIII, p. 106

- b. ***a pipeline working with an installation in the sea*** – a pipeline taking the CO₂ from the collecting point in the land-based installation and delivering it to an installation placed in the sea, from where it could then be pumped to the point of placement (in the water column or under the sea-bed).

38. In terms of the OSPAR Convention, there is no prohibition on introducing substances from a land-based source into the marine environment – whether into the water column or into the sea-bed or underground strata underneath it. Such means are therefore permissible for placing CO₂ in the marine environment of the maritime area.

39. However, under Article 3(2) of Annex I, there is a requirement that all discharges and releases that reach and may affect the maritime area shall be strictly subject to authorisation or regulation. Under Article 1(1) of that Annex there is equally a requirement that such authorisation or regulation shall ensure the application of Best Available Techniques and Best Environmental Practice.

40. In setting priorities for programmes and measures under the régime to prevent pollution from land-based sources, two factors (among others) to be considered are transboundary significance and the risk of undesirable changes in the marine ecosystem and irreversibility or durability of effects. Since the placement of CO₂ in the marine environment seems likely to score highly under these factors, if not others, there may be a case for early action to establish appropriate programmes and measures in this field.

Relationship between the régimes for preventing pollution from land-based sources and from offshore activities as far as concerns installations in the sea

41. The régime for the prevention of pollution from offshore activities applies, *inter alia*, to offshore installations – that is to installations “placed within the maritime area for the purpose of offshore activities”. The régime for land-based sources requires that any installations in the maritime area that are used for the discharge or release of substances should be “placed...in the maritime area other than for the purpose of maritime activities”.

42. Given the possible convenience of re-using disused offshore installations and their associated pipelines for the purpose of placing quantities of CO₂ in underground reservoirs that have been emptied of their oil or gas, the questions arise about the relationship between the placement and the purpose.

43. In brief, the question seems to be whether

- a. is the purpose of the placement determined once and for all at the time of the initial placement?
or
- b. can the purpose of the placement of an installation in the maritime area change during the course of its life?

44. If the answer to the former question were “yes”, the purpose of the placement of an offshore installation could never be changed: it would always remain subject to the régime for offshore installations, even if there were no demand for its further use for exploration for, or appraisal or exploitation of oil or gas.

45. The better answer seems to be that the purpose for which an installation is placed in the maritime area can change during the course of its life. Three main reasons can be given for this conclusion:

- a. when the OSPAR Commission in 1998 adopted a Decision, binding on the Contracting Parties, on the disposal of disused offshore installations, it recognised, in the fifth recital, that “reuse, recycling or final disposal on land will generally be the preferred option for the decommissioning of offshore installations in the maritime area”. Reuse implies the possibility of a change in the intended purpose of the use of the installation. It is not inevitable that reuse will be for the purpose of exploring for, appraising or exploiting oil and gas;
- b. it is not sensible to have a situation in which a reused installation remains subject to the régime for offshore activities, while a newly-constructed one (serving exactly the same purpose) is regarded as a land-based source. Article 1(c) of the Convention leaves no doubt that a new installation placed in the maritime area to serve as part of a disposal system connected by a pipeline to a land-based source is to be regarded itself as a land-based source. The only reading of the Convention that makes sense is that an offshore installation which cease to be used for the purpose of offshore activities and is then used for a purpose other than offshore activities is to

be treated on the same basis as an installation newly constructed for the same non-offshore purpose;

- c. a change in use will normally involve some physical change to an offshore installation. For example, parts of the topsides specifically designed for oil or gas purposes may need to be removed and replaced with other equipment. That inevitably raises the question of how long the installation remains the same installation. If the purpose of the initial placement can never be changed, then an answer has to be found to the question of how long an offshore installation, modified for use for a purpose other than offshore activities, remains an offshore installation. The OSPAR Convention cannot have intended the choice of which régime applies to depend on the answer to such an indefinite question.

Relationship with the London Convention 1972

46. All the States that are Contracting Parties to the OSPAR Convention are also Contracting Parties to the 1972 London Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (The London Convention 1972).

47. In 1996, a Protocol to the London Convention was adopted, basically changing the approach from a general requirement for the licensing of all dumping, subject to a prohibition on the dumping of certain substances, to a general prohibition on dumping, subject to the possibility of licensing the dumping of certain categories of thing. For the 1996 Protocol to enter into force, ratification is required by 26 Contracting Parties, of whom at least 16 must be Contracting Parties to the London Convention 1972. So far 16 States have ratified the Protocol, 12 of whom are Contracting Parties to the 1972 Convention. Denmark, Germany, Ireland, Norway, Spain, Sweden, Switzerland and the United Kingdom are the OSPAR Contracting Parties which have so far ratified the 1996 Protocol.

48. Given the close connections between the subject matter of the OSPAR Convention, the London Convention 1972 and the 1996 Protocol, it makes sense to consider whether the obligations of either the 1972 London Convention, or its 1996 Protocol, point to different conclusions from those reached above.

London Convention 1972

49. The position under the London Convention 1972 on the placement of CO₂ in the sea or in or under the sea-bed starts from much the same point as the position under the OSPAR Convention in relation to the régimes for the prevention of pollution from dumping and incineration at sea and from offshore activities:

- a. the definition of dumping is, for present purposes, the same;
- b. the controls apply to dumping from ships and aircraft or from offshore installations.

50. However, the controls imposed are effectively to require a licence – a prohibition on dumping only applies to certain substances which are specifically listed. CO₂ is not one of these.

51. There therefore seems to be nothing in the London Convention 1972 which would constrain an OSPAR Contracting Party from actions to place CO₂ in the maritime area which are permissible under the OSPAR Convention.

1996 Protocol

52. The 1996 Protocol has adopted wider definitions:

- a. "wastes or other matter" means "material and substance of any kind, form or description" (article 1 – 8) – in other words, all questions relating to the status of the material or substance are ruled out of court – there is no need to consider whether the substance is a waste or not;
- b. in addition to the activities that are covered by the 1972 Convention definition (and the OSPAR definition), it also covers "any storage of wastes or other matter in the seabed and the subsoil thereof from vessels, aircraft, platforms or other man-made structures at sea" (Article 1 - 4.1.3) – in other words:
 - i. the use of "storage" (unlike "disposal") removes any question of the intent with which the substance is placed there;
 - ii. the lack of any qualification of "platforms and other man-made structures at sea" includes in the sources covered by "dumping" some sources which, under the OSPAR Convention,

would be treated as “land-based sources”. However, placement from such sources is not treated as “dumping” if it takes the form of release into the water column – it is only when it involves placement into the sea-bed or its subsoil.

53. Under Article 4 – 1.1, there is a general prohibition¹¹ of dumping, with the exception of the seven categories listed in Annex 1:

- 1 dredged material;
- 2 sewage sludge;
- 3 fish waste, or material resulting from industrial fish processing operations;
- 4 vessels and platforms or other man-made structures at sea;
- 5 inert, inorganic geological material;
- 6 organic material of natural origin; and
- 7 bulky items primarily comprising iron, steel, concrete and similarly unarmful materials for which the concern is physical impact, and limited to those circumstances where such wastes are generated at locations, such as small islands with isolated communities, having no practicable access to disposal options other than dumping.

54. The only one of these that would be applicable to CO₂ in the circumstances being considered is “organic material of natural origin”. CO₂ contains carbon, which is usually regarded in chemistry as the test of whether a substance is “organic”. Whether the CO₂ produced as a result of burning fossil fuel is to be regarded as “of natural origin” is a more difficult question. On balance, the phrase seems designed to exclude complex artificial compounds involving carbon (such as organo-halogens). Burning is a natural process, and the products of burning a naturally-occurring substance (such as a fossil fuel) should probably be regarded as being of natural origin.

55. When the 1996 Protocol enters into force, therefore, it would seem that:

- a. there would be nothing to constrain an OSPAR Contracting Party from actions to place CO₂ in the water column in the maritime area which are permissible under the OSPAR Convention;
- b. there could be an argument that actions to place CO₂ in the sea-bed or its subsoil in the maritime area which are permissible under the OSPAR Convention would be in conflict with the 1996 Protocol;
- c. on balance, however, such actions could be regarded as the storage of an organic material of natural origin, and not therefore in conflict with the obligations of the 1996 Protocol.

Conclusions

56. In summary, therefore:

- a. an experiment to improve our knowledge of how CO₂ behaves when released into the water column in the maritime area can be consistent with the requirements of the OSPAR Convention;
- b. the placement of CO₂ in the maritime area for the purposes of disposal, whether in the water column or in the sea-bed and the underground strata beneath it, **is not** consistent with the requirements of the OSPAR Convention if it is done from, or by means of, a ship, an offshore installation or an offshore pipeline (remembering that, for these purposes, an offshore installation and an offshore pipeline is one placed in the maritime area for the purpose of exploring for, appraising or exploiting oil and gas (“offshore activities”));
- c. the placement of CO₂ in the maritime area, whether in the water column or in the sea-bed and the underground strata beneath it, can be consistent with the requirements of the OSPAR Convention if it is done from, or by means of, a pipeline from land, whether or not the placement also involves a man-made structure in the maritime area, provided that that structure is not being used for offshore activities;

¹¹ Subject to a general exception under article 5 for cases of *force majeure*, threats to life or health or to the safety of ships or other maritime installations, or emergencies generally, where no other feasible solution exists.

- d. any placement of CO₂ that is consistent with the OSPAR Convention must be authorised or regulated by the Contracting Party concerned in the light of the general obligations of the Convention;
- e. there is a case for giving priority to the development of programmes and measures to ensure a common approach to the question whether such placements should be permitted, and if so, how they should be authorised or regulated.

57. Although it is not for the Group of Jurists and Linguists to advise on the interpretation of the London Convention 1972 and its 1996 Protocol, attention should be drawn to the fact that careful thought will be needed if it is proposed to authorise a placement of CO₂ in the sea-bed or its sub-soil that could continue after the entry into force of the 1996 Protocol, since there may be doubt whether such placement can be regarded as the placement of an organic material of natural origin (although, on balance, such a placement can probably be regarded as falling in that category).

Appendix RCD
Helsinki Convention (Baltic Sea)

The Helsinki Convention

Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1992 (entered into force on 17 January 2000)

NOTE

The governing body of the Convention is the Helsinki Commission - Baltic Marine Environment Protection Commission - also known as HELCOM. The present contracting parties to HELCOM are Denmark, Estonia, European Community, Finland, Germany, Latvia, Lithuania, Poland, Russia and Sweden. The ratification instruments were deposited by the European Community, Germany, Latvia and Sweden in 1994, by Estonia and Finland in 1995, by Denmark in 1996, by Lithuania in 1997 and by Poland and Russia in November 1999.

Article 1	Convention Area	Article 20	The duties of the Commission
Article 2	Definitions	Article 21	Administrative provisions for the Commission
Article 3	Fundamental principles and obligations	Article 22	Financial provisions for the Commission
Article 4	Application	Article 23	Right to vote
Article 5	Harmful substances	Article 24	Scientific and technological co-operation
Article 6	Principles and obligations concerning pollution from land-based sources	Article 25	Responsibility for damage
Article 7	Environmental impact assessment	Article 26	Settlement of disputes
Article 8	Prevention of pollution from ships	Article 27	Safeguard of certain freedoms
Article 9	Pleasure craft	Article 28	Status of Annexes

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Article 10	Prohibition of incineration	Article 29	Relation to other Conventions
Article 11	Prevention of dumping	Article 30	Conference for the revision or amendment of the Convention
Article 12	Exploration and exploitation of the seabed and its subsoil	Article 31	Amendments to the Articles of the Convention
Article 13	Notification and consultation on pollution incidents	Article 32	Amendments to the Annexes and the adoption of Annexes
Article 14	Co-operation in combatting marine pollution	Article 33	Reservations
Article 15	Nature conservation and biodiversity	Article 34	Signature
Article 16	Reporting and exchange of information	Article 35	Ratification, approval and accession
Article 17	Information to the public	Article 36	Entry into force
Article 18	Protection of information	Article 37	Withdrawal
Article 19	Commission	Article 38	Depositary

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THE CONTRACTING PARTIES,

CONSCIOUS of the indispensable values of the marine environment of the Baltic Sea Area, its exceptional hydrographic and ecological characteristics and the sensitivity of its living resources to changes in the environment;

BEARING in mind the historical and present economic, social and cultural values of the Baltic Sea Area for the well-being and development of the peoples of that region;

NOTING with deep concern the still ongoing pollution of the Baltic Sea Area;

DECLARING their firm determination to assure the ecological restoration of the Baltic Sea, ensuring the possibility of self-regeneration of the marine environment and preservation of its ecological balance;

RECOGNIZING that the protection and enhancement of the marine environment of the Baltic Sea Area are tasks that cannot effectively be accomplished by national efforts alone but by close regional co-operation and other appropriate international measures;

APPRECIATING the achievements in environmental protection within the

framework of the 1974 Convention on the Protection of the Marine Environment of the Baltic Sea Area, and the role of the Baltic Marine Environment Protection Commission therein;

RECALLING the pertinent provisions and principles of the 1972 Declaration of the Stockholm Conference on the Human Environment and the 1975 Final Act of the Conference on Security and Co-operation in Europe (CSCE);

DESIRING to enhance co-operation with competent regional organizations such as the International Baltic Sea Fishery Commission established by the 1973 Gdansk Convention on Fishing and Conservation of the Living Resources in the Baltic Sea and the Belts;

WELCOMING the Baltic Sea Declaration by the Baltic and other interested States, the European Economic Community and co-operating international financial institutions assembled at Ronneby in 1990, and the Joint Comprehensive Programme aimed at a joint action plan in order to restore the Baltic Sea Area to a sound ecological balance;

CONSCIOUS of the importance of transparency and public awareness as well as the work by non-governmental organizations for successful protection of the Baltic Sea Area;

WELCOMING the improved opportunities for closer co-operation which have been opened by the recent political developments in Europe on the basis of peaceful co-operation and mutual understanding;

DETERMINED to embody developments in international environmental policy and environmental law into a new Convention to extend, strengthen and modernize the legal regime for the protection of the Marine Environment of the Baltic Sea Area;

HAVE AGREED as follows:

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Article 1

Convention Area

This Convention shall apply to the Baltic Sea Area. For the purposes of this Convention the "Baltic Sea Area" shall be the Baltic Sea and the entrance to the Baltic Sea bounded by the parallel of the Skaw in the Skagerrak at 57 44.43'N. It includes the internal waters, i.e., for the purpose of this Convention waters on the landward side of the base lines from which the breadth of the territorial sea is measured up to the landward limit according to the designation by the Contracting Parties.

A Contracting Party shall, at the time of the deposit of the instrument of

ratification, approval or accession inform the Depositary of the designation of its internal waters for the purposes of this Convention.

Article 2

Definitions

For the purposes of this Convention:

1. "Pollution" means introduction by man, directly or indirectly, of substances or energy into the sea, including estuaries, which are liable to create hazards to human health, to harm living resources and marine ecosystems, to cause hindrance to legitimate uses of the sea including fishing, to impair the quality for use of sea water, and to lead to a reduction of amenities;

2. "Pollution from land-based sources" means pollution of the sea by point or diffuse inputs from all sources on land reaching the sea waterborne, airborne or directly from the coast. It includes pollution from any deliberate disposal under the seabed with access from land by tunnel, pipeline or other means;

3. "Ship" means a vessel of any type whatsoever operating in the marine environment and includes hydrofoil boats, air-cushion vehicles, submersibles, floating craft and fixed or floating platforms;

4. a) "Dumping" means:

i) any deliberate disposal at sea or into the seabed of wastes or other matter from ships, other man-made structures at sea or aircraft;

ii) any deliberate disposal at sea of ships, other man-made structures at sea or aircraft;

b) "Dumping" does not include:

i) the disposal at sea of wastes or other matter incidental to, or derived from the normal operations of ships, other man-made structures at sea or aircraft and their equipment, other than wastes or other matter transported by or to ships, other man-made structures at sea or aircraft, operating for the purpose of disposal of such matter or derived from the treatment of such wastes or other matter on such ships, structures or aircraft;

ii) placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of the present Convention;

5. "Incineration" means the deliberate combustion of wastes or other matter at sea for the purpose of their thermal destruction. Activities incidental to the normal operation of ships or other man-made structures are excluded from the scope of this definition;

6. "Oil" means petroleum in any form including crude oil, fuel oil, sludge, oil refuse and refined products;
7. "Harmful substance" means any substance, which, if introduced into the sea, is liable to cause pollution;
8. "Hazardous substance" means any harmful substance which due to its intrinsic properties is persistent, toxic or liable to bio-accumulate;
9. "Pollution incident" means an occurrence or series of occurrences having the same origin, which results or may result in a discharge of oil or other harmful substances and which poses or may pose a threat to the marine environment of the Baltic Sea or to the coastline or related interests of one or more Contracting Parties, and which requires emergency actions or other immediate response;
10. "Regional economic integration organization" means any organization constituted by sovereign states, to which their member states have transferred competence in respect of matters governed by this Convention, including the competence to enter into international agreements in respect of these matters;
11. The "Commission" means the Baltic Marine Environment Protection Commission referred to in Article 19.

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Article 3

Fundamental principles and obligations

1. The Contracting Parties shall individually or jointly take all appropriate legislative, administrative or other relevant measures to prevent and eliminate pollution in order to promote the ecological restoration of the Baltic Sea Area and the preservation of its ecological balance.
2. The Contracting Parties shall apply the precautionary principle, i.e., to take preventive measures when there is reason to assume that substances or energy introduced, directly or indirectly, into the marine environment may create hazards to human health, harm living resources and marine ecosystems, damage amenities or interfere with other legitimate uses of the sea even when there is no conclusive evidence of a causal relationship between inputs and their alleged effects.
3. In order to prevent and eliminate pollution of the Baltic Sea Area the Contracting Parties shall promote the use of Best Environmental Practice and Best Available Technology. If the reduction of inputs, resulting from the use of Best Environmental Practice and Best Available Technology, as described in Annex II, does not lead to environmentally acceptable results, additional measures shall be applied.

4. The Contracting Parties shall apply the polluter-pays principle.

5. The Contracting Parties shall ensure that measurements and calculations of emissions from point sources to water and air and of inputs from diffuse sources to water and air are carried out in a scientifically appropriate manner in order to assess the state of the marine environment of the Baltic Sea Area and ascertain the implementation of this Convention.

6. The Contracting Parties shall use their best endeavours to ensure that the implementation of this Convention does not cause transboundary pollution in areas outside the Baltic Sea Area. Furthermore, the relevant measures shall not lead either to unacceptable environmental strains on air quality and the atmosphere or on waters, soil and ground water, to unacceptably harmful or increasing waste disposal, or to increased risks to human health.

Article 4

Application

1. This Convention shall apply to the protection of the marine environment of the Baltic Sea Area which comprises the water-body and the seabed including their living resources and other forms of marine life.

2. Without prejudice to its sovereignty each Contracting Party shall implement the provisions of this Convention within its territorial sea and its internal waters through its national authorities.

3. This Convention shall not apply to any warship, naval auxiliary, military aircraft or other ship and aircraft owned or operated by a state and used, for the time being, only on government non-commercial service.

However, each Contracting Party shall ensure, by the adoption of appropriate measures not impairing the operations or operational capabilities of such ships and aircraft owned or operated by it, that such ships and aircraft act in a manner consistent, so far as is reasonable and practicable, with this Convention.

Article 5

Harmful substances

The Contracting Parties undertake to prevent and eliminate pollution of the marine environment of the Baltic Sea Area caused by harmful substances from all sources, according to the provisions of this Convention and, to this end, to implement the procedures and measures of Annex I.

Article 6

Principles and obligations concerning pollution from land-based sources

1. The Contracting Parties undertake to prevent and eliminate pollution of the Baltic Sea Area from land-based sources by using, inter alia, Best Environmental Practice for all sources and Best Available Technology for point sources. The relevant measures to this end shall be taken by each Contracting Party in the catchment area of the Baltic Sea without prejudice to its sovereignty.

2. The Contracting Parties shall implement the procedures and measures set out in Annex III. To this end they shall, inter alia, as appropriate co-operate in the development and adoption of specific programmes, guidelines, standards or regulations concerning emissions and inputs to water and air, environmental quality, and products containing harmful substances and materials and the use thereof.

3. Harmful substances from point sources shall not, except in negligible quantities, be introduced directly or indirectly into the marine environment of the Baltic Sea Area, without a prior special permit, which may be periodically reviewed, issued by the appropriate national authority in accordance with the principles contained in Annex III, Regulation 3. The Contracting Parties shall ensure that authorized emissions to water and air are monitored and controlled.

4. If the input from a watercourse, flowing through the territories of two or more Contracting Parties or forming a boundary between them, is liable to cause pollution of the marine environment of the Baltic Sea Area, the Contracting Parties concerned shall jointly and, if possible, in co-operation with a third state interested or concerned, take appropriate measures in order to prevent and eliminate such pollution.

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Article 7

Environmental impact assessment

1. Whenever an environmental impact assessment of a proposed activity that is likely to cause a significant adverse impact on the marine environment of the Baltic Sea Area is required by international law or supra-national regulations applicable to the Contracting Party of origin, that Contracting Party shall notify the Commission and any Contracting Party which may be affected by a transboundary impact on the Baltic Sea Area.

2. The Contracting Party of origin shall enter into consultations with any Contracting Party which is likely to be affected by such transboundary impact, whenever consultations are required by international law or supra-national regulations applicable to the Contracting Party of origin.

3. Where two or more Contracting Parties share transboundary waters within the catchment area of the Baltic Sea, these Parties shall cooperate to ensure that potential impacts on the marine environment of the Baltic Sea Area are fully

investigated within the environmental impact assessment referred to in paragraph 1 of this Article. The Contracting Parties concerned shall jointly take appropriate measures in order to prevent and eliminate pollution including cumulative deleterious effects.

Article 8

Prevention of pollution from ships

1. In order to protect the Baltic Sea Area from pollution from ships, the Contracting Parties shall take measures as set out in Annex IV.
 2. The Contracting Parties shall develop and apply uniform requirements for the provision of reception facilities for ship-generated wastes, taking into account, inter alia, the special needs of passenger ships operating in the Baltic Sea Area.
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Article 9

Pleasure craft

The Contracting Parties shall, in addition to implementing those provisions of this Convention which can appropriately be applied to pleasure craft, take special measures in order to abate harmful effects on the marine environment of the Baltic Sea Area caused by pleasure craft activities. The measures shall, inter alia, deal with air pollution, noise and hydrodynamic effects as well as with adequate reception facilities for wastes from pleasure craft.

Article 10

Prohibition of incineration

1. The Contracting Parties shall prohibit incineration in the Baltic Sea Area.
 2. Each Contracting Party undertakes to ensure compliance with the provisions of this Article by ships:
 - a) registered in its territory or flying its flag;
 - b) loading, within its territory or territorial sea, matter which is to be incinerated; or
 - c) believed to be engaged in incineration within its internal waters and territorial sea.
 3. In case of suspected incineration the Contracting Parties shall co-operate in investigating the matter in accordance with Regulation 2 of Annex IV.
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Article 11

Prevention of dumping

1. The Contracting Parties shall, subject to exemptions set forth in paragraphs 2 and 4 of this Article, prohibit dumping in the Baltic Sea Area.
2. Dumping of dredged material shall be subject to a prior special permit issued by the appropriate national authority in accordance with the provisions of Annex V.
3. Each Contracting Party undertakes to ensure compliance with the provisions of this Article by ships and aircraft:
 - a) registered in its territory or flying its flag;
 - b) loading, within its territory or territorial sea, matter which is to be dumped; or
 - c) believed to be engaged in dumping within its internal waters and territorial sea.
4. The provisions of this Article shall not apply when the safety of human life or of a ship or aircraft at sea is threatened by the complete destruction or total loss of the ship or aircraft, or in any case which constitutes a danger to human life, if dumping appears to be the only way of averting the threat and if there is every probability that the damage consequent upon such dumping will be less than would otherwise occur. Such dumping shall be so conducted as to minimize the likelihood of damage to human or marine life.
5. Dumping made under the provisions of paragraph 4 of this Article shall be reported and dealt with in accordance with Annex VII and shall be reported forthwith to the Commission in accordance with the provisions of Regulation 4 of Annex V.
6. In case of dumping suspected to be in contravention of the provisions of this Article the Contracting Parties shall co-operate in investigating the matter in accordance with Regulation 2 of Annex IV.

Article 12

Exploration and exploitation of the seabed and its subsoil

1. Each Contracting Party shall take all measures in order to prevent pollution of the marine environment of the Baltic Sea Area resulting from exploration or exploitation of its part of the seabed and the subsoil thereof or from any associated activities thereon as well as to ensure that adequate preparedness is maintained for immediate response actions against pollution incidents caused by such activities.
2. In order to prevent and eliminate pollution from such activities the Contracting Parties undertake to implement the procedures and measures set out in Annex VI, as far as they are applicable.

Article 13

Notification and consultation on pollution incidents

1. Whenever a pollution incident in the territory of a Contracting Party is likely to cause pollution to the marine environment of the Baltic Sea Area outside its territory and adjacent maritime area in which it exercises sovereign rights and jurisdiction according to international law, this Contracting Party shall notify without delay such Contracting Parties whose interests are affected or likely to be affected.

2. Whenever deemed necessary by the Contracting Parties referred to in paragraph 1, consultations should take place with a view to preventing, reducing and controlling such pollution.

3. Paragraphs 1 and 2 shall also apply in cases where a Contracting Party has sustained such pollution from the territory of a third state.

Article 14

Co-operation in combatting marine pollution

The Contracting Parties shall individually and jointly take, as set out in Annex VII, all appropriate measures to maintain adequate ability and to respond to pollution incidents in order to eliminate or minimize the consequences of these incidents to the marine environment of the Baltic Sea Area.

Article 15

Nature conservation and biodiversity

The Contracting Parties shall individually and jointly take all appropriate measures with respect to the Baltic Sea Area and its coastal ecosystems influenced by the Baltic Sea to conserve natural habitats and biological diversity and to protect ecological processes. Such measures shall also be taken in order to ensure the sustainable use of natural resources within the Baltic Sea Area. To this end, the Contracting Parties shall aim at adopting subsequent instruments containing appropriate guidelines and criteria.

Article 16

Reporting and exchange of information

1. The Contracting Parties shall report to the Commission at regular intervals on:

a) the legal, regulatory, or other measures taken for the implementation of the provisions of this Convention, of its Annexes and of recommendations adopted thereunder;

b) the effectiveness of the measures taken to implement the provisions referred to in sub-paragraph a) of this paragraph; and

c) problems encountered in the implementation of the provisions referred to in sub-paragraph a) of this paragraph.

2. On the request of a Contracting Party or of the Commission, the Contracting Parties shall provide information on discharge permits, emission data or data on environmental quality, as far as available.

Article 17

Information to the public

1. The Contracting Parties shall ensure that information is made available to the public on the condition of the Baltic Sea and the waters in its catchment area, measures taken or planned to be taken to prevent and eliminate pollution and the effectiveness of those measures. For this purpose, the Contracting Parties shall ensure that the following information is made available to the public:

a) permits issued and the conditions required to be met;

b) results of water and effluent sampling carried out for the purposes of monitoring and assessment, as well as results of checking compliance with water-quality objectives or permit conditions; and

c) water-quality objectives.

2. Each Contracting Party shall ensure that this information shall be available to the public at all reasonable times and shall provide members of the public with reasonable facilities for obtaining, on payment of reasonable charges, copies of entries in its registers.

Article 18

Protection of information

1. The provisions of this Convention shall not affect the right or obligation of any Contracting Party under its national law and applicable supra-national regulation to protect information related to intellectual property including industrial and commercial secrecy or national security and the confidentiality of personal data.

2. If a Contracting Party nevertheless decides to supply such protected information to another Contracting Party, the Party receiving such protected information shall respect the confidentiality of the information received and the

conditions under which it is supplied, and shall use that information only for the purposes for which it was supplied.

Article 19

Commission

1. The Baltic Marine Environment Protection Commission, referred to as "the Commission", is established for the purposes of this Convention.
2. The Baltic Marine Environment Protection Commission, established pursuant to the Convention on the Protection of the Marine Environment of the Baltic Sea Area of 1974, shall be the Commission.
3. The chairmanship of the Commission shall be given to each Contracting Party in turn in alphabetical order of the names of the Contracting Parties in the English language. The Chairman shall serve for a period of two years, and cannot during the period of chairmanship serve as a representative of the Contracting Party holding the chairmanship.

Should the chairman fail to complete his term, the Contracting Party holding the chairmanship shall nominate a successor to remain in office until the term of that Contracting Party expires.

4. Meetings of the Commission shall be held at least once a year upon convocation by the Chairman. Extraordinary meetings shall, upon the request of any Contracting Party endorsed by another Contracting Party, be convened by the Chairman to be held as soon as possible, however, not later than ninety days after the date of submission of the request.

5. Unless otherwise provided under this Convention, the Commission shall take its decisions unanimously.

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Article 20

The duties of the Commission

1. The duties of the Commission shall be:
 - a) to keep the implementation of this Convention under continuous observation;
 - b) to make recommendations on measures relating to the purposes of this Convention;
 - c) to keep under review the contents of this Convention including its Annexes and to recommend to the Contracting Parties such amendments to this Convention including its Annexes as may be required including changes in the lists of substances and materials as well as the adoption of new Annexes;

d) to define pollution control criteria, objectives for the reduction of pollution, and objectives concerning measures, particularly those described in Annex III;

e) to promote in close co-operation with appropriate governmental bodies, taking into consideration sub-paragraph f) of this Article, additional measures to protect the marine environment of the Baltic Sea Area and for this purpose:

i) to receive, process, summarize and disseminate relevant scientific, technological and statistical information from available sources; and

ii) to promote scientific and technological research; and

f) to seek, when appropriate, the services of competent regional and other international organizations to collaborate in scientific and technological research as well as other relevant activities pertinent to the objectives of this Convention.

2. The Commission may assume such other functions as it deems appropriate to further the purposes of this Convention.

Article 21

Administrative provisions for the Commission

1. The working language of the Commission shall be English.

2. The Commission shall adopt its Rules of Procedure.

3. The office of the Commission, known as "the Secretariat", shall be in Helsinki.

4. The Commission shall appoint an Executive Secretary and make provisions for the appointment of such other personnel as may be necessary, and determine the duties, terms and conditions of service of the Executive Secretary.

5. The Executive Secretary shall be the chief administrative official of the Commission and shall perform the functions that are necessary for the administration of this Convention, the work of the Commission and other tasks entrusted to the Executive Secretary by the Commission and its Rules of Procedure.

Article 22

Financial provisions for the Commission

1. The Commission shall adopt its Financial Rules.

2. The Commission shall adopt an annual or biennial budget of proposed expenditures and consider budget estimates for the fiscal period following thereafter.

3. The total amount of the budget, including any supplementary budget adopted by the Commission shall be contributed by the Contracting Parties other than the European Economic Community, in equal parts, unless unanimously decided otherwise by the Commission.

4. The European Economic Community shall contribute no more than 2.5% of the administrative costs to the budget.

5. Each Contracting Party shall pay the expenses related to the participation in the Commission of its representatives, experts and advisers.

Article 23

Right to vote

1. Except as provided for in Paragraph 2 of this Article, each Contracting Party shall have one vote in the Commission.

2. The European Economic Community and any other regional economic integration organization, in matters within their competence, shall exercise their right to vote with a number of votes equal to the number of their member states which are Contracting Parties to this Convention. Such organizations shall not exercise their right to vote if their member states exercise theirs, and vice versa.

Article 24

Scientific and technological co-operation

1. The Contracting Parties undertake directly, or when appropriate through competent regional or other international organizations, to co-operate in the fields of science, technology and other research, and to exchange data and other scientific information for the purposes of this Convention. In order to facilitate research and monitoring activities in the Baltic Sea Area the Contracting Parties undertake to harmonize their policies with respect to permission procedures for conducting such activities.

2. Without prejudice to Article 4, paragraph 2 of this Convention the Contracting Parties undertake directly, or when appropriate, through competent regional or other international organizations, to promote studies and to undertake, support or contribute to programmes aimed at developing methods assessing the nature and extent of pollution, pathways, exposures, risks and remedies in the Baltic Sea Area. In particular, the Contracting Parties undertake to develop alternative methods of treatment, disposal and elimination of such matter and substances that are likely to cause pollution of the marine environment of the Baltic Sea Area.

3. Without prejudice to Article 4, Paragraph 2 of this Convention the Contracting Parties undertake directly, or when appropriate through competent regional or other international organizations, and, on the basis of the information

and data acquired pursuant to paragraphs 1 and 2 of this Article, to co-operate in developing inter-comparable observation methods, in performing baseline studies and in establishing complementary or joint programmes for monitoring.

4. The organization and scope of work connected with the implementation of tasks referred to in the preceding paragraphs should primarily be outlined by the Commission.

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Article 25

Responsibility for damage

The Contracting Parties undertake jointly to develop and accept rules concerning responsibility for damage resulting from acts or omissions in contravention of this Convention, including, inter alia, limits of responsibility, criteria and procedures for the determination of liability and available remedies.

Article 26

Settlement of disputes

1. In case of a dispute between Contracting Parties as to the interpretation or application of this Convention, they should seek a solution by negotiation. If the Parties concerned cannot reach agreement they should seek the good offices of or jointly request mediation by a third Contracting Party, a qualified international organization or a qualified person.

2. If the Parties concerned have not been able to resolve their dispute through negotiation or have been unable to agree on measures as described above, such disputes shall be, upon common agreement, submitted to an ad hoc arbitration tribunal, to a permanent arbitration tribunal, or to the International Court of Justice.

Article 27

Safeguard of certain freedoms

Nothing in this Convention shall be construed as infringing upon the freedom of navigation, fishing, marine scientific research and other legitimate uses of the high seas, as well as upon the right of innocent passage through the territorial sea.

Article 28

Status of Annexes

The Annexes attached to this Convention form an integral part of this Convention.

Article 29
Relation to other Conventions

The provisions of this Convention shall be without prejudice to the rights and obligations of the Contracting Parties under existing and future treaties which further and develop the general principles of the Law of the Sea underlying this Convention and, in particular, provisions concerning the prevention of pollution of the marine environment.

Article 30
Conference for the revision or amendment of the
Convention

A conference for the purpose of a general revision of or an amendment to this Convention may be convened with the consent of the Contracting Parties or at the request of the Commission.

Article 31
Amendments to the Articles of the Convention

1. Each Contracting Party may propose amendments to the Articles of this Convention. Any such proposed amendment shall be submitted to the Depositary and communicated by it to all Contracting Parties, which shall inform the Depositary of either their acceptance or rejection of the amendment as soon as possible after receipt of the communication.

A proposed amendment shall, at the request of a Contracting Party, be considered in the Commission. In such a case Article 19 paragraph 4 shall apply. If an amendment is adopted by the Commission, the procedure in paragraph 2 of this Article shall apply.

2. The Commission may recommend amendments to the Articles of this Convention. Any such recommended amendment shall be submitted to the Depositary and communicated by it to all Contracting Parties, which shall notify the Depositary of either their acceptance or rejection of the amendment as soon as possible after receipt of the communication.

3. The amendment shall enter into force ninety days after the Depositary has received notifications of acceptance of that amendment from all Contracting Parties.

Article 32
Amendments to the Annexes and the adoption of Annexes

1. Any amendment to the Annexes proposed by a Contracting Party shall be

communicated to the other Contracting Parties by the Depositary and considered in the Commission. If adopted by the Commission, the amendment shall be communicated to the Contracting Parties and recommended for acceptance.

2. Any amendment to the Annexes recommended by the Commission shall be communicated to the Contracting Parties by the Depositary and recommended for acceptance.

3. Such amendment shall be deemed to have been accepted at the end of a period determined by the Commission unless within that period any one of the Contracting Parties has, by written notification to the Depositary, objected to the amendment. The accepted amendment shall enter into force on a date determined by the Commission.

The period determined by the Commission shall be prolonged for an additional period of six months and the date of entry into force of the amendment postponed accordingly, if, in exceptional cases, any Contracting Party informs the Depositary before the expiration of the period determined by the Commission that, although it intends to accept the amendment, the constitutional requirements for such an acceptance are not yet fulfilled.

4. An Annex to this Convention may be adopted in accordance with the provisions of this Article.

Article 33

Reservations

1. The provisions of this Convention shall not be subject to reservations.

2. The provision of paragraph 1 of this Article does not prevent a Contracting Party from suspending for a period not exceeding one year the application of an Annex of this Convention or part thereof or an amendment thereto after the Annex in question or the amendment thereto has entered into force. Any Contracting Party to the 1974 Convention on the Protection of the Marine Environment of the Baltic Sea Area, which upon the entry into force of this Convention, suspends the application of an Annex or part thereof, shall apply the corresponding Annex or part thereof to the 1974 Convention for the period of suspension.

3. If after the entry into force of this Convention a Contracting Party invokes the provisions of paragraph 2 of this Article it shall inform the other Contracting Parties, at the time of the adoption by the Commission of an amendment to an Annex, or a new Annex, of those provisions which will be suspended in accordance with paragraph 2 of this Article.

Article 34

Signature

This Convention shall be open for signature in Helsinki from 9 April 1992 until 9 October 1992 by States and by the European Economic Community participating in the Diplomatic Conference on the Protection of the Marine Environment of the Baltic Sea Area held in Helsinki on 9 April 1992.

Article 35

Ratification, approval and accession

1. This Convention shall be subject to ratification or approval.
2. This Convention shall, after its entry into force, be open for accession by any other State or regional economic integration organization interested in fulfilling the aims and purposes of this Convention, provided that this State or organization is invited by all the Contracting Parties. In the case of limited competence of a regional economic integration organization, the terms and conditions of its participation may be agreed upon between the Commission and the interested organization.
3. The instruments of ratification, approval or accession shall be deposited with the Depositary.
4. The European Economic Community and any other regional economic integration organization which becomes a Contracting Party to this Convention shall in matters within their competence, on their own behalf, exercise the rights and fulfill the responsibilities which this Convention attributes to their member states. In such cases, the member states of these organizations shall not be entitled to exercise such rights individually.

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Article 36

Entry into force

1. This Convention shall enter into force two months after the deposit of the instruments of ratification or approval by all signatory States bordering the Baltic Sea and by the European Economic Community.
2. For each State which ratifies or approves this Convention before or after the deposit of the last instrument of ratification or approval referred to in paragraph 1 of this Article, this Convention shall enter into force two months after the date of deposit by such State of its instrument of ratification or approval or on the date of the entry into force of this Convention, whichever is the latest date.
3. For each acceding State or regional economic integration organization this Convention shall enter into force two months after the date of deposit by such State or regional economic integration organization of its instrument of accession.

4. Upon entry into force of this Convention the Convention on the Protection of the Marine Environment of the Baltic Sea Area, signed in Helsinki on 22 March 1974 as amended, shall cease to apply.

5. Notwithstanding paragraph 4 of this Article, amendments to the annexes of the said Convention adopted by the Contracting Parties to the said Convention between the signing of this Convention and its entry into force, shall continue to apply until the corresponding annexes of this Convention have been amended accordingly.

6. Notwithstanding paragraph 4 of this Article, recommendations and decisions adopted under the said Convention shall continue to be applicable to the extent that they are compatible with, or not explicitly terminated by this Convention or any decision adopted thereunder.

Article 37

Withdrawal

1. At any time after the expiry of five years from the date of entry into force of this Convention any Contracting Party may, by giving written notification to the Depositary, withdraw from this Convention. The withdrawal shall take effect for such Contracting Party on the thirtieth day of June of the year which follows the year in which the Depositary was notified of the withdrawal.

2. In case of notification of withdrawal by a Contracting Party the Depositary shall convene a meeting of the Contracting Parties for the purpose of considering the effect of the withdrawal.

Article 38

Depositary

The Government of Finland, acting as Depositary, shall:

a) notify all Contracting Parties and the Executive Secretary of:

i) the signatures;

ii) the deposit of any instrument of ratification, approval or accession;

iii) any date of entry into force of this Convention;

iv) any proposed or recommended amendment to any Article or Annex or the adoption of a new Annex as well as the date on which such amendment or new Annex enters into force;

v) any notification, and the date of its receipt, under Articles 31 and 32;

vi) any notification of withdrawal and the date on which such withdrawal takes effect;

vii) any other act or notification relating to this Convention;

b) transmit certified copies of this Convention to acceding States and regional economic integration organizations.

IN WITNESS WHEREOF the undersigned, being duly authorized thereto, have signed this Convention.

DONE at Helsinki, this ninth day of April one thousand nine hundred and ninety two in a single authentic copy in the English language which shall be deposited with the Government of Finland. The Government of Finland shall transmit certified copies to all Signatories.

For the Czech and Slovak Federal Republic

For the Kingdom of Denmark

For the Republic of Estonia

For the Republic of Finland

For the Federal Republic of Germany

For the Republic of Latvia

For the Republic of Lithuania

For the Kingdom of Norway

For the Republic of Poland

For the Russian Federation

For the Kingdom of Sweden

For the European Economic Community

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Appendix RCE
Antarctic Treaty

image map: contains links for home, science, information, going south, environment portals

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The Antarctic Treaty

Full text of the Antarctic Treaty, 1961

[Preamble](#)

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The Governments of Argentina, Australia, Belgium, Chile, the French Republic, Japan, New Zealand, Norway, the Union of South Africa, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America,

Recognizing that it is in the interest of all mankind that Antarctica shall continue for ever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord;

Acknowledging the substantial contributions to scientific knowledge resulting from international cooperation in scientific investigation in Antarctica;

Convinced that the establishment of a firm foundation for the continuation and development of such cooperation on the basis of freedom of scientific investigation in Antarctica as applied during the International Geophysical Year accords with the interests of science and the progress of all mankind;

Convinced also that a treaty ensuring the use of Antarctica for peaceful purposes only and the continuance of

international harmony in Antarctica will further the purposes and principles embodied in the Charter of the United Nations;

Have agreed as follows:

Article I

1. Antarctica shall be used for peaceful purposes only. There shall be prohibited, inter alia, any measure of a military nature, such as the establishment of military bases and fortifications, the carrying out of military manoeuvres, as well as the testing of any type of weapon.
2. The present Treaty shall not prevent the use of military personnel or equipment for scientific research or for any other peaceful purpose.

Article II

Freedom of scientific investigation in Antarctica and cooperation toward that end, as applied during the International Geophysical Year, shall continue, subject to the provisions of the present Treaty.

Article III

1. In order to promote international cooperation in scientific investigation in Antarctica, as provided for in Article II of the present Treaty, the Contracting Parties agree that, to the greatest extent feasible and practicable:
 - a. information regarding plans for scientific programs in Antarctica shall be exchanged to permit maximum economy of and efficiency of operations;
 - b. scientific personnel shall be exchanged in Antarctica between expeditions and stations;
 - c. scientific observations and results from Antarctica shall be exchanged and made freely available.

Article IV

1. Nothing contained in the present Treaty shall be interpreted as:
 - a. a renunciation by any Contracting Party of previously asserted rights of or claims to territorial sovereignty in Antarctica;
 - b. a renunciation or diminution by any Contracting Party of any basis of claim to territorial sovereignty in Antarctica which it may have whether as a result of its activities or those of its nationals in Antarctica, or otherwise;
 - c. prejudicing the position of any Contracting Party as regards its recognition or non-recognition of any other State's rights of or claim or basis of claim to territorial sovereignty in Antarctica.

No acts or activities taking place while the present Treaty is in force shall constitute a basis for asserting, supporting or denying a claim to territorial sovereignty in Antarctica or create any rights of sovereignty in Antarctica. No new claim, or enlargement of an existing claim, to territorial sovereignty in Antarctica shall be asserted while the present Treaty is in force.

Article V

1. Any nuclear explosions in Antarctica and the disposal there of radioactive waste material shall be prohibited.
2. In the event of the conclusion of international agreements concerning the use of nuclear energy, including nuclear explosions and the disposal of radioactive waste material, to which all of the Contracting Parties whose representatives are entitled to participate in the meetings provided for under Article IX are parties, the rules established under such agreements shall apply in Antarctica.

Article VI

The provisions of the present Treaty shall apply to the area south of 60° South Latitude, including all ice shelves, but nothing in the present Treaty shall prejudice or in any way affect the rights, or the exercise of the rights, of any State under international law with regard to the high seas within that area.

Article VII

1. In order to promote the objectives and ensure the observance of the provisions of the present Treaty, each Contracting Party whose representatives are entitled to participate in the meetings referred to in Article IX of the Treaty shall have the right to designate observers to carry out any inspection provided for by the present Article. Observers shall be nationals of the Contracting Parties which designate them. The names of observers shall be communicated to every other Contracting Party having the right to designate observers, and like notice shall be given of the termination of their appointment.
2. Each observer designated in accordance with the provisions of paragraph 1 of this Article shall have complete freedom of access at any time to any or all areas of Antarctica.
3. All areas of Antarctica, including all stations, installations and equipment within those areas, and all ships and aircraft at points of discharging or embarking cargoes or personnel in Antarctica, shall be open at all times to inspection by any observers designated in accordance with paragraph 1 of this Article.
4. Aerial observation may be carried out at any time over any or all areas of Antarctica by any of the Contracting Parties having the right to designate observers.
5. Each Contracting Party shall, at the time when the present Treaty enters into force for it, inform the other Contracting Parties, and thereafter shall give them notice in advance, of
 - a. all expeditions to and within Antarctica, on the part of its ships or nationals, and all expeditions to Antarctica organized in or proceeding from its territory;
 - b. all stations in Antarctica occupied by its nationals; and
 - c. any military personnel or equipment intended to be introduced by it into Antarctica subject to the conditions prescribed in paragraph 2 of Article I of the present Treaty.

Article VIII

1. In order to facilitate the exercise of their functions under the present Treaty, and without prejudice to the respective positions of the Contracting Parties relating to jurisdiction over all other persons in Antarctica, observers designated under paragraph 1 of Article VII and scientific personnel exchanged under subparagraph 1(b) of Article III of the Treaty, and members of the staffs accompanying any such persons, shall be subject only to the jurisdiction of the Contracting Party of which they are nationals in respect of

- all acts or omissions occurring while they are in Antarctica for the purpose of exercising their functions.
2. Without prejudice to the provisions of paragraph 1 of this Article, and pending the adoption of measures in pursuance of subparagraph 1(e) of Article IX, the Contracting Parties concerned in any case of dispute with regard to the exercise of jurisdiction in Antarctica shall immediately consult together with a view to reaching a mutually acceptable solution.

Article IX

1. Representatives of the Contracting Parties named in the preamble to the present Treaty shall meet at the City of Canberra within two months after the date of entry into force of the Treaty, and thereafter at suitable intervals and places, for the purpose of exchanging information, consulting together on matters of common interest pertaining to Antarctica, and formulating and considering, and recommending to their Governments, measures in furtherance of the principles and objectives of the Treaty, including measures regarding:
 - a. use of Antarctica for peaceful purposes only;
 - b. facilitation of scientific research in Antarctica;
 - c. facilitation of international scientific cooperation in Antarctica;
 - d. facilitation of the exercise of the rights of inspection provided for in Article VII of the Treaty;
 - e. questions relating to the exercise of jurisdiction in Antarctica;
 - f. preservation and conservation of living resources in Antarctica.
2. Each Contracting Party which has become a party to the present Treaty by accession under Article XIII shall be entitled to appoint representatives to participate in the meetings referred to in paragraph 1 of the present Article, during such times as that Contracting Party demonstrates its interest in Antarctica by conducting substantial research activity there, such as the establishment of a scientific station or the despatch of a scientific expedition.
3. Reports from the observers referred to in Article VII of the present Treaty shall be transmitted to the representatives of the Contracting Parties participating in the meetings referred to in paragraph 1 of the present Article.
4. The measures referred to in paragraph 1 of this Article shall become effective when approved by all the Contracting Parties whose representatives were entitled to participate in the meetings held to consider those measures.
5. Any or all of the rights established in the present Treaty may be exercised as from the date of entry into force of the Treaty whether or not any measures facilitating the exercise of such rights have been proposed, considered or approved as provided in this Article.

Article X

Each of the Contracting Parties undertakes to exert appropriate efforts, consistent with the Charter of the United Nations, to the end that no one engages in any activity in Antarctica contrary to the principles or purposes of the present Treaty.

Article XI

1. If any dispute arises between two or more of the Contracting Parties concerning the interpretation or application of the present Treaty, those Contracting Parties shall consult among themselves with a view to

having the dispute resolved by negotiation, inquiry, mediation, conciliation, arbitration, judicial settlement or other peaceful means of their own choice.

2. Any dispute of this character not so resolved shall, with the consent, in each case, of all parties to the dispute, be referred to the International Court of Justice for settlement; but failure to reach agreement on reference to the International Court shall not absolve parties to the dispute from the responsibility of continuing to seek to resolve it by any of the various peaceful means referred to in paragraph 1 of this Article.

Article XII

- a. The present Treaty may be modified or amended at any time by unanimous agreement of the Contracting Parties whose representatives are entitled to participate in the meetings provided for under Article IX. Any such modification or amendment shall enter into force when the depositary Government has received notice from all such Contracting Parties that they have ratified it.
- b. Such modification or amendment shall thereafter enter into force as to any other Contracting Party when notice of ratification by it has been received by the depositary Government. Any such Contracting Party from which no notice of ratification is received within a period of two years from the date of entry into force of the modification or amendment in accordance with the provision of subparagraph 1(a) of this Article shall be deemed to have withdrawn from the present Treaty on the date of the expiration of such period.
- a. If after the expiration of thirty years from the date of entry into force of the present Treaty, any of the Contracting Parties whose representatives are entitled to participate in the meetings provided for under Article IX so requests by a communication addressed to the depositary Government, a Conference of all the Contracting Parties shall be held as soon as practicable to review the operation of the Treaty.
- b. Any modification or amendment to the present Treaty which is approved at such a Conference by a majority of the Contracting Parties there represented, including a majority of those whose representatives are entitled to participate in the meetings provided for under Article IX, shall be communicated by the depositary Government to all Contracting Parties immediately after the termination of the Conference and shall enter into force in accordance with the provisions of paragraph 1 of the present Article
- c. If any such modification or amendment has not entered into force in accordance with the provisions of subparagraph 1(a) of this Article within a period of two years after the date of its communication to all the Contracting Parties, any Contracting Party may at any time after the expiration of that period give notice to the depositary Government of its withdrawal from the present Treaty; and such withdrawal shall take effect two years after the receipt of the notice by the depositary Government.

Article XIII

1. The present Treaty shall be subject to ratification by the signatory States. It shall be open for accession by any State which is a Member of the United Nations, or by any other State which may be invited to accede to the Treaty with the consent of all the Contracting Parties whose representatives are entitled to participate in the meetings provided for under Article IX of the Treaty.
2. Ratification of or accession to the present Treaty shall be effected by each State in accordance with its constitutional processes.

3. Instruments of ratification and instruments of accession shall be deposited with the Government of the United States of America, hereby designated as the depositary Government.
4. The depositary Government shall inform all signatory and acceding States of the date of each deposit of an instrument of ratification or accession, and the date of entry into force of the Treaty and of any modification or amendment thereto.
5. Upon the deposit of instruments of ratification by all the signatory States, the present Treaty shall enter into force for those States and for States which have deposited instruments of accession. Thereafter the Treaty shall enter into force for any acceding State upon the deposit of its instruments of accession.
6. The present Treaty shall be registered by the depositary Government pursuant to Article 102 of the Charter of the United Nations.

Article XIV

The present Treaty, done in the English, French, Russian and Spanish languages, each version being equally authentic, shall be deposited in the archives of the Government of the United States of America, which shall transmit duly certified copies thereof to the Governments of the signatory and acceding States.

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Appendix RCF
Madrid Protocol to the Antarctic Treaty

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Introducing the Madrid Protocol

Protocol on Environmental Protection to the Antarctic Treaty (The Madrid Protocol)

The [Madrid Protocol](#) was adopted in 1991 in response to proposals that the wide range of provisions relating to protection of the Antarctic environment should be harmonised in a comprehensive and legally binding form. It draws on and updates the Agreed Measures as well as subsequent Treaty meeting recommendations relating to protection of the environment.

The Protocol:

- designates Antarctica as a 'natural reserve, devoted to peace and science'
- establishes environmental principles for the conduct of all activities
- prohibits mining
- subjects all activities to prior assessment of their environmental impacts
- provides for the establishment of a Committee for Environmental Protection, to advise the ATCM
- requires the development of contingency plans to respond to environmental emergencies
- provides for the elaboration of rules relating to liability for environmental damage.

The Protocol is also accompanied by Annexes that detail specific measures and procedures relating to:

1. ANNEX I: Environmental impact assessment -- activities are assessed on whether they have a minor or transitory impact on the environment. At the highest level of impact a Comprehensive Environment Evaluation must be prepared and opportunity provided for the Committee for Environmental Protection and other Consultative Parties to comment on the proposal.
2. ANNEX II: Conservation of Antarctic fauna and flora -- Annex II updates the existing rules relating to protection of animals and plants (requiring a permit for interference with them) and relating to the introduction of non-indigenous organisms.
3. ANNEX III: Waste disposal and waste management -- this Annex specifies wastes that may be disposed of within Antarctica and wastes that must be removed. It also provides rules relating to the disposal of human waste and the use of incinerators. The Annex requires the development of waste management plans. Particularly harmful products such as PCBs, polystyrene packaging beads and pesticides are prohibited in the Antarctic.
4. ANNEX IV: Prevention of marine pollution -- the discharge of substances from ships, including oily

mixtures and garbage is regulated, as is the disposal of ship-generated sewage. The Annex adopts practices broadly consistent with those applying in the relevant annexes of MARPOL. Disposal at sea of any plastics is prohibited.

5. ANNEX V: Management of protected areas-- Annex V establishes a revised protected area system that integrates the previous categories of protected areas into Antarctic Specially Protected Areas (entry to which requires a permit) and Antarctic Specially Managed Areas. Management plans apply to both categories. The protected area system also provides for the designation of historic sites and monuments, which must not be damaged or removed.

Background to the Madrid Protocol

The negotiation of the Protocol followed many years of international negotiations on controlling potential mineral resource activities in Antarctica. The underlying assumption of the Antarctic Minerals Convention, adopted in June 1988 by a Special Antarctic Treaty Consultative Meeting in Wellington (NZ), was that it may be possible for mining to be consistent with the protection of the antarctic environment. This assumption, however, became subject to increasing questioning.

The Australian - French proposal

On 22 May 1989 the then Australian Prime Minister, Mr Hawke, announced that Australia was opposed to mining in Antarctica and would not sign the Minerals Convention. Mr Hawke said the Government believed that it was both desirable and possible to seek stronger protection for Antarctica. Australia would therefore work within the framework of the Antarctic Treaty system to obtain consensus among Consultative Parties on the establishment of a comprehensive environment protection regime for Antarctica which prohibited mining.

The initiative became a joint one with the then Prime Minister of France, Mr Rocard, in August 1989. The Prime Ministers said that they saw mining in Antarctica as incompatible with protection of the antarctic environment, and that the specific role of the Antarctic in monitoring global changes, as well as the region's fragility, called for a comprehensive regime to protect the antarctic environment and associated ecosystems.

At the Fifteenth Antarctic Treaty Consultative Meeting in Paris in October 1989, Parties to the Treaty agreed to hold a Special Consultative Meeting during 1990 to consider proposals for comprehensive protection of the Antarctic environment.

11th Special Consultative Meeting

The Protocol was negotiated in just under a year during four sessions of the 11th Antarctic Treaty Special Consultative Meeting. The first of these sessions was in Viña del Mar, Chile, in November and December 1990. Three further sessions were held in Madrid in April, June and October 1991. The Protocol was adopted on 4 October 1991 and was signed by all Antarctic Treaty Consultative Parties within the year it was open for signature.

Entry into force

The Madrid Protocol entered into force on 14 January 1998 following the deposit of instruments of ratification,

acceptance, approval or accession by all the states which were Consultative Parties on 4 October 1991. During the intervening period each Party had particular domestic requirements to meet before the instruments could be deposited. In Australia's case, legislation had to be developed to provide a basis for legally enforcing the provisions of the Protocol and its annexes. The key Australian legislation to implement the Protocol received Royal Assent on 11 December 1992 and subsidiary regulations were completed in March 1994 allowing Australia to ratify the Protocol on 6 April 1994.

Environmental principles of the Madrid Protocol

The Protocol provides that protection of the Antarctic environment and dependent and associated ecosystems and the intrinsic value of Antarctica must be fundamental considerations in the planning and conduct of all human activities in Antarctica. With this aim, all such activities are to be planned and conducted so as to:

- limit adverse impacts on the antarctic environment; and

- avoid
 - adverse effects on climate or weather patterns;
 - significant adverse effects on air or water quality;
 - significant changes in the atmospheric, terrestrial (including aquatic), glacial or marine environments;
 - detrimental changes in the distribution, abundance or productivity of species or populations of species of fauna and flora;
 - further jeopardy to endangered or threatened species; or
 - degradation of, or substantial risk to, areas of biological, scientific, historic, aesthetic or wilderness significance;

and

- accord priority to preserving the value of Antarctica for scientific research.

The environmental principles in the Protocol also include requirements for:

- prior assessment of the environmental impacts of all activities: and
- regular and effective monitoring to assess predicted impacts and to detect unforeseen impacts.

Annexes to the Protocol

Four annexes which supplement the Protocol were also negotiated at the Madrid meetings. These annexes relate to environmental impact assessment (Annex I), conservation of Antarctic fauna and flora (Annex II), waste disposal and waste management (Annex III) and prevention of marine pollution (Annex IV). At the 16th Antarctic Treaty Consultative Meeting, held in Bonn in October 1991, a further annex (Annex V) was negotiated on area protection and management. Parties have commenced work on an additional annex covering liability for environmental damage.

Mining prohibition

The Madrid Protocol prohibits mining. The ban is of indefinite duration and strict rules for modifying the ban are provided. In brief, the prohibition can be modified at any time if all parties agree. If requested, after 50 years a review conference may decide to modify the mining prohibition, provided that at least 3/4 of the current Consultative Parties agree, a legal regime for controlling mining is in force, and the sovereign interests of parties are safeguarded. Consistent with the Antarctic Treaty, a party may choose to withdraw from the Protocol if a modification so agreed does not subsequently enter into force.

Australia has been in a leading nation in implementing the Protocol (for full text [see separate section](#)).

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Appendix RCG
Convention on the Conservation of Antarctic
Marine Living Resources

**CONVENTION ON THE CONSERVATION OF
ANTARCTIC MARINE LIVING RESOURCES**

The Contracting Parties,

RECOGNISING the importance of safeguarding the environment and protecting the integrity of the ecosystem of the seas surrounding Antarctica;

NOTING the concentration of marine living resources found in Antarctic waters and the increased interest in the possibilities offered by the utilisation of these resources as a source of protein;

CONSCIOUS of the urgency of ensuring the conservation of Antarctic marine living resources;

CONSIDERING that it is essential to increase knowledge of the Antarctic marine ecosystem and its components so as to be able to base decisions on harvesting on sound scientific information;

BELIEVING that the conservation of Antarctic marine living resources calls for international co-operation with due regard for the provisions of the Antarctic Treaty and with the active involvement of all States engaged in research or harvesting activities in Antarctic waters;

RECOGNISING the prime responsibilities of the Antarctic Treaty Consultative Parties for the protection and preservation of the Antarctic environment and, in particular, their responsibilities under Article IX, paragraph 1(f) of the Antarctic Treaty in respect of the preservation and conservation of living resources in Antarctica;

RECALLING the action already taken by the Antarctic Treaty Consultative Parties including in particular the Agreed Measures for the Conservation of Antarctic Fauna and Flora, as well as the provisions of the Convention for the Conservation of Antarctic Seals;

BEARING in mind the concern regarding the conservation of Antarctic marine living resources expressed by the Consultative Parties at the Ninth Consultative Meeting of the Antarctic Treaty and the importance of the provisions of Recommendation IX-2 which led to the establishment of the present Convention;

Convention

BELIEVING that it is in the interest of all mankind to preserve the waters surrounding the Antarctic continent for peaceful purposes only and to prevent their becoming the scene or object of international discord;

RECOGNISING, in the light of the foregoing, that it is desirable to establish suitable machinery for recommending, promoting, deciding upon and co-ordinating the measures and scientific studies needed to ensure the conservation of Antarctic marine living organisms;

HAVE AGREED as follows:

ARTICLE I

1. This Convention applies to the Antarctic marine living resources of the area south of 60° South latitude and to the Antarctic marine living resources of the area between that latitude and the Antarctic Convergence which form part of the Antarctic marine ecosystem.

2. Antarctic marine living resources means the populations of fin fish, molluscs, crustaceans and all other species of living organisms, including birds, found south of the Antarctic Convergence.

3. The Antarctic marine ecosystem means the complex of relationships of Antarctic marine living resources with each other and with their physical environment.

4. The Antarctic Convergence shall be deemed to be a line joining the following points along parallels of latitude and meridians of longitude:

50°S, 0°; 50°S, 30°E; 45°S, 30°E; 45°S, 80°E; 55°S, 80°E; 55°S, 150°E; 60°S, 150°E; 60°S, 50°W; 50°S, 50°W; 50°S, 0°.

ARTICLE II

1. The objective of this Convention is the conservation of Antarctic marine living resources.

2. For the purposes of this Convention, the term 'conservation' includes rational use.

3. Any harvesting and associated activities in the area to which this Convention applies shall be conducted in accordance with the provisions of this Convention and with the following principles of conservation:

- (a) prevention of decrease in the size of any harvested population to levels below those which ensure its stable recruitment. For this purpose its size should not be allowed to fall below a level close to that which ensures the greatest net annual increment;
- (b) maintenance of the ecological relationships between harvested, dependent and related populations of Antarctic marine living resources and the restoration of depleted populations to the levels defined in sub-paragraph (a) above; and
- (c) prevention of changes or minimisation of the risk of changes in the marine ecosystem which are not potentially reversible over two or three decades, taking into account the state of available knowledge of the direct and indirect impact of harvesting, the effect of the introduction of alien species, the effects of associated activities on the marine ecosystem and of the effects of environmental changes, with the aim of making possible the sustained conservation of Antarctic marine living resources.

ARTICLE III

The Contracting Parties, whether or not they are Parties to the Antarctic Treaty, agree that they will not engage in any activities in the Antarctic Treaty area contrary to the principles and purposes of that Treaty and that, in their relations with each other, they are bound by the obligations contained in Articles I and V of the Antarctic Treaty.

ARTICLE IV

1. With respect to the Antarctic Treaty area, all Contracting Parties, whether or not they are Parties to the Antarctic Treaty, are bound by Articles IV and VI of the Antarctic Treaty in their relations with each other.

2. Nothing in this Convention and no acts or activities taking place while the present Convention is in force shall:

Convention

- (a) constitute a basis for asserting, supporting or denying a claim to territorial sovereignty in the Antarctic Treaty area or create any rights of sovereignty in the Antarctic Treaty area;
- (b) be interpreted as a renunciation or diminution by any Contracting Party of, or as prejudicing, any right or claim or basis of claim to exercise coastal state jurisdiction under international law within the area to which this Convention applies;
- (c) be interpreted as prejudicing the position of any Contracting Party as regards its recognition or non-recognition of any such right, claim or basis of claim;
- (d) affect the provision of Article IV, paragraph 2, of the Antarctic Treaty that no new claim, or enlargement of an existing claim, to territorial sovereignty in Antarctica shall be asserted while the Antarctic Treaty is in force.

ARTICLE V

1. The Contracting Parties which are not Parties to the Antarctic Treaty acknowledge the special obligations and responsibilities of the Antarctic Treaty Consultative Parties for the protection and preservation of the environment of the Antarctic Treaty area.

2. The Contracting Parties which are not Parties to the Antarctic Treaty agree that, in their activities in the Antarctic Treaty area, they will observe as and when appropriate the Agreed Measures for the Conservation of Antarctic Fauna and Flora and such other measures as have been recommended by the Antarctic Treaty Consultative Parties in fulfilment of their responsibility for the protection of the Antarctic environment from all forms of harmful human interference.

3. For the purposes of this Convention, 'Antarctic Treaty Consultative Parties' means the Contracting Parties to the Antarctic Treaty whose Representatives participate in meetings under Article IX of the Antarctic Treaty.

ARTICLE VI

Nothing in this Convention shall derogate from the rights and obligations of Contracting Parties under the International Convention for the Regulation of Whaling and the Convention for the Conservation of Antarctic Seals.

ARTICLE VII

1. The Contracting Parties hereby establish and agree to maintain the Commission for the Conservation of Antarctic Marine Living Resources (hereinafter referred to as 'the Commission').

2. Membership in the Commission shall be as follows:

- (a) each Contracting Party which participated in the meeting at which this Convention was adopted shall be a Member of the Commission;
- (b) each State Party which has acceded to this Convention pursuant to Article XXIX shall be entitled to be a Member of the Commission during such time as that acceding Party is engaged in research or harvesting activities in relation to the marine living resources to which this Convention applies;
- (c) each regional economic integration organisation which has acceded to this Convention pursuant to Article XXIX shall be entitled to be a Member of the Commission during such time as its States members are so entitled;
- (d) a Contracting Party seeking to participate in the work of the Commission pursuant to sub-paragraphs (b) and (c) above shall notify the Depositary of the basis upon which it seeks to become a Member of the Commission and of its willingness to accept conservation measures in force. The Depositary shall communicate to each Member of the Commission such notification and accompanying information. Within two months of receipt of such communication from the Depositary, any Member of the Commission may request that a special meeting of the Commission be held to consider the matter. Upon receipt of such request, the Depositary shall call such a meeting. If there is no request for a meeting, the Contracting Party submitting the notification shall be deemed to have satisfied the requirements for Commission Membership.

Convention

3. Each Member of the Commission shall be represented by one representative who may be accompanied by alternate representatives and advisers.

ARTICLE VIII

The Commission shall have legal personality and shall enjoy in the territory of each of the States Parties such legal capacity as may be necessary to perform its function and achieve the purposes of this Convention. The privileges and immunities to be enjoyed by the Commission and its staff in the territory of a State Party shall be determined by agreement between the Commission and the State Party concerned.

ARTICLE IX

1. The function of the Commission shall be to give effect to the objective and principles set out in Article II of this Convention. To this end, it shall:

- (a) facilitate research into and comprehensive studies of Antarctic marine living resources and of the Antarctic marine ecosystem;
- (b) compile data on the status of and changes in population of Antarctic marine living resources and on factors affecting the distribution, abundance and productivity of harvested species and dependent or related species or populations;
- (c) ensure the acquisition of catch and effort statistics on harvested populations;
- (d) analyse, disseminate and publish the information referred to in sub-paragraphs (b) and (c) above and the reports of the Scientific Committee;
- (e) identify conservation needs and analyse the effectiveness of conservation measures;
- (f) formulate, adopt and revise conservation measures on the basis of the best scientific evidence available, subject to the provisions of paragraph 5 of this Article;

- (g) implement the system of observation and inspection established under Article XXIV of this Convention;
 - (h) carry out such other activities as are necessary to fulfil the objective of this Convention.
2. The conservation measures referred to in paragraph 1(f) above include the following:
- (a) the designation of the quantity of any species which may be harvested in the area to which this Convention applies;
 - (b) the designation of regions and sub-regions based on the distribution of populations of Antarctic marine living resources;
 - (c) the designation of the quantity which may be harvested from the populations of regions and sub-regions;
 - (d) the designation of protected species;
 - (e) the designation of the size, age and, as appropriate, sex of species which may be harvested;
 - (f) the designation of open and closed seasons for harvesting;
 - (g) the designation of the opening and closing of areas, regions or sub-regions for purposes of scientific study or conservation, including special areas for protection and scientific study;
 - (h) regulation of the effort employed and methods of harvesting, including fishing gear, with a view, inter alia, to avoiding undue concentration of harvesting in any region or sub-region;
 - (i) the taking of such other conservation measures as the Commission considers necessary for the fulfilment of the objective of this Convention, including measures concerning the effects of harvesting and associated activities on components of the marine ecosystem other than the harvested populations.

Convention

3. The Commission shall publish and maintain a record of all conservation measures in force.

4. In exercising its functions under paragraph 1 above, the Commission shall take full account of the recommendations and advice of the Scientific Committee.

5. The Commission shall take full account of any relevant measures or regulations established or recommended by the Consultative Meetings pursuant to Article IX of the Antarctic Treaty or by existing fisheries commissions responsible for species which may enter the area to which this Convention applies, in order that there shall be no inconsistency between the rights and obligations of a Contracting Party under such regulations or measures and conservation measures which may be adopted by the Commission.

6. Conservation measures adopted by the Commission in accordance with this Convention shall be implemented by Members of the Commission in the following manner:

- (a) the Commission shall notify conservation measures to all Members of the Commission;
- (b) conservation measures shall become binding upon all Members of the Commission 180 days after such notification, except as provided in subparagraphs (c) and (d) below;
- (c) if a Member of the Commission, within ninety days following the notification specified in sub-paragraph (a), notifies the Commission that it is unable to accept the conservation measure, in whole or in part, the measure shall not, to the extent stated, be binding upon that Member of the Commission;
- (d) in the event that any Member of the Commission invokes the procedure set forth in sub-paragraph (c) above, the Commission shall meet at the request of any Member of the Commission to review the conservation measure. At the time of such meeting and within thirty days following the meeting, any Member of the Commission shall have the right to declare that it is no longer able to accept the conservation measure, in which case the Member shall no longer be bound by such a measure.

ARTICLE X

1. The Commission shall draw the attention of any State which is not a Party to this Convention to any activity undertaken by its nationals or vessels which, in the opinion of the Commission, affects the implementation of the objective of this Convention.
2. The Commission shall draw the attention of all Contracting Parties to any activity which, in the opinion of the Commission, affects the implementation by a Contracting Party of the Objective of this Convention or the compliance by that Contracting Party with its obligations under this Convention.

ARTICLE XI

The Commission shall seek to co-operate with Contracting Parties which may exercise jurisdiction in marine areas adjacent to the area to which this Convention applies in respect of the conservation of any stock or stocks of associated species which occur both within those areas and the area to which this Convention applies, with a view to harmonising the conservation measures adopted in respect of such stocks.

ARTICLE XII

1. Decisions of the Commission on matters of substance shall be taken by consensus. The question of whether a matter is one of substance shall be treated as a matter of substance.
2. Decisions on matters other than those referred to in paragraph 1 above shall be taken by a simple majority of the Members of the Commission present and voting.
3. In Commission consideration of any item requiring a decision, it shall be made clear whether a regional economic integration organisation will participate in the taking of the decision and, if so, whether any of its member States will also participate. The number of Contracting Parties so participating shall not exceed the number of member States of the regional economic integration organisation which are Members of the Commission.
4. In the taking of decisions pursuant to this Article, a regional economic integration organisation shall have only one vote.

Convention

ARTICLE XIII

1. The headquarters of the Commission shall be established at Hobart, Tasmania, Australia.
2. The Commission shall hold a regular annual meeting. Other meetings shall also be held at the request of one-third of its Members and as otherwise provided in this Convention. The first meeting of the Commission shall be held within three months of the entry into force of this Convention, provided that among the Contracting Parties there are at least two States conducting harvesting activities within the area to which this Convention applies. The first meeting shall, in any event, be held within one year of the entry into force of this Convention. The Depositary shall consult with the signatory States regarding the first Commission meeting, taking into account that a broad representation of such States is necessary for the effective operation of the Commission.
3. The Depositary shall convene the first meeting of the Commission at the headquarters of the Commission. Thereafter, meetings of the Commission shall be held at its headquarters, unless it decides otherwise.
4. The Commission shall elect from among its Members a Chairman and Vice-Chairman, each of whom shall serve for a term of two years and shall be eligible for re-election for one additional term. The first Chairman shall, however, be elected for an initial term of three years. The Chairman and Vice-Chairman shall not be representatives of the same Contracting Party.
5. The Commission shall adopt and amend as necessary the rules of procedure for the conduct of its meetings, except with respect to the matters dealt with in Article XII of this Convention.
6. The Commission may establish such subsidiary bodies as are necessary for the performance of its functions.

ARTICLE XIV

1. The Contracting Parties hereby establish the Scientific Committee for the Conservation of Antarctic Marine Living Resources (hereinafter referred to as 'the Scientific Committee') which shall be a consultative body to the Commission. The Scientific Committee shall

normally meet at the headquarters of the Commission unless the Scientific Committee decides otherwise.

2. Each Member of the Commission shall be a Member of the Scientific Committee and shall appoint a representative with suitable scientific qualifications who may be accompanied by other experts and advisers.

3. The Scientific Committee may seek the advice of other scientists and experts as may be required on an *ad hoc* basis.

ARTICLE XV

1. The Scientific Committee shall provide a forum for consultation and co-operation concerning the collection, study and exchange of information with respect to the marine living resources to which this Convention applies. It shall encourage and promote co-operation in the field of scientific research in order to extend knowledge of the marine living resources of the Antarctic marine ecosystem.

2. The Scientific Committee shall conduct such activities as the Commission may direct in pursuance of the objective of this Convention and shall:

- (a) establish criteria and methods to be used for determinations concerning the conservation measures referred to in Article IX of this Convention;
- (b) regularly assess the status and trends of the populations of Antarctic marine living resources;
- (c) analyse data concerning the direct and indirect effects of harvesting on the populations of Antarctic marine living resources;
- (d) assess the effects of proposed changes in the methods or levels of harvesting and proposed conservation measures;
- (e) transmit assessments, analyses, reports and recommendations to the Commission as requested or on its own initiative regarding measures and research to implement the objective of this Convention;

Convention

- (f) formulate proposals for the conduct of international and national programs of research into Antarctic marine living resources.

3. In carrying out its functions, the Scientific Committee shall have regard to the work of other relevant technical and scientific organisations and to the scientific activities conducted within the framework of the Antarctic Treaty.

ARTICLE XVI

1. The first meeting of the Scientific Committee shall be held within three months of the first meeting of the Commission. The Scientific Committee shall meet thereafter as often as may be necessary to fulfil its functions.

2. The Scientific Committee shall adopt and amend as necessary its rules of procedure. The rules and any amendments thereto shall be approved by the Commission. The rules shall include procedures for the presentation of minority reports.

3. The Scientific Committee may establish, with the approval of the Commission, such subsidiary bodies as are necessary for the performance of its functions.

ARTICLE XVII

1. The Commission shall appoint an Executive Secretary to serve the Commission and Scientific Committee according to such procedures and on such terms and conditions as the Commission may determine. His term of office shall be for four years and he shall be eligible for re-appointment.

2. The Commission shall authorise such staff establishment for the Secretariat as may be necessary and the Executive Secretary shall appoint, direct and supervise such staff according to such rules, and procedures and on such terms and conditions as the Commission may determine.

3. The Executive Secretary and Secretariat shall perform the functions entrusted to them by the Commission.

ARTICLE XVIII

The official languages of the Commission and of the Scientific Committee shall be English, French, Russian and Spanish.

ARTICLE XIX

1. At each annual meeting, the Commission shall adopt by consensus its budget and the budget of the Scientific Committee.

2. A draft budget for the Commission and the Scientific Committee and any subsidiary bodies shall be prepared by the Executive Secretary and submitted to the Members of the Commission at least sixty days before the annual meeting of the Commission.

3. Each Member of the Commission shall contribute to the budget. Until the expiration of five years after the entry into force of this Convention, the contribution of each Member of the Commission shall be equal. Thereafter the contribution shall be determined in accordance with two criteria: the amount harvested and an equal sharing among all Members of the Commission. The Commission shall determine by consensus the proportion in which these two criteria shall apply.

4. The financial activities of the Commission and Scientific Committee shall be conducted in accordance with financial regulations adopted by the Commission and shall be subject to an annual audit by external auditors selected by the Commission.

5. Each Member of the Commission shall meet its own expenses arising from the attendance at meetings of the Commission and of the Scientific Committee.

6. A Member of the Commission that fails to pay its contributions for two consecutive years shall not, during the period of its default, have the right to participate in the taking of decisions in the Commission.

Convention

ARTICLE XX

1. The Members of the Commission shall, to the greatest extent possible, provide annually to the Commission and to the Scientific Committee such statistical, biological and other data and information as the Commission and Scientific Committee may require in the exercise of their functions.
2. The Members of the Commission shall provide, in the manner and at such intervals as may be prescribed, information about their harvesting activities, including fishing areas and vessels, so as to enable reliable catch and effort statistics to be compiled.
3. The Members of the Commission shall provide to the Commission at such intervals as may be prescribed information on steps taken to implement the conservation measures adopted by the Commission.
4. The Members of the Commission agree that in any of their harvesting activities, advantage shall be taken of opportunities to collect data needed to assess the impact of harvesting.

ARTICLE XXI

1. Each Contracting Party shall take appropriate measures within its competence to ensure compliance with the provisions of this Convention and with conservation measures adopted by the Commission to which the Party is bound in accordance with Article IX of this Convention.
2. Each Contracting Party shall transmit to the Commission information on measures taken pursuant to paragraph 1 above, including the imposition of sanctions for any violation.

ARTICLE XXII

1. Each Contracting Party undertakes to exert appropriate efforts, consistent with the Charter of the United Nations, to the end that no one engages in any activity contrary to the objective of this Convention.
2. Each Contracting Party shall notify the Commission of any such activity which comes to its attention.

ARTICLE XXIII

1. The Commission and the Scientific Committee shall co-operate with the Antarctic Treaty Consultative Parties on matters falling within the competence of the latter.
2. The Commission and the Scientific Committee shall co-operate, as appropriate, with the Food and Agriculture Organisation of the United Nations and with other Specialised Agencies.
3. The Commission and the Scientific Committee shall seek to develop co-operative working relationships, as appropriate, with inter-governmental and nongovernmental organisations which could contribute to their work, including the Scientific Committee on Antarctic Research, the Scientific Committee on Oceanic Research and the International Whaling Commission.
4. The Commission may enter into agreements with the organisations referred to in this Article and with other organisations as may be appropriate. The Commission and the Scientific Committee may invite such organisations to send observers to their meetings and to meetings of their subsidiary bodies.

ARTICLE XXIV

1. In order to promote the objective and ensure observance of the provisions of this Convention, the Contracting Parties agree that a system of observation and inspection shall be established.
2. The system of observation and inspection shall be elaborated by the Commission on the basis of the following principles:
 - (a) Contracting Parties shall co-operate with each other to ensure the effective implementation of the system of observation and inspection, taking account of the existing international practice. This system shall include, inter alia, procedures for boarding and inspection by observers and inspectors designated by the Members of the Commission and procedures for flag state prosecution and sanctions on the basis of evidence resulting from such boarding and inspections. A report of such prosecutions and sanctions imposed shall be included in the information referred to in Article XXI of this Convention;

Convention

- (b) in order to verify compliance with measures adopted under this Convention, observation and inspection shall be carried out on board vessels engaged in scientific research or harvesting of marine living resources in the area to which this Convention applies, through observers and inspectors designated by the Members of the Commission and operating under terms and conditions to be established by the Commission;
- (c) designated observers and inspectors shall remain subject to the jurisdiction of the Contracting Party of which they are nationals. They shall report to the Member of the Commission by which they have been designated which in turn shall report to the Commission.

3. Pending the establishment of the system of observation and inspection, the Members of the Commission shall seek to establish interim arrangements to designate observers and inspectors and such designated observers and inspectors shall be entitled to carry out inspections in accordance with the principles set out in paragraph 2 above.

ARTICLE XXV

1. If any dispute arises between two or more of the Contracting Parties concerning the interpretation or application of this Convention, those Contracting Parties shall consult among themselves with a view to having the dispute resolved by negotiation, inquiry, mediation, conciliation, arbitration, judicial settlement or other peaceful means of their own choice.

2. Any dispute of this character not so resolved shall, with the consent in each case of all Parties to the dispute, be referred for settlement to the International Court of Justice or to arbitration; but failure to reach agreement on reference to the International Court or to arbitration shall not absolve Parties to the dispute from the responsibility of continuing to seek to resolve it by any of the various peaceful means referred to in paragraph 1 above.

3. In cases where the dispute is referred to arbitration, the arbitral tribunal shall be constituted as provided in the Annex to this Convention.

ARTICLE XXVI

1. This Convention shall be open for signature at Canberra from 1 August to 31 December 1980 by the States participating in the Conference on the Conservation of Antarctic Marine Living Resources held at Canberra from 7 to 20 May 1980.
2. The States which so sign will be the original signatory States of the Convention.

ARTICLE XXVII

1. This Convention is subject to ratification, acceptance or approval by signatory States.
2. Instruments of ratification, acceptance or approval shall be deposited with the Government of Australia, hereby designated as the Depositary.

ARTICLE XXVIII

1. This Convention shall enter into force on the thirtieth day following the date of deposit of the eighth instrument of ratification, acceptance or approval by States referred to in paragraph 1 of Article XXVI of this Convention.
2. With respect to each State or regional economic integration organisation which subsequent to the date of entry into force of this Convention deposits an instrument of ratification, acceptance, approval or accession, the Convention shall enter into force on the thirtieth day following such deposit.

ARTICLE XXIX

1. This Convention shall be open for accession by any State interested in research or harvesting activities in relation to the marine living resources to which this Convention applies.
2. This Convention shall be open for accession by regional economic integration organisations constituted by sovereign States which include among their members one or more States Members of the Commission and to which the States members of the organisation have transferred, in whole or in part, competences with regard to the matters covered by this

Convention

Convention. The accession of such regional economic integration organisations shall be the subject of consultations among Members of the Commission .

ARTICLE XXX

1. This Convention may be amended at any time.
2. If one-third of the Members of the Commission request a meeting to discuss a proposed amendment the Depositary shall call such a meeting.
3. An amendment shall enter into force when the Depositary has received instruments of ratification, acceptance or approval thereof from all the Members of the Commission.
4. Such amendment shall thereafter enter into force as to any other Contracting Party when notice of ratification, acceptance or approval by it has been received by the Depositary. Any such Contracting Party from which no such notice has been received within a period of one year from the date of entry into force of the amendment in accordance with paragraph 3 above shall be deemed to have withdrawn from this Convention.

ARTICLE XXXI

1. Any Contracting Party may withdraw from this Convention on 30 June of any year, by giving written notice not later than 1 January of the same year to the Depositary, which, upon receipt of such a notice, shall communicate it forthwith to the other Contracting Parties.
2. Any other Contracting Party may, within sixty days of the receipt of a copy of such a notice from the Depositary, give written notice of withdrawal to the Depositary in which case the Convention shall cease to be in force on 30 June of the same year with respect to the Contracting Party giving such notice.
3. Withdrawal from this Convention by any Member of the Commission shall not affect its financial obligations under this Convention.

ARTICLE XXXII

The Depositary shall notify all Contracting Parties of the following:

- (a) signatures of this Convention and the deposit of instruments of ratification, acceptance, approval or accession;
- (b) the date of entry into force of this Convention and of any amendment thereto.

ARTICLE XXXIII

1. This Convention, of which the English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Government of Australia which shall transmit duly certified copies thereof to all signatory and acceding Parties.

2. This Convention shall be registered by the Depositary pursuant to Article 102 of the Charter of the United Nations.

Drawn up at Canberra this twentieth day of May 1980.

Convention

ANNEX FOR AN ARBITRAL TRIBUNAL

1. The arbitral tribunal referred to in paragraph 3 of Article XXV shall be composed of three arbitrators who shall be appointed as follows:
 - (a) The Party commencing proceedings shall communicate the name of an arbitrator to the other Party which, in turn, within a period of forty days following such notification, shall communicate the name of the second arbitrator. The Parties shall, within a period of sixty days following the appointment of the second arbitrator, appoint the third arbitrator, who shall not be a national of either Party and shall not be of the same nationality as either of the first two arbitrators. The third arbitrator shall preside over the tribunal;
 - (b) If the second arbitrator has not been appointed within the prescribed period, or if the Parties have not reached agreement within the prescribed period on the appointment of the third arbitrator, that arbitrator shall be appointed, at the request of either Party, by the Secretary-General of the Permanent Court of Arbitration, from among persons of international standing not having the nationality of a State which is a Party to this Convention.
2. The arbitral tribunal shall decide where its headquarters will be located and shall adopt its own rules of procedure.
3. The award of the arbitral tribunal shall be made by a majority of its members, who may not abstain from voting.
4. Any Contracting Party which is not a Party to the dispute may intervene in the proceedings with the consent of the arbitral tribunal.
5. The award of the arbitral tribunal shall be final and binding on all Parties to the dispute and on any Party which intervenes in the proceedings and shall be complied with without delay. The arbitral tribunal shall interpret the award at the request of one of the Parties to the dispute or of any intervening Party.
6. Unless the arbitral tribunal determines otherwise because of the particular circumstances of the case, the expenses of the tribunal, including the remuneration of its members, shall be borne by the Parties to the dispute in equal shares.

STATEMENT BY THE CHAIRMAN OF THE CONFERENCE ON THE CONSERVATION OF ANTARCTIC MARINE LIVING RESOURCES

The Conference on the Conservation of Antarctic Marine Living Resources decided to include in the publication of the Final Act of the Conference the text of the following statement made by the Chairman on 19 May 1980 regarding the application of the Convention on the Conservation of Antarctic Marine Living Resources to the waters adjacent to Kerguelen and Crozet over which France has jurisdiction and to waters adjacent to other islands within the area to which this Convention applies over which the existence of State sovereignty is recognised by all Contracting Parties.

‘1. Measures for the conservation of Antarctic marine living resources of the waters adjacent to Kerguelen and Crozet, over which France has jurisdiction, adopted by France prior to the entry into force of the Convention, would remain in force after the entry into force of the Convention until modified by France acting within the framework of the Commission or otherwise.

2. After the Convention has come into force, each time the Commission should undertake examination of the conservation needs of the marine living resources of the general area in which the waters adjacent to Kerguelen and Crozet are to be found, it would be open to France either to agree that the waters in question should be included in the area of application of any specific conservation measure under consideration or to indicate that they should be excluded. In the latter event, the Commission would not proceed to the adoption of the specific conservation measure in a form applicable to the waters in question unless France removed its objection to it. France could also adopt such national measures as it might deem appropriate for the waters in question.

3. Accordingly, when specific conservation measures are considered within the framework of the Commission and with the participation of France, then:

- (a) France would be bound by any conservation measures adopted by consensus with its participation for the duration of those measures. This would not prevent France from promulgating national measures that were more strict than the Commission’s measures or which dealt with other matters;
- (b) in the absence of consensus, France could promulgate any national measures which it might deem appropriate.

4. Conservation measures, whether national measures or measures adopted by the Commission, in respect of the waters adjacent to Kerguelen and Crozet, would be enforced by France. The system of observation and inspection foreseen by the Convention would not be implemented in the waters adjacent to Kerguelen and Crozet except as agreed by France and in the manner so agreed.

5. The understandings, set forth in paragraphs 1-4 above, regarding the application of the Convention to waters adjacent to the Islands of Kerguelen and Crozet, also apply to waters adjacent to the islands within the area to which this Convention applies over which the existence of State sovereignty is recognised by all Contracting Parties.'

No objection to the statement was made.

Appendix RCH
Barcelona Convention (Mediterranean Sea)

Barcelona Convention

Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean

As revised in Barcelona, Spain, on 10 June 1995

The Contracting Parties,

Conscious of the economic, social, health and cultural value of the marine environment of the Mediterranean Sea Area,

Fully aware of their responsibility to preserve and sustainably develop this common heritage for the benefit and enjoyment of present and future generations,

Recognizing the threat posed by pollution to the marine environment, its ecological equilibrium, resources and legitimate uses,

Mindful of the special hydrographic and ecological characteristics of the Mediterranean Sea Area and its particular vulnerability to pollution,

Noting that existing international conventions on the subject do not cover, in spite of the progress achieved, all aspects and sources of marine pollution and do not entirely meet the special requirements of the Mediterranean Sea Area,

Realizing fully the need for close cooperation among the States and international organizations concerned in a coordinated and comprehensive regional approach for the protection and enhancement of the marine environment in the Mediterranean Sea Area,

Fully aware that the Mediterranean Action Plan, since its adoption in 1975 and through its evolution, has contributed to the process of sustainable development in the Mediterranean region and has represented a substantive and dynamic tool for the implementation of the activities related to the Convention and its Protocols by the Contracting Parties,

Taking into account the results of the United Nations Conference on Environment and Development, held in Rio de Janeiro from 4 to 14 June 1992,

Also taking into account the Declaration of Genoa of 1985, the Charter of Nicosia of 1990, the Declaration of Cairo of 1992 on Euro-Mediterranean Cooperation on the Environment within the Mediterranean Basin, the recommendations of the Conference of Casablanca of 1993, and the Declaration of Tunis of 1994 on the Sustainable Development of the Mediterranean,

Bearing in mind the relevant provisions of the United Nations Convention on the Law of the Sea, done at Montego Bay on 10 December 1982 and signed by many Contracting Parties,

Have agreed as follows:

Article 1

GEOGRAPHICAL COVERAGE

1. For the purposes of this Convention, the Mediterranean Sea Area shall mean the maritime waters of the Mediterranean Sea proper, including its gulfs and seas, bounded to the west by the meridian passing through Cape Spartel lighthouse, at the entrance of the Straits of Gibraltar, and to the east by the southern limits of the Straits of the Dardanelles between Mehmetcik and Kumkale lighthouses.

2. The application of the Convention may be extended to coastal areas as defined by each Contracting Party within its own territory.

3. Any Protocol to this Convention may extend the geographical coverage to which that particular Protocol applies.

Article 2

DEFINITIONS

For the purposes of this Convention:

(a) "Pollution" means the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results, or is likely to result, in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of seawater and reduction of amenities.

(b)"Organization" means the body designated as responsible for carrying out secretariat functions pursuant to article 17 of this Convention.

Article 3

GENERAL PROVISIONS

1.The Contracting Parties, when applying this Convention and its related Protocols, shall act in conformity with international law.

2.The Contracting Parties may enter into bilateral or multilateral agreements, including regional or sub-regional agreements for the promotion of sustainable development, the protection of the environment, the conservation and preservation of natural resources in the Mediterranean Sea Area, provided that such agreements are consistent with this Convention and the Protocols and conform to international law. Copies of such agreements shall be communicated to the Organization. As appropriate, Contracting Parties should make use of existing organizations, agreements or arrangements in the Mediterranean Sea Area.

3.Nothing in this Convention and its Protocols shall prejudice the rights and positions of any State concerning the United Nations Convention on the Law of the Sea of 1982.

4.The Contracting Parties shall take individual or joint initiatives compatible with international law through the relevant international organizations to encourage the implementation of the provisions of this Convention and its Protocols by all the non-party States.

5.Nothing in this Convention and its Protocols shall affect the sovereign immunity of warships or other ships owned or operated by a State while engaged in government non-commercial service. However, each Contracting Party shall ensure that its vessels and aircraft, entitled to sovereign immunity under international law, act in a manner consistent with this Protocol.

Article 4

GENERAL OBLIGATIONS

1.The Contracting Parties shall individually or jointly take all appropriate measures in accordance with the provisions of this Convention and those Protocols in force to which they are party to prevent, abate, combat and to the fullest possible extent eliminate pollution of the Mediterranean Sea Area and to protect and enhance the marine environment in that Area so as to contribute towards its sustainable development.

2.The Contracting Parties pledge themselves to take appropriate measures to implement the Mediterranean Action Plan and, further, to pursue the protection of the marine environment and the natural resources of the Mediterranean Sea Area as an integral part of the development process, meeting the needs of present and future generations in an equitable manner. For the purpose of implementing the objectives of sustainable development the Contracting Parties shall take fully into account the recommendations of the Mediterranean Commission on Sustainable Development established within the framework of the Mediterranean Action Plan.

3.In order to protect the environment and contribute to the sustainable development of the Mediterranean Sea Area, the Contracting Parties shall:

(a)apply, in accordance with their capabilities, the precautionary principle, by virtue of which where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation;

(b)apply the polluter pays principle, by virtue of which the costs of pollution prevention, control and reduction measures are to be borne by the polluter, with due regard to the public interest;

(c)undertake environmental impact assessment for proposed activities that are likely to cause a significant adverse impact on the marine environment and are subject to an authorization by competent national authorities;

(d)promote cooperation between and among States in environmental impact assessment procedures related to activities under their jurisdiction or control which are likely to have a significant adverse effect on the marine environment of other States or areas beyond the limits of national jurisdiction, on the basis of notification, exchange of information and consultation;

(e)commit themselves to promote the integrated management of the coastal zones, taking into account the protection of areas of ecological and landscape interest and the rational use of natural resources.

4.In implementing the Convention and the related Protocols, the Contracting Parties shall:

(a)adopt programmes and measures which contain, where appropriate, time limits for their completion;

(b)utilize the best available techniques and the best environmental practices and promote the application of, access to and transfer of environmentally sound

technology, including clean production technologies, taking into account the social, economic and technological conditions.

5. The Contracting Parties shall cooperate in the formulation and adoption of Protocols, prescribing agreed measures, procedures and standards for the implementation of this Convention.

6. The Contracting Parties further pledge themselves to promote, within the international bodies considered to be competent by the Contracting Parties, measures concerning the implementation of programmes of sustainable development, the protection, conservation and rehabilitation of the environment and of the natural resources in the Mediterranean Sea Area.

Article 5

POLLUTION CAUSED BY DUMPING FROM SHIPS AND AIRCRAFT OR INCINERATION AT SEA

The Contracting Parties shall take all appropriate measures to prevent, abate and to the fullest possible extent eliminate pollution of the Mediterranean Sea Area caused by dumping from ships and aircraft or incineration at sea.

Article 6

POLLUTION FROM SHIPS

The Contracting Parties shall take all measures in conformity with international law to prevent, abate, combat and to the fullest possible extent eliminate pollution of the Mediterranean Sea Area caused by discharges from ships and to ensure the effective implementation in that Area of the rules which are generally recognized at the international level relating to the control of this type of pollution.

Article 7

POLLUTION RESULTING FROM EXPLORATION AND EXPLOITATION OF THE CONTINENTAL SHELF AND THE SEABED AND ITS SUBSOIL

The Contracting Parties shall take all appropriate measures to prevent, abate, combat and to the fullest possible extent eliminate pollution of the Mediterranean Sea Area resulting from exploration and exploitation of the continental shelf and the seabed and its subsoil.

Article 8

POLLUTION FROM LAND-BASED SOURCES

The Contracting Parties shall take all appropriate measures to prevent, abate,

combat and to the fullest possible extent eliminate pollution of the Mediterranean Sea Area and to draw up and implement plans for the reduction and phasing out of substances that are toxic, persistent and liable to bioaccumulate arising from land-based sources. These measures shall apply:

(a) to pollution from land-based sources originating within the territories of the Parties, and reaching the sea:

-directly from outfalls discharging into the sea or through coastal disposal;

-indirectly through rivers, canals or other watercourses, including underground watercourses, or through run-off;

(b) to pollution from land-based sources transported by the atmosphere.

Article 9

COOPERATION IN DEALING WITH POLLUTION EMERGENCIES

1. The Contracting Parties shall cooperate in taking the necessary measures for dealing with pollution emergencies in the Mediterranean Sea Area, whatever the causes of such emergencies, and reducing or eliminating damage resulting therefrom.

2. Any Contracting Party which becomes aware of any pollution emergency in the Mediterranean Sea Area shall without delay notify the Organization and, either through the Organization or directly, any Contracting Party likely to be affected by such emergency.

Article 10

CONSERVATION OF BIOLOGICAL DIVERSITY

The Contracting Parties shall, individually or jointly, take all appropriate measures to protect and preserve biological diversity, rare or fragile ecosystems, as well as species of wild fauna and flora which are rare, depleted, threatened or endangered and their habitats, in the area to which this Convention applies.

Article 11

POLLUTION RESULTING FROM THE TRANSBOUNDARY MOVEMENTS OF HAZARDOUS WASTES AND THEIR DISPOSAL

The Contracting Parties shall take all appropriate measures to prevent, abate and to the fullest possible extent eliminate pollution of the environment which can be

caused by transboundary movements and disposal of hazardous wastes, and to reduce to a minimum, and if possible eliminate, such transboundary movements.

Article 12 MONITORING

1. The Contracting Parties shall endeavour to establish, in close cooperation with the international bodies which they consider competent, complementary or joint programmes, including, as appropriate, programmes at the bilateral or multilateral levels, for pollution monitoring in the Mediterranean Sea Area and shall endeavour to establish a pollution monitoring system for that Area.

2. For this purpose, the Contracting Parties shall designate the competent authorities responsible for pollution monitoring within areas under their national jurisdiction and shall participate as far as practicable in international arrangements for pollution monitoring in areas beyond national jurisdiction.

3. The Contracting Parties undertake to cooperate in the formulation, adoption and implementation of such annexes to this Convention as may be required to prescribe common procedures and standards for pollution monitoring.

Article 13 SCIENTIFIC AND TECHNOLOGICAL COOPERATION

1. The Contracting Parties undertake as far as possible to cooperate directly, or when appropriate through competent regional or other international organizations, in the fields of science and technology and to exchange data as well as other scientific information for the purpose of this Convention.

2. The Contracting Parties undertake to promote the research on, access to and transfer of environmentally sound technology, including clean production technologies, and to cooperate in the formulation, establishment and implementation of clean production processes.

3. The Contracting Parties undertake to cooperate in the provision of technical and other possible assistance in fields relating to marine pollution, with priority to be given to the special needs of developing countries in the Mediterranean region.

Article 14 ENVIRONMENTAL LEGISLATION

1. The Contracting Parties shall adopt legislation implementing the Convention and

the Protocols.

2.The Secretariat may, upon request from a Contracting Party, assist that Party in the drafting of environmental legislation in compliance with the Convention and the Protocols.

Article 15

PUBLIC INFORMATION AND PARTICIPATION

1.The Contracting Parties shall ensure that their competent authorities shall give to the public appropriate access to information on the environmental state in the field of application of the Convention and the Protocols, on activities or measures adversely affecting or likely to affect it and on activities carried out or measures taken in accordance with the Convention and the Protocols.

2.The Contracting Parties shall ensure that the opportunity is given to the public to participate in decision-making processes relevant to the field of application of the Convention and the Protocols, as appropriate.

3.The provision of paragraph 1. of this Article shall not prejudice the right of Contracting Parties to refuse, in accordance with their legal systems and applicable international regulations, to provide access to such information on the ground of confidentiality, public security or investigation proceedings, stating the reasons for such a refusal.

Article 16

LIABILITY AND COMPENSATION

The Contracting Parties undertake to cooperate in the formulation and adoption of appropriate rules and procedures for the determination of liability and compensation for damage resulting from pollution of the marine environment in the Mediterranean Sea Area.

Article 17

INSTITUTIONAL ARRANGEMENTS

The Contracting Parties designate the United Nations Environment Programme as responsible for carrying out the following secretariat functions:

(i)To convene and prepare the meetings of Contracting Parties and conferences provided for in articles 18, 21 and 22;

(ii) To transmit to the Contracting Parties notifications, reports and other information received in accordance with articles 3, 9 and 26;

(iii) To receive, consider and reply to enquiries and information from the Contracting Parties;

(iv) To receive, consider and reply to enquiries and information from non-governmental organizations and the public when they relate to subjects of common interest or to activities carried out at the regional level; in this case, the Contracting Parties concerned shall be informed;

(v) To perform the functions assigned to it by the protocols to this Convention;

(vi) To regularly report to the Contracting Parties on the implementation of the Convention and of the Protocols;

(vii) To perform such other functions as may be assigned to it by the Contracting Parties;

(viii) To ensure the necessary coordination with other international bodies which the Contracting Parties consider competent, and in particular, to enter into such administrative arrangements as may be required for the effective discharge of the secretariat functions.

Article 18

MEETINGS OF THE CONTRACTING PARTIES

1. The Contracting Parties shall hold ordinary meetings once every two years and extraordinary meetings at any other time deemed necessary, upon the request of the Organization or at the request of any Contracting Party, provided that such requests are supported by at least two Contracting Parties.

2. It shall be the function of the meetings of the Contracting Parties to keep under review the implementation of this Convention and the protocols and, in particular:

(i) To review generally the inventories carried out by Contracting Parties and competent international organizations on the state of marine pollution and its effects in the Mediterranean Sea Area;

(ii) To consider reports submitted by the Contracting Parties under article 26;

(iii) To adopt, review and amend as required the annexes to this Convention and to

the protocols, in accordance with the procedure established in article 23;

(iv) To make recommendations regarding the adoption of any additional protocols or any amendments to this Convention or the protocols in accordance with the provisions of articles 21 and 22;

(v) To establish working groups as required to consider any matters related to this Convention and the protocols and annexes;

(vi) To consider and undertake any additional action that may be required for the achievement of the purposes of this Convention and the protocols.

(vii) To approve the Programme Budget.

Article 19

BUREAU

1. The Bureau of the Contracting Parties shall be composed of representatives of the Contracting Parties elected by the Meetings of the Contracting Parties. In electing the members of the Bureau, the Meetings of the Contracting Parties shall observe the principle of equitable geographical distribution.

2. The functions of the Bureau and the terms and conditions upon which it shall operate shall be set in the Rules of Procedure adopted by the Meetings of the Contracting Parties.

Article 20

OBSERVERS

1. The Contracting Parties may decide to admit as observers at their meetings and conferences:

(a) any State which is not a Contracting Party to the Convention;

(b) any international governmental organization or any non-governmental organization the activities of which are related to the Convention.

2. Such observers may participate in meetings without the right to vote and may present any information or report relevant to the objectives of the Convention.

3. The conditions for the admission and participation of observers shall be established in the Rules of Procedure adopted by the Contracting Parties.

Article 21

ADOPTION OF ADDITIONAL PROTOCOLS

1. The Contracting Parties, at a diplomatic conference, may adopt additional protocols to this Convention pursuant to paragraph 5 of article 4.

2. A diplomatic conference for the purpose of adopting additional protocols shall be convened by the Organization at the request of two thirds of the Contracting Parties.

Article 22

AMENDMENT OF THE CONVENTION OR PROTOCOLS

1. Any Contracting Party to this Convention may propose amendments to the Convention. Amendments shall be adopted by a diplomatic conference which shall be convened by the Organization at the request of two thirds of the Contracting Parties.

2. Any Contracting Party to this Convention may propose amendments to any protocol. Such amendments shall be adopted by a diplomatic conference which shall be convened by the Organization at the request of two thirds of the Contracting Parties to the protocol concerned.

3. Amendments to this Convention shall be adopted by a three-fourths majority vote of the Contracting Parties to the Convention which are represented at the diplomatic conference and shall be submitted by the Depositary for acceptance by all Contracting Parties to the Convention. Amendments to any protocol shall be adopted by a three-fourths majority vote of the Contracting Parties to such protocol which are represented at the diplomatic conference and shall be submitted by the Depositary for acceptance by all Contracting Parties to such protocol.

4. Acceptance of amendments shall be notified to the Depositary in writing. Amendments adopted in accordance with paragraph 3 of this article shall enter into force between Contracting Parties having accepted such amendments on the thirtieth day following the receipt by the Depositary of notification of their acceptance by at least three fourths of the Contracting Parties to this Convention or to the protocol concerned, as the case may be.

5. After the entry into force of an amendment to this Convention or to a protocol, any new Contracting Party to this Convention or such protocol shall become a Contracting Party to the instrument as amended.

Article 23

ANNEXES AND AMENDMENTS TO ANNEXES

1. Annexes to this Convention or to any protocol shall form an integral part of the Convention or such protocol, as the case may be.

2. Except as may be otherwise provided in any protocol, the following procedure shall apply to the adoption and entry into force of any amendments to annexes to this Convention or to any protocol, with the exception of amendments to the annex on arbitration:

(i) Any Contracting Party may propose amendments to the annexes to this Convention or to any protocol at the meetings referred to in article 18;

(ii) Such amendments shall be adopted by a three-fourths majority vote of the Contracting Parties to the instrument in question;

(iii) The Depositary shall without delay communicate the amendments so adopted to all Contracting Parties;

(iv) Any Contracting Party that is unable to approve an amendment to the annexes to this Convention or to any protocol shall so notify in writing the Depositary within a period determined by the Contracting Parties concerned when adopting the amendment;

(v) The Depositary shall without delay notify all Contracting Parties of any notification received pursuant to the preceding sub-paragraph;

(vi) On expiry of the period referred to in sub-paragraph (iv) above, the amendment to the annex shall become effective for all Contracting Parties to this Convention or to the protocol concerned which have not submitted a notification in accordance with the provisions of that sub-paragraph.

3. The adoption and entry into force of a new annex to this Convention or to any protocol shall be subject to the same procedure as for the adoption and entry into force of an amendment to an annex in accordance with the provisions of paragraph 2 of this article, provided that, if any amendment to the Convention or the protocol concerned is involved, the new annex shall not enter into force until such time as the amendment to the Convention or the protocol concerned enters into force.

4. Amendments to the annex on arbitration shall be considered to be amendments to this Convention and shall be proposed and adopted in accordance with the procedures set out in article 22 above.

Article 24

RULES OF PROCEDURE AND FINANCIAL RULES

1. The Contracting Parties shall adopt rules of procedure for their meetings and conferences envisaged in articles 18, 21 and 22 above.

2. The Contracting Parties shall adopt financial rules, prepared in consultation with the Organization, to determine, in particular, their financial participation in the Trust Fund.

Article 25

SPECIAL EXERCISE OF VOTING RIGHT

Within the areas of their competence, the European Economic Community and any regional economic grouping referred to in article 30 of this Convention shall exercise their right to vote with a number of votes equal to the number of their member States which are Contracting Parties to this Convention and to one or more protocols; the European Economic Community and any grouping as referred to above shall not exercise their right to vote in cases where the member States concerned exercise theirs, and conversely.

Article 26

REPORTS

1. The Contracting Parties shall transmit to the Organization reports on:

(a) the legal, administrative or other measures taken by them for the implementation of this Convention, the Protocols and of the recommendations adopted by their meetings;

(b) the effectiveness of the measures referred to in subparagraph (a) and problems encountered in the implementation of the instruments as mentioned above.

2. The reports shall be submitted in such form and at such intervals as the Meetings of Contracting Parties may determine.

Article 27

COMPLIANCE CONTROL

The meetings of the Contracting Parties shall, on the basis of periodical reports referred to in Article 26 and any other report submitted by the Contracting Parties, assess the compliance with the Convention and the Protocols as well as the

measures and recommendations. They shall recommend, when appropriate, the necessary steps to bring about full compliance with the Convention and the Protocols and promote the implementation of the decisions and recommendations.

Article 28

SETTLEMENTS OF DISPUTES

1. In case of a dispute between Contracting Parties as to the interpretation or application of this Convention or the protocols, they shall seek a settlement of the dispute through negotiation or any other peaceful means of their own choice.

2. If the Parties concerned cannot settle their dispute through the means mentioned in the preceding paragraph, the dispute shall upon common agreement be submitted to arbitration under the conditions laid down in annex A to this Convention.

3. Nevertheless, the Contracting Parties may at any time declare that they recognize as compulsory ipso facto and without special agreement, in relation to any other Party accepting the same obligation, the application of the arbitration procedure in conformity with the provisions of annex A. Such declaration shall be notified in writing to the Depository, who shall communicate it to the other Parties.

Article 29

RELATIONSHIP BETWEEN THE CONVENTION AND PROTOCOLS

1. No one may become a Contracting Party to this Convention unless it becomes at the same time a Contracting Party to at least one of the protocols. No one may become a Contracting Party to a protocol unless it is, or becomes at the same time, a Contracting Party to this Convention.

2. Any protocol to this Convention shall be binding only on the Contracting Parties to the protocol in question.

3. Decisions concerning any protocol pursuant to articles 18, 22 and 23 of this Convention shall be taken only by the Parties to the protocol concerned.

Article 30

SIGNATURE

This Convention, the Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft and the Protocol concerning cooperation in Combating Pollution of the Mediterranean Sea by Oil and Other Harmful Substances in Cases of Emergency shall be open for signature in Barcelona on 16

February 1976 and in Madrid from 17 February 1976 to 16 February 1977 by any State invited as a participant in the Conference of Plenipotentiaries of the Coastal States of the Mediterranean Region on the Protection of the Mediterranean Sea, held in Barcelona from 2 to 16 February 1976, and by any State entitled to sign any protocol in accordance with the provisions of such protocol. They shall also be open until the same date for signature by the European Economic Community and by any similar regional economic grouping at least one member of which is a coastal State of the Mediterranean Sea Area and which exercise competence in fields covered by this Convention, as well as by any protocol affecting them.

Article 31

RATIFICATION, ACCEPTANCE OR APPROVAL

This Convention and any protocol thereto shall be subject to ratification, acceptance, or approval. Instruments of ratification, acceptance or approval shall be deposited with the Government of Spain, which will assume the functions of Depositary.

Article 32

ACCESSION

1. As from 17 February 1977, the present Convention, the Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft, and the Protocol concerning Cooperation in Combating Pollution of the Mediterranean Sea by Oil and other Harmful Substances in Cases of Emergency shall be open for accession by the States, by the European Economic Community and by any grouping as referred to in article 30.

2. After the entry into force of the Convention and of any protocol, any State not referred to in article 30 may accede to this Convention and to any protocol, subject to prior approval by three fourths of the Contracting Parties to the protocol concerned.

3. Instruments of accession shall be deposited with the Depositary.

Article 33

ENTRY INTO FORCE

1. This Convention shall enter into force on the same date as the protocol first entering into force.

2. The Convention shall also enter into force with regard to the States, the European Economic Community and any regional economic grouping referred to in article 30

if they have complied with the formal requirements for becoming Contracting Parties to any other protocol not yet entered into force.

3. Any protocol to this Convention, except as otherwise provided in such protocol, shall enter into force on the thirtieth day following the date of deposit of at least six instruments of ratification, acceptance, or approval of, or accession to such protocol by the Parties referred to in article 30.

4. Thereafter, this Convention and any protocol shall enter into force with respect to any State, the European Economic Community and any regional economic grouping referred to in article 30 on the thirtieth day following the date of deposit of the instruments of ratification, acceptance, approval or accession.

Article 34 WITHDRAWAL

1. At any time after three years from the date of entry into force of this Convention, any Contracting Party may withdraw from this Convention by giving written notification of withdrawal.

2. Except as may be otherwise provided in any protocol to this Convention, any Contracting Party may, at any time after three years from the date of entry into force of such protocol, withdraw from such protocol by giving written notification of withdrawal.

3. Withdrawal shall take effect 90 days after the date on which notification of withdrawal is received by the Depositary.

4. Any Contracting Party which withdraws from this Convention shall be considered as also having withdrawn from any protocol to which it was a Party.

5. Any Contracting Party which, upon its withdrawal from a protocol, is no longer a Party to any protocol to this Convention, shall be considered as also having withdrawn from this Convention.

Article 35 RESPONSIBILITIES OF THE DEPOSITARY

1. The Depositary shall inform the Contracting Parties, any other Party referred to in article 30, and the Organization:

(i) Of the signature of this Convention and of any protocol thereto, and of the

deposit of instruments of ratification, acceptance, approval or accession in accordance with articles 30, 31 and 32;

(ii) Of the date on which the Convention and any protocol will come into force in accordance with the provisions of article 33;

(iii) Of notifications of withdrawal made in accordance with article 34;

(iv) Of the amendments adopted with respect to the Convention and to any protocol, their acceptance by the Contracting Parties and the date of entry into force of those amendments in accordance with the provisions of article 22;

(v) Of the adoption of new annexes and of the amendment of any annex in accordance with article 23;

(vi) Of declarations recognizing as compulsory the application of the arbitration procedure mentioned in paragraph 3 of article 28.

2. The original of this Convention and of any protocol thereto shall be deposited with the Depositary, the Government of Spain, which shall send certified copies thereof to the Contracting Parties, to the Organization, and to the Secretary-General of the United Nations for registration and publication in accordance with Article 102 of the United Nations Charter.

IN WITNESS THEREOF the undersigned, being duly authorized by their respective Governments, have signed this Convention.

DONE at Barcelona on 16 February 1976 in a single copy in the Arabic, English, French and Spanish languages, the four texts being equally authoritative.

ANNEX A ARBITRATION

Article 1

Unless the Parties to the dispute otherwise agree, the arbitration procedure shall be conducted in accordance with the provisions of this annex.

Article 2

1. At the request addressed by one Contracting Party to another Contracting Party in accordance with the provisions of paragraph 2 or paragraph 3 of article 28 of the

Convention, an arbitral tribunal shall be constituted. The request for arbitration shall state the subject matter of the application including, in particular, the articles of the Convention or the protocol, the interpretation or application of which is in dispute.

2. The claimant party shall inform the Organization that it has requested the setting up of an arbitral tribunal, stating the name of the other Party to the dispute and articles of the Convention or the protocols the interpretation or application of which is in its opinion in dispute. The Organization shall forward the information thus received to all Contracting Parties to the Convention.

Article 3

The arbitral tribunal shall consist of three members: each of the Parties to the dispute shall appoint an arbitrator; the two arbitrators so appointed shall designate by common agreement the third arbitrator who shall be the chairman of the tribunal. The latter shall not be a national of one of the Parties to the dispute, nor have his usual place of residence in the territory of one of these Parties, nor be employed by any of them, nor have dealt with the case in any other capacity.

Article 4

1. If the chairman of the arbitral tribunal has not been designated within two months of the appointment of the second arbitrator, the Secretary-General of the United Nations shall, at the request of the more diligent Party, designate him within a further two months' period.

2. If one of the Parties to the dispute does not appoint an arbitrator within two months of receipt of the request, the other Party may inform the Secretary-General of the United Nations who shall designate the chairman of the arbitral tribunal within a further two months' period. Upon designation, the chairman of the arbitral tribunal shall request the Party which has not appointed an arbitrator to do so within two months. After such period, he shall inform the Secretary-General of the United Nations, who shall make this appointment within a further two months' period.

Article 5

1. The arbitral tribunal shall decide according to the rules of international law and, in particular, those of this Convention and the protocols concerned.

2. Any arbitral tribunal constituted under the provisions of this annex shall draw up its own rules of procedure.

Article 6

1. The decisions of the arbitral tribunal, both on procedure and on substance, shall be taken by majority vote of its members.

2. The tribunal may take all appropriate measures in order to establish the facts. It may, at the request of one of the Parties, recommend essential interim measures of protection.

3. If two or more arbitral tribunals constituted under the provisions of this annex are seized of requests with identical or similar subjects, they may inform themselves of the procedures for establishing the facts and take them into account as far as possible.

4. The Parties to the dispute shall provide all facilities necessary for the effective conduct of the proceedings.

5. The absence or default of a Party to the dispute shall not constitute an impediment to the proceedings.

Article 7

1. The award of the arbitral tribunal shall be accompanied by a statement of reasons. It shall be final and binding upon the Parties to the dispute.

2. Any dispute which may arise between the Parties concerning the interpretation or execution of the award may be submitted by the more diligent Party to the arbitral tribunal which made the award or, if the latter cannot be seized thereof, to another arbitral tribunal constituted for this purpose in the same manner as the first.

Article 8

The European Economic Community and any regional economic grouping referred to in article 30 of the Convention, like any Contracting Party to the Convention, are empowered to appear as complainants or as respondents before the arbitral tribunal.

Download the formatted text of the 1995 revised Barcelona Convention and Protocols on the [Mediterranean website](#).

Appendix RCJ
Protocol for the Prevention of Pollution of the Mediterranean Sea
by Dumping from Ships and Aircraft 1995

UNEP Information Unit for Conventions

Mediterranean Dumping Protocol

**Protocol for the Prevention of Pollution of the Mediterranean Sea
by Dumping from Ships and Aircraft or Incineration at Sea**

As revised in Barcelona, Spain, on 10 June 1995

The Contracting Parties to the present Protocol

**Being Parties to the Convention for the protection of the Mediterranean
Sea against pollution,**

**Recognizing the danger posed to the marine environment by pollution
caused by the dumping or wastes or other matter from ships and
aircraft, Considering that the coastal States of the Mediterranean Sea
have a common interest in protecting the marine environment from this
danger,**

**Bearing in mind the Convention on the prevention of marine pollution
by dumping of wastes and other matter, adopted in London in 1972,
Have agreed as follows:**

Article I

**The Contracting Parties to this Protocol (hereinafter referred to as 'the
Parties') shall take all appropriate measures to prevent and abate
pollution of the Mediterranean Sea area caused by dumping from ships
and aircraft.**

Article 2

**The area to which this Protocol applies shall be the Mediterranean Sea
area as defined in Article I of the Convention for the Protection of the**

Mediterranean Sea against Pollution (hereinafter referred to as 'the Convention').

Article 3

For the purposes of this Protocol:

1. 'ships and aircraft' means waterborne or airborne craft of any type whatsoever. This expression includes air-cushioned craft and floating craft, whether self-propelled or not, and platforms and other man-made structures at sea and their equipment.

2. 'Wastes or other matter' means material and substances of any kind, form or description.

3. 'Dumping' means:

(a) any deliberate disposal at sea of wastes or other matter from ships or aircraft;

(b) any deliberate disposal at sea of ships or aircraft.

4. 'Dumping' does not include:

(a) the disposal at sea of wastes or other matter incidental to, or derived from, the normal operations of vessels, or aircraft and their equipment, other than wastes or other matter transported by or to vessels or aircraft, operating for the purpose of disposal of such matter, or derived from the treatment of such wastes or other matter on such vessels or aircraft;

(b) placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of this Protocol.

5. 'Organization' means the body referred to in Article 13 of the Convention.

Article 4

The dumping into the Mediterranean Sea area of wastes or other matter

listed in Annex I to this Protocol is prohibited.

Article 5

The dumping into the Mediterranean Sea area of all wastes or other matter listed in Annex 11 to this Protocol requires, in each case, a prior special permit from the competent national authorities.

Article 6

The dumping into the Mediterranean Sea of all other wastes or other matter requires a prior general permit from the competent national authorities.

Article 7

The permits referred to in Articles 5 and 6 above shall be issued only after careful consideration of all the factors set forth in Annex III to this Protocol. The Organization shall receive records of such permits.

Article 8

The provisions of Articles 4, 5 and 6 shall not apply in case of force majeure due to stress of weather or any other cause when human life or the safety of a ship or aircraft is threatened. Such dumpings shall immediately be reported to the Organization and either through the Organization or directly, to any Party or Parties likely to be affected, together with full details of the circumstances and of the nature and quantities of the wastes or other matter dumped.

Article 9

If a Party in a critical situation of an exceptional nature considers that wastes or other matter listed in Annex I to this Protocol cannot be disposed of on land without unacceptable danger or damage above all for the safety of human life, the Party concerned shall forthwith consult the Organization. The Organization, after consulting the Parties to this Protocol, shall recommend methods of storage or the most satisfactory means of destruction or disposal under the prevailing circumstances. The Party shall inform the Organization of the steps adopted in pursuance of these recommendations. The Parties pledge themselves to

assist one another in such situations.

Article 10

1. Each Party shall designate one or more competent authorities to:

- (a) issue the special permits provided for in Article 5;**
- (b) issue the general permits provided for in Article 6;**
- (c) keep records of the nature and quantities of the wastes or other matter permitted to be dumped and of the location, date and method of dumping.**

2. The competent authorities of each Party shall issue the permits provided for in Articles 5 and 6 in respect of the wastes or other matter intended for dumping:

- (a) loaded in its territory;**
- (b) loaded by a ship or aircraft registered in its territory or flying its flag, when the loading occurs in the territory of a State not Party to this Protocol.**

Article 11

1. Each Party shall apply the measures required to implement this Protocol to all:

- (a) ships and aircraft registered in its territory or flying its flag;**
- (b) ships and aircraft loading in its territory wastes or other matter which are to be dumped;**
- (c) ships and aircraft believed to be engaged in dumping in areas under its jurisdiction in this matter.**

2. This Protocol shall not apply to any ships or aircraft owned or operated by a State Party to this Protocol and used for the time being only on Government noncommercial service. However each Party shall ensure by the adoption of appropriate measures not impairing the

operations or operational capabilities of such ships or aircraft owned or operated by it, that such ships and aircraft act in a manner consistent, so far as is reasonable and practicable, with this Protocol.

Article 12

Each Party undertakes to issue instructions to its maritime inspection ships and aircraft and to other appropriate services to report to its authorities any incidents or conditions in the Mediterranean Sea area which give rise to suspicions that dumping in contravention of the provisions of this Protocol has occurred or is about to occur. That Party shall, if it considers it appropriate, report accordingly to any other Party concerned.

Article 13

Nothing in this Protocol shall affect the right of each Party to adopt other measures, in accordance with international law, to prevent pollution due to dumping.

Article 14

1. Ordinary meetings of the Parties to this Protocol shall be held in conjunction with ordinary meetings of the Contracting Parties to the Convention held pursuant to Article 14 of the Convention. The Parties to this Protocol may also hold extraordinary meetings in conformity with Article 14 of the Convention.

2. It shall be the function of the meetings of the Parties to this Protocol:

(a) to keep under review the implementation of this Protocol, and to consider the efficacy of the measures adopted and the need for any other measures, in particular in the form of Annexes:

(b) to study and consider the records of the permits issued in accordance with Articles 5, 6 and 7 and of the dumping which has taken place.

(c) to review and amend as required any Annex to this Protocol;

(d) to discharge such other functions as may be appropriate for the

implementation of this Protocol.

3. The adoption of amendments to the Annexes to this Protocol pursuant to Article 17 of the Convention shall require a three-fourths majority vote of the Parties.

Article 15

1. The provisions of the Convention relating to any Protocol shall apply with respect to the present Protocol.

2. The rules of procedure and the financial rules adopted pursuant to Article 18 of the Convention shall apply with respect to this Protocol, unless the Parties to this Protocol agree otherwise.

In witness whereof the undersigned, being duly authorized by their respective Governments, have signed this Protocol.

Done at Barcelona on 16 February 1976 in a single copy in the Arabic, English, French and Spanish languages, the four texts being equally authoritative.

ANNEX I

A. The following substances and materials are listed for the purpose of Article 4 of the Protocol.

1. Organohalogen compounds and compounds which may form such substances in the marine environment, excluding those which are non-toxic or which are rapidly converted in the sea into substances which are biologically harmless, provided that they do not make edible marine organisms unpalatable.

2. Organosilicon compounds and compounds which may form such substances in the marine environment, excluding those which are non-toxic or which are rapidly converted in the sea into substances which are biologically harmless, provided that they do not make edible marine organisms unpalatable.

3. Mercury and mercury compounds.

4. Cadmium and cadmium compounds.

5. Persistent plastic and other persistent synthetic materials which may materially interfere with fishing or navigation, reduce amenities, or interfere with other legitimate uses of the sea.

6. Crude oil and hydrocarbons which may be derived from petroleum, and any mixtures containing any of these, taken on board for the purpose of dumping.

7. High-, medium- and low-level radioactive wastes or other high-, medium- and low-level radioactive matter to be defined by the International Atomic Energy Agency.

8. Acid and alkaline compounds of such composition and in such quantity that they may seriously impair the quality of sea water. The composition and quantity to be taken into consideration shall be determined by the Parties in accordance with the procedure laid down in Article 14 (3) of this Protocol.

9. Materials in whatever form (e.g. solids, liquids, semi-liquids, gases, or in a living state) produced for biological and chemical warfare, other than those rapidly rendered harmless by physical, chemical or biological processes in the sea, provided that they do not:

(i) make edible marine organisms unpalatable; or (ii) endanger human or animal health.

B. This Annex does not apply to wastes or other materials, such as sewage sludge and dredge spoils, containing the substances referred to in paragraphs 1 to 6 above as trace contaminants. The dumping of such wastes shall be subject to the provisions of Annexes II and III as appropriate.

ANNEX II

The following wastes and other matter, the dumping of which requires special care, are listed for the purposes of Article 5.

1. (i) arsenic, lead, copper, zinc, beryllium, chromium, nickel, vanadium, selenium, antimony and their compounds;

(ii) cyanides and fluorides;

(iii) pesticides and their by-products not covered in Annex I

(iv) synthetic organic chemicals, other than those referred to in Annex I, likely to produce harmful effects on marine organisms or to make edible marine organisms unpalatable;

2. (i) acid and alkaline compounds the composition and quantity of which have not yet been determined in accordance with the procedure referred to in Annex I A (8):

(ii) acid and alkaline compounds not covered by Annex I, excluding compounds to be dumped in quantities below thresholds which shall be determined by the Parties in accordance with the procedure laid down in Article 14 (3) of this Protocol.

3. Containers, scrap metal and other bulky wastes liable to sink to the sea bottom which may present a serious obstacle to fishing or navigation.

4. Substances which, though of a non-toxic nature may become harmful owing to the quantities in which they are dumped, or which are liable to reduce amenities seriously or to endanger human life or marine organisms or to interfere with navigation.

5. Radioactive waste or other radioactive matter which will not be included in Annex I. In the issue of permits for the dumping of this matter, the Parties should take full account of the recommendations of the competent international body in this field, at present the International Atomic Energy Agency.

ANNEX III

The factors to be considered in establishing criteria governing the issue of permits for the dumping of matter at sea taking into account Article 7 include:

A. Characteristics and composition of the matter

- 1. Total amount and average compositions of matter dumped (e.g. per year).**
- 2. Form (e.g. solid, liquid or gaseous).**
- 3. Properties: physical (e.g solubility and density), chemical and biochemical (e.g. oxygen demand, nutrients) and biological. (e.g. presence of viruses, bacteria, yeasts, parasites).**
- 4. Toxicity.**
- 5. Persistence: physical, chemical and biological.**
- 6. Accumulation and biotransformation in biological materials or sediments.**
- 7. Susceptibility to physical, chemical and biochemical changes and interaction in the aquatic environment with other dissolved organic and inorganic materials.**
- 8. Probability of production of taints or other changes reducing marketability of resources (fish, shellfish, etc.).**

B. Characteristics of dumping site and method of deposit

- 1. Location (e.g. coordinates of the dumping area depth and distance from the coast), location in relation to other areas (e.g. amenity areas, spawning, nursery and fishing areas and exploitable resources).**
- 2. Rate of disposal per specific period (e.g. quantity per day, per week, per month).**
- 3. Methods of packaging and containment, if any.**
- 4. Initial dilution achieved by proposed method of release, particularly the speed of the ship.**
- 5. Dispersal characteristics (e.g. effects of currents tides and wind on horizontal transport and vertical mixing).**

6. Water characteristics (e.g. temperature, pH, salinity, stratification, oxygen indices of pollution -- dissolved oxygen (DO), chemical oxygen demand (COD), biochemical oxygen demand (BOD), nitrogen present in organic and mineral form, including ammonia, suspended matter, other nutrients and productivity).

7. Bottom characteristics (e.g. topography, geochemical and geological characteristics and biological productivity).

8. Existence and effects of other dumpings which have been made in the dumping area (e.g. heavy metal background reading and organic carbon content).

9. When issuing a permit for dumping, the Contracting Parties shall endeavour to determine whether an adequate scientific basis exists for assessing the consequences of such dumping in the area concerned, in accordance with the foregoing provisions and taking into account seasonal variations.

C. General considerations and conditions

1. Possible effects on amenities (e.g. presence of floating or stranded material, turbidity objectionable odour, discoloration and foaming).

2. Possible effects on marine life, fish and shellfish culture, fish stocks and fisheries, seaweed harvesting and culture.

3. Possible effects on other uses of the sea (e.g. impairment of water quality for industrial use, underwater corrosion of structures, interference with ship operations from floating materials, interference with fishing or navigation through deposit of waste or solid objects on the sea floor and protection of areas of special importance for scientific or conservation purposes).

4. The practical availability of alternative land-based methods of treatment, disposal or elimination or of treatment to render the matter less harmful for sea dumping.

Appendix RCK
Mediterranean Hazardous Wastes Protocol



Mediterranean Hazardous Wastes Protocol

Protocol on the Prevention of Pollution of the Mediterranean Sea by Transboundary Movements of Hazardous Wastes and their Disposal

Adopted in Izmir, Turkey, on 1 October 1996, not yet in force

The Contracting Parties to the present Protocol,

Being Parties to the Convention for the Protection of the Mediterranean Sea against Pollution, adopted at Barcelona on 16 February 1976 and amended on 10 June 1995,

Conscious of the danger threatening the environment of the Mediterranean Sea caused by the transboundary movements and disposal of hazardous wastes,

Convinced that the most effective way of protecting human health and the marine environment from the dangers posed by hazardous wastes is the reduction and elimination of their generation, for example through substitution and other clean production methods,

Recognizing the increased will for the prohibition of transboundary movements of hazardous wastes and their disposal in other States, especially in developing countries,

Taking into account the 1992 Rio Declaration on Environment and Development and especially Principle 14 which declares that States "should effectively cooperate to discourage or prevent the relocation and transfer to other States of any activities or substances that cause severe environmental degradation or are found to be harmful to human health",

Aware of the growing international concern regarding the need to

ensure that pollution originating in one State is not transferred to other States and, consistent with this objective, of the need to reduce transboundary movements of hazardous wastes to a minimum as far as possible, with the ultimate aim of phasing out such movements,

Recognizing also that any State has the sovereign right to ban the entry, transit or disposal of hazardous wastes in its territory,

Bearing in mind the relevant provisions of the United Nations Convention on the Law of the Sea of 1982,

Taking into account also the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, adopted on 22 March 1989, in particular Article 11, and decisions I/22, II/12 and III/1 adopted by the First, Second and Third Meetings respectively of the Conference of the Parties to the Basel Convention,

Taking into account further that many States, among them Contracting Parties to the Barcelona Convention, have taken legal measures and entered into international agreements consistent with the Basel Convention to ban transboundary movements of hazardous wastes, for example, the IVth ACP/EEC Convention signed in Lomé on 15 December 1989 by the European Economic Community and the African, Caribbean and Pacific Group of States, and the Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa, adopted under the auspices of the Organization of African Unity on 30 January 1991,

Recognizing further the differences in levels of economic and legislative development among the various Mediterranean coastal States, and realizing that hazardous waste should not be allowed to be transported in order to take advantage of such economic or legislative disparities to the detriment of the environment and of the social well-being of developing countries,

Bearing in mind also the fact that the most effective way of dealing with the threats represented by wastes for human health and the environment consists in decreasing or even prohibiting the transfer of activities which generate hazardous wastes,

Have agreed as follows:

**Article 1
DEFINITIONS**

For the purposes of this Protocol:

- (a) "Convention" means the Convention for the Protection of the Mediterranean Sea against Pollution, adopted at Barcelona on 16 February 1976 and amended on 10 June 1995;**
- (b) A "Party" means a Contracting Party to this Protocol in accordance with Article 29, paragraph 1, of the Convention;**
- (c) "Wastes" means substances or objects which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law;**
- (d) "Hazardous wastes" means wastes or categories of substances as specified in Article 3 of this Protocol;**
- (e) "Disposal" means any operation specified in Annex III to this Protocol;**
- (f) "Transboundary movement" means any movement of hazardous wastes from an area under the national jurisdiction of one State to or through an area under the national jurisdiction of another State or to or through an area not under the national jurisdiction of any State, provided at least two States are involved in the movement;**
- (g) "Approved site or facility" means a site or facility for the disposal of hazardous wastes which is authorized or permitted to operate for this purpose by a relevant authority of the State where the site or facility is located;**
- (h) "Competent authority" means one governmental authority designated by a Party to be responsible, within such geographical areas as the Party may think fit, for receiving the notification of a transboundary movement of hazardous waste, and any information related to it, and for responding to such a notification;**

- (i) "Clean production methods"** means those which reduce or avoid the generation of hazardous wastes in conformity with Articles 5 and 8 of this Protocol;
- (j) "Environmentally sound management"** of hazardous wastes means taking all practicable steps to ensure that hazardous wastes are collected, transported and disposed of (including after-care of disposal sites) in a manner which will protect human health and the environment against the adverse effects which may result from such wastes;
- (k) "Area under the national jurisdiction of a State"** means any land, marine area or airspace within which a State exercises administrative and regulatory responsibilities in accordance with international law in regard to the protection of human health or the environment;
- (l) "State of export"** means a Party from which a transboundary movement of hazardous wastes is planned to be initiated or is initiated;
- (m) "State of import"** means a Party to which a transboundary movement of hazardous wastes is planned or takes place for the purpose of disposal therein or for the purpose of loading prior to disposal in an area not under the national jurisdiction of any State;
- (n) "State of transit"** means any State, other than the State of export or import, through which a movement of hazardous wastes is planned or takes place;
- (o) "Exporter"** means any person under the jurisdiction of the State of export who arranges for hazardous wastes to be exported;
- (p) "Importer"** means any person under the jurisdiction of the State of import who arranges for hazardous wastes to be imported;
- (q) "Generator"** means any person whose activity produces hazardous wastes or, if that person is not known, the person who is in possession and/or control of those wastes;
- (r) "Disposer"** means any person to whom hazardous wastes are shipped and who carries out the disposal of such wastes;

(s) "Illegal traffic" means any transboundary movement of hazardous wastes as specified in Article 9;

(t) "Person" means any natural or legal person;

(u) "Developing countries" means those countries which are not Member States of the Organization for Economic Co-operation and Development (OECD);

(v) "Developed countries" means those countries which are Member States of the Organization for Economic Co-operation and Development (OECD);

(w) "Organization" means the body referred to in Article 2 (b) of the Convention.

**Article 2
PROTOCOL AREA**

The Protocol area as referred to in this Protocol shall mean the area as defined in Article 1 of the Convention.

**Article 3
SCOPE OF THE PROTOCOL**

1. This Protocol shall apply to:

(a) Wastes that belong to any category in Annex I to this Protocol;

(b) Wastes that are not covered under paragraph (a) above but are defined as, or are considered to be, hazardous wastes by the domestic legislation of the State of export, import or transit;

(c) Wastes that possess any of the characteristics contained in Annex II to this Protocol;

(d) Hazardous substances that have been banned or are expired, or whose registration has been cancelled or refused through government regulatory action in the country of manufacture or export for human health or environmental reasons, or have been voluntarily withdrawn or omitted from the government registration required for use in the country of manufacture or export.

2. Wastes which derive from the normal operations of ships, the discharge of which is covered by another international instrument, are excluded from the scope of this Protocol.

3. The generator, the exporter or the importer, depending on the circumstances, shall bear the responsibility for checking with the competent authorities of the State of export, import or transit that a particular waste, prior to its transboundary movement, is not subject to this Protocol.

Article 4

NATIONAL DEFINITIONS OF HAZARDOUS WASTES

1. Each Party to the Convention shall, within six months of becoming a Party, inform the Organization of the wastes, other than those listed in Annex I to this Protocol, considered or defined as hazardous wastes under its national legislation, and of any requirements concerning transboundary movement procedures applicable to such wastes.

2. Each Party shall subsequently inform the Organization of any significant changes in information it has provided pursuant to paragraph 1 of this Article.

3. The Organization shall inform all Parties of the information it has received pursuant to paragraphs 1 and 2 of this Article.

4. The Parties shall be responsible for making the information transmitted to them by the Organization under paragraph 3 of this Article available to their exporters.

Article 5

GENERAL OBLIGATIONS

1. The Parties shall take all appropriate measures to prevent, abate and eliminate pollution of the Protocol area which can be caused by transboundary movements and disposal of hazardous wastes.

2. The Parties shall take all appropriate measures to reduce to a minimum, and where possible eliminate, the generation of hazardous wastes.

3. The Parties shall also take all appropriate measures to reduce to a minimum the transboundary movement of hazardous wastes, and if possible to eliminate such movement in the Mediterranean. To achieve this goal, Parties have the right individually or collectively to ban the import of hazardous wastes. Other Parties shall respect this sovereign decision and not permit the export of hazardous wastes to States which have prohibited their import.

4. Subject to the specific provisions relating to the transboundary movement of hazardous wastes through the territorial sea of a State of transit, referred to in Article 6.4 of this Protocol, all Parties shall take appropriate legal, administrative and other measures within the area under their jurisdiction to prohibit the export and transit of hazardous wastes to developing countries, and Parties which are not Member States of the European Community shall prohibit all imports and transit of hazardous wastes.

5. The Parties shall cooperate with other United Nations agencies, relevant international and regional organizations in order to prevent illegal traffic, and shall take appropriate measures to achieve this goal, including criminal punishment measures in accordance with their national legislation.

Article 6

TRANSBOUNDARY MOVEMENT AND NOTIFICATION PROCEDURES

In exceptional cases, unless otherwise prohibited, when hazardous wastes cannot be disposed of in an environmentally sound manner in the country in which they originated, transboundary movements of such wastes can be allowed if:

1. The special situation of the Mediterranean developing countries which do not have the technical capabilities nor the disposal facilities for the environmentally sound management of hazardous wastes is taken into consideration.

2. The competent authority of the State of import ensures that the hazardous waste is disposed of in an approved site or facility with the technical capacity for its environmentally sound disposal.

3. The transboundary movement of hazardous wastes only takes place

with the prior written notification of the State of export as specified in Annex IV to this Protocol, and the prior written consent of the State(s) of import and the State(s) of transit. This paragraph does not apply to conditions of passage through the territorial sea, which are governed by paragraph 4 of this Article.

4. The transboundary movement of hazardous wastes through the territorial sea of a State of transit only takes place with the prior notification by the State of export to the State of transit, as specified in Annex IV to this Protocol. After reception of the notification, the State of transit brings to the attention of the State of export all the obligations relating to passage through its territorial sea in application of international law and the relevant provisions of its domestic legislation adopted in compliance with international law to protect the marine environment. Where necessary, the State of transit may take appropriate measures in accordance with international law. This procedure must be complied with within the delays provided for by the Basel Convention.

5. Every State involved in a transboundary movement ensures that such movement is consistent with international safety standards and financial guarantees, in particular the procedures and standards set out in the Basel Convention.

Article 7
DUTY TO REIMPORT

The State of export shall reimport the hazardous wastes if the transboundary movement cannot be completed by reason of impossibility of performance of the contracts relating to the movement and disposal of the wastes. To this end, any State of transit shall not oppose, hinder or prevent the return of those wastes to the State of export after being properly informed by the State of export.

Article 8
REGIONAL COOPERATION

1. In conformity with Article 13 of the Convention, the Parties shall cooperate as far as possible in scientific and technological fields related to pollution from hazardous wastes, particularly in the implementation and development of new methods for reducing and eliminating hazardous waste generated through clean production methods.

2. To this end, the Parties shall submit annual reports to the Organization regarding the hazardous wastes they generate and transfer within the Protocol area in order to enable the Organization to produce a hazardous waste audit.

3. The Parties shall cooperate in taking appropriate measures to implement the precautionary approach based on prevention of pollution problems arising from hazardous wastes and their transboundary movement and disposal. To this end, the Parties shall ensure that clean production methods are applied to production processes.

**Article 9
ILLEGAL TRAFFIC**

1. For the purpose of this Protocol, any transboundary movement of hazardous wastes in contravention of this Protocol or of other rules of international law shall be deemed to be illegal traffic.

2. Each Party shall introduce appropriate national legislation to prevent and punish illegal traffic, including criminal penalties on all persons involved in such illegal activities.

3. In the case of illegal traffic due to the conduct of the generator or the exporter, the State of export shall ensure that the wastes in question are taken back by the exporter or the generator or, if necessary, by itself, into the State of export within 30 days from the time the illegal traffic has come to its attention and that appropriate legal action is taken against the contravenor(s).

4. In the case of illegal traffic due to the conduct of the importer or disposer, the State of import shall ensure that the wastes in question are eliminated according to environmentally sound methods by the importer within 30 days from the time the illegal traffic has come to the attention of the State of import; if not possible, the State of export shall ensure that the wastes are taken back by the exporter, the generator or, if necessary, by itself into the State of export. The competent authorities of the importing or exporting States shall ensure that legal proceedings according to this Protocol are taken against the contravenor(s).

5. In cases where the responsibility for the illegal traffic cannot be assigned either to the exporter or generator or to the importer or disposer, the Parties concerned or other Parties, as appropriate, shall ensure, through cooperation that the wastes in question are disposed of as soon as possible in an environmentally sound manner either in the State of export or the State of import or elsewhere as appropriate.

6. The Parties shall forward, as soon as possible, all information relating to illegal traffic to the Organization, which shall distribute the information to all Contracting Parties.

7. The Parties shall cooperate to ensure that no illegal traffic takes place. Upon request, the Organization shall assist Parties in their identification of cases of illegal traffic and shall circulate immediately to the Parties concerned any information it has received regarding illegal traffic.

8. The Organization shall undertake the necessary coordination with the Secretariat of the Basel Convention in relation to the effective prevention and monitoring of illegal traffic in hazardous wastes. Such coordination shall be mainly based on:

(a) Exchange of information on cases or alleged cases of illegal traffic in the Mediterranean and coordination of action to remedy such cases;

(b) Providing assistance in the field of capacity-building, including development of national legislation and of appropriate infrastructure in the Mediterranean States with a view to the prevention and penalization of illegal traffic in hazardous wastes;

(c) The establishment of a mechanism to prevent and monitor illegal traffic in hazardous wastes in the Mediterranean.

**Article 10
ASSISTANCE TO DEVELOPING COUNTRIES**

The Parties shall, directly or with the assistance of competent or other international organizations or bilaterally, cooperate with a view to formulating and implementing programmes of financial and technical assistance to developing countries for the implementation of this Protocol.

Article 11
TRANSMISSION OF INFORMATION

The Parties shall inform one another through the Organization of measures taken, of results achieved and, if the case arises, of difficulties encountered in the application of this Protocol. Procedures for the collection and distribution of such information shall be determined at the meetings of the Parties.

Article 12
INFORMATION TO AND PARTICIPATION OF THE PUBLIC

1. In the exceptional cases in which transboundary movement of hazardous wastes is permitted under Article 6 of this Protocol, the Parties shall ensure that adequate information is made available to the public, transmitted through such channels as the Parties deem appropriate.
2. The State of export and the State of import shall, in accordance with the provisions of this Protocol and whenever possible and appropriate, give the public an opportunity to participate in relevant procedures with the aim of making known its views and concerns.

Article 13
VERIFICATION

1. Any Party which has reason to believe that another Party is acting or has acted in breach of its obligations under this Protocol informs the Organization thereof, and, in such an event, simultaneously and immediately informs, directly or through the Organization, the Party against whom the allegations are made.
2. The Organization shall carry out a verification of the substance of the allegation through consultation with the Parties concerned and submit a report thereon to the Parties.

Article 14
LIABILITY AND COMPENSATION

The Parties shall cooperate with a view to setting out, as soon as possible, appropriate guidelines for the evaluation of the damage, as well as rules and procedures in the field of liability and compensation for damage resulting from the transboundary movement and disposal

of hazardous wastes.

Article 15
MEETINGS

1. Ordinary meetings of the Parties shall take place in conjunction with ordinary meetings of the Contracting Parties to the Convention held pursuant to Article 18 of the Convention. The Parties to this Protocol may also hold extraordinary meetings in conformity with Article 18 of the Convention.

2. The functions of the meetings of the Parties shall be, inter alia:

(a) To keep under review the implementation of this Protocol, and consider any additional measures, including in the form of annexes;

(b) To revise and amend this Protocol and any annex thereto, as appropriate;

(c) To formulate and adopt programmes, methods and measures in accordance with the relevant Articles of this Protocol;

(d) To consider any information submitted by the Parties to the Organization or to the meetings of the Parties in accordance with the relevant Articles of this Protocol;

(e) To perform such other functions as may be appropriate for the application of this Protocol.

Article 16
ADOPTION OF ADDITIONAL PROGRAMMES AND MEASURES

The meeting of the Parties shall adopt, by a two-thirds (2/3) majority, any additional programmes and measures for the prevention and elimination of pollution from transboundary movements of hazardous wastes and their disposal.

Article 17
FINAL CLAUSES

1. The provisions of the Convention relating to any Protocol shall apply with respect to this Protocol.

2. The rules of procedure and the financial rules adopted pursuant to Article 24 of the Convention shall apply with respect to this Protocol, unless the Parties to this Protocol agree otherwise.

3. This Protocol shall be open for signature at Izmir on 1 October 1996, and at Madrid from 2 October 1996 to 1 October 1997 by any State Party to the Convention. It shall also be open on the same dates for signature by the European Community and by any similar regional economic grouping of which at least one member is a coastal State of the Protocol area and which exercises competence in the fields covered by this Protocol.

4. This Protocol shall be subject to ratification, acceptance or approval. Instruments of ratification, acceptance or approval shall be deposited with the Government of Spain, which will assume the functions of Depository.

5. As from 2 October 1997, this Protocol shall be open for accession by the States referred to in paragraph 3 above, by the European Community and by any grouping referred to in that paragraph.

6. This Protocol shall enter into force on the thirtieth (30) day following the deposit of at least six (6) instruments of ratification, acceptance or approval of, or accession to, the Protocol by the Parties referred to in paragraph 3 of this Article.

IN WITNESS WHEREOF, the undersigned, being duly authorized by their respective Governments, have signed this Protocol.

DONE at Izmir on this first day of October 1996 in a single copy in the Arabic, English, French, and Spanish languages, the four texts being equally authoritative.

**ANNEX I
CATEGORIES OF WASTES SUBJECT TO THIS PROTOCOL**

A. HAZARDOUS WASTES

Y0 All wastes containing or contaminated by radionuclides, the radionuclide concentration or properties of which result from human activity

- Y1 Clinical wastes from medical care in hospitals, medical centres and clinics**
- Y2 Wastes from the production and preparation of pharmaceutical products**
- Y3 Waste pharmaceuticals, drugs and medicines**
- Y4 Wastes from the production, formulation and use of biocides and phytopharmaceuticals**
- Y5 Wastes from manufacturing, formulation and use of wood preserving chemicals**
- Y6 Wastes from the production, formulation and use of organic solvents**
- Y7 Wastes from heat treatment and tempering operations containing cyanides**
- Y8 Waste mineral oils unfit for their originally intended use**
- Y9 Waste oils/water, hydrocarbons/water mixtures, emulsions**
- Y10 Waste substances and articles containing or contaminated with polychlorinated biphenyls (PCBs) and/or polychlorinated terphenyls (PCTs) and/or polybrominated biphenyls (PBBs)**
- Y11 Waste tarry residues arising from refining, distillation and any pyrolytic treatment**
- Y12 Wastes from production, formulation and use of inks, dyes, pigments, paints, lacquers, varnishes**
- Y13 Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives**
- Y14 Waste chemical substances arising from research and development or teaching activities which are not identified and/or are new and**

whose effects on man and/or the environment are not known

Y15 Wastes of an explosive nature not subject to other legislation

Y16 Wastes from production, formulation and use of photographic chemicals and processing materials

Y17 Wastes resulting from surface treatment of metals and plastics

Y18 Residues arising from industrial waste disposal operations

Wastes having as constituents:

Y19 Metal carbonyls

Y20 Beryllium; beryllium compounds

Y21 Hexavalent chromium compounds

Y22 Copper compounds

Y23 Zinc compounds

Y24 Arsenic; arsenic compounds

Y25 Selenium; selenium compounds

Y26 Cadmium; cadmium compounds

Y27 Antimony; antimony compounds

Y28 Tellurium; tellurium compounds

Y29 Mercury; mercury compounds

Y30 Thallium; thallium compounds

Y31 Lead; lead compounds

Y32 Inorganic fluorine compounds excluding calcium fluoride

Y33 Inorganic cyanides

Y34 Acidic solutions or acids in solid form

Y35 Basic solutions or bases in solid form

Y36 Asbestos (dust and fibres)

Y37 Organic phosphorus compounds

Y38 Organic cyanides

Y39 Phenols; phenolic compounds including chlorophenols

Y40 Ethers

Y41 Halogenated organic solvents

Y42 Organic solvents excluding halogenated solvents

Y43 Any congener of polychlorinated dibenzo-furan

Y44 Any congener of polychlorinated dibenzo-p-dioxin

Y45 Organohalogen compounds other than substances referred to in this Annex (e.g. Y39, Y41, Y42, Y43, Y44)

B. HOUSEHOLD WASTES

Y46 Wastes collected from households, including sewage and sewage sludges

Y47 Residues arising from the incineration of household wastes.

ANNEX II LIST OF HAZARDOUS CHARACTERISTICS

UN Code Characteristics

Class*

1 H1 Explosives

An explosive substance or waste is a solid or liquid substance or waste (or mixture of substances or wastes) which is in itself capable by chemical reaction of producing gas at such a temperature and pressure and at such a speed as to cause damage to the surroundings.

3 H3 Flammable liquids

The word "flammable" has the same meaning as "inflammable". Flammable liquids are liquids, or mixtures of liquids, or liquids containing solids in solution or suspension (for example paints, varnishes, lacquers, etc., but not including substances or wastes otherwise classified on account of their dangerous characteristics) which give off a flammable vapour at temperatures of not more than 60.5 degrees C, closed-cup test, or not more than 65.6 degrees C, open-cup test. (Since the results of open-cup tests and of closed-cup tests are not strictly comparable and even individual results by the same test are often variable, regulations varying from the above figures to make allowance for such difference would be within the spirit of this definition.)

4.1 H4.1 Flammable solids

Solids, or waste solids, other than those classed as explosives, which under conditions encountered in transport are readily combustible, or may cause or contribute to fire through friction.

4.2 H4.2 Substances or wastes liable to spontaneous combustion

Substances or wastes which are liable to spontaneous heating under normal conditions encountered in transport, or in heating up on contact with air, and being liable to catch fire.

4.3 H4.3 Substances or wastes which, in contact with water, emit flammable gases

Substances or wastes which, by interaction with water, are liable to

become spontaneously flammable or to give off flammable gases in dangerous quantities.

5.1 H5.1 Oxidizing

Substances or wastes which, while in themselves not necessarily combustible, may generally by yielding oxygen, cause or contribute to the combustion of other materials.

5.2 H5.2 Organic peroxides

Organic substances or wastes which contain the bivalent-O-O-structure are thermally unstable substances which may undergo exothermic self-accelerating decomposition.

6.1 H6.1 Poisonous (Acute)

Substances or wastes liable either to cause death or serious injury or to harm human health if swallowed or inhaled or by skin contact.

6.2 H6.2 Infectious substances

Substances or wastes containing viable microorganisms or their toxins which are known or suspected to cause disease in animals or humans.

8 H8 Corrosives

Substances or wastes which, by chemical action, will cause severe damage when in contact with living tissue, or in the case of leakage, will materially damage, or even destroy, other goods or the means of transport; they may also cause other hazards.

9 H10 Liberation of toxic gases in contact with air or water

Substances or wastes which, by interaction with air or water, are liable to give off toxic gases in dangerous quantities.

9 H11 Toxic (Delayed or chronic)

Substances or wastes which, if they are inhaled or ingested or if they

penetrate the skin, may involve delayed or chronic effects, including carcinogenicity.

9 H12 Ecotoxic

Substances or wastes which if released present or may present immediate or delayed adverse impacts on the environment by means of bioaccumulation and/or toxic effects upon biotic systems.

9 H13 Capable, by any means, after disposal, of yielding another material, e.g. leachate, which possesses any of the characteristics listed above.

ANNEX III DISPOSAL OPERATIONS

The list of disposal operations contained in this Annex reflects those which occur or have occurred in practice. It does not necessarily reflect a list of acceptable disposal operations. Pursuant to Articles 5 and 6 of this Protocol, hazardous wastes must in any event be managed in an environmentally sound manner.

A. Operations which do not lead to the possibility of resource recovery, recycling, reclamation, direct reuse or alternative uses.

Section A encompasses all such disposal operations which occur in practice.

D1 Deposit into or onto land (e.g. landfill, etc.)

D2 Land treatment (e.g. biodegradation of liquid or sludgy discards in soils, etc.)

D3 Deep injection (e.g. injection of pumpable discards into wells, salt domes or naturally occurring repositories, etc.)

D4 Surface impoundment (e.g. placement of liquid or sludge discards into pits, ponds, lagoons, etc.)

D5 Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment,

etc.)

D6 Release into a water body except seas/oceans

D7 Release into seas/oceans including sea-bed insertion

D8 Biological treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations in Section A

D9 Physico-chemical treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations in Section A (e.g. evaporation, drying, calcination, neutralization, precipitation, etc.)

D10 Incineration on land

D11 Incineration at sea

D12 Permanent storage (e.g. emplacement of containers in mines, etc.)

D13 Blending or mixing prior to submission to any of the operations in Section A

D14 Repackaging prior to submission to any of the operations in Section A

D15 Storage pending any of the operations in Section A

B. Operations which may lead to resource recovery, recycling, reclamation, direct reuse or alternative uses.

Section B encompasses all such operations with respect to materials legally defined as or considered to be hazardous wastes and which otherwise would have been destined for operations included in Section A.

R1 Use as a fuel (other than in direct incineration) or other means to generate energy

R2 Solvent reclamation/regeneration

R3 Recycling/reclamation of organic substances which are not used as solvents

R4 Recycling/reclamation of metals and metal compounds

R5 Recycling/reclamation of other inorganic materials

R6 Regeneration of acids or bases

R7 Recovery of components used for pollution abatement

R8 Recovery of components from catalysts

R9 Used oil re-refining or other reuses of previously used oil

R10 Land treatment resulting in benefit to agriculture or ecological improvement

R11 Uses of residual materials obtained from any of the operations numbered R1-R10

R12 Exchange of wastes for submission to any of the operations numbered R1-R11

R13 Accumulation of material intended for any operation in Section B

**ANNEX IV (A)
INFORMATION TO BE PROVIDED ON NOTIFICATION**

- 1. Reason for waste export;**
- 2. Exporter of the waste 1/;**
- 3. Generator(s) of the waste and site of generation 1/;**
- 4. Importer and disposer of the waste and actual site of disposal 1/;**
- 5. Intended carrier(s) of the waste or their agents, if known 1/;**

6. Country of export of the waste

Competent authority 2/;

7. Expected countries of transit

Competent authority 2/;

8. Country of import of the waste

Competent authority 2/;

9. Projected date(s) of shipment(s) and period of time over which waste is to be exported and proposed itinerary (including point of entry and exit) 3/;

10. Means of transport envisaged (road, rail, sea, air, inland waters);

11. Information relating to insurance 4/;

12. Designation and physical description of the waste including Y number and UN number and its composition 5/ and information on any special handling requirements including emergency provisions in case of accidents;

13. Type of packaging envisaged (e.g. bulk, drums, tanker);

14. Estimated quantity in weight/volume 6/;

15. Process by which the waste is generated 7/;

16. Code according to ANNEX I, classifications according to ANNEX II, H number, and UN class;

17. Method of disposal as per ANNEX III;

18. Declaration by the generator and exporter that the information is correct;

19. Information transmitted (including technical description of the plant) to the exporter or generator from the disposer of the waste upon which the latter has based his assessment that there is no reason to believe that the waste will not be managed in an environmentally

sound manner in accordance with the laws and regulations of the country of import;

20. Information concerning the contract between the exporter and the disposer.

NOTES

The Organization should make use of a Notification Form and accompanying documents such as those developed within the framework of the Basel Convention, the OECD and the European Community.

1/ Full name and address, telephone, telex or telefax number and the name, address, telephone, telex or telefax number of the person to be contacted.

2/ Full name and address, telephone, telex or telefax number.

3/ In the case of a general notification covering several shipments, either the expected dates of each shipment or, if this is not known, the expected frequency of the shipments will be required.

4/ Information to be provided on relevant insurance requirements and how they are met by exporter, carrier and disposer.

5/ The nature and the concentration of the most hazardous components, in terms of toxicity and other dangers presented by the waste both in handling and in relation to the proposed disposal method.

6/ In the case of a general notification covering several shipments, both the estimated total quantity and the estimated quantities for each individual shipment will be required.

7/ Insofar as this is necessary to assess the hazard and determine the appropriateness of the proposed disposal operation.

ANNEX IV (B)

INFORMATION TO BE PROVIDED ON THE MOVEMENT DOCUMENT

1. Exporter of the waste 1/;

- 2. Generator(s) of the waste and site of generation 1/;**
- 3. Disposer of the waste and actual site of disposal 1/;**
- 4. Carrier(s) of the waste 1/ or his agent(s);**
- 5. The date the transboundary movement started and date(s) and signature on receipt by each person who takes charge of the waste;**
- 6. Means of transport (road, rail, inland waterway, sea, air) including countries of export, transit and import, also point of entry and exit where these have been designated;**
- 7. General description of the waste (physical state, proper UN shipping name and class, UN number, Y number and H number as applicable);**
- 8. Information on special handling requirements including emergency provision in case of accidents;**
- 9. Type and number of packages;**
- 10. Quantity in weight/volume;**
- 11. Declaration by the generator or exporter that the information is correct;**
- 12. Declaration by the generator or exporter indicating no objection from the competent authorities of all States concerned which are Parties;**
- 13. Certification by disposer of receipt at designated disposal facility and indication of method of disposal and of the approximate date of disposal.**
- 14. The insurance documents, bond or other guarantee as may be required by the Parties, as provided in Article 6, paragraph 5.**

NOTES

The Organization should make use of a Movement Document and

accompanying documents such as those developed within the framework of the Basel Convention, the OECD and the European Community.

The information required on the Movement Document shall where possible be integrated in one document with that required under transport rules. Where this is not possible, the information should complement rather than duplicate that required under the transport rules. The Movement Document shall carry instructions as to who is to provide information and fill out any form.

1/ Full name and address, telephone, telex or telefax number and the name, address, telephone, telex or telefax number of the person to be contacted in case of emergency.

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Appendix RCL
Mediterranean Land Based Sources Protocol

UNEP Information Unit for Conventions

Mediterranean Land-Based Sources Protocol

Protocol for the Protection of the Mediterranean Sea Against Pollution from Land-Based Sources

Signed in Athens on 17 May 1980, in force 17 June 1983 (amended in Syracuse, Italy, 6 - 7 March 1996)

[Amended text](#)

The Contracting Parties to the present Protocol,

BEING PARTIES to the Convention for the Protection of the Mediterranean Sea Against Pollution, adopted at Barcelona on 16 February 1976,

DESIROUS of implementing Article 4, paragraph 2, and Articles 8 and 15 of the said Convention,

NOTING the rapid increase of human activities in the Mediterranean Sea Area, particularly in the fields of industrialization and urbanization, as well as the seasonal increase in the coastal population due to tourism,

RECOGNIZING the danger posed to the marine environment and to human health by pollution from land-based sources and the serious problems resulting therefrom in many coastal waters and river estuaries of the Mediterranean Sea, primarily due to the release of untreated, insufficiently treated or inadequately disposed of domestic or industrial discharges,

RECOGNIZING the difference in levels of development between the coastal States, and taking account of the economic and social imperatives of the developing countries,

DETERMINED to take in close co-operation the necessary measures to protect the Mediterranean Sea against pollution from land-based sources,

Have agreed as follows:

Article 1

The Contracting Parties to this Protocol (hereinafter referred to as "the Parties") shall take all appropriate measures to prevent, abate, combat and control pollution of the Mediterranean Sea Area caused by discharges from rivers, coastal establishments or outfalls, or emanating from any other land-based sources within their territories.

Article 2

For the purposes of this Protocol:

- (a) "The Convention" means the Convention for the Protection of the Mediterranean Sea against Pollution, adopted at Barcelona on 16 February 1976;
- (b) "Organization" means the body referred to in Article 13 of the Convention;
- (c) "Freshwater limit" means the place in watercourses where, at low tides and in a period of low freshwater flow, there is an appreciable increase in salinity due to the presence of sea-water.

Article 3

The area to which this Protocol applies (hereinafter referred to as the "Protocol Area") shall be:

- (a) The Mediterranean Sea Area as defined in Article 1 of the Convention;
- (b) Waters on the landward side of the baselines from which the breadth of the territorial sea is measured and extending in the case of watercourses up to the freshwater limit;
- (c) Saltwater marshes communicating with the sea.

Article 4

1. This Protocol shall apply:

- (a) To polluting discharges reaching the Protocol Area from land-based sources within the territories of the Parties, in particular: directly, from outfalls discharging into the sea or through coastal disposal; indirectly, through rivers, canals or other

watercourses, including underground watercourses, or through run-off;

(b) To pollution from land-based sources transported by the atmosphere, under conditions to be defined in an additional annex to this Protocol and accepted by the Parties in conformity with the provisions of Article 17 of the Convention.

2. This Protocol shall also apply to polluting discharges from fixed man-made offshore structures which are under the jurisdiction of a Party and which serve purposes other than exploration and exploitation of mineral resources of the continental shelf and the sea-bed and its subsoil.

Article 5

1. The Parties undertake to eliminate pollution of the Protocol Area from land-based sources by substances listed in Annex I to this Protocol.

2. To this end they shall elaborate and implement, jointly or individually, as appropriate, the necessary programmes and measures.

3. These programmes and measures shall include, in particular, common emission standards and standards for use.

4. The standards and the time-tables for the implementation of the programmes and measures aimed at eliminating pollution from land-based sources shall be fixed by the Parties and periodically reviewed, if necessary every two years, for each of the substances listed in Annex I, in accordance with the provisions of Article 15 of this Protocol.

Article 6

1. The Parties shall strictly limit pollution from land-based sources in the Protocol Area by substances or sources listed in Annex II to this Protocol.

2. To this end they shall elaborate and implement jointly or individually, as appropriate, suitable programmes and measures.

3. Discharges shall be strictly subject to the issue, by the competent national authorities, of an authorization taking due account of the provisions of Annex III to this Protocol.

Article 7

1. The Parties shall progressively formulate and adopt, in co-operation with the competent international organizations, common guidelines and, as appropriate, standards or criteria dealing in particular with:

- (a) The length, depth and position of pipelines for coastal outfalls, taking into account, in particular, the methods used for pretreatment of effluents;
- (b) Special requirements for effluents necessitating separate treatment;
- (c) The quality of sea-water used for specific purposes that is necessary for the protection of human health, living resources and ecosystems;
- (d) The control and progressive replacement of products, installations and industrial and other processes causing significant pollution of the marine environment;
- (e) Specific requirements concerning the quantities of the substances listed in Annexes I and II discharged, their concentration in effluents and methods of discharging them.

2. Without prejudice to the provisions of Article 5 of this Protocol, such common guidelines, standards or criteria shall take into account local ecological, geographical and physical characteristics, the economic capacity of the Parties and their need for development, the level of existing pollution and the real absorptive capacity of the marine environment.

3. The programmes and measures referred to in Articles 5 and 6 shall be adopted by taking into account, for their progressive implementation, the capacity to adapt and reconvert existing installations, the economic capacity of the Parties and their need for development.

Article 8

Within the framework of the provisions of, and the monitoring programmes provided for in, Article 10 of the Convention, and if necessary in co-operation with the competent international organizations, the Parties shall carry out at the earliest possible date monitoring activities in order:

- (a) Systematically to assess, as far as possible, the levels of pollution along their coasts, in particular with regard to the substances or sources listed in Annexes I and II, and periodically to provide information in this respect;
- (b) To evaluate the effects of measures taken under this Protocol to reduce pollution

of the marine environment.

Article 9

In conformity with Article 11 of the Convention, the Parties shall co-operate as far as possible in scientific and technological fields related to pollution from land-based sources, particularly research on inputs, pathways and effects of pollutants and on the development of new methods for their treatment reduction or elimination. To this end the Parties shall, in particular, endeavour to:

- (a) Exchange scientific and technical information,
- (b) Co-ordinate their research programmes.

Article 10

1. The Parties shall, directly or with the assistance of competent regional or other international organizations or bilaterally, co-operate with a view to formulating and, as far as possible, implementing programmes of assistance to developing countries, particularly in the fields of science, education and technology, with a view to preventing pollution from land-based sources and its harmful effects in the marine environment.

2. Technical assistance would include, in particular, the training of scientific and technical personnel, as well as the acquisition, utilization and production by those countries of appropriate equipment on advantageous terms to be agreed upon among the Parties concerned.

Article 11

1. If discharges from a watercourse which flows through the territories of two or more Parties or forms a boundary between them are likely to cause pollution of the marine environment of the Protocol Area, the Parties in question, respecting the provisions of this Protocol in so far as each of them is concerned, are called upon to co-operate with a view to ensuring its full application.

2. A Party shall not be responsible for any pollution originating on the territory of a non-contracting State. However, the said Party shall endeavour to cooperate with the said State so as to make possible full application of the Protocol.

Article 12

1. Taking into account Article 22, paragraph 1, of the Convention, when land-based pollution originating from the territory of one Party is likely to prejudice directly the interest of one or more of the other Parties, the Parties concerned shall, at the request of one or more of them, undertake to enter into consultation with a view to seeking a satisfactory solution.

2. At the request of any Party concerned, the matter shall be placed on the agenda of the next meeting of the Parties held in accordance with Article 14 of this Protocol, the meeting may make recommendations with a view to reaching a satisfactory solution .

Article 13

1. The Parties shall inform one another through the Organization of measures taken of results achieved and, if the case arises, of difficulties encountered in the application of this Protocol. Procedures for the collection and submission of such information shall be determined at the meetings of the Parties.

2. Such information shall include, inter alia:

(a) Statistical data on the authorizations granted in accordance with Article 6 of this Protocol;

(b) Data resulting from monitoring as provided for in Article 8 of this Protocol;

(c) Quantities of pollutants discharged from their territories;

(d) Measures taken in accordance with Articles 5 and 6 of this Protocol.

Article 14

1. Ordinary meetings of the Parties shall take place in conjunction with ordinary meetings of the Contracting Parties to the Convention held pursuant to Article 14 of the Convention. The Parties may also hold extraordinary meetings in accordance with Article 14 of the Convention.

2. The functions of the meetings of the Parties to this Protocol shall be, inter alia:

(a) To keep under review the implementation of the Protocol and to consider the efficacy of the measures adopted and the advisability of any other measures, in particular in the form of annexes;

- (b) To revise and amend any annex to this Protocol, as appropriate;
- (c) To formulate and adopt programmes and measures in accordance with Articles 5, 6 and 15 of this Protocol;
- (d) To adopt, in accordance with Article 7 of this Protocol, common guidelines, standards or criteria, in any form decided upon by the Parties;
- (e) To make recommendations in accordance with Article 12, paragraph 2, of this Protocol;
- (f) To consider the information submitted by the Parties under Article 13 of this Protocol;
- (g) To discharge such other functions as may be appropriate for the application of this Protocol.

Article 15

1. The meeting of the Parties shall adopt, by a two-thirds majority, the programmes and measures for the abatement or the elimination of pollution from land-based sources which are provided for in Articles 5 and 6 of this Protocol.
2. The Parties which are not able to accept a programme or measures shall inform the meeting of the Parties of the action they intend to take as regards the programme or measures concerned, it being understood that these Parties may, at any time, give their consent to the programme or measures that have been adopted.

Article 16

1. The provisions of the Convention relating to any Protocol shall apply with respect to this Protocol.
2. The rules of procedure and the financial rules adopted pursuant to Article 18 of the Convention shall apply with respect to this Protocol, unless the Parties to this Protocol agree otherwise.
3. This Protocol shall be open for signature, at Athens from 17 May 1980 to 16 June 1980, and at Madrid from 17 June 1980 to 16 May 1981, by any State invited to the Conference of Plenipotentiaries of the Coastal States of the Mediterranean Region for the

Protection of the Mediterranean Sea Against Pollution from Land-Based Sources held at Athens from 12 May to 17 May 1980. It shall also be open until the same dates for signature by the European Economic Community and by any similar regional economic grouping of which at least one member is a coastal State of the Mediterranean Sea Area and which exercises competence in fields covered by this Protocol.

4. This Protocol shall be subject to ratification, acceptance or approval. Instruments of ratification, acceptance or approval shall be deposited with the Government of Spain, which will assume the functions of Depository.

5. As from 17 May 1981, this Protocol shall be open for accession by the States referred to in paragraph 3 above, by the European Economic Community and by any grouping referred to in that paragraph.

6. This Protocol shall enter into force on the thirtieth day following the deposit of at least six instruments of ratification, acceptance or approval of, or accession to, the Protocol by the Parties referred to in paragraph 3 of this article.

In witness whereof the undersigned, being duly authorized by their respective Governments, have signed this Protocol.

Done at Athens on this seventeenth day of May one thousand nine hundred and eighty in a single copy in the Arabic, English, French and Spanish languages, the four texts being equally authoritative.

Annex I

A. The following substances, families and groups of substances are listed, not in order of priority, for the purposes of Article 5 of this Protocol. They have been selected mainly on the basis of their

Toxicity;

Persistence;

Bioaccumulation.

1. Organohalogen compounds and substances which may form such compounds in the marine environment. [1]

2. Organophosphorus compounds and substances which may form such compounds

in the marine environment. [1]

3. Organotin compounds and substances which may form such compounds in the marine environment. [1]

4. Mercury and mercury compounds.

5. Cadmium and cadmium compounds.

6. Used lubricating oils.

7. Persistent synthetic materials which may float, sink or remain in suspension and which may interfere with any legitimate use of the sea.

8. Substances having proven carcinogenic, teratogenic or mutagenic properties in or through the marine environment.

9. Radioactive substances, including their wastes, when their discharges do not comply with the principles of radiation protection as defined by the competent international organizations, taking into account the protection of the marine environment.

B. The present annex does not apply to discharges which contain substances listed in section A that are below the limits defined jointly by the Parties.

[1] With the exception of those which are biologically harmless or which are rapidly converted into biologically harmless substances.

Annex II

A. The following substances, families and groups of substances, or sources of pollution, listed not in order of priority for the purposes of Article 6 of this Protocol, have been selected mainly on the basis of criteria used for Annex I, while taking into account the fact that they are generally less noxious or are more readily rendered harmless by natural processes and therefore generally affect more limited coastal areas.

1. The following elements and their compounds:

1. zinc

2. copper

3. nickel

5. lead

6. selenium

7. arsenic

8. antimony

9. molybdenum

10. titanium

11. tin

12. barium

13. beryllium

14. boron

14. chromium

15. uranium

16. vanadium

17. cobalt

18. thallium

19. tellurium

20. silver

2. Biocides and their derivatives not covered in Annex I.

3. Organosilicon compounds and substances which may form such compounds in

the marine environment, excluding those which are biologically harmless or are rapidly converted into biologically harmless substances.

4. Crude oils and hydrocarbons of any origin.
5. Cyanides and fluorides.
6. Non-biodegradable detergents and other surface-active substances.
7. Inorganic compounds of phosphorus and elemental phosphorus.
8. Pathogenic micro-organisms.
9. Thermal discharges.
10. Substances which have a deleterious effect on the taste and/or smell of products for human consumption derived from the aquatic environment and compounds liable to give rise to such substances in the marine environment.
11. Substances which have, directly or indirectly an adverse effect on the oxygen content of the marine environment, especially those which may cause eutrophication.
12. Acid or alkaline compounds of such composition and in such quantity that they may impair the quality of sea-water.
13. Substances which, though of a non-toxic nature, may become harmful to the marine environment or may interfere with any legitimate use of the sea owing to the quantities in which they are discharged.

B. The control and strict limitation of the discharge of substances referred to in section A above must be implemented in accordance with Annex III.

Annex III

With a view to the issue of an authorization for the discharge of wastes containing substances referred to in Annex II or in section B of Annex I to this Protocol, particular account will be taken, as the case may be, of the following factors.

A. CHARACTERISTICS AND COMPOSITION OF THE WASTE

1. Type and size of waste source (e.g., industrial process).

2. Type of waste (origin, average composition).
3. Form of waste (solid, liquid, sludge, slurry).
4. Total amount (volume discharged, e.g., per year).
5. Discharge pattern (continuous, intermittent, seasonally variable, etc.).
6. Concentrations with respect to major constituents, substances listed in Annex I, substances listed in Annex II, and other substances as appropriate.
7. Physical, chemical and biochemical properties of the waste.

B. CHARACTERISTICS OF WASTE CONSTITUENTS WITH RESPECT TO THEIR HARMFULNESS

1. Persistence (physical, chemical, biological) in the marine environment.
2. Toxicity and other harmful effects.
3. Accumulation in biological materials or sediments.
4. Biochemical transformation producing harmful compounds.
5. Adverse effects on the oxygen content and balance.
6. Susceptibility to physical, chemical and biochemical changes and interaction in the aquatic environment with other sea-water constituents which may produce harmful biological or other effects on any of the uses listed in section E below.

C. CHARACTERISTICS OF DISCHARGE SITE AND RECEIVING MARINE ENVIRONMENT

1. Hydrographic, meteorological, geological and topographical characteristics of the coastal area.
2. Location and type of the discharge (outfall, canal, outlet, etc.) and its relation to other areas (such as amenity areas, spawning, nursery, and fishing areas, shellfish grounds) and other discharges.
3. Initial dilution achieved at the point of discharge into the receiving marine

environment.

4. Dispersion characteristics such as effects of currents, tides and wind on horizontal transport and vertical mixing.

5. Receiving water characteristics with respect to physical, chemical, biological and ecological conditions in the discharge area.

6. Capacity of the receiving marine environment to receive waste discharges without undesirable effects.

D. AVAILABILITY OF WASTE TECHNOLOGIES

The methods of waste reduction and discharge for industrial effluents as well as domestic sewage should be selected taking into account the availability and feasibility of:

- (a) Alternative treatment processes;
- (b) Re-use or elimination methods;
- (c) On-land disposal alternatives; and
- (d) Appropriate low-waste technologies.

E. POTENTIAL IMPAIRMENT OF MARINE ECOSYSTEMS AND SEA-WATER USES

1. Effects on human health through pollution impact on:

- (a) Edible marine organisms;
- (b) Bathing waters;
- (c) Aesthetics.

2. Effects on marine ecosystems, in particular living resources, endangered species and critical habitats.

3. Effects on other legitimate uses of the sea.

Appendix RCM
Mediterranean Offshore Protocol

UNEP Information Unit for Conventions

Mediterranean Offshore Protocol

The Protocol for the Protection of the Mediterranean Sea against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil

Signed in Madrid, Spain, on 14 October 1994, not yet in force

Being Parties to the Convention for the Protection of the Mediterranean Sea against Pollution, adopted at Barcelona on 16 February 1976,

Bearing in mind the increase in the activities concerning exploration and exploitation of the Mediterranean seabed and its subsoil,

Recognizing that the pollution which may result therefrom represents a serious danger to the environment and to human beings,

Desirous of protecting and preserving the Mediterranean Sea from pollution resulting from exploration and exploitation activities,

Recognizing the differences in levels of development among the coastal States, and taking account of the economic and social imperatives of the developing countries,

Article 1

For the purposes of this Protocol:

(b) "Organization" means the body referred to in Article 17 of the Convention;

(d) "Activities concerning exploration and/or exploitation of the resources in the Protocol Area" (hereinafter referred to as "activities") means:

(ii) Exploration activities:

- Exploration drilling;

- Establishment of an installation for the purpose of recovering resources, and activities connected therewith;
 - Recovery, treatment and storage;
 - Maintenance, repair and other ancillary operations;
- (e) "Pollution" is defined as in Article 2, paragraph (a), of the Convention;
- (i) Fixed or mobile offshore drilling units;
- (iii) Offshore storage facilities including ships used for this purpose;
- (v) Apparatus attached to it and equipment for the reloading, processing, storage and disposal of substances removed from the seabed or its subsoil;
- (i) Any natural or juridical person who is authorized by the Party exercising jurisdiction over the area where the activities are undertaken (hereinafter referred to as the "Contracting Party") in accordance with this Protocol to carry out activities and/or who carries out such activities; or
- (h) "Safety zone" means a zone established around installations in conformity with the provisions of general international law and technical requirements, with appropriate markings to ensure the safety of both navigation and the installations;
- (j) "Harmful or noxious substances and materials" means substances and materials of any kind, form or description, which might cause pollution, if introduced into the Protocol Area;
- (i) The chemicals which the operator intends to use in the operations;
- (iii) The maximum concentrations of the chemicals which the operator intends to use within any other substances, and maximum amounts intended to be used in any specified period;
- (l) "Oil" means petroleum in any form including crude oil, fuel oil, oily sludge, oil refuse and refined products and, without limiting the generality of the foregoing, includes the substances listed in the Appendix to this Protocol;
- (i) Drainage and other wastes from any form of toilets, urinals and water-closet scuppers;

(iii) Other waste waters when mixed with the drainages defined above;

(p) "Freshwater limit" means the place in water courses where, at low tides and in a period of low freshwater flow, there is an appreciable increase in salinity due to the presence of sea water.

GEOGRAPHICAL COVERAGE

(a) The Mediterranean Sea Area as defined in Article 1 of the Convention, including the continental shelf and the seabed and its subsoil;

2. Any of the Contracting Parties to this Protocol (referred to in this Protocol as "the Parties") may also include in the Protocol area wetlands or coastal areas of their territory.

Article 3

1. The Parties shall take, individually or through bilateral or multilateral cooperation, all appropriate measures to prevent, abate, combat and control pollution in the Protocol Area resulting from activities, inter alia by ensuring that the best available techniques, environmentally effective and economically appropriate, are used for this purpose.

SECTION II - AUTHORIZATION SYSTEM

GENERAL PRINCIPLES

1. All activities in the Protocol Area, including erection on site of installations, shall be subject to the prior written authorization for exploration or exploitation from the competent authority. Such authority, before granting the authorization, shall be satisfied that the installation has been constructed according to international standards and practice and that the operator has the technical competence and the financial capacity to carry out the activities. Such authorization shall be granted in accordance with the appropriate procedure, as defined by the competent authority.

3. When considering approval of the siting of an installation, the Contracting Party shall ensure that no detrimental effects will be caused to existing facilities by such siting, in particular, to pipelines and cables.

REQUIREMENTS FOR AUTHORIZATIONS

(a) A survey concerning the effects of the proposed activities on the environment; the competent authority may, in the light of the nature, scope, duration and technical methods employed in the activities and of the characteristics of the area, require that an environmental impact assessment be prepared in accordance with Annex IV to this Protocol;

(c) Particulars of the professional and technical qualifications of the candidate operator and personnel on the installation, as well as of the composition of the crew;

(e) The operator's contingency plan as specified in Article 16;

(g) The plans for removal of installations as specified in Article 20;

(i) The insurance or other financial security to cover liability as prescribed in Article 27, paragraph 2 (b).

Article 6

1. The authorizations referred to in Article 4 shall be granted only after examination by the competent authority of the requirements listed in Article 5 and Annex IV.

2. Each authorization shall specify the activities and the period of validity of the authorization, establish the geographical limits of the area subject to the authorization and specify the technical requirements and the authorized installations. The necessary safety zones shall be established at a later appropriate stage.

Article 7

Each Party shall prescribe sanctions to be imposed for breach of obligations arising out of this Protocol, or for non-observance of the national laws or regulations implementing this Protocol, or for non-fulfilment of the specific conditions attached to the authorization.

SECTION III - WASTES AND HARMFUL OR NOXIOUS SUBSTANCES Article 8

Without prejudice to other standards or obligations referred to in this Section, the Parties shall impose a general obligation upon operators to use the best available, environmentally effective and economically appropriate techniques and to observe internationally

accepted standards regarding wastes, as well as the use, storage and discharge of harmful or noxious substances and materials, with a view to minimizing the risk of pollution.

HARMFUL OR NOXIOUS SUBSTANCES AND MATERIALS

2. The Contracting Party may regulate, limit or prohibit the use of chemicals for the activities in accordance with guidelines to be adopted by the Contracting Parties.

4. The disposal into the Protocol Area of harmful or noxious substances and materials resulting from the activities covered by this Protocol and listed in Annex I to this Protocol is prohibited.

6. The disposal into the Protocol Area of all other harmful or noxious substances and materials resulting from the activities covered by this Protocol and which might cause pollution requires a prior general permit from the competent authority.

Article 10

1. The Parties shall formulate and adopt common standards for the disposal of oil and oily mixtures from installations into the Protocol Area:

(b) Such common standards shall not be less restrictive than the following, in particular:

(c) The Parties shall determine by common agreement which method will be used to analyze the oil content.

2. The Parties shall formulate and adopt common standards for the use and disposal of drilling fluids and drill cuttings into the Protocol Area. Such common standards shall be formulated in accordance with the provisions of Annex V, B.

Article 11

1. The Contracting Party shall prohibit the discharge of sewage from installations permanently manned by 10 or more persons into the Protocol Area except in cases where:

(b) The sewage is not treated, but the discharge is carried out in accordance with international rules and standards; or

3. The exceptions referred to in paragraph 1 shall not apply if the discharge produces visible floating solids or produces colouration, discolouration or opacity of the surrounding water.

Article 12

1. The Contracting Party shall prohibit the disposal into the Protocol Area of the following products and materials:

(b) All other non-biodegradable garbage, including paper products, rags, glass, metal, bottles, crockery, dunnage, lining and packing materials.

3. If garbage is mixed with other discharges having different disposal or discharge requirements, the more stringent requirements shall apply.

RECEPTION FACILITIES, INSTRUCTIONS AND SANCTIONS

(a) Operators dispose satisfactorily of all wastes and harmful or noxious substances and materials in designated onshore reception facilities, except as otherwise authorized by the Protocol;

(c) Sanctions are imposed in respect of illegal disposals.

Article 14

1. The provisions of this Section shall not apply in case of:

- to save human life,

on condition that all reasonable precautions have been taken after the damage is discovered or after the disposal has been performed to reduce the negative effects.

2. However, the provisions of this Section shall apply in any case

where the operator acted with the intent to cause damage or recklessly and with knowledge that damage will probably result.

SECTION IV - SAFEGUARDS

ASAFETY MEASURES

2. The Contracting Party shall ensure that at all times the operator has on the installations adequate equipment and devices, maintained in good working order, for protecting human life, preventing and combating accidental pollution and facilitating prompt response to an emergency, in accordance with the best available environmentally effective and economically appropriate techniques and the provisions of the operator's contingency plan referred to in Article 16.

4. The Parties shall ensure through inspection that the activities are conducted by the operators in accordance with this Article.

CONTINGENCY PLANNING

2. Each Party shall require operators in charge of installations under its jurisdiction to have a contingency plan to combat accidental pollution, coordinated with the contingency plan of the Contracting Party established in accordance with the Protocol concerning Cooperation in Combating Pollution of the Mediterranean Sea by Oil and Other Harmful Substances in Cases of Emergency and approved in conformity with the procedures established by the competent authorities.

Article 17

Each Party shall require operators in charge of installations under its jurisdiction to report without delay to the competent authority:

(b) Any observed event at sea causing or likely to cause pollution in the Protocol Area.

Article 18

In cases of emergency, a Party requiring assistance in order to prevent, abate or combat pollution resulting from activities may request help from the other Parties, either directly or through the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC), which shall do their utmost to provide the assistance requested.

Article 19

1. The operator shall be required to measure, or to have measured by a qualified entity, expert in the matter, the effects of the activities on the environment in the light of the nature, scope, duration and technical methods employed in the activities and of the characteristics of the area and to report on them periodically or upon request by the competent authority for the purpose of an evaluation by such competent authority according to a procedure established by the competent authority in its authorization system.

Article 20

1. The operator shall be required by the competent authority to remove any installation which is abandoned or disused, in order to ensure safety of navigation, taking into account the guidelines and standards adopted by the competent international organization. Such removal shall also have due regard to other legitimate uses of the sea, in particular fishing, the protection of the marine environment and the rights and duties of other Contracting Parties. Prior to such removal, the operator under its responsibility shall take all necessary measures to prevent spillage or leakage from the site of the activities.

2. The competent authority shall require the operator to remove abandoned or disused pipelines in accordance with paragraph 1 of this Article or to clean them inside and abandon them or to clean them inside and bury them so that they neither cause pollution, endanger navigation, hinder fishing, threaten the marine environment, nor interfere with other legitimate uses of the sea or with the rights and duties of other Contracting Parties. The competent authority shall ensure that appropriate publicity is given to the depth, position and dimensions of any buried pipeline and that such information is indicated on charts and notified to the Organization and other competent international organizations and the Parties.

4. The competent authority may indicate eventual modifications to be made to the level of activities and to the measures for the protection of the marine environment which had initially been provided for.

6. Where the operator fails to comply with the provisions of this Article, the competent authority shall undertake, at the operator's expense, such action or actions as may be necessary to remedy the operator's failure to act.

SPECIALLY PROTECTED AREAS

In addition to the measures referred to in the Protocol concerning Mediterranean Specially Protected Areas for the granting of authorization, such measures may include, inter alia:

(i) The preparation and evaluation of environmental impact assessments;

(b) Intensified exchange of information among operators, the competent authorities, Parties and the Organization regarding matters which may affect such areas.

SECTION V - COOPERATION

Article 22

In conformity with Article 13 of the Convention, the Parties shall, where appropriate, cooperate in promoting studies and undertaking programmes of scientific and technological research for the purpose of developing new methods of:

(b) Preventing, abating, combating and controlling pollution, especially in cases of emergency.

INTERNATIONAL RULES, STANDARDS AND RECOMMENDED

1. The Parties shall cooperate, either directly or through the Organization or other competent international organizations, in order to:

(b) Formulate and elaborate such international rules, standards and recommended practices and procedures;

2. The Parties shall, as soon as possible, endeavour to harmonize their laws and regulations with the international rules, standards and recommended practices and procedures referred to in paragraph 1 of this Article.

Article 24

1. The Parties shall, directly or with the assistance of competent regional or other international organizations, cooperate with a view to formulating and, as far as possible, implementing programmes of

assistance to developing countries, particularly in the fields of science, law, education and technology, in order to prevent, abate, combat and control pollution due to activities in the Protocol Area.

Article 25

Article 26

1. Each Party shall take all measures necessary to ensure that activities under its jurisdiction are so conducted as not to cause pollution beyond the limits of its jurisdiction.

3. If a Party becomes aware of cases in which the marine environment is in imminent danger of being damaged, or has been damaged, by pollution, it shall immediately notify other Parties which in its opinion are likely to be affected by such damage, as well as the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC), and provide them with timely information that would enable them, where necessary, to take appropriate measures. REMPEC shall distribute the information immediately to all relevant Parties.

Article 27

1. The Parties undertake to cooperate as soon as possible in formulating and adopting appropriate rules and procedures for the determination of liability and compensation for damage resulting from the activities dealt with in this Protocol, in conformity with Article 16 of the Convention.

(a) Shall take all measures necessary to ensure that liability for damage caused by activities is imposed on operators, and they shall be required to pay prompt and adequate compensation;

SECTION VI - FINAL PROVISIONS

APPOINTMENT OF COMPETENT AUTHORITIES

(a) Grant, renew and register the authorizations provided for in Section II of this Protocol;

(c) Issue the permits referred to in Annex V to this Protocol;

(e) Give the prior approval for exceptional discharges referred to in Article 14, paragraph 1 (b), of this Protocol;

(g) Perform the functions relating to contingency planning described in Article 16 and Annex VII to this Protocol;

(i) Supervise the removal operations of the installations as provided in Article 20 of this Protocol.

TRANSITIONAL MEASURES

Article 30

2. The functions of the meetings of the Parties to this Protocol shall be, inter alia:

(b) To revise and amend any annex or appendix to this Protocol;

(d) To consider the information concerning the permits issued and approvals given in accordance with Section III of this Protocol;

(f) To consider the records of the contingency plans and means of intervention in emergencies adopted in accordance with Article 16 of this Protocol;

(h) To facilitate the implementation of the policies and the achievement of the objectives referred to in Section V, in particular the harmonization of national and European Community legislation in accordance with Article 23, paragraph 2, of this Protocol;

(j) To discharge such other functions as may be appropriate for the application of this Protocol.

RELATIONS WITH THE CONVENTION

2. The rules of procedure and the financial rules adopted pursuant to Article 24 of the Convention shall apply with respect to this Protocol, unless the Parties to this Protocol agree otherwise.

FINAL CLAUSE

1. This Protocol shall be open for signature at Madrid from 14 October 1994 to 14 October 1995, by any State Party to the Convention invited to the Conference of Plenipotentiaries of the Coastal States of the Mediterranean Region on the Protocol for the Protection of the Mediterranean Sea against Pollution resulting from Exploration and

Exploitation of the Seabed and its Subsoil, held at Madrid on 13 and 14 October 1994. It shall also be open until the same dates for signature by the European Community and by any similar regional economic grouping of which at least one member is a coastal State of the Protocol Area and which exercises competence in fields covered by this Protocol in conformity with Article 30 of the Convention.

3. As from 15 October 1995, this Protocol shall be open for accession by the States referred to in paragraph 1 above, by the European Community and by any grouping referred to in that paragraph.

IN WITNESS WHEREOF the undersigned, being duly authorized, have signed this Protocol.

ANNEX I

THE DISPOSAL OF WHICH IN THE PROTOCOL AREA IS PROHIBITED

A. The following substances and materials and compounds thereof are listed for the purposes of Article 9, paragraph 4, of the Protocol. They have been selected mainly on the basis of their toxicity, persistence and bioaccumulation:

2. Cadmium and cadmium compounds

3. Organotin compounds and substances which may form such compounds in the marine environment [\[1\]](#)

5. Organohalogen compounds and substances which may form such compounds in the marine environment¹

7. Persistent synthetic materials which may float, sink or remain in suspension and which may interfere with any legitimate use of the sea

9. Radioactive substances, including their wastes, if their discharges do not comply with the principles of radiation protection as defined by the competent international organizations, taking into account the protection of the marine environment

ANNEX II

THE DISPOSAL OF WHICH IN THE PROTOCOL AREA A. The following

substances and materials and compounds thereof have been selected for the purpose of Article 9, paragraph 5, of the Protocol.

2. Lead

4. Zinc

6. Nickel

8 Chromium

10. Selenium

12. Molybdenum

14. Tin

16. Boron

18. Cobalt

20. Tellurium

22. Cyanides

ANNEX III

For the purpose of the issue of a permit required under Article 9, paragraph 7, particular account will be taken, as the case may be, of the following factors:

1. Type and size of waste source (e.g. industrial process);

3. Form of waste (solid, liquid, sludge, slurry, gaseous);

5. Discharge pattern (continuous, intermittent, seasonally variable, etc.);

7. Physical, chemical and biochemical properties of the waste.

1. Persistence (physical, chemical, biological) in the marine environment;

3. Accumulation in biological materials or sediments;

5. Adverse effects on the oxygen content and balance;

1. Hydrographic, meteorological, geological and topographical characteristics of the area;

3. Initial dilution achieved at the point of discharge into the receiving marine environment;

5. Receiving water characteristics with respect to physical, chemical, biological and ecological conditions in the discharge area;

D. Availability of waste technologies

(a) Alternative treatment processes;

(c) On-land disposal alternatives;

E. Potential impairment of marine ecosystem and sea-water uses

(a) Edible marine organisms;

(c) Aesthetics.

3. Effects on other legitimate uses of the sea in conformity with international law.

ANNEX IV

1. Each Party shall require that the environmental impact assessment contains at least the following:

(b) A description of the initial state of the environment of the area;

(d) A description of the methods, installations and other means to be used, possible alternatives to such methods and means;

(f) A statement setting out the measures proposed for reducing to the minimum the risk of damage to the environment as a result of carrying out the proposed activities, including possible alternatives to such

measures;

(h) A reference to the methodology used for the environmental impact assessment;

2. Each Party shall promulgate standards taking into account the international rules, standards and recommended practices and procedures, adopted in accordance with Article 23 of the Protocol, by which environmental impact assessments are to be evaluated.

ANNEX V

The following provisions shall be prescribed by the Parties in accordance with Article 10:

1. Spills of high oil content in processing drainage and platform drainage shall be contained, diverted and then treated as part of the product, but the remainder shall be treated to an acceptable level before discharge, in accordance with good oilfield practice;

2. Oily waste and sludges from separation processes shall be transported to shore;

3. All the necessary precautions shall be taken to minimize losses of oil into the sea from oil collected or flared from well testing;

(a) The use and disposal of such drilling fluids shall be subject to the Chemical Use Plan and the provisions of Article 9 of this Protocol;

2. Oil-based drilling fluids and drill cuttings are subject to the following requirements:

(b) The disposal into the sea of such drilling fluids is prohibited;

(e) In case of production and development drilling, a programme of seabed sampling and analysis relating to the zone of contamination must be undertaken.

ANNEX VI

The following provisions shall be prescribed by the Parties in accordance with Article 15:

(b) That all phases of the activities, including storage and transport of recovered resources, must be properly prepared, that the whole activity must be open to control for safety reasons and must be conducted in the safest possible way, and that the operator must apply a monitoring system for all activities;

(d) That the installation and, where necessary, the established safety zone, must be marked in accordance with international recommendations so as to give adequate warning of its presence and sufficient details for its identification;

CONTINGENCY PLAN

(a) That the most appropriate alarm system and communication system are available at the installation and they are in good working order;

(c) That, in coordination with the competent authority, transmission of the alarm and appropriate assistance and coordination of assistance can be organized and supervised without delay;

(e) That the competent authority is constantly informed about the progress of combating the emergency;

(g) That the most appropriate methods and techniques are known to the specialized crew referred to in Annex VI, paragraph (c), in order to combat leakages, spillages, accidental discharges, fire, explosions, blow-outs and any other threat to human life or the environment;

(i) That the crew is thoroughly familiar with the operator's contingency plan, that periodic emergency exercises are held so that the crew has a thorough working knowledge of the equipment and procedures and that each individual knows exactly his role within the plan.

The competent authority for emergencies of a Contracting Party shall ensure:

(c) The coordination of actions in the course of preventing, abating or combating pollution or in preparation for further action for that purpose within the national jurisdiction with such actions undertaken within the jurisdiction of other States or by international organizations;

(e) The provision of an up-to-date list of the persons and entities to be alerted and informed about an emergency, its development and the measures taken;

(g) The coordination and supervision of the assistance referred to in Part A above, in cooperation with the operator;

(k) Immediate communication to the competent international organizations with a view to avoiding danger to shipping and other interests.

APPENDIX

LIST OF OILs [\[*\]](#)

**Blending Stocks
Straight Run Residue**

OILS

Crude Oil

Diesel Oil

Fuel Oil No. 5

Residual Fuel Oil

Transformer Oil

Lubricating Oils and Blending Stocks

Motor Oil

Spindle Oil

DISTILLATES

Flashed Feed Stocks

Cracked

JET FUELS

JP-3

JP-5 (Kerosene, Heavy)

Kerosene

NAPHTHA

Petroleum

GASOLINE BLENDING STOCKS

Reformats

Casinghead (natural)

Aviation

Fuel Oil No. 1 (Kerosene)

Fuel Oil No. 2

[1] With the exception of those which are biologically harmless or which are rapidly converted into biologically harmless substances.

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*** The list of oils should not necessarily be considered as exhaustivE.**

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Appendix RCN
Mediterranean Specially Protected Areas Protocol

UNEP Information Unit for Conventions

Mediterranean SPA Protocol

Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean

As revised in Barcelona, Spain, on 9-10 June 1995 and including Annexes which were adopted in Monaco, on 24 November 1996

The Contracting Parties to the present Protocol,

Being Parties to the Convention for the Protection of the Mediterranean Sea against Pollution, adopted at Barcelona on 16 February 1976,

Conscious of the profound impact of human activities on the state of the marine environment and the littoral and more generally on the ecosystems of areas having prevailing Mediterranean features,

Stressing the importance of protecting and, as appropriate, improving the state of the Mediterranean natural and cultural heritage, in particular through the establishment of specially protected areas and also by the protection and conservation of threatened species,

Considering the instruments adopted by the United Nations Conference on Environment and Development and particularly the Convention on Biological Diversity (Rio de Janeiro, 1992),

Conscious that when there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be invoked as a reason for postponing measures to avoid or minimize such a threat,

Considering that all the Contracting Parties should cooperate to conserve, protect and restore the health and integrity of ecosystems and that they have, in this respect, common but differentiated responsibilities,

Have agreed as follows:

PART I

GENERAL PROVISIONS

Article 1

DEFINITIONS

For the purposes of this Protocol:

(a) "Convention" means the Convention for the Protection of the Mediterranean Sea against Pollution, adopted at Barcelona on 16 February 1976 and amended at Barcelona in 1995;

(b) "Biological diversity" means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems;

(c) "Endangered species" means any species that is in danger of extinction throughout all or part of its range;

(d) "Endemic species" means any species whose range is restricted to a limited geographical area;

(e) "Threatened species" means any species that is likely to become extinct within the foreseeable future throughout all or part of its range and whose survival is unlikely if the factors causing numerical decline or habitat degradation continue to operate;

(f) "Conservation status of a species" means the sum of the influences acting on the species that may affect its long-term distribution and abundance;

(g) "Parties" means the Contracting Parties to this Protocol;

(h) "Organization" means the organization referred to in Article 2 of the Convention;

(i) "Centre" means the Regional Activity Centre for Specially Protected Areas.

Article 2

GEOGRAPHICAL COVERAGE

1. The area to which this Protocol applies shall be the area of the Mediterranean Sea as delimited in Article 1 of the Convention. It also includes:

- the seabed and its subsoil;
- the waters, the seabed and its subsoil on the landward side of the baseline from which the breadth of the territorial sea is measured and extending, in the case of watercourses, up to the freshwater limit;
- the terrestrial coastal areas designated by each of the Parties, including wetlands.

2. Nothing in this Protocol nor any act adopted on the basis of this Protocol shall prejudice the rights, the present and future claims or legal views of any State relating to the law of the sea, in particular, the nature and the extent of marine areas, the delimitation of marine areas between States with opposite or adjacent coasts, freedom of navigation on the high seas, the right and the modalities of passage through straits used for international navigation and the right of innocent passage in territorial seas, as well as the nature and extent of the jurisdiction of the coastal State, the flag State and the port State.

3. No act or activity undertaken on the basis of this Protocol shall constitute grounds for claiming, contending or disputing any claim to national sovereignty or jurisdiction.

Article 3

GENERAL OBLIGATIONS

1. Each Party shall take the necessary measures to:

(a) protect, preserve and manage in a sustainable and environmentally sound way areas of particular natural or cultural value, notably by the establishment of specially protected areas;

(b) protect, preserve and manage threatened or endangered species of flora and fauna.

2. The Parties shall cooperate, directly or through the competent international organizations, in the conservation and sustainable use of biological diversity in the area to which this Protocol applies.

3. The Parties shall identify and compile inventories of the components of biological diversity important for its conservation and sustainable use.

4. The Parties shall adopt strategies, plans and programmes for the conservation of biological diversity and the sustainable use of marine and coastal biological resources and shall integrate them into their relevant sectoral and intersectoral policies.

5. The Parties shall monitor the components of biological diversity referred to in paragraph 3 of this Article and shall identify processes and categories of activities which have or are likely to have a significant adverse impact on the conservation and sustainable use of biological diversity, and monitor their effects.

6. Each Party shall apply the measures provided for in this Protocol without prejudice to the sovereignty or the jurisdiction of other Parties or other States. Any measures taken by a Party to enforce these measures shall be in accordance with international law.

PART II

PROTECTION OF AREAS

SECTION ONE - SPECIALLY PROTECTED AREAS

Article 4

OBJECTIVES

The objective of specially protected areas is to safeguard:

- (a) representative types of coastal and marine ecosystems of adequate size to ensure their long-term viability and to maintain their biological diversity;
- (b) habitats which are in danger of disappearing in their natural area of distribution in the Mediterranean or which have a reduced natural area of distribution as a consequence of their regression or on account of their intrinsically restricted area;
- (c) habitats critical to the survival, reproduction and recovery of endangered, threatened or endemic species of flora or fauna;
- (d) sites of particular importance because of their scientific, aesthetic, cultural or educational interest.

Article 5

ESTABLISHMENT OF SPECIALLY PROTECTED AREAS

1. Each Party may establish specially protected areas in the marine and coastal zones subject to its sovereignty or jurisdiction.
2. If a Party intends to establish, in an area subject to its sovereignty or national jurisdiction, a specially protected area contiguous to the frontier and to the limits of

a zone subject to the sovereignty or national jurisdiction of another Party, the competent authorities of the two Parties shall endeavour to cooperate, with a view to reaching agreement on the measures to be taken and shall, inter alia, examine the possibility of the other Party establishing a corresponding specially protected area or adopting any other appropriate measures.

3. If a Party intends to establish, in an area subject to its sovereignty or national jurisdiction, a specially protected area contiguous to the frontier and to the limits of a zone subject to the sovereignty or national jurisdiction of a State that is not a Party to this Protocol, the Party shall endeavour to cooperate with that State as referred to in the previous paragraph.

4. If a State which is not party to this Protocol intends to establish a specially protected area contiguous to the frontier and to the limits of a zone subject to the sovereignty or national jurisdiction of a Party to this Protocol, the latter shall endeavour to cooperate with that State as referred to in paragraph 2.

Article 6

PROTECTION MEASURES

The Parties, in conformity with international law and taking into account the characteristics of each specially protected area, shall take the protection measures required, in particular:

- (a) the strengthening of the application of the other Protocols to the Convention and of other relevant treaties to which they are Parties;
- (b) the prohibition of the dumping or discharge of wastes and other substances likely directly or indirectly to impair the integrity of the specially protected area;
- (c) the regulation of the passage of ships and any stopping or anchoring;
- (d) the regulation of the introduction of any species not indigenous to the specially protected area in question, or of genetically modified species, as well as the introduction or reintroduction of species which are or have been present in the specially protected area;
- (e) the regulation or prohibition of any activity involving the exploration or modification of the soil or the exploitation of the subsoil of the land part, the seabed or its subsoil;
- (f) the regulation of any scientific research activity;

(g) the regulation or prohibition of fishing, hunting, taking of animals and harvesting of plants or their destruction, as well as trade in animals, parts of animals, plants, parts of plants, which originate in specially protected areas;

(h) the regulation and if necessary the prohibition of any other activity or act likely to harm or disturb the species or that might endanger the state of conservation of the ecosystems or species or might impair the natural or cultural characteristics of the specially protected area;

(i) any other measure aimed at safeguarding ecological and biological processes and the landscape.

Article 7

PLANNING AND MANAGEMENT

1. The Parties shall, in accordance with the rules of international law, adopt planning, management, supervision and monitoring measures for the specially protected areas.

2. Such measures should include for each specially protected area:

(a) the development and adoption of a management plan that specifies the legal and institutional framework and the management and protection measures applicable;

(b) the continuous monitoring of ecological processes, habitats, population dynamics, landscapes, as well as the impact of human activities;

(c) the active involvement of local communities and populations, as appropriate, in the management of specially protected areas, including assistance to local inhabitants who might be affected by the establishment of such areas;

(d) the adoption of mechanisms for financing the promotion and management of specially protected areas, as well as the development of activities which ensure that management is compatible with the objectives of such areas;

(e) the regulation of activities compatible with the objectives for which the specially protected area was established and the terms of the related permits;

(f) the training of managers and qualified technical personnel, as well as the development of an appropriate infrastructure.

3. The Parties shall ensure that national contingency plans incorporate measures for

responding to incidents that could cause damage or constitute a threat to the specially protected areas.

4. When specially protected areas covering both land and marine areas have been established, the Parties shall endeavour to ensure the coordination of the administration and management of the specially protected area as a whole.

SECTION TWO - SPECIALLY PROTECTED AREAS OF MEDITERRANEAN IMPORTANCE

Article 8

ESTABLISHMENT OF THE LIST OF SPECIALLY PROTECTED AREAS OF MEDITERRANEAN IMPORTANCE

1. In order to promote cooperation in the management and conservation of natural areas, as well as in the protection of threatened species and their habitats, the Parties shall draw up a "List of Specially Protected Areas of Mediterranean Importance", hereinafter referred to as the "SPAMI List".

2. The SPAMI List may include sites which:

- are of importance for conserving the components of biological diversity in the Mediterranean;

- contain ecosystems specific to the Mediterranean area or the habitats of endangered species;

- are of special interest at the scientific, aesthetic, cultural or educational levels.

3. The Parties agree:

- (a) to recognize the particular importance of these areas for the Mediterranean;

- (b) to comply with the measures applicable to the SPAMIs and not to authorize nor undertake any activities that might be contrary to the objectives for which the SPAMIs were established.

Article 9

PROCEDURE FOR THE ESTABLISHMENT AND LISTING OF SPAMIs

1. SPAMIs may be established, following the procedure provided for in paragraph 2 to 4 of this Article, in: (a) the marine and coastal zones subject to the sovereignty

or jurisdiction of the Parties; (b) zones partly or wholly on the high seas.

2. Proposals for inclusion in the List may be submitted:

(a) by the Party concerned, if the area is situated in a zone already delimited, over which it exercises sovereignty or jurisdiction;

(b) by two or more neighbouring Parties concerned if the area is situated, partly or wholly, on the high sea;

(c) by the neighbouring Parties concerned in areas where the limits of national sovereignty or jurisdiction have not yet been defined.

3. Parties making proposals for inclusion in the SPAMI List shall provide the Centre with an introductory report containing information on the area's geographical location, its physical and ecological characteristics, its legal status, its management plans and the means for their implementation, as well as a statement justifying its Mediterranean importance;

(a) where a proposal is formulated under subparagraphs 2 (b) and 2 (c) of this Article, the neighbouring Parties concerned shall consult each other with a view to ensuring the consistency of the proposed protection and management measures, as well as the means for their implementation;

(b) proposals made under paragraph 2 of this Article shall indicate the protection and management measures applicable to the area as well as the means of their implementation.

4. The procedure for inclusion of the proposed area in the List is the following:

(a) for each area, the proposal shall be submitted to the National Focal Points, which shall examine its conformity with the common guidelines and criteria adopted pursuant to Article 16;

(b) if a proposal made in accordance with subparagraph 2 (a) of this Article is consistent with the guidelines and common criteria, after assessment, the Organization shall inform the meeting of the Parties, which shall decide to include the area in the SPAMI List;

(c) if a proposal made in accordance with subparagraphs 2 (b) and 2 (c) of this Article is consistent with the guidelines and common criteria, the Centre shall transmit it to the Organization, which shall inform the meeting of the Parties. The decision to include the area in the SPAMI list shall be taken by consensus by the

Contracting Parties, which shall also approve the management measures applicable to the area.

5. The Parties which proposed the inclusion of the area in the List shall implement the protection and conservation measures specified in their proposals in accordance with paragraph 3 of this Article. The Contracting Parties undertake to observe the rules thus laid down. The Centre shall inform the competent international organizations of the List and of the measures taken in the SPAMIs.

6. The Parties may revise the SPAMI List. To this end, the Centre shall prepare a report.

Article 10

CHANGES IN THE STATUS OF SPAMIs

Changes in the delimitation or legal status of a SPAMI or the suppression of all or part of such an area shall not be decided upon unless there are important reasons for doing so, taking into account the need to safeguard the environment and comply with the obligations laid down in this Protocol and a procedure similar to that followed for the creation of the SPAMI and its inclusion in the List shall be observed.

PART III

PROTECTION AND CONSERVATION OF SPECIES

Article 11

NATIONAL MEASURES FOR THE PROTECTION AND CONSERVATION OF SPECIES

1. The Parties shall manage species of flora and fauna with the aim of maintaining them in a favourable state of conservation.

2. The Parties shall, in the zones subject to their sovereignty or national jurisdiction, identify and compile lists of the endangered or threatened species of flora and fauna and accord protected status to such species. The Parties shall regulate and, where appropriate, prohibit activities having adverse effects on such species or their habitats, and carry out management, planning and other measures to ensure a favourable state of conservation of such species.

3. With respect to protected species of fauna, the Parties shall control and, where appropriate, prohibit:

(a) the taking, possession or killing (including, to the extent possible, the incidental taking, possession or killing), the commercial trade, the transport and the exhibition for commercial purposes of these species, their eggs, parts or products;

(b) to the extent possible, the disturbance of wild fauna, particularly during the period of breeding, incubation, hibernation or migration, as well as other periods of biological stress.

4. In addition to the measures specified in the previous paragraph, the Parties shall coordinate their efforts, through bilateral or multilateral action, including if necessary, agreements for the protection and recovery of migratory species whose range extends into the area to which this Protocol applies.

5. With respect to protected species of flora and their parts and products, the Parties shall regulate, and where appropriate, prohibit all forms of destruction and disturbance, including the picking, collecting, cutting, uprooting, possession of, commercial trade in, or transport and exhibition for commercial purposes of such species.

6. The Parties shall formulate and adopt measures and plans with regard to ex situ reproduction, in particular captive breeding, of protected fauna and propagation of protected flora.

7. The Parties shall endeavour, directly or through the Centre, to consult with range States that are not Parties to this Protocol, with a view to coordinating their efforts to manage and protect endangered or threatened species.

8. The Parties shall make provision, where possible, for the return of protected species exported or held illegally. Efforts should be made by Parties to reintroduce such specimens to their natural habitat.

Article 12

COOPERATIVE MEASURES FOR THE PROTECTION AND CONSERVATION OF SPECIES

1. The Parties shall adopt cooperative measures to ensure the protection and conservation of the flora and fauna listed in the Annexes to this Protocol relating to the List of Endangered or Threatened Species and the List of Species whose Exploitation is Regulated.

2. The Parties shall ensure the maximum possible protection and recovery of the species of fauna and flora listed in the Annex relating to the List of Endangered or Threatened Species by adopting at the national level the measures provided for in

paragraphs 3 and 5 of Article 11 of this Protocol.

3. The Parties shall prohibit the destruction of and damage to the habitat of species listed in the Annex relating to the List of Endangered or Threatened Species and shall formulate and implement action plans for their conservation or recovery. They shall continue to cooperate in implementing the relevant action plans already adopted.

4. The Parties, in cooperation with competent international organizations, shall take all appropriate measures to ensure the conservation of the species listed in the Annex relating to the List of Species whose Exploitation is Regulated while at the same time authorizing and regulating the exploitation of these species so as to ensure and maintain their favourable state of conservation.

5. When the range area of a threatened or endangered species extends to both sides of a national frontier or of the limit that separates the territories or the areas subject to the sovereignty or the national jurisdiction of two Parties to this Protocol, these Parties shall cooperate with a view to ensuring the protection and conservation and, if necessary, the recovery of such species.

6. Provided that no other satisfactory solutions are available and that the exemption does not harm the survival of the population or of any other species, the Parties may grant exemptions to the prohibitions prescribed for the protection of the species listed in the Annexes to this Protocol for scientific, educational or management purposes necessary to ensure the survival of the species or to prevent significant damage. Such exemptions shall be notified to the Contracting Parties.

Article 13

INTRODUCTION OF NON-INDIGENOUS OR GENETICALLY MODIFIED SPECIES

1. The Parties shall take all appropriate measures to regulate the intentional or accidental introduction of non-indigenous or genetically modified species to the wild and prohibit those that may have harmful impacts on the ecosystems, habitats or species in the area to which this Protocol applies.

2. The Parties shall endeavour to implement all possible measures to eradicate species that have already been introduced when, after scientific assessment, it appears that such species cause or are likely to cause damage to ecosystems, habitats or species in the area to which this Protocol applies.

PART IV

PROVISIONS COMMON TO PROTECTED AREAS AND SPECIES

Article 14 AMENDMENTS TO ANNEXES

1. The procedures for amendments to Annexes to this Protocol shall be those set forth in Article 23 of the Convention.
2. All proposed amendments submitted to the meeting of Contracting Parties shall have been the subject of prior evaluation by the meeting of National Focal Points.

Article 15 INVENTORIES

Each Party shall compile comprehensive inventories of:

- (a) areas over which they exercise sovereignty or jurisdiction that contain rare or fragile ecosystems, that are reservoirs of biological diversity, that are important for threatened or endangered species;
- (b) species of fauna or flora that are endangered or threatened.

Article 16 GUIDELINES AND COMMON CRITERIA

The Parties shall adopt:

- (a) common criteria for the choice of protected marine and coastal areas that could be included in the SPAMI List which shall be annexed to the Protocol;
- (b) common criteria for the inclusion of additional species in the Annexes;
- (c) guidelines for the establishment and management of specially protected areas.

The criteria and guidelines referred to in paragraphs (b) and (c) may be amended by the meeting of the Parties on the basis of a proposal made by one or more Parties.

Article 17 ENVIRONMENTAL IMPACT ASSESSMENT

In the planning process leading to decisions on industrial and other projects and activities that could significantly affect protected areas and species and their habitats, the Parties shall evaluate and take into consideration the possible direct or indirect, immediate or long-term, impact, including the cumulative impact of the projects and activities being contemplated.

Article 18

INTEGRATION OF TRADITIONAL ACTIVITIES

1. In formulating protective measures, the Parties shall take into account the traditional subsistence and cultural activities of their local populations. They shall grant exemptions, as necessary, to meet such needs. No exemption which is allowed for this reason shall:

(a) endanger either the maintenance of ecosystems protected under this Protocol or the biological processes contributing to the maintenance of those ecosystems;

(b) cause either the extinction of, or a substantial reduction in, the number of individuals making up the populations or species of flora and fauna, in particular endangered, threatened, migratory or endemic species.

2. Parties which grant exemptions from the protection measures shall inform the Contracting Parties accordingly.

Article 19

PUBLICITY, INFORMATION, PUBLIC AWARENESS AND EDUCATION

1. The Parties shall give appropriate publicity to the establishment of specially protected areas, their boundaries, applicable regulations, and to the designation of protected species, their habitats and applicable regulations.

2. The Parties shall endeavour to inform the public of the interest and value of specially protected areas and species, and of the scientific knowledge which may be gained from the point of view of nature conservation and other points of view. Such information should have an appropriate place in education programmes. The Parties shall also endeavour to promote the participation of their public and their conservation organizations in measures that are necessary for the protection of the areas and species concerned, including environmental impact assessments.

Article 20

SCIENTIFIC, TECHNICAL AND MANAGEMENT RESEARCH

1. The Parties shall encourage and develop scientific and technical research relating

to the aims of this Protocol. They shall also encourage and develop research into the sustainable use of specially protected areas and the management of protected species.

2. The Parties shall consult, when necessary, among themselves and with competent international organizations with a view to identifying, planning and undertaking scientific and technical research and monitoring programmes necessary for the identification and monitoring of protected areas and species and assessing the effectiveness of measures taken to implement management and recovery plans.

3. The Parties shall exchange, directly or through the Centre, scientific and technical information concerning current and planned research and monitoring programmes and the results thereof. They shall, to the fullest extent possible, coordinate their research and monitoring programmes, and endeavour jointly to define or standardize their procedures.

4. In technical and scientific research, the Parties shall give priority to SPAMIs and species appearing in the Annexes to this Protocol.

Article 21

MUTUAL COOPERATION

1. The Parties shall, directly or with the assistance of the Centre or international organizations concerned, establish cooperation programmes to coordinate the establishment, conservation, planning and management of specially protected areas, as well as the selection, management and conservation of protected species. There shall be regular exchanges of information concerning the characteristics of protected areas and species, the experience acquired and the problems encountered.

2. The Parties shall, at the earliest opportunity, communicate any situation that might endanger the ecosystems of specially protected areas or the survival of protected species of flora and fauna to the other Parties, to the States that might be affected and to the Centre.

Article 22

MUTUAL ASSISTANCE

1. The Parties shall cooperate, directly or with the assistance of the Centre or the international organizations concerned, in formulating, financing and implementing programmes of mutual assistance and assistance to developing countries that express a need for it with a view to implementing this Protocol.

2. These programmes shall include public environmental education, the training of scientific, technical and management personnel, scientific research, the acquisition, utilization, design and development of appropriate equipment, and transfer of technology on advantageous terms to be agreed among the Parties concerned.

3. The Parties shall, in matters of mutual assistance, give priority to the SPAMIs and species appearing in the Annexes to this Protocol.

Article 23

REPORTS OF THE PARTIES

The Parties shall submit to ordinary meetings of the Parties a report on the implementation of this Protocol, in particular on:

- (a) the status and the state of the areas included in the SPAMI List;
- (b) any changes in the delimitation or legal status of the SPAMIs and protected species;
- (c) possible exemptions allowed pursuant to Articles 12 and 18 of this Protocol.

PART V

INSTITUTIONAL PROVISIONS

Article 24

NATIONAL FOCAL POINTS

Each Party shall designate a National Focal Point to serve as liaison with the Centre on the technical and scientific aspects of the implementation of this Protocol. The National Focal Points shall meet periodically to carry out the functions deriving from this Protocol.

Article 25

COORDINATION

1. The Organization shall be responsible for coordinating the implementation of this Protocol. For this purpose, it shall receive the support of the Centre, to which it may entrust the following functions:

- (a) assisting the Parties, in cooperation with the competent international, intergovernmental and non-governmental organizations, in:

- establishing and managing specially protected areas in the area to which this Protocol applies;
- conducting programmes of technical and scientific research as provided for in Article 20 of this Protocol;
- conducting the exchange of scientific and technical information among the Parties as provided for in Article 20 of this Protocol;
- preparing management plans for specially protected areas and species;
- developing cooperative programmes pursuant to Article 21 of this Protocol;
- preparing educational materials designed for various groups;

(b) convening and organizing the meetings of the National Focal Points and providing them with secretariat services;

(c) formulating recommendations on guidelines and common criteria pursuant to Article 16 of this Protocol;

(d) creating and updating databases of specially protected areas, protected species and other matters relevant to this Protocol;

(e) preparing reports and technical studies that may be required for the implementation of this Protocol;

(f) elaborating and implementing the training programmes mentioned in Article 22, paragraph 2;

(g) cooperating with regional and international governmental and non-governmental organizations concerned with the protection of areas and species, provided that the specificity of each organization and the need to avoid the duplication of activities are respected;

(h) carrying out the functions assigned to it in the action plans adopted in the framework of this Protocol;

(i) carrying out any other function assigned to it by the Parties.

Article 26

MEETINGS OF THE PARTIES

1. The ordinary meetings of the Parties to this Protocol shall be held in conjunction with the ordinary meetings of the Contracting Parties to the Convention held pursuant to Article 18 of the Convention. The Parties may also hold extraordinary meetings in conformity with that Article.

2. The meetings of the Parties to this Protocol are particularly aimed at:

(a) keeping under review the implementation of this Protocol;

(b) overseeing the work of the Organization and of the Centre relating to the implementation of this Protocol and providing policy guidance for their activities;

(c) considering the efficacy of the measures adopted for the management and protection of areas and species, and examining the need for other measures, in particular in the form of Annexes and amendments to this Protocol or to its Annexes;

(d) adopting the guidelines and common criteria provided for in Article 16 of this Protocol;

(e) considering reports transmitted by the Parties under Article 23 of this Protocol, as well as any other pertinent information which the Parties transmit through the Centre;

(f) making recommendations to the Parties on the measures to be adopted for the implementation of this Protocol;

(g) examining the recommendations of the meetings of the National Focal Points pursuant to Article 24 of this Protocol;

(h) deciding on the inclusion of an area in the SPAMI List in conformity with Article 9, paragraph 4, of this Protocol;

(i) examining any other matter relevant to this Protocol, as appropriate;

(j) discussing and evaluating the exemptions allowed by the Parties in conformity with Articles 12 and 18 of this Protocol.

PART VI

FINAL PROVISIONS

Article 27

EFFECT OF THE PROTOCOL ON DOMESTIC LEGISLATION

The provisions of this Protocol shall not affect the right of Parties to adopt relevant stricter domestic measures for the implementation of this Protocol.

Article 28

RELATIONSHIP WITH THIRD PARTIES

1. The Parties shall invite States that are not Parties to the Protocol and international organizations to cooperate in the implementation of this Protocol.
2. The Parties undertake to adopt appropriate measures, consistent with international law, to ensure that no one engages in any activity contrary to the principles or purposes of this Protocol.

Article 29

SIGNATURE

This Protocol shall be open for signature in Barcelona on 10 June 1995 and in Madrid from 11 June 1995 to 10 June 1996 by any Contracting Party to the Convention.

Article 30

RATIFICATION, ACCEPTANCE OR APPROVAL

This Protocol shall be subject to ratification, acceptance or approval. Instruments of ratification, acceptance or approval shall be deposited with the Government of Spain, which will assume the functions of Depositary.

Article 31

ACCESSION

As from 10 June 1996, this Protocol shall be open for accession by any State and regional economic grouping which is Party to the Convention.

Article 32

ENTRY INTO FORCE

1. This Protocol shall enter into force on the thirtieth day following the deposit of the sixth instrument of ratification, acceptance or approval of, or accession to, the Protocol.
2. From the date of its entry into force, this Protocol shall replace the Protocol Concerning Mediterranean Specially Protected Areas of 1982, in the relationship among the Parties to both instruments.

IN WITNESS WHEREOF, the undersigned, being duly authorized, have signed

this Protocol.

DONE at Barcelona, on 10 June 1995, in a single copy in the Arabic, English, French and Spanish languages, the four texts being equally authoritative, for signature by any Party to the Convention.

ANNEX I

COMMON CRITERIA FOR THE CHOICE OF PROTECTED MARINE AND COASTAL AREAS THAT COULD BE INCLUDED IN THE SPAMI LIST

A. GENERAL PRINCIPLES

The Contracting Parties agree that the following general principles will guide their work in establishing the SPAMI List:

- a) The conservation of the natural heritage is the basic aim that must characterize a SPAMI. The pursuit of other aims such as the conservation of the cultural heritage, and the promotion of scientific research, education, participation, collaboration, is highly desirable in SPAMIs and constitutes a factor in favour of a site being included on the List, to the extent in which it remains compatible with the aims of conservation.
- b) No limit is imposed on the total number of areas included in the List or on the number of areas any individual Party can propose for inscription. Nevertheless, the Parties agree that sites will be selected on a scientific basis and included in the List according to their qualities; they will have therefore to fulfil the requirements set out by the Protocol and the present criteria.
- c) The listed SPAMI and their geographical distribution will have to be representative of the Mediterranean region and its biodiversity. To this end the List will have to represent the highest number possible of types of habitats and ecosystems.
- d) The SPAMIs will have to constitute the core of a network aiming at the effective conservation of the Mediterranean heritage. To attain this objective, the Parties will develop their cooperation on bilateral and multilateral bases in the field of conservation and management of natural sites and notably through the establishment of transboundary SPAMIs.
- e) The sites included in the SPAMI List are intended to have a value of example and model for the protection of the natural heritage of the region. To this end, the Parties ensure that sites included in the List are provided with adequate legal status,

protection measures and management methods and means.

B. GENERAL FEATURES OF THE AREAS THAT COULD BE INCLUDED IN THE SPAMI LIST

1. To be eligible for inclusion in the SPAMI List, an area must fulfil at least one of the general criteria set in Article 8 paragraph 2 of the Protocol. Several of these general criteria can in certain cases be fulfilled by the same area, and such a circumstance cannot but strengthen the case for the inclusion of the area in the List.

2. The regional value is a basic requirement of an area for being included in the SPAMI List. The following criteria should be used in evaluating the Mediterranean interest of an area:

a) Uniqueness

The area contains unique or rare ecosystems, or rare or endemic species.

b) Natural representativeness

The area has highly representative ecological processes, or community or habitat types or other natural characteristics. Representativeness is the degree to which an area represents a habitat type, ecological process, biological community, physiographic feature or other natural characteristic.

c) Diversity

The area has a high diversity of species, communities, habitats or ecosystems.

d) Naturalness

The area has a high degree of naturalness as a result of the lack or low level of human-induced disturbance and degradation.

e) Presence of habitats that are critical to endangered, threatened or endemic species.

f) Cultural representativeness

The area has a high representative value with respect to the cultural heritage, due to the existence of environmentally sound traditional activities integrated with nature which support the well-being of local populations.

3. To be included in the SPAMI List, an area having scientific, educational or aesthetic interest must, respectively, present a particular value for research in the field of natural sciences or for activities of environmental education or awareness or contain outstanding natural features, landscapes or seascapes.

4. Besides the fundamental criteria specified in article 8, paragraph 2, of the Protocol, a certain number of other characteristics and factors should be considered as favourable for the inclusion of the site in the List. These include:

- a) the existence of threats likely to impair the ecological, biological, aesthetic or cultural value of the area;
- b) the involvement and active participation of the public in general, and particularly of local communities, in the process of planning and management of the area;
- c) the existence of a body representing the public, professional, non-governmental sectors and the scientific community involved in the area;
- d) the existence in the area of opportunities for sustainable development;
- e) the existence of an integrated coastal management plan within the meaning of Article 4 paragraph 3 (e) of the Convention.

C. LEGAL STATUS

1. All areas eligible for inclusion in the SPAMI List must be awarded a legal status guaranteeing their effective long-term protection.
2. To be included in the SPAMI List, an area situated in a zone already delimited over which a Party exercises sovereignty or jurisdiction must have a protected status recognized by the Party concerned.
3. In the case of areas situated, partly or wholly, on the high sea or in a zone where the limits of national sovereignty or jurisdiction have not yet been defined, the legal status, the management plan, the applicable measures and the other elements provided for in Article 9, paragraph 3, of the Protocol will be provided by the neighbouring Parties concerned in the proposal for inclusion in the SPAMI List.

D. PROTECTION, PLANNING AND MANAGEMENT MEASURES

1. Conservation and management objectives must be clearly defined in the texts relating to each site, and will constitute the basis for assessment of the adequacy of the adopted measures and the effectiveness of their implementation at the revisions of the SPAMI List.
2. Protection, planning and management measures applicable to each area must be adequate for the achievement of the conservation and management objectives set

for the site in the short and long term, and take in particular into account the threats upon it.

3. Protection, planning and management measures must be based on an adequate knowledge of the elements of the natural environment and of socio-economic and cultural factors that characterize each area. In case of shortcomings in basic knowledge, an area proposed for inclusion in the SPAMI List must have a programme for the collection of the unavailable data and information.

4. The competence and responsibility with regard to administration and implementation of conservation measures for areas proposed for inclusion in the SPAMI List must be clearly defined in the texts governing each area.

5. In the respect of the specificity characterizing each protected site, the protection measures for a SPAMI must take account of the following basic aspects:

a) the strengthening of the regulation of the release or dumping of wastes and other substances likely directly or indirectly to impair the integrity of the area;

b) the strengthening of the regulation of the introduction or reintroduction of any species into the area;

c) the regulation of any activity or act likely to harm or disturb the species, or that might endanger the conservation status of the ecosystems or species or might impair the natural, cultural or aesthetic characteristics of the area.

d) the regulation applicable to the zones surrounding the area in question.

6. To be included in the SPAMI List, a protected area must have a management body, endowed with sufficient powers as well as means and human resources to prevent and/or control activities likely to be contrary to the aims of the protected area.

7. To be included in the SPAMI List an area will have to be endowed with a management plan. The main rules of this management plan are to be laid down as from the time of inclusion and implemented immediately. A detailed management plan must be presented within three years of the time of inclusion. Failure to respect this obligation entails the removal of the site from the List.

8. To be included in the SPAMI List, an area will have to be endowed with a monitoring programme. This programme should include the identification and monitoring of a certain number of significant parameters for the area in question, in order to allow the assessment of the state and evolution of the area, as well as the

effectiveness of protection and management measures implemented, so that they may be adapted if need be. To this end further necessary studies are to be commissioned.

ANNEX II

LIST OF ENDANGERED OR THREATENED SPECIES

MAGNOLIOPHYTA

Posidonia oceanica
Zostera marina
Zostera noltii

CHLOROPHYTA

Caulerpa ollivieri

PHAEOPHYTA

Cystoseira amentacea (including var. *stricta* and var. *spicata*)
Cystoseira mediterranea
Cystoseira sedoides
Cystoseira spinosa (including *C. adriatica*)
Cystoseira zosteroides
Laminaria rodriguezii

RHODOPHYTA

Goniolithon byssoides
Lithophyllum lichenoides
Ptilophora mediterranea
Schimmelmannia schousboei

PORIFERA

Asbestopluma hypogea
Aplysina sp. plur.
Axinella cannabina
Axinella polypoides
Geodia cydonium
Ircinia foetida
Ircinia pipetta
Petrobiona massiliana
Tethya sp. plur.

CNICARIA

Astroides calycularis
Errina aspera

Gerardia savaglia

ECHINODERMATA

Asterina pancerii

Centrostephanus longispinus

Ophidiaster ophidianus

BRYOZOA

Hornera lichenoides

MOLLUSCA

Ranella olearia (= Argobuccinum olearium = A. giganteum)

Charonia lampas (= Ch. rubicunda = Ch. nodifera)

Charonia tritonis (= Ch. seguenziae)

Dendropoma petraeum

Erosaria spurca

Gibbula nivosa

Lithophaga lithophaga

Luria lurida (= Cypraea lurida)

Mitra zonata

Patella ferruginea

Patella nigra

Pholas dactylus

Pinna nobilis

Pinna rudis (= P. pernula)

Schilderia achatidea

Tonna galea

Zonaria pyrum

CRUSTACEA

Ocypode cursor

Pachylasma giganteum

PISCES

Acipenser naccarii

Acipenser sturio

Aphanius fasciatus

Aphanius iberus

Cetorhinus maximus

Carcharodon carcharias

Hippocampus ramulosus

Hippocampus hippocampus

Huso huso

Lethenteron zanandreae

Mobula mobular
Pomatoschistus canestrinii
Pomatoschistus tortonesei
Valencia hispanica
Valencia letourneuxi

REPTILES

Caretta caretta
Chelonia mydas
Dermochelys coriacea
Eretmochelys imbricata
Lepidochelys kempii
Trionyx triunguis

AVES

Pandion haliaetus
Calonectris diomedea
Falco eleonora
Hydrobates pelagicus
Larus audouinii
Numenius tenuirostris
Phalacrocorax aristotelis
Phalacrocorax pygmaeus
Pelecanus onocrotalus
Pelecanus crispus
Phoenicopterus ruber
Puffinus yelkouan
Sterna albifrons
Sterna bengalensis
Sterna sandvicensis

MAMMALIA

Balaenoptera acutorostrata
Balaenoptera borealis
Balaenoptera physalus
Delphinus delphis
Eubalaena glacialis
Globicephala melas
Grampus griseus
Kogia simus
Megaptera novaeangliae
Mesoplodon densirostris
Monachus monachus
Orcinus orca

Phocoena phocoena
Physeter macrocephalus
Pseudorca crassidens
Stenella coeruleoalba
Steno bredanensis
Tursiops truncatus
Ziphius cavirostris

ANNEX III

LIST OF SPECIES WHOSE EXPLOITATION IS REGULATED

PORIFERA

Hippospongia communis
Spongia agaricina
Spongia officinalis
Spongia zimocca

CNIDARIA

Antipathes sp. plur.
Corallium rubrum

ECHINODERMATA

Paracentrotus lividus

CRUSTACEA

Homarus gammarus
Maja squinado
Palinurus elephas
Scyllarides latus
Scyllarus pigmaeus
Scyllarus arctus

PISCES

Alosa alosa
Alosa fallax
Anguilla anguilla
Epinephelus marginatus
Isurus oxyrinchus
Lamna nasus
Lampetra fluviatilis
Petromyzon marinus
Prionace glauca
Raja alba

Sciaena umbra
Squatina squatina
Thunnus thynnus
Umbrina cirrosa
Xiphias gladius

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Appendix RCP
Jeddah Convention (Red Sea and Gulf of Aden)

REGIONAL CONVENTION FOR THE CONSERVATION OF THE RED SEA
AND GULF OF ADEN ENVIRONMENT; and PROTOCOL (1982)

ENTRY INTO FORCE: 20 August 1985
[note: "degree" symbols replaced by 'd*']

The Governments of:

the Democratic Republic of the Sudan,
the Hashemite Kingdom of Jordan,
the Kingdom of Saudi Arabia,
Palestine represented by the Palestine Liberation Organization,
the People's Democratic Republic of Yemen,
the Somali Democratic Republic,
the Yemen Arab Republic,

Realizing that pollution of the marine environment in the waters of the Red Sea and Gulf of Aden by oil and other harmful or noxious materials arising from human activities on land or at sea, especially through indiscriminate and uncontrolled discharge of these substances, presents a growing threat to marine life, fisheries, human health, recreational uses of beaches and other amenities,

Mindful of the special hydrographic and ecological characteristics of the marine environment of the Red Sea and Gulf of Aden and the particular vulnerability of its coral reefs where most biota exist,

Conscious of the need to ensure that the processes of urban and rural development and resultant land use should be carried out in such a manner as to preserve, as far as possible, marine resources and coastal amenities, and that such development should not lead to deterioration of the marine environment,

Convinced of the need to ensure that the processes of industrial development should not, in any way, cause damage to the marine environment, jeopardize its living resources or create hazards to human health,

Recognizing the need to develop an integrated management approach to the use of the marine environment and the coastal areas which will allow the achievement of environmental and development goals in a harmonious manner,

Recognizing also the need for a carefully planned research, monitoring and assessment programme in view of the scarcity of scientific information on marine pollution in the region,

Considering that the States of the Red Sea and Gulf of Aden have a special responsibility to protect the marine environment of the region,

Aware of the importance of co-operation and coordination of action on a regional basis with the aim of protecting the marine environment of the Red Sea and Gulf of Aden for the benefit of all concerned, including future generations,

Bearing in mind the existing international conventions relevant to the present Convention,

Aiming to fulfil the objectives of the Charter of the League of Arab States, and the Charter and Constitution of the Arab League Educational,

Cultural and Scientific Organization,

Have agreed as follows:

Article I
DEFINITIONS

For the purposes of this Convention and its Protocols, the following terms and expressions have the meanings indicated below, except when otherwise inferred from the text:

1. "Conservation" of the marine environment of the Red Sea and Gulf of Aden: Rational use by man of living and non-living marine and coastal resources in a manner ensuring optimum benefit for the present generation while maintaining the potential of that environment to satisfy the needs and aspirations of future generations. Such a definition of the term "conservation" should be construed as including conservation protection, maintenance, sustainable and renewable utilization, and enhancement of the environment.
2. "Sea Area": Sea Area as defined in article II of this Convention.
3. "Marine pollution": Introduction by man, directly or indirectly, of substances or energy into the marine environment which results or is likely to result in such deleterious effects as harm to living resources, hazards to human health hindrance to marine activities including fishing, impairment of quality for use of sea water and reduction of amenities.
4. "Ships and aircraft": Any waterborne or airborne or amphibious craft of any type whatsoever, including hydrofoil boats, air cushion vehicles submersibles, floating craft whether self-propelled or not, and fixed or floating platforms and any other structure.
5. "Oil": Petroleum in any form including crude oil, fuel oil, sludge, refined oil, gases and other oil products, whose introduction might impair the marine environment.
6. "Harmful substance": Any substance whose introduction or presence in the marine environment causes a danger threatening or impairing that environment.
7. "National Authority": The authority designated by each Contracting Party as responsible for the coordination of national efforts for implementing this Convention and its protocols.
8. "ALECSO": The Arab League Educational Cultural and Scientific Organization.
9. "Organization": The Regional Organization for the Conservation of the Red Sea and Gulf of Aden Environment established in accordance with article XVI of this Convention.
10. "Council": The Council established in accordance with article XVI of this Convention.
11. "General Secretariat": The organ of the Organization established in accordance with article XVI of this Convention.
12. "Action Plan": The Action Plan for the Conservation of the Marine Environment and Coastal Areas of the Red Sea and Gulf of Aden.

Article II GEOGRAPHICAL COVERAGE

The present Convention shall apply to the entire sea area, taking into account integrated ecosystems of the Red Sea, Gulf of Aqaba, Gulf of Suez, Suez Canal to its end on the Mediterranean, and the Gulf of Aden as bounded by the following rhumb lines:

1. From Ras Dharbat Ali (lat. 16d*39' N, long. 53d*03.5' E), thence to a point (lat. 16d*00' N, long. 53d*25' E), thence to a point (lat. 12d*40' N, long. 55d*00' E) lying ENE of Socotra Island, thence to Ras Hafun (lat. 10d*26' N, long. 51d*25' E).
2. Any Contracting Party may request the Organization to include areas within that Party's national jurisdiction and lying adjacent to those described in paragraph 1 above within the area of application of this Convention or for the purposes of activities resulting therefrom.
3. The geographical coverage does not include internal waters of the Contracting Parties unless otherwise stated in this Convention or any of its protocols.

Article III GENERAL OBLIGATIONS

1. The Contracting Parties shall, individually or jointly, take all appropriate measures, in accordance with the present Convention and those protocols in force to which they are party, for the conservation of the Red Sea and Gulf of Aden environment including the prevention, abatement and combating of marine pollution.
2. In addition to the Protocol concerning Regional Co-operation in Combating Pollution by Oil and other Harmful Substances in Cases of Emergency, the Contracting Parties shall co-operate in the formulation and adoption of other protocols prescribing agreed measures, procedures and standards for the implementation of this Convention.
3. The Contracting Parties shall establish national standards, laws and regulations as required for the effective discharge of the obligation prescribed in paragraph 1 of this article, and shall endeavour to harmonize their national policies in this regard and for this purpose appoint the National Authority.
4. The Contracting Parties shall co-operate with the competent international, regional and sub-regional organizations to establish and adopt regional standards, recommended practices and procedures for the conservation of the Red Sea and Gulf of Aden environment, including the prevention, abatement and combating of pollution from all sources in conformity with the objectives of the present Convention, and to assist each other in fulfilling their obligations under the present Convention.
5. The Contracting Parties shall use their best endeavours to ensure that the implementation of the present Convention shall not cause transformation of one type or form of pollution to another which could be more detrimental to the environment.

Article IV POLLUTION FROM SHIPS

The Contracting Parties shall take all appropriate measures in conformity with the present Convention and with generally recognized international rules to prevent, abate and combat pollution in the Sea Area caused by intentional or accidental discharges from ships and shall ensure effective compliance in the Sea Area with generally recognized international rules relating to the control of this type of pollution including load-on-top, segregated ballast and crude oil washing procedures for tankers.

Article V
POLLUTION CAUSED BY DUMPING FROM SHIPS AND AIRCRAFT

The Contracting Parties shall take all appropriate measures to prevent, abate and combat pollution in the Sea Area caused by dumping of wastes and other matter from ships and aircraft, and shall ensure effective compliance in the Sea Area with generally recognized international rules relating to the control of this type of pollution as provided for in relevant international conventions.

Article VI
POLLUTION FROM LAND-BASED SOURCES

The Contracting Parties shall take all appropriate measures to prevent, abate and combat pollution caused by discharges from land reaching internal waters and the Sea Area whether water-borne, airborne or directly from the coast including outfalls and pipelines.

Article VII
POLLUTION RESULTING FROM EXPLORATION AND EXPLOITATION
OF THE BED OF THE TERRITORIAL SEA,
THE CONTINENTAL SHELF AND THE SUB-SOIL THEREOF

The Contracting Parties shall take all appropriate measures to prevent, abate and combat pollution in the Sea Area resulting from exploration and exploitation of the bed of the territorial sea, the continental shelf and the sub-soil thereof, including the prevention of accidents and the combating of pollution emergencies resulting in damage to the marine environment.

Article VIII
POLLUTION FROM OTHER HUMAN ACTIVITIES

The Contracting Parties shall take all appropriate measures to prevent, abate and combat pollution in the Sea Area resulting from land reclamation (and associated suction dredging and coastal dredging) or resulting from estuarine or river dredging or from other human activities.

Article IX
CO-OPERATION IN DEALING WITH POLLUTION EMERGENCIES

1. The Contracting Parties shall, individually or jointly, take all necessary measures, including those to ensure that adequate equipment and qualified personnel are readily available, to deal with pollution emergencies in the Sea Area, whatever the cause of such emergencies, and to reduce or eliminate damage resulting therefrom.

2. Any Contracting Party which becomes aware of any pollution emergency in the Sea Area shall without delay, notify the Organization, and through the General Secretariat, any Contracting Party likely to be affected by

such emergency.

3. The Contracting Parties shall co-ordinate their national plans for combating pollution in the marine environment by oil and other harmful substances in a manner that facilitates full co-operation in dealing with pollution emergencies.

Article X SCIENTIFIC AND TECHNOLOGICAL CO-OPERATION

1. The Contracting Parties shall co-operate directly, or through competent international and regional organizations, in the fields of scientific research, monitoring, assessment and combating of pollution in the Sea Area, and shall exchange data as well as other scientific information for the purpose of the present Convention, its protocols and the action plan.

2. The Contracting Parties shall co-operate further to develop and co-ordinate national monitoring and research programmes concerning all types of pollution and pollution combating, as well as studies and research on the marine environment. They shall co-operate further to develop and co-ordinate necessary supporting programmes, such as marine-meteorology programmes, and to establish, in cooperation with competent regional or international organizations, a regional network of such programmes to ensure compatible results. For this purpose, each Contracting Party shall designate the National Authority responsible for environmental research and monitoring and for marine meteorological monitoring within the areas under its national jurisdiction.

3. The Organization and ALECSO shall cooperate in matters of common interest for the purpose of mutual co-ordination and exchange of technical assistance, information and documents.

Article XI ASSESSMENT AND MANAGEMENT OF THE ENVIRONMENT

1. Each Contracting Party shall give due consideration to marine environmental effects when planning or executing projects, including an assessment of potential environmental effects, particularly in the coastal areas.

2. The Contracting Parties may, in consultation with the General Secretariat, develop procedures for dissemination of information on the assessment of the activities referred to in paragraph 1 of this article.

3. The Contracting Parties undertake to develop, individually or jointly environmental standards technical and other guidelines in accordance with standard scientific practice to assist the planning and execution of their projects in such a way as to minimize their harmful impact on the marine environment. In this regard international standards may be used where appropriate.

Article XII TECHNICAL AND OTHER ASSISTANCE

The Contracting Parties shall co-operate, directly or through competent regional or international organizations, in the development of programmes of technical and other assistance, in fields relating to the marine environment and its conservation in coordination with the Organization.

Article XIII
LIABILITY AND COMPENSATION

The Contracting Parties undertake to co-operate in the formulation and adoption of appropriate rules and procedures for the determination of:

1. Civil liability and compensation for damage resulting from pollution of the marine environment bearing in mind applicable international rules and procedures relating to those matters; and
2. Liability and compensation for damage resulting from violation of obligations under the present Convention and its protocols.

Article XIV
SOVEREIGN IMMUNITY

1. Warships and other ships owned or operated by a State, and used only on government non-commercial service, shall be exempted from the application of the provisions of the present Convention.
2. Subject to paragraph 1 above, each Contracting Party shall, as far as possible, ensure that its warships or other ships owned or operated by that Party, and used only on government non-commercial service, shall comply with the provisions of the present Convention.

Article XV
DISCLAIMER

Nothing in the present Convention shall prejudice or affect the rights or claims of any Contracting Party with regard to the nature or extent of its maritime jurisdiction which may be established in conformity with international law.

Article XVI
REGIONAL ORGANIZATION FOR THE CONSERVATION
OF THE RED SEA AND GULF OF ADEN ENVIRONMENT

1. A Regional Organization for the Conservation of the Red Sea and Gulf of Aden Environment, the permanent headquarters of which shall be located in Jeddah, Saudi Arabia, is hereby established.
2. The Organization shall consist of the following organs:
 - (a) A Council comprised of a representative of each Contracting Party;
 - (b) A General Secretariat;
 - (c) A Committee for the Settlement of Disputes whose composition, terms of reference and rules of procedure shall be decided by the Council.
3. The Organization shall enjoy, in the territory of each Contracting Party, all legal qualifications necessary for the discharge of its duties and the performance of all activities concerned with the achievement of its aims.

Article XVII
THE COUNCIL

1. (a) Membership of the Council shall be made up of the Contracting Parties, each Contracting Party having one vote in the meetings of the Council.

(b) Meetings of the Council shall be attended by the Director General of ALECSO or his delegate.

2. The Council shall hold one ordinary meeting every year, and may hold extraordinary meetings in accordance with its rules of procedure. Meetings shall be convened at the headquarters of the Organization or at any place as prescribed by its internal regulations or by the Council. The Chairmanship of the Council shall be given to each Contracting Party, in turn, in the Arabic alphabetical order starting with the Depositary State. The term of office of the Chairman shall be one year.

3. Two thirds of the Council membership shall constitute a quorum for its meetings.

4. The voting procedure in the Council shall be as follows:

(a) Decisions on important matters shall be taken by a unanimous vote of the Contracting Parties present and voting;

(b) Decisions on procedural matters shall be taken by a two-thirds majority vote of the Contracting Parties present and voting.

Article XVIII DUTIES AND FUNCTIONS OF THE COUNCIL

The Council shall have the duties and functions necessary to achieve the objectives of this Convention and its protocols, and in particular:

(a) To adopt its internal regulations;

(b) To keep under review the implementation of the Convention and its protocols, and the action plan adopted for the achievement of the purposes of this Convention and its protocols;

(c) To make recommendations regarding the adoption of any additional protocols or any amendments to the Convention or to its protocols;

(d) To adopt, review and amend, as required, the annexes to this Convention and to its protocols;

(e) To adopt and conclude agreements with States or with organizations with similar purposes or interests within the aims of this Convention and for the achievement of its purposes and which the Council deems necessary for the discharge of its duties;

(f) To review and evaluate the state of the marine environment and coastal areas on the basis of reports provided by the Contracting Parties, or by the international organizations concerned;

(g) To establish subsidiary bodies and ad hoc working groups, as required, to consider any matters related to this Convention and its protocols or related to the annexes of this Convention and its protocols or related to the action plan;

(h) To consider reports submitted by the Contracting Parties and reports prepared by the General Secretariat on questions relating to the

Convention and to matters relevant to the administration of the Organization and to decide upon them;

(i) To endeavour to settle any differences or disputes between the Contracting Parties as to the interpretation or implementation of this Convention or its protocols or annexes;

(j) To appoint the Secretary General;

(k) To adopt and issue its rules of procedure, administrative and financial regulations guided by the constitution and regulations of ALECSO. The Council may adopt or amend any other regulations necessary for the discharge of its duties;

(l) To adopt the financial rules which determine, in particular, the contributions of the Contracting Parties;

(m) To adopt the financial budget of the Organization;

(n) To adopt the projects and budgets for the Organization activities;

(o) To approve a report on the work and activities of the Organization to be submitted for information to the ALECSO General Conference;

(p) To define and develop relations between the Organization and Arab organizations or bodies;

(q) To perform any additional functions necessary for the achievement of the purposes of this Convention and its protocols or which the Council deems necessary for the discharge of its duties.

Article XIX THE GENERAL SECRETARIAT

1. The Secretary General shall head the General Secretariat and perform the functions necessary for the management of the Convention and its protocols, annexes, the action plan and the work of the General Secretariat;

2. The General Secretariat shall have the duties and powers necessary to achieve the purposes of this Convention and its protocols and to execute the action plan, according to decisions of the Council, and in particular:

(a) To prepare for and convene the meetings of the Council and its subsidiary bodies and ad hoc working groups;

(b) To transmit to the Contracting Parties notifications, reports and other information received;

(c) To consider inquiries by, and information from, the Contracting Parties and to consult with them on questions relating to this Convention and its protocols, annexes and the action plan;

(d) To prepare and submit reports on matters relating to this Convention, its protocols, annexes and the action plan or relating to the administration of the Organization;

(e) To establish, maintain and disseminate an up-to-date collection of national laws concerning the conservation of the marine environment of all Contracting Parties;

(f) To provide technical assistance and advice for the drafting of appropriate national legislation for the effective implementation of this Convention and its protocols;

(g) To organize and co-ordinate training programmes in areas related to the implementation of this Convention, its protocols and the action plan;

(h) To perform such other functions as may be assigned to it by the Council for the implementation of this Convention, its protocols and the action plan.

Article XX

BUDGET AND FINANCIAL RESOURCES OF THE ORGANIZATION

1. The Organization shall have its own budget.
2. The financial resources of the Organization shall consist of:
 - (a) Contributions by the Contracting Parties;
 - (b) ALECSO contribution;
 - (c) Other contributions accepted by the Council.
3. Reports on the budget of the Organization shall be transmitted to the ALECSO General Conference for information.

Article XXI

ADOPTION AND AMENDMENTS OF THE CONVENTION AND ITS PROTOCOLS

The Council, or any Contracting Party may propose amendments to this Convention, its protocols or annexes. Amendments of importance shall be adopted by a unanimous vote of the Contracting Parties. Other amendments shall be adopted by a two-thirds majority. Any matter is considered important if so requested by one Contracting Party. Amendments shall enter into force when adopted by the Contracting Parties in accordance with articles XXVI and XXVII of this Convention.

Article XXII

REPORTS

Each Contracting Party shall submit to the General Secretariat reports on measures taken for the implementation of this Convention and its protocols, in such form and at such intervals as may be determined by the Council.

Article XXIII

COMPLIANCE CONTROL

The Contracting Parties shall co-operate in the development and implementation of procedures for the effective application of the Convention and its protocols, including detection of violations, using all appropriate and practicable measures of detection and environmental monitoring, including adequate procedures for reporting and accumulation of evidence.

Article XXIV

SETTLEMENT OF DISPUTES

1. In case of a dispute as to the interpretation or application of this Convention, its protocols or its annexes, the Contracting Parties concerned shall seek a settlement of the dispute through amicable means.
2. If the Contracting Parties concerned cannot settle the dispute, the matter shall be referred to the Council for its consideration.
3. If the Council does not reach a settlement of the dispute, it shall be submitted to the Committee for the Settlement of Disputes referred to in paragraph 2(c) of article XVI of this Convention.

Article XXV SIGNATURE

The present Convention together with the attached Protocol shall be open for signature in Jeddah by Governments of the States of the Red Sea and Gulf of Aden invited to the Jeddah Regional Conference of Plenipotentiaries on the Conservation of the Marine Environment and Coastal Areas in the Red Sea and Gulf of Aden convened from 19 to 21 Rabie Althani A.H. 1402, corresponding to 13 to 15 February 1982.

Article XXVI RATIFICATION, ACCEPTANCE, APPROVAL OR ACCESSION

1. The present Convention together with the attached Protocol shall be subject to ratification, acceptance, approval or accession by the States referred to in article XXV of this Convention. Any Contracting Party which has ratified, accepted, approved or acceded to the present Convention shall be considered as having ratified, accepted, approved or acceded to the attached Protocol.
2. Any State member of the Arab League has the right to accede to the present Convention and its protocols.

Article XXVII ENTRY INTO FORCE

1. The present Convention and the attached Protocol shall enter into force on the ninetieth day following the date of deposit of at least four instruments of ratification, acceptance or approval of, or accession to, the Convention.
2. Any other protocol to this Convention, except as otherwise provided in such protocol, shall enter into force on the thirtieth day following the date of deposit of at least four instruments of ratification acceptance or approval of, or accession to such protocol.
3. This Convention or any such protocol shall enter into force with respect to any Contracting Party on the thirtieth day following the date of deposit by that Contracting Party of its instrument of ratification, acceptance, approval or accession.

Article XXVIII WITHDRAWAL

1. At any time after five years from the date of entry into force of this Convention, any Contracting Party may withdraw from this Convention by giving written notification of withdrawal to the Depositary.

2. Except as may be otherwise provided in any other protocol to this Convention, any Contracting Party may, at any time after five years from the date of entry into force of such protocol, withdraw from such protocol by giving written notification of withdrawal to the Depositary.
3. Withdrawal shall take effect twelve months after the date on which notification of withdrawal is received by the Depositary.
4. Any Contracting Party which withdraws from the Convention shall be considered as also having withdrawn from any protocol to which it was a party.
5. Any Contracting Party which withdraws from the Protocol concerning Regional Co-operation in Combating Pollution by Oil and other Harmful Substances in Cases of Emergency shall be considered as also having withdrawn from this Convention.

Article XXIX
RESPONSIBILITIES OF THE DEPOSITARY

1. The Depositary shall receive instruments of ratification of this Convention and its protocols.
2. The Depositary shall call the first meeting of the Council when this Convention enters into force after ratification by four Contracting Parties.
3. After the first meeting of the Council the General Secretariat shall assume all technical and administrative responsibilities and duties. The original of this Convention, of any protocol thereto, of any annex to the Convention or to a protocol, or of any amendment to this Convention, to a protocol or to an annex of the Convention or of a protocol shall be deposited with the Depositary, the Government of the Kingdom of Saudi Arabia, which shall send certified copies thereof to the Contracting Parties and shall also deposit certified copies of the Convention, its protocols and annexes with the General Secretariat of the League of Arab States in accordance with article 17 of the Arab League Charter and with the Secretary-General of the United Nations in accordance with Article 102 of the Charter of the United Nations.

In witness whereof the undersigned Plenipotentiaries, being duly authorized by their respective Governments, have signed the present Convention.

Done at the City of Jeddah on Sunday the twentieth of the month Rabie Althani of the year A.H. 1402, corresponding to 14 Shabat (February) of the year A.D. 1982.

PROTOCOL CONCERNING REGIONAL CO-OPERATION IN COMBATING
POLLUTION BY OIL AND OTHER HARMFUL SUBSTANCES
IN CASES OF EMERGENCY (1982)

Jeddah, 14 February 1982

The Contracting Parties,

Being Parties to the Regional Convention for the Conservation of the Red

Sea and Gulf of Aden Environment (hereinafter referred to as "the Convention"),

Conscious of the ever-present potentiality of emergencies which may result in substantial pollution by oil and other harmful substances, and of the need to provide co-operative and effective measures to deal with them,

Being aware that appropriate measures for responding to pollution emergencies need to be enhanced on a national and regional basis to deal with this problem in a comprehensive manner for the benefit of the Red Sea and Gulf of Aden environment,

Have agreed as follows:

Article I

For the purposes of this Protocol the following terms and expressions have the meanings indicated below, except when otherwise inferred from the text:

1. "Appropriate Authority": either the "National Authority" defined in article I of the Convention, or the authority or authorities within the Government of a Contracting Party, designated by the National Authority and responsible for:

(a) Combating or otherwise operationally responding to marine emergencies;

(b) Receiving and co-ordinating information on marine emergencies;

(c) Co-ordinating available national capabilities for dealing with marine emergencies in general within its own Government and with other Contracting Parties.

2. "Marine Emergency": any casualty, incident, occurrence or situation, however caused, resulting in substantial pollution or imminent threat of substantial pollution to the marine environment by oil or other harmful substances and includes collisions, strandings and other incidents involving ships, including tankers, blow-outs arising from petroleum drilling and production activities, and the presence of oil or other harmful substances arising from the failure of industrial installations.

3. "Marine Emergency Contingency Plan": a plan or plans, prepared on a national, bilateral or multilateral basis, designed to co-ordinate the deployment, allocation and use of personnel, material, resources and equipment for the purpose of responding to marine emergencies.

4. "Marine Emergency Response": any activity intended to prevent, mitigate or eliminate pollution by oil or other harmful substances or threat of such pollution resulting from marine emergencies.

5. "Related Interests": the interests of a Contracting Party directly or indirectly affected or threatened by a marine emergency such as:

(a) Maritime, coastal, port or estuary activities, including fisheries activities;

(b) Historic and tourist attractions;

(c) The health of the coastal population and the conservation of

living marine resources and of wildlife;

(d) Industrial activities which rely upon intake of water, including distillation plants, and industrial plants using circulating water.

6. "Convention": the Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment.

7. "Council": the organ of the Regional Organization for Conservation of the Red Sea and Gulf of Aden Environment established under article XVI of the Convention.

8. "Centre": the Marine Emergency Mutual Aid Centre established under article III, paragraph 1, of the present Protocol.

Article II

1. The Contracting Parties shall co-operate in taking the necessary and effective measures to protect the coastline and related interests of one or more of the Parties from the threat and effects of pollution due to the presence of oil or other harmful substances in the marine environment resulting from marine emergencies.

2. The Contracting Parties shall endeavour to maintain and promote, either individually or through bilateral or multilateral co-operation, their contingency plans and means for combating pollution in the Red Sea and Gulf of Aden by oil and other harmful substances. These means shall include in particular, available equipment, ships, aircraft and manpower prepared for operation in cases of emergency.

Article III

1. The Contracting Parties hereby establish the Marine Emergency Mutual Aid Centre.

2. The objectives of the Centre shall be:

(a) To strengthen the capacities of the Contracting Parties and to facilitate co-operation among them in order to combat pollution by oil and other harmful substances in cases of marine emergencies;

(b) To assist Contracting Parties, which so request, in the development of their own national capabilities to combat pollution by oil and other harmful substances and to co-ordinate and facilitate information exchange, technological co-operation and training;

(c) A later objective, namely, the possibility of initiating operations to combat pollution by oil and other harmful substances at the regional level, may be considered. This possibility should be submitted to approval by the Council after evaluating the results achieved in the fulfilment of the previous objectives and in the light of financial resources which could be made available for this purpose.

3. The functions of the Centre shall be:

(a) To collect and disseminate to the Contracting Parties information concerning matters covered by this Protocol, including:

(i) Laws, regulations and information concerning appropriate authorities of the Contracting Parties and marine emergency

contingency plans referred to in article V of this Protocol;

(ii) Information available to the Contracting Parties concerning methods, techniques and research relating to marine emergency responses referred to in article VI of this Protocol- and

(iii) List of experts, equipment and materials available for marine emergency responses by the Contracting Parties;

(b) To assist the Contracting Parties, as requested:

(i) In the preparation of laws and regulations concerning matters covered by this Protocol and in the establishment of appropriate authorities;

(ii) In the preparation of marine emergency contingency plans;

(iii) In the establishment of procedures under which personnel, equipment and materials involved in marine emergency responses may be expeditiously transported into, out of, and through the territories of the Contracting Parties;

(iv) In the transmission to the Contracting Parties of reports concerning marine emergencies; and

(v) In promoting and developing training programmes for combating pollution;

(c) To co-ordinate training programmes for combating pollution and prepare comprehensive anti-pollution manuals;

(d) To develop and maintain a communication/information system appropriate to the needs of the Contracting Parties and the Centre for the prompt exchange of information concerning marine emergencies required by this Protocol;

(e) To prepare inventories of the available personnel, materials, vessels, aircraft, and other specialized equipment for marine emergency responses;

(f) To establish and maintain liaison with competent regional and international organizations, particularly the Inter-Governmental Maritime Consultative Organization for the purposes of obtaining and exchanging scientific and technological information and data, particularly with regard to any new technology which may assist the Centre in the performance of its functions;

(g) To prepare periodic reports on marine emergencies for submission to the Council; and

(h) To perform any other functions assigned to it either by this Protocol or by the Council.

4. The Centre may fulfil additional functions necessary for initiating operations to combat pollution by oil and other harmful substances on a regional level, when authorized by the Council, in accordance with paragraph 2(c) above.

Article IV

1. The present Protocol shall apply to the Sea Area specified in paragraph 1 of article II of the Convention.

2. For the purposes of dealing with a marine emergency, internal waters, including ports, harbours, estuaries, bays and lagoons, may be treated as part of the Sea Area if the Contracting Party concerned so decides.

Article V

Each Contracting Party shall provide the Centre and the other Contracting Parties with information concerning:

(a) Its appropriate authority;

(b) Its laws, regulations, and other legal instruments relating generally to matters addressed in this Protocol, including those concerning the structure and operation of the authority referred to in paragraph (a) above;

(c) Its national marine emergency contingency plans.

Article VI

Each Contracting Party shall provide the other Contracting Parties and the Centre with information concerning:

(a) Existing and new methods, techniques, materials, and procedures relating to marine emergency responses;

(b) Existing and planned research, their results and development in the areas referred to in paragraph (a) above.

Article VII

1. Each Contracting Party shall direct its appropriate officials to require masters of ships pilots of aircraft and persons in charge of offshore platforms and other similar structures operating in the marine environment and under its jurisdiction to report the existence of any marine emergency in the Sea Area to the appropriate national authority and to the Centre.

2. Any Contracting Party receiving a report pursuant to paragraph 1 above shall promptly inform the following of the marine emergency:

(a) The Centre;

(b) All other Contracting Parties;

(c) The flag State of any foreign ship involved in the marine emergency concerned.

3. The content of the reports, including supplementary reports where appropriate, referred to in paragraph 1 above should conform to the form to be adopted by the Centre.

4. Any Contracting Party which submits a report pursuant to paragraphs 2 (a) and 2 (b) above, shall be exempted from the obligations specified in paragraph 2 of article IX of the Convention.

Article VIII

The Centre shall promptly transmit information and reports which it receives from a Contracting Party pursuant to articles V, VI and paragraph 2 of article VII of this Protocol to all other Contracting Parties.

Article IX

Any Contracting Party which transmits information pursuant to this Protocol may specifically restrict its dissemination. In such a case, any Contracting Party to which this information has been transmitted, or the Centre, shall not divulge it to any other person, Government, or to any public or private organization without the specific authorization of the former Contracting Party.

Article X

Any Contracting Party faced with a marine emergency situation shall:

- (a) Take every appropriate measure to combat pollution and/or to rectify the situation;
- (b) Immediately inform all other Contracting Parties, either directly or through the Centre, of any action which it has taken or intends to take to combat the pollution. The Centre shall promptly transmit any such information to all other Contracting Parties;
- (c) Make an assessment of the nature and extent of the marine emergency, either directly or with the assistance of the Centre;
- (d) Determine the necessary and appropriate action to be taken with respect to the marine emergency, in consultation with other Contracting Parties, affected States and the Centre.

Article XI

1. Any Contracting Party requiring assistance in a marine emergency response may call for assistance directly from any other Contracting Party or through the Centre. Where the services of the Centre are utilized, the Centre shall promptly transmit requests received to all other Contracting Parties. The Contracting Parties to whom a request is made pursuant to this paragraph shall use their best endeavours within their capabilities to render the assistance requested.
2. The assistance referred to in paragraph 1 above may include:
 - (a) Personnel, material, and equipment, including facilities or methods for the disposal of recovered pollutants;
 - (b) Surveillance and monitoring capacity;
 - (c) Facilitation of the transfer of personnel material, and equipment into, out of and through the territories of the Contracting Parties.
3. The services of the Centre may be utilized by the Contracting Parties to co-ordinate any marine emergency response in which assistance is called for pursuant to paragraph 1 above.
4. Any Contracting Party calling for assistance pursuant to paragraph 1 above shall report the activities undertaken with this assistance and its

results to the Centre. The Centre shall promptly transmit any such report to all other Contracting Parties.

5. In cases of special marine emergencies, the Centre may call for the mobilization of resources made available by the Contracting Parties to combat pollution by oil and other harmful substances.

Article XII

1. Having due regard to the functions assigned to the Centre under this Protocol, each Contracting Party shall establish and maintain an appropriate authority to carry out fully its obligations under this Protocol. With the assistance of the Centre, the appropriate authority of each Contracting Party shall co-operate and co-ordinate its activities with counterparts in the other Contracting Parties.

2. Among other matters with respect to which cooperation and co-ordination efforts shall be directed under paragraph 1 above are the following:

- (a) Distribution and allocation of stocks of materials and equipment;
- (b) Training of personnel for marine emergency responses;
- (c) Marine pollution surveillance and monitoring activities;
- (d) Methods of communication in respect of marine emergencies;
- (e) Facilitation of the transfer of personnel, equipment and materials involved in marine emergency responses into, out of, and through the territories of the Contracting Parties;
- (f) Other matters to which this Protocol applies.

Article XIII

The Council shall:

- (a) Review periodically the activities of the Centre performed under this Protocol;
- (b) Decide on the degree to which, and stages by which, the functions of the Centre set out in article III will be implemented;
- (c) Determine the financial, administrative and other support to be provided by the Contracting Parties to the Centre for the performance of its functions.

This Protocol, considered an integral part of the Convention, shall be deposited with the Government of Saudi Arabia who shall act as Depositary pursuant to article XXIX of the Convention and who shall transmit certified copies of it to the Contracting Parties. Certified copies of this Protocol shall be deposited, together with the Convention, with the General Secretariat of the League of Arab States in accordance with article 17 of the Charter of the Arab League and registered with the Secretary-General of the United Nations in accordance with Article 102 of the Charter of the United Nations.

In witness whereof the undersigned Plenipotentiaries, being duly authorized by their respective Governments, have signed this Protocol.

Done at the City of Jeddah on Sunday the twentieth of the month Rabie
Althani of the year A.H. 1402, corresponding to 14 Shabat (February) of
the year A.D. 1982.

Appendix RCQ
Nairobi Convention (Eastern Africa)

CONVENTION FOR THE PROTECTION, MANAGEMENT AND DEVELOPMENT
OF THE MARINE AND COASTAL ENVIRONMENT OF THE EASTERN AFRICAN
REGION

Nairobi, 21 June 1985

The Contracting Parties,

Fully aware of the economic and social value of the marine and coastal environment of the Eastern African region,

Conscious of their responsibility to preserve their natural heritage for the benefit and enjoyment of present and future generations,

Recognizing the special hydrographic and ecological characteristics of the region which require special care and responsible management,

Recognizing further the threat to the marine and coastal environment, its ecological equilibrium, resources and legitimate uses posed by pollution and by the insufficient integration of an environmental dimension into the development process,

Seeking to ensure that resource development shall be in harmony with the maintenance of the environmental quality of the region and the evolving principles of rational environmental management,

Realizing fully the need for co-operation amongst themselves and with competent international and regional organizations in order to ensure a coordinated and comprehensive development of the natural resources of the region,

Recognizing the desirability of promoting the wider acceptance and national implementation of existing international environmental agreements,

Noting, however, that existing international conventions concerning the marine and coastal environment do not cover, in spite of the progress achieved, all aspects and sources of marine pollution and environmental degradation and do not entirely meet the special requirements of the Eastern African region,

Desirous to adopt a regional convention elaborated within the framework of the Action Plan for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region adopted at Nairobi on 21 June 1985,

Have agreed as follows:

Article 1

GEOGRAPHICAL COVERAGE

1. This Convention shall apply to the Eastern African region, hereinafter referred to as "the Convention area" as defined in paragraph (a) of article 2.
2. Except as may be otherwise provided in any protocol to this Convention, the Convention area shall not include internal

waters of the Contracting Parties.

Article 2 DEFINITIONS

For the purposes of this Convention:

- (a) the "Convention area" shall be comprised of the marine and coastal environment of that part of the Indian Ocean situated within the Eastern African region and falling within the jurisdiction of the Contracting Parties to this Convention. The extent of the coastal environment to be included within the Convention area shall be indicated in each protocol to this Convention taking into account the objectives of the protocol concerned;
- (b) "pollution" means the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, resulting in such deleterious effects as harm to living resources, hazards to human health, hindrance to marine activities, including fishing, impairment of quality for use of sea water and reduction of amenities;
- (c) "Organization" means the body designated as responsible for carrying out secretariat functions pursuant to article 16 of this Convention.

Article 3

GENERAL PROVISIONS

1. The Contracting Parties may enter into bilateral or multilateral agreements, including regional or subregional agreements, for the protection and management of the marine and coastal environment of the Convention area. Such agreements shall be consistent with this Convention and in accordance with international law. Copies of such agreements shall be communicated to the Organization and, through the Organization, to all Contracting Parties to this Convention.
2. Nothing in this Convention or its protocols shall be deemed to affect obligations assumed by a Contracting Party under agreements previously concluded.
3. This Convention and its protocols shall be construed in accordance with international law relating to their subject matter. Nothing in this Convention and its protocols shall prejudice the present or future claims and legal views of any Contracting Party concerning the nature and extent of its maritime jurisdiction.

Article 4

GENERAL OBLIGATIONS

1. The Contracting Parties shall, individually or jointly, take all appropriate measures in conformity with international law and in accordance with this Convention and those of its protocols

in force to which they are party, to prevent, reduce and combat pollution of the Convention area and to ensure sound environmental management of natural resources. using for this Purpose the best practicable means at their disposal, and in accordance with their capabilities.

2. The Contracting Parties shall co-operate in the formulation and adoption of protocols to facilitate the effective implementation of this Convention.

3. The Contracting Parties shall take all appropriate measures in conformity with international law for the effective discharge of the obligations prescribed in this Convention and its protocols and shall endeavour to harmonize their policies in this regard.

4. The Contracting Parties shall co-operate with the competent international, regional and subregional organizations to ensure the effective implementation of this Convention and its protocols. They shall assist each other in fulfilling their obligations under this Convention and its protocols.

5. In taking the measures referred to in paragraph 1, the Contracting Parties shall ensure that the application of such measures does not cause pollution of the marine environment outside the Convention area.

Article 5

POLLUTION FROM SHIPS

The Contracting Parties shall take all appropriate measures to prevent, reduce and combat pollution of the Convention area caused by discharges from ships and, for this purpose, to ensure the effective implementation of the applicable international rules and standards established by, or within the framework of, the competent international organization.

Article 6

POLLUTION CAUSED BY DUMPING

The Contracting Parties shall take all appropriate measures to prevent, reduce and combat pollution of the Convention area caused by dumping of wastes and other matter at sea from ships, aircraft, or manmade structures at sea, taking into account applicable international rules and standards and recommended practices and procedures.

Article 7

POLLUTION FROM LAND-BASED SOURCES

The Contracting Parties shall endeavour to take all appropriate measures to prevent, reduce and combat pollution of the Convention area caused by coastal disposal or by discharges emanating from rivers, estuaries, Coastal establishments, outfall structures, or any other sources within their territories.

Article 8

POLLUTION FROM SEA-BED ACTIVITIES

The Contracting Parties shall take all appropriate measures to prevent, reduce and combat pollution of the Convention area resulting directly or indirectly from exploration and exploitation of the seabed and its subsoil.

Article 9

AIRBORNE POLLUTION

The Contracting Parties shall take all appropriate measures to prevent, reduce and combat pollution of the Convention area resulting from discharges into the atmosphere from activities under their jurisdiction.

Article 10

SPECIALLY PROTECTED AREAS

The Contracting Parties shall, individually or jointly, take all appropriate measures to protect and preserve rare or fragile ecosystems as well as rare, depleted, threatened or endangered species of wild fauna and flora and their habitats in the Convention area. To this end the Contracting Parties shall, in areas under their jurisdiction, establish protected areas, such as parks and reserves, and shall regulate and, where required and subject to the rules of international law, prohibit an activity likely to have adverse effects on the species, ecosystems or biological processes that such areas are established to protect. The establishment of such areas shall not affect the rights of other Contracting Parties and third States and in particular other legitimate uses of the sea.

Article 11

CO-OPERATION IN COMBATING POLLUTION IN CASES OF EMERGENCY

1. The Contracting Parties shall co-operate in taking all necessary measures to respond to pollution emergencies in the Convention area and to reduce or eliminate pollution or the threat of pollution resulting therefrom. To this end, the Contracting Parties shall, individually and jointly, develop and promote contingency plans for responding to incidents involving pollution or the threat thereof in the Convention area.

2. When a Contracting Party becomes aware of a case in which the Convention area is in imminent danger of being polluted or has been polluted, it shall immediately notify other States likely to be affected by such pollution, as well as competent international organizations. Furthermore, it shall inform, as soon as feasible, such other States and the Organization of any measures it has taken to minimize or reduce pollution

or the threat thereof.

Article 12

ENVIRONMENTAL DAMAGE FROM ENGINEERING ACTIVITIES

The Contracting Parties shall take all appropriate measures to prevent, reduce and combat environmental damage in the Convention area, in particular the destruction of marine and coastal ecosystems, caused by engineering activities such as land reclamation and dredging.

Article 13

ENVIRONMENTAL IMPACT ASSESSMENT

1. As part of their environmental management policies, the Contracting Parties shall, in Cooperation with competent regional and international organizations if necessary, develop technical and other guidelines to assist the planning of their major development projects in such a way as to prevent or minimize harmful impacts on the Convention area.
2. Each Contracting Party shall assess, within its capabilities, the potential environmental effects of major projects which it has reasonable grounds to expect may cause substantial pollution of, or significant and harmful changes to, the Convention area.
3. With respect to the assessments referred to in paragraph 2, the Contracting Parties shall, if appropriate in consultation with the Organization, develop procedures for the dissemination of information and, if necessary, for consultations among the Contracting Parties concerned.

Article 14

SCIENTIFIC AND TECHNICAL CO-OPERATION

1. The Contracting Parties shall co-operate, directly or with the assistance of competent regional and international organizations, in scientific research, monitoring, and the exchange of data and other scientific information relating to the purposes of this Convention and its protocols.
2. To this end, the Contracting Parties shall develop and co-ordinate their research and monitoring programmes concerning pollution and natural resources in the Convention area and shall establish, in co-operation with competent regional and international organizations, a regional network of national research centres and institutes to ensure compatible results. With the aim of further protecting the Convention area, the Contracting Parties shall endeavour to participate in international arrangements for research and monitoring outside the Convention area.
3. The Contracting Parties shall co-operate, within their available capabilities, directly or through competent regional and international organizations, in the provision to other Contracting Parties of technical and other assistance in fields relating to pollution and sound environmental management of the Convention area.

Article 15

LIABILITY AND COMPENSATION

The Contracting Parties shall co-operate, directly or with the assistance of competent regional and international organizations, with a view to formulating and adopting appropriate rules and procedures which are in conformity with international law in the field of liability and compensation for damage resulting from pollution of the Convention area.

Article 16

INSTITUTIONAL ARRANGEMENTS

1. The Contracting Parties designate the United Nations Environment Programme as the secretariat of the Convention to carry out the following functions:

- (a) to prepare and convene the meetings of Contracting Parties and conferences provided for in articles 17, 18 and 19;
- (b) to transmit to the Contracting Parties the information received in accordance with articles 3, 11, 13 and 23;
- (c) to perform the functions assigned to it by protocols to this Convention;
- (d) to consider enquiries by, and information from, the Contracting Parties and to consult with them on questions relating to this Convention and its protocols;
- (e) to co-ordinate the implementation of cooperative activities agreed upon by the meetings of Contracting Parties;
- (f) to ensure the necessary co-ordination with other regional and international bodies that the Contracting Parties consider competent;
- (g) to enter into such administrative arrangements as may be required for the effective discharge of the secretariat functions.

2. Each Contracting Party shall designate an appropriate authority to serve as the channel of communication with the Organization for the purposes of this Convention and its protocols.

Article 17

MEETINGS OF THE CONTRACTING PARTIES

1. The Contracting Parties shall hold ordinary meetings once every two years. It shall be the function of the ordinary meetings of the Contracting Parties to keep under review the implementation of this Convention and its protocols and, in particular:

- (a) to consider information submitted by the Contracting Parties under article 23;

(b) to adopt, review and amend annexes to this Convention and to its related protocols, in accordance with the provisions of article 20;

(c) to make recommendations regarding the adoption of any additional protocols or amendments to this Convention or its protocols in accordance with the provisions of articles 18 and 19;

(d) to establish working groups as required to consider any matters concerning this Convention and its protocols;

(e) to assess periodically the state of the environment in the Convention area;

(f) to consider co-operative activities to be undertaken within the framework of this Convention and its protocols, including their financial and institutional implications, and to adopt decisions relating thereto;

(g) to consider and undertake any additional action that may be required for the achievement of the purposes of this Convention and its protocols.

2. The Organization shall convene the first ordinary meeting of the Contracting Parties within nine months of the date on which the Convention enters into force in accordance with article 29.

3. Extraordinary meetings shall be convened at the request of any Contracting Party or upon the request of the Organization, provided that such requests are supported by a two-thirds majority of the Contracting Parties. It shall be the function of the extraordinary meeting of the Contracting Parties to consider only those items proposed in the request for the holding of the extraordinary meeting.

Article 18

ADOPTION OF PROTOCOLS

1. The Contracting Parties, at a conference of plenipotentiaries, may adopt additional protocols to this Convention pursuant to paragraph 2 of article 4.

2. If so requested by a two-thirds majority of the Contracting Parties, the Organization shall convene a conference of plenipotentiaries for the purpose of adopting additional protocols to this Convention.

Article 19

AMENDMENT OF THE CONVENTION AND ITS PROTOCOLS

1. Any Contracting Party may propose amendments to this Convention. Amendments shall be adopted by a conference of plenipotentiaries which shall be convened by the Organization at the request of a two-thirds majority of the Contracting Parties.

2. Any Contracting Party to this Convention may propose amendments

to any protocol. Such amendments shall be adopted by a conference of plenipotentiaries which shall be convened by the Organization at the request of a two-thirds majority of the Contracting Parties to the protocol concerned.

3. The text of any proposed amendment shall be communicated by the Organization to all Contracting Parties at least ninety days before the opening of the conference of plenipotentiaries.

4. Any amendment to this Convention shall be adopted by a two-thirds majority vote of the Contracting Parties to the Convention which are present and voting at the conference of plenipotentiaries and shall be submitted by the Depositary for acceptance by all Contracting Parties to the Convention. Amendments to any protocol shall be adopted by a two-thirds majority vote of the Contracting Parties to the protocol which are present and voting at the conference of plenipotentiaries and shall be submitted by the Depositary for acceptance by all Contracting Parties to the protocol.

5. Instruments of ratification, acceptance or approval of amendments shall be deposited with the Depositary. Amendments adopted in accordance with paragraph 4 shall enter into force between Contracting Parties having accepted such amendments on the thirtieth day following the date of receipt by the Depositary of the instruments of at least six of the Contracting Parties to this Convention or to the protocol concerned, as the case may be. Thereafter the amendments shall enter into force for any other Contracting Party on the thirtieth day after the date on which that Party deposits its instrument.

6. After the entry into force of an amendment to this Convention or to a protocol, any new Contracting Party to this Convention or such protocol shall become a Contracting Party to the Convention or protocol as amended.

Article 20

ANNEXES AND AMENDMENT OF ANNEXES

1. Annexes to this Convention or to a protocol shall form an integral part of the Convention or, as the case may be, such protocol.

2. Except as may be otherwise provided in any protocol with respect to its annexes, the following procedure shall apply to the adoption and entry into force of amendments to annexes to this Convention or to annexes to a protocol:

(a) any Contracting Party may propose amendments to annexes to this Convention or annexes to any protocol at the meetings convened pursuant to article 17;

(b) such amendments shall be adopted by a two thirds majority vote of the Contracting Parties to the instrument in question;

(c) the Depositary shall without delay communicate the amendments so adopted' to all Contracting Parties to this Convention;

(d) any Contracting Party that is unable to accept an amendment to annexes to this Convention or to annexes to any protocol shall so notify the Depositary in writing within a period determined by the

Contracting Parties concerned when adopting the amendment;

(e) the Depositary shall without delay notify all Contracting Parties of notifications received pursuant to the preceding subparagraph;

(f) on expiry of the period determined in accordance with subparagraph (d) above, the amendment to the annex shall become effective for all Contracting Parties to this Convention or to the protocol concerned which have not submitted a notification in accordance with the provisions of that subparagraph;

(g) a Contracting Party may at any time substitute an acceptance for a previous declaration of objection, and the amendment shall thereupon enter into force for that Party.

3. The adoption and entry into force of a new annex to this Convention or to any protocol shall be subject to the same procedure as that for the adoption and entry into force of an amendment to an annex, provided that, if it entails an amendment to the Convention or a protocol, the new annex shall not enter into force until such time as that amendment enters into force.

4. Any amendment to the Annex on Arbitration shall be proposed and adopted, and shall enter into force, in accordance with the procedures set out in article 19.

Article 21

RULES OF PROCEDURES AND FINANCIAL RULES

1. The Contracting Parties shall adopt rules of procedure for their meetings.

2 The Contracting Parties shall adopt financial rules, prepared in consultation with the Organization, to determine, in particular, their financial participation in the co-operative activities undertaken for the purposes of this Convention and of protocols to which they are parties.

Article 22

SPECIAL EXERCISE OF THE RIGHT TO VOTE

In their fields of competence, the regional intergovernmental integration organizations referred to in article 26 shall exercise their right to vote with a number of votes equal to the number of their member States which are Contracting Parties to this Convention and to one or more protocols. Such organizations shall not exercise their rights to vote if the member States concerned exercise theirs and vice versa.

Article 23

TRANSMISSION OF INFORMATION

The Contracting Parties shall transmit regularly to the Organization information on the measures adopted by them in the implementation

of this Convention and of protocols to which they are parties, in such form as the meetings of Contracting Parties may determine.

Article 24

SETTLEMENT OF DISPUTES

1. In case of a dispute between Contracting Parties as to the interpretation or application of this Convention or its protocols, they shall seek a settlement of the dispute through negotiation or any other peaceful means of their own choice.

2. If the Parties concerned cannot settle their dispute through the means mentioned in the preceding paragraph, the dispute shall, upon common agreement of the Parties concerned, be submitted to arbitration under the conditions set out in the Annex on Arbitration.

Article 25

RELATIONSHIP BETWEEN THE CONVENTION AND ITS PROTOCOLS

1. No State or regional intergovernmental integration organization may become a Contracting Party to this Convention unless it becomes at the same time a Contracting Party to at least one protocol to the Convention. No State or regional intergovernmental integration organization may become a Contracting Party to a protocol unless it is, or becomes at the same time, a Contracting Party to this Convention.

2. Decisions concerning any protocol shall be taken only by the Contracting Parties to the protocol concerned.

Article 26

SIGNATURE

This Convention, the Protocol concerning Protected Areas and Wild Fauna and Flora in the Eastern African Region and the Protocol concerning Co-operation in Combating Marine Pollution in Cases of Emergency in the Eastern African Region shall be open for signature at Nairobi from 21 June 1985 to 20 June 1986 by any State invited as a participant to the Conference of Plenipotentiaries on the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region, held at Nairobi from 17 June 1985 to 21 June 1985. They shall also be open for signature between the same dates by any regional intergovernmental integration organization exercising competence in fields covered by the Convention and such protocols and having at least one member State which belongs to the Eastern African region, provided that such regional organization has been invited to participate in the Conference of Plenipotentiaries.

Article 27

RATIFICATION, ACCEPTANCE AND APPROVAL

This Convention and its protocols shall be subject to ratification, acceptance or approval by the States and organizations referred to in article 26. Instruments of ratification, acceptance or approval shall be deposited with the Government of the Republic of Kenya which will assume the functions of Depositary.

Article 28

ACCESSION

1. This Convention and its protocols shall be open for accession by the States and organizations referred to in article 26 as from the day following the date on which the Convention or the protocol concerned is closed for signature.
2. After the entry into force of this Convention and of any protocol, any State or regional intergovernmental integration organization not referred to in article 26 may accede to the Convention and to any protocol, subject to prior approval by three-fourths of the Contracting Parties to the Convention or the protocol concerned.
3. Instruments of accession shall be deposited with the Depositary.

Article 29

ENTRY INTO FORCE

1. This Convention shall enter into force on the same date as the first protocol entering into force
2. Any protocol to this Convention, except as otherwise provided in such protocol, shall enter into force on the ninetieth day following the date of deposit of the sixth instrument of ratification, acceptance, or approval of, or accession to, such protocol by the States referred to in article 26.
3. Thereafter, this Convention and any protocol shall enter into force with respect to any State or organization referred to in article 26 or article 28 on the ninetieth day following the date of deposit of its instruments of ratification, acceptance, approval or accession.

Article 30

WITHDRAWAL

1. At any time after three years from the date of

entry into force of this Convention with respect to a Contracting Party, that Contracting Party may withdraw from this Convention by giving written notification to the Depositary.

2. Except as may be otherwise provided in any protocol to this Convention, any Contracting Party may, at any time after three years from the date of entry into force of such protocol with respect to that Contracting Party, withdraw from such protocol by giving written notification to the Depositary.

3. Withdrawal shall take effect one year after the date on which notification of withdrawal is received by the Depositary.

4. Any Contracting Party which withdraws from this Convention shall be considered as also having withdrawn from any protocol to which it was a Contracting Party.

5. Any Contracting Party which, upon its withdrawal from a protocol, is no longer a Contracting Party to any protocol to this Convention, shall be considered as also having withdrawn from the Convention itself.

Article 31

RESPONSIBILITIES OF THE DEPOSITARY

1. The Depositary shall inform the signatories and the Contracting Parties, as well as the Organization, of:

(a) the signature of this Convention and of its protocols and the deposit of instruments of ratification, acceptance, approval or accession;

(b) the date on which the Convention or any protocol will come into force for each Contracting Party;

(c) Notification of withdrawal and the date on which it will take effect;

(d) the amendments adopted with respect to the Convention or to any protocol, their acceptance by the Contracting Parties and the date of their entry into force;

(e) all matters relating to new annexes and to the amendment of any annex.

2. The original of this Convention and of any protocol shall be deposited with the Depositary, the Government of the Republic of Kenya, which shall send certified copies thereof to the Signatories, the Contracting Parties and the Organization.

3. As soon as the Convention or any protocol enters into force, the Depositary shall transmit a certified copy of the instrument concerned to the Secretary-General of the United

Nations for registration and publication in accordance with Article 102 of the Charter of the United Nations.

In witness whereof the undersigned, being duly authorized by their respective Governments, have signed this Convention.

Done at Nairobi this twenty-first day of June one thousand nine hundred and eighty-five in single copy in the English and French languages. the two texts being equally authentic.

Annex on arbitration

Article I

Unless the agreement referred to in article 24 of the Convention provides otherwise, the arbitration procedure shall be conducted in accordance with articles 2 to 10 below.

Article 2

The claimant party shall notify the Organization that the parties agree to submit the dispute to arbitration pursuant to paragraph 2 of article 24 of the Convention. The notification shall state the subject-matter of arbitration and include, in particular, the articles of the Convention or the protocol, the interpretation or application of which are at issue. The Organization shall forward the information thus received to all Contracting Parties to the Convention or to the protocol concerned.

Article 3

The arbitral tribunal shall consist of three members. Each of the parties to the dispute shall appoint an arbitrator and the two arbitrators so appointed shall designate by common agreement the third arbitrator who shall be the chairman of the tribunal. The latter shall not be a national of one of the parties to the dispute, nor have his usual place of residence in the territory of one of these parties, nor be employed by any of them, nor have dealt with the case in any other capacity.

Article 4

1. If the chairman of the arbitral tribunal has not been designated within two months of the appointment of the second arbitrator, the Secretary-General of the United Nations shall, at the request of either party designate him within a further two months' period.

2. If one of the parties to the dispute does not appoint an arbitrator within two months of receipt of the request, the other party may inform the Secretary-General of the United Nations who shall designate the chairman of the arbitral tribunal

within a further two months' period. Upon designation, the chairman of the arbitral tribunal shall request the party which has not appointed an arbitrator to do so within two months. After such period, he shall inform the Secretary-General of the United Nations, who shall make this appointment within a further two months' period.

Article 5

1. The arbitral tribunal shall render its decision in accordance with international law and in accordance with the provisions of this Convention and the protocol or protocols concerned.

2. Any arbitral tribunal constituted under the provisions of this annex shall draw up its own rules of procedure.

Article 6

1. The decisions of the arbitral tribunal, both on procedure and on substance, shall be taken by majority vote of its members.

2. The arbitral tribunal may take all appropriate measures in order to establish the facts. It may, at the request of one of the parties, recommend essential interim measures of protection.

3. The parties to the dispute shall provide all facilities necessary for the effective conduct of the proceedings.

4. The absence or default of a party to the dispute shall not constitute an impediment to the proceedings.

Article 7

The arbitral tribunal may hear and determine counterclaims arising directly out of the subject matter of the dispute.

Article 8

Unless the arbitral tribunal determines otherwise because of the particular circumstances of the case, the expenses of the tribunal, including the remuneration of its members, shall be borne by the parties to the dispute in equal shares. The tribunal shall keep a record of all its expenses, and shall furnish a final statement thereof to the parties.

Article 9

Any Contracting Party that has an interest of a legal nature in the subject-matter of the dispute which may be affected by the decision in the case, may intervene in the proceedings with the consent of the arbitral tribunal.

Article 10

1. The arbitral tribunal shall render its award within five months of the date on which it is established unless it finds it necessary to extend the time-limit for a period which should not exceed five months.
2. The award of the arbitral tribunal shall be accompanied by a statement of reasons. It shall be final and binding upon the parties to the dispute.
3. Any dispute which may arise between the parties concerning the interpretation or execution of the award may be submitted by either party to the arbitral tribunal which made the award or, if the latter cannot be seized thereof, to another arbitral tribunal constituted for this purpose in the same manner as the first.

Appendix RCR
Protocol Concerning Protected Areas and
Wild Fauna and Flora in the Eastern African Region

Protocol Concerning Protected Areas and Wild Fauna and Flora in the Eastern African Region

Nairobi, 21 June 1985

The Contracting Parties to the present Protocol,

Being Parties to the Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region, done at Nairobi on 21 June 1985,

Conscious of the danger from increasing human activities which is threatening the environment of the Eastern African region,

Recognizing that natural resources constitute a heritage of scientific, cultural, educational, recreational and economic value that needs to be effectively protected,

Stressing the importance of protecting and, as appropriate, improving the state of the wild fauna and flora and natural habitats of the Eastern African region among other means by the establishment of specially protected areas in the marine and coastal environment,

Desirous of establishing close co-operation among themselves in order to achieve that objective,

Have agreed as follows:

Article 1

DEFINITIONS

For the purposes of this Protocol:

(a) "Eastern African region" means the Convention area as defined in paragraph (a) of article 2 of the Convention. It shall also include the coastal areas of the Contracting Parties and their internal waters related to the marine and coastal environment.

(b) "Convention" means the Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region.

(c) "Organization" means the body referred to in paragraph (c) of article 2 of the Convention.

Article 2

GENERAL UNDERTAKING

1. The Contracting Parties shall take all appropriate measures to maintain essential ecological processes and life support systems, to preserve genetic diversity, and to

ensure the sustainable utilization of harvested natural resources under their jurisdiction. In particular, the Contracting Parties shall endeavour to protect and preserve rare or fragile ecosystems as well as rare, depleted, threatened or endangered species of wild fauna and flora and their habitats in the Eastern African region.

2. To this end, the Contracting Parties shall develop national conservation strategies and co-ordinate, if appropriate, such strategies within the framework of regional conservation activities.

Article 3

PROTECTION OF WILD FLORA

The Contracting Parties shall take all appropriate measures to ensure the protection of the wild flora species specified in annex I. To this end, each Contracting Party shall, as appropriate, prohibit activities having adverse effects on the habitats of such species, as well as the uncontrolled picking, collecting, cutting or uprooting of such species. Each Contracting Party shall, as appropriate, prohibit the possession or sale of such species.

Article 4

SPECIES OF WILD FAUNA REQUIRING SPECIAL PROTECTION

The Contracting Parties shall take all appropriate measures to ensure the strictest protection of the endangered wild fauna species listed in annex II. To this end, each Contracting Party shall strictly regulate and, where required, prohibit activities having adverse effects on the habitats of such species. In particular, the following activities shall, where required, be prohibited with regard to such species:

- (a) all forms of capture, keeping or killing;
- (b) damage to, or destruction of, critical habitats;
- (c) disturbance of wild fauna, particularly during the period of breeding, rearing and hibernation;
- (d) destruction or taking of eggs from the wild or keeping these eggs even if empty;
- (e) possession of and internal trade in these animals, alive or dead, including stuffed animals and any readily recognizable part or derivative thereof.

Article 5

HARVESTABLE SPECIES OF WILD FAUNA

1. The Contracting Parties shall take all appropriate measures to ensure the protection of the depleted or threatened wild fauna species listed in annex III.

2. Any exploitation of such wild fauna species shall be regulated in order to restore and maintain the populations at optimum levels. Each Contracting Party shall develop, adopt and implement management plans for the exploitation of such species which may include:

(a) the prohibition of the use of all indiscriminate means of capture and killing and of the use of all means capable of causing local disappearance of, or serious disturbance to, populations of a species;

(b) closed seasons and other procedures regulating exploitation;

(c) the temporary or local prohibition of exploitation, as appropriate, in order to restore viable population levels;

(d) the regulation, as appropriate, of sale, keeping for sale, transport for sale or offering for sale of live and dead wild animals;

(e) the safeguarding of breeding stocks of such species and their critical habitats in protected areas designated in accordance with article 8 of this Protocol;

(f) exploitation in captivity.

Article 6

MIGRATORY SPECIES

The Contracting Parties shall, in addition to the measures specified in articles 3, 4 and 5, co-ordinate their efforts for the protection of migratory species listed in annex IV whose range extends into their territories. To this end, each Contracting Party shall ensure that, where appropriate, the closed seasons and other measures referred to in paragraph 2 of article 5 are also applied with regard to such migratory species.

Article 7

INTRODUCTION OF ALIEN OR NEW SPECIES

The Contracting Parties shall take all appropriate measures to prohibit the intentional or accidental introduction of alien or new species which may cause significant or harmful changes to the Eastern African region.

Article 8

ESTABLISHMENT OF PROTECTED AREAS

1. The Contracting Parties shall, where necessary, establish protected areas in areas under their jurisdiction with a view to safeguarding the natural resources of the Eastern African region and shall take all appropriate measures to protect those areas.

2. Such areas shall be established in order to safeguard:

- (a) the ecological and biological processes essential to the functioning of the Eastern African region;
- (b) representative samples of all types of ecosystems of the Eastern African region;
- (c) populations of the greatest possible number of species of fauna and flora depending on these ecosystems;
- (d) areas having a particular importance by reason of their scientific, aesthetic, cultural or educational purposes.

3. In establishing protected areas, the Contracting Parties shall take into account, inter alia, their importance as:

- (a) natural habitats, and in particular as critical habitats, for species of fauna and flora, especially those which are rare, threatened or endemic;
- (b) migration routes or as wintering, staging, feeding or moulting sites for migratory species;
- (c) areas necessary for the maintenance of stocks of economically important marine species;
- (d) reserves of genetic resources;
- (e) rare or fragile ecosystems;
- (f) areas of interest for scientific research and monitoring.

Article 9

COMMON GUIDELINES, STANDARDS OR CRITERIA

The Contracting Parties shall, at their first meeting, and in co-operation with the competent regional and international organizations, formulate and adopt guidelines, standards or criteria concerning the identification, selection, establishment and management of protected areas.

Article 10

PROTECTION MEASURES

The Contracting Parties, taking into account the characteristics of each protected area, shall take, in conformity with international law, the measures required to achieve the objectives of protecting the area, which may include:

- (a) the organization of a planning and management system;
- (b) the prohibition of the dumping or discharge of wastes or other matter which may impair the protected areas;

- (c) the regulation of pleasure craft activities;
- (d) the regulation of fishing and hunting and of the capture of animals and harvesting of plants;
- (e) the prohibition of the destruction of plant life or animals;
- (f) the regulation of any activity likely to harm or disturb the fauna or flora, including the introduction of non-indigenous animal or plant species;
- (g) the regulation of any activity involving the exploration or exploitation of the sea-bed or its subsoil or a modification of the sea-bed profile;
- (h) the regulation of any activity involving a modification of the profile of the soil or the exploitation of the subsoil of the coastal area;
- (i) the regulation of any archaeological activity and of the removal of any object which may be considered as an archaeological object;
- (j) the regulation of trade in and import and export of animals, parts of animals, plants, parts of plants and archaeological objects which originate in protected areas and are subject to measures of protection;
- (k) any other measure aimed at safeguarding ecological and biological processes in protected areas.

Article 11

BUFFER AREAS

The Contracting Parties may strengthen the protection of a protected area by establishing, within areas under their jurisdiction, one or more buffer areas in which activities are less severely restricted while remaining compatible with the purposes of the protected area.

Article 12

TRADITIONAL ACTIVITIES

1. The Contracting Parties shall, in promulgating protective measures, take into account the traditional activities of their local populations in the areas to be protected. To the fullest extent possible, no exemption which is allowed for this reason shall be such as:

- (a) to endanger either the maintenance of ecosystems protected under the terms of the present Protocol or the biological processes contributing to the maintenance of those ecosystems;
- (b) to cause either the extinction of, or any substantial reduction in, the number of individuals making up the species of animal and plant populations within the

protected ecosystems, or any ecologically connected species or populations, particularly migratory, endemic, rare, depleted, threatened or endangered species.

2. Contracting Parties which allow exemptions under paragraph 1 of this article with regard to protective measures shall inform the Organization accordingly.

Article 13

FRONTIER PROTECTED AREAS

1. If a Contracting Party intends to establish a protected area contiguous to the frontier or to the limits of the zone of national jurisdiction of another Contracting Party, the two Contracting Parties shall, as necessary, consult each other with a view to reaching agreement on the measures to be taken and shall, among other things, examine the possibility of the establishment by the other Party of a corresponding protected area or buffer area.

2. If a Contracting Party intends to establish a protected area contiguous to the frontier or to the limits of the zone of national jurisdiction of a State which is not a party to this Protocol, the Party shall endeavour to work together with that State with a view to holding consultations as referred to in the preceding paragraph.

3. If a State which is not a party to this Protocol intends to establish a protected area contiguous to the frontier or to the limits of the zone of national jurisdiction of a Contracting Party to this Protocol, the latter shall endeavour to work together with that State with a view to holding consultations.

Article 14

PUBLICITY AND NOTIFICATION

The Contracting Parties shall give appropriate publicity to the establishment of protected areas, in particular to their boundaries and the regulations applying thereto. Such information shall be transmitted to the Organization which shall compile and maintain a current directory of protected areas in the Eastern African region. The Contracting Parties shall provide the Organization with all information necessary for that purpose.

Article 15

PUBLIC INFORMATION AND EDUCATION

The Contracting Parties shall endeavour to inform the public as widely as possible of the significance and interest of protected areas and the protection of wild fauna and flora and the scientific knowledge which may be gained from them. Such information should have an appropriate place in education programmes concerning the environment, archaeology and history. The Contracting Parties should also endeavour to promote the participation of their public and their nature conservation organizations in the protection of the areas and wild fauna and flora concerned.

Article 16

REGIONAL CO-OPERATION

The Contracting Parties shall establish a regional programme to co-ordinate the selection, establishment, and management of protected areas and the protection of wild fauna and flora with a view to creating a representative network of protected areas in the Eastern African region. There shall be regular exchanges of information concerning the characteristics of the protected areas and wild fauna and flora, the experience acquired and the problems encountered.

Article 17

SCIENTIFIC AND TECHNICAL RESEARCH

1. The Contracting Parties shall encourage and develop scientific and technical research on their protected areas and on the ecosystems, wild fauna and flora, and archaeological heritage of the Eastern African region.

2. The Contracting Parties shall exchange scientific and technical information concerning current or planned research and their results. They shall, to the fullest extent possible, co-ordinate their research, and define jointly or standardize the scientific methods to be applied in the selection, management and monitoring of protected areas.

Article 18

EXCHANGE OF INFORMATION

1. In applying the principles of co-operation set forth in articles 16 and 17, the Contracting Parties shall forward to the Organization:

(a) comparable information for monitoring the biological development of the Eastern African region,

(b) inventories, publications and information of a scientific, administrative and legal nature, in particular:

(i) on the measures taken by the Contracting Parties in pursuance of this Protocol for the protection of the protected areas and wild fauna and flora; (ii) on the wild fauna and flora present in the protected areas or listed in the annexes to this Protocol; (iii) on any threats to protected areas or wild fauna and flora, especially those threats which may come from sources outside their control; (iv) on any changes in the delimitation or legal status of a protected area or the suppression of all or part of such an area.

2. The Contracting Parties shall designate persons responsible for protected areas. Those persons shall meet at least once every two years to discuss matters of joint interest and especially to propose to the Contracting Parties recommendations concerning scientific, administrative and legal measures to be adopted to improve the application of the provisions of this Protocol.

Article 19

TECHNICAL CO-OPERATION

The Contracting Parties shall co-operate, directly or with the assistance of competent regional or international organizations, in the provision to other Contracting Parties of technical and other assistance in fields related to the selection, establishment and management of protected areas and the protection of wild fauna and flora. Such assistance should relate, in particular, to the training of scientific, technical and managerial personnel and scientific research.

Article 20

ALTERATION OF THE BOUNDARIES OF, OR WITHDRAWAL OF PROTECTION FROM, PROTECTED AREAS

Changes in the delimitation or legal status of a protected area, or the suppression of all or part of such an area, shall not take place unless for significant reasons, taking into account the need to protect the environment and according to the rules and obligations provided in this Protocol.

Article 21

MEETINGS OF THE PARTIES

1. Ordinary meetings of the Contracting Parties to this Protocol shall be held in conjunction with ordinary meetings of the Contracting Parties to the Convention held pursuant to article 17 of the Convention. The Contracting Parties to this Protocol may also hold extraordinary meetings as provided for in article 17 of the Convention.

2. It shall be the function of the meetings of the Contracting Parties to this Protocol, in particular:

(a) to keep under review the implementation of this Protocol;

(b) to consider the efficacy of the measures adopted and to examine the need for other measures, in particular in the form of annexes in conformity with the provisions of article 20 of the Convention;

(c) to adopt, review and amend as required any annex to this Protocol;

(d) to monitor the establishment and development of the network of protected areas referred to in article 16, to adopt guidelines to facilitate the establishment and development of that system and to increase co-operation among the Contracting Parties;

(e) to consider the recommendations made by the meetings of the persons responsible for the protected areas, as provided by article 18, paragraph 2;

(f) to consider, as appropriate, information transmitted by the Contracting Parties to this Protocol to the Organization under article 23 of the Convention.

Article 22

RELATIONSHIP BETWEEN THIS PROTOCOL AND THE CONVENTION

1. The provisions of the Convention relating to its protocols shall apply with respect to this Protocol.
2. The rules of procedure and the financial rules adopted pursuant to article 21 of the Convention shall apply to this Protocol, unless the Contracting Parties to this Protocol agree otherwise.

In witness whereof the undersigned, being duly authorized by their respective Governments, have signed this Protocol.

Done at Nairobi this twenty-first day of June one thousand nine hundred and eighty-five in a single copy in the English and French languages, the two texts being equally authentic.

Annex I

PROTECTED SPECIES OF WILD FLORA

Uvariadendron gorgonis Verdc. (Kenya)
Grevia madagascariensis Baill. Subsp. *keniensis* Verdc.
(Kenya)
Saintpaulia rupicola B.L. Burt (Kenya)
Beccariophoenix madagascariensis Jumelle & Perr.
(Madagascar)
Crinum mauritianum Lodd. (Mauritius)
Tetraxis salicifolia (Thouars ex Tul.) Baker
(Mauritius) *Zanthoxylum paniculatum* Balf. f. (Mauritius,
Rodrigues) *Hibiscus liliiflorus* Cav. (Mauritius,
Rodrigues)
Lodoicea maldivica (J.F. Gmelin) Pers. (Seychelles)
Toxocarpus schimperianus Hemsley (Seychelles)
Peponium sublitorale C. Jeffrey & J.S. Page (Seychelles,
Aldabra)

Annex II

SPECIES OF WILD FAUNA REQUIRING SPECIAL PROTECTION

MAMMALS

Zanzibar red colobus (*Colobus badius kirkii*)
Zanzibar suni (*Neotragus moschatus moschatus*)
Mauritius fruit bat (*Pteropus niger*)
Rodrigues fruit bat (*Pteropus rodricensis*)
Dugong (*Dugong dugon*)
Humpback whale (*Megaptera novaeangliae*)
Blue whale (*Balaenoptera musculus*)
Lemurs (*Lemur spp*)
Nosy B_ sportive lemur (*Lepilemur dorsalis*)
Coquerel's mouse lemur (*Microcebus coquereli*)
Aye aye (*Daubentonia madagascariensis*)

BIRDS

Sokoke pipit (*Anthus sokokensis*)
Sokoke scops owl (*Otus ireneae*)
Amani sunbird (*Anthreptes pallidigaster*)
East coast akalat (*Sheppardia gunningi gunningi*)
Pemba scops owl (*Otus rutilus pembaensis*)
Wattled crane (*Bucconas carunculatus*)
Clarke's weaver (*Ploceus golandi*)
Spotted ground thrush (*Turdus fisheri fisheri*)
Aldabra white-throated rail (*Dryolimnas cuvieri aldabranus*)
Aldabra brush warbler (*Nesillas aldabranus*)
Aldabra sacred ibis (*Threskiornis aethiopica*)
Aldabra kestrel (*Falco newtoni aldabranus*)
Mauritius kestrel (*Falco punctatus*)
Seychelles magpie robin (*Copsychus sechellarum*)
Seychelles fody (*Foudia flavicans*)
Rodriquez fody (*Foudia flavicans*)
Seychelles brush warbler (*Acrocephalus sechellensis*)
Seychelles turtle dove (*Streptopelia picturata rostrata*)
Madagascar fish eagle (*Haliaeetus vociferoides*)
Reunion cuckoo-shrike (*Coracina newtoni*)
Madagascar heron (*Ardea humbloti*)
Grand Comoro scops owl (*Otus pauliani*)
Grand Comoro flycatcher (*Humblotia flavirostris*)
Mount Karthala white-eye (*Zosterops mouroniensis*)
Grand Comoro drongo (*Dicrurus fuscipennis*)
Mayotte drongo (*Dicrurus waldeni*)
Mascarene black petrel (*Pterodroma aterrima*)
Taita thrush (*Turdus helleri*)
Hinde's pied babbler (*Turdoides hindei*)
Papyrus yellow warbler (*Chloropeta gracilirostris*)
Tana river cisticola (*Cisticola restricta*)
Turner's eremomela (*Eremomela turneri*)
Chapin's flycatcher (*Muscicapa lendu*)
Madagascar little grebe (*Tachybaptus pelzelinii*)
Alaotra grebe (*Tachybaptus rufolavatus*)

Madagascar teal (*Anas bernieri*)
Madagascar pochard (*Aythya innotata*)
Madagascar serpent eagle (*Eutriorchis astur*)
White-breasted mesite (*Mesoenas variegata*)
Brown mesite (*Mesoenas unicolor*)
Subdesert mesite (*Monias benschi*)
Slender-billed flufftail (*Sarothrura watersi*)
Sakalava rail (*Amaurornis olivieri*)
Madagascar plover (*Charadrius thoracicus*)
Snail-eating coua (*Coua delalandei*)
Madagascar red owl (*Tyto soumagnei*)
Short-legged ground-roller (*Brachypteracias leptosomus*)
Scaly ground-roller (*Brachypteracias squamiger*)
Roufous-headed ground-roller (*Atelornis crossleyi*)
Long-tailed ground-roller (*Uratelornis chimaera*)
Yellow-bellied sunbird-asisity (*Neodrepanis hypoxantha*)
Appert's greenbul (*Phyllastrephus apperti*)
Dusky greenbul (*Phyllastrephus tenebrosus*)
Grey-crowned greenbul (*Phyllastrephus cinereiceps*)
Van Dam's vanga (*Xenopirostris damii*)
Pollen's vanga (*Xenopirostris polleni*)
Benson's rockthrush (*Monticola bensoi*)
Madagascar yellowbrow (*Crossleyia xanthophrys*)
Red-tailed newtonia (*Newtonia fanovanae*)
Pink pigeon (*Nesoenas mayeri*)
Mauritius parakeet (*Psittacula eques*)
Mauritius cuckoo-shrike (*Coracina typica*)
Mauritius black bulbul (*Hypsipetes olivaceus*)
Rodrigues warbler (*Acrocephalus rodericanus*)
Mauritius olive white-eye (*Zosterops chloronothus*)
Mauritius fody (*Foudia rubra*)
Cape vulture (*Gyps coprotheres*)
Swynnerton's forest robin (*Swynnertonia swynnertoni*)
Dappled mountain robin (*Modulatrix orostruthus*)
Thyolo alethe (*Alethe choloensis*)
Long-billed apalis (*Apalis moreaui*)
Seychelles kestrel (*Falco araea*)
Seychelles scops owl (*Otus insularis*)
Seychelles swiftlet (*Collocalia elaphra*)
Seychelles black paradise flycatcher (*Terpsiphone corvina*)
Seychelles white-eye (*Zosterops modestus*)
Somalia pigeon (*Columba oliviae*)
Ash's lark (*Mirafrasi ashi*)
Somali long-clawed lark (*Heteromirafrasi archeri*)
Warsangli linnet (*Acanthis johannis*)
Shoebill (*Balaeniceps rex*)
Nduk eagle owl (*Bubo vosseleri*)
Uluguru bush-shrike (*Malaconotus alius*)
Usambara ground robin (*Dryocichloides montanus*)
Iringa ground robin (*Dryocichloides lowei*)

Karamoja apalis (*Apalis karamojae*)
Kungwe apalis (*Apalis argentea*)
Mrs. Moreau's warbler (*Bathmocercus winifredae*)
Banded green sunbird (*Anthreptes rubritorques*)
Rufous-winged sunbird (*Nectarinia rufipennis*)
Tanzanian mountain weaver (*Ploceus nicolli*)

REPTILES

Olive ridley turtle (*Lepidochelys olivacea*)
Loggerhead turtle (*Caretta caretta*)
Leatherback turtle (*Dermochelys coriacea*)
Serpent island gecko (*Cyrtodactylus serpensin sula*)
Round island day gecko (*Phelsuma guentheri*)
Round island skink (*Leiopisma telfairii*)
Skink (*Gongylomorphus bojerii*)
Round island boa (*Bolyeria multocarinata*)
Round island keel-scaled boa (*Casarea dussumieri*)
Aldabra giant tortoise (*Dipsochelys elephantina*)
Madagascar tortoise (*Geochelone yniphora*)

MOLLUSCS

Triton's trumpet (*Charonia tritonia*)
Commercial trochus (*Trochus niloticus*)
Fluted giant clam (*Tridacna squamosa*)
Small giant clam (*Tridacna maxima*)
Horse's hoof clam (*Hippopus hippopus*)
Pearl oyster (*Pinctada* spp.)

CRUSTACEANS

Coconut crab (*Birgus latro*)

CNIDARIANS

Black coral (*Antipathes dichotoma*)
Whip coral (*Cirrhopathes* spp.)

INSECTS

Tenebrionid beetle (*Pulposipus herculeanus*)
Comoro graphium butterfly (*Graphium levassari*)

Annex III

HARVESTABLE SPECIES OF WILD FAUNA REQUIRING PROTECTION

Cane rats (*Thryonomys* spp.)
African Elephant (*Loxodonta africana*)

Rock hyrax (*Procavia capensis*)
Yellow-spotted hyrax (*Heterohyrax brucei*)
Tree hyrax (*Dendrohyrax arboreus*)
Burchell's zebra (*Equus burchelli*)
Hippopotamus (*Hippopotamus amphibius*)
Warthog (*Phacochoerus aethiopicus*)
Bush pig (*Potamochoerus porcus*)
Lesser kudu (*Tragelaphus imberbis*)
Common waterbuck (*Kobus ellipsiprymnus*)
Topi (*Damaliscus korrigum*)
Lichtenstein's hartebeest (*Alcelaphus lichtensteini*)
Wildebeest (*Connochaetes taurinus*)
Impala (*Aepyceros melampus*)
Grimm's duiker (*Sylvicapra grimmia*)
Buffalo (*Syncerus caffer*)
Spiny lobsters (*Panulirus* spp.)
Green turtle (*Chelonia mydas*)
Hawksbill turtle (*Eretmochelys imbricata*)

Annex IV

PROTECTED MIGRATORY SPECIES

MAMMALS

Dugong (*Dugong dugon*)
Humpback whale (*Megaptera novaeangliae*)
Blue whale (*Balaenoptera musculus*)

REPTILES

Green turtle (*Chelonia mydas*)
Hawksbill turtle (*Eretmochelys imbricata*)
Olive ridley turtle (*Lepidochelys olivacea*)
Loggerhead turtle (*Caretta caretta*)
Leatherback turtle (*Dermochelys coriacea*)

Appendix RCS
Noumea Convention (South Pacific)

CONVENTION FOR THE PROTECTION OF THE NATURAL RESOURCES AND ENVIRONMENT OF THE SOUTH PACIFIC REGION

Noumea, 24 November 1986

The Parties,

Fully aware of the economic and social value of the natural resources of the environment of the South Pacific Region;

Taking into account the traditions and cultures of the Pacific people as expressed in accepted customs and practices;

Conscious of their responsibility to preserve their natural heritage for the benefit and enjoyment of present and future generations;

Recognizing the special hydrological, geological and ecological characteristics of the region which requires special care and responsible management;

Recognizing further the threat to the marine and coastal environment, its ecological equilibrium, resources and legitimate uses posed by pollution and by the insufficient integration of an environmental dimension into the development process;

Seeking to ensure that resource development shall be in harmony with the maintenance of the unique environmental quality of the region and the evolving principles of sustained resource management;

Realizing fully the need for co-operation amongst themselves and with competent international, regional and sub-regional organizations in order to ensure a co-ordinated and comprehensive development of the natural resources of the region;

Recognizing the desirability for the wider acceptance and national implementation of international agreements already in existence concerning the marine and coastal environment;

Noting, however, that existing international agreements concerning the marine and coastal environment do not cover, in spite of the progress achieved, all aspects and sources of marine pollution and environmental degradation and do not entirely meet the special requirements of the South Pacific Region;

Desirous to adopt the regional convention to strengthen the implementation of the general objective of

the Action Plan for Managing the Natural Resources and Environment of the South Pacific Region adopted at Rarotonga, Cook Islands, on 11 March 1982;

Have agreed as follows:

Article 1

GEOGRAPHICAL COVERAGE

1. This Convention shall apply to the South Pacific Region, hereinafter referred to as "the Convention Area" as defined in paragraph (a) of Article 2.

2. Except as may be otherwise provided in any Protocol to this Convention, the Convention Area shall not include internal waters or archipelagic waters of the Parties as defined in accordance with international law.

Article 2

DEFINITIONS

For the purposes of this Convention and its Protocols unless otherwise defined in any such Protocol:

(a) the "Convention Area" shall comprise:

(i) the 200 nautical mile zones established in accordance with international law off:

American Samoa
Australia (East coast and Islands to eastward including Macquarie Island)
Cook Islands
Federated States of Micronesia
French Polynesia
Guam
Kiribati
Marshall Islands
Nauru
New Caledonia and Dependencies
New Zealand
Niue
Northern Mariana Islands
Palau
Papua New Guinea
Pitcairn Islands
Solomon Islands
Tokelau
Tonga
Tuvalu
Vanuatu

Wallis and Futuna
Western Samoa

(ii) those areas of high seas which are enclosed from all sides by the 200 nautical mile zones referred to in sub-paragraph (i);

(iii) areas of the Pacific Ocean which have been included in the Convention Area pursuant to Article 3;

(b) "dumping" means:

Ñ any deliberate disposal at sea of wastes or other matter from vessels, aircraft, platforms or other man-made structures;

Ñ any deliberate disposal at sea of vessels, aircraft, platforms or other man-made structures at sea;

"dumping" does not include:

Ñ the disposal of wastes or other matter incidental to, or derived from the normal operations of vessels, aircraft, platforms or other man-made structures at sea and their equipment, other than wastes or other matter transported by or to vessels, aircraft, platforms or other man-made structures at sea, operating for the purpose of treatment of such wastes or other matter on such vessels, aircraft, platforms or structures;

Ñ placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of this Convention;

(c) "wastes or other matter" means material and substances of any kind, form or description;

(d) the following wastes or other matter shall be considered to be non-radioactive: sewage sludge, dredge spoil, fly ash, agricultural wastes, construction materials, vessels, artificial reef building materials and other such materials provided that they have not been contaminated with radio nuclides of anthropogenic origin (except dispersed global fallout from nuclear weapons testing), nor are potential sources of naturally occurring radio nuclides for commercial purposes, nor have been enriched in natural or artificial radio nuclides;

If there is a question as to whether the material to be dumped should be considered non-radioactive, for the purposes of this Convention, such material shall not be dumped unless the appropriate national authority of the proposed dumper confirms that such dumping would not exceed the individual and collective dose limits of the

International Atomic Energy Agency general principles for the exemption of radiation sources and practices from regulatory control. The national authority shall also take into account the relevant recommendations, standards and guidelines developed by the International Atomic Energy Agency.

(e) "vessels" and "aircraft" means waterborne or airborne craft of any type whatsoever. This expression includes air cushioned craft and floating craft, whether self-propelled or not;

(f) "pollution" means the introduction by man, directly or indirectly, of substances or energy into the marine environment (including estuaries) which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities;

In applying this definition to the Convention obligations, the Parties shall use their best endeavours to comply with the appropriate standards and recommendations established by competent international organizations, including the International Atomic Energy Agency;

(g) "Organisation" means the South Pacific Commission;

(h) "Director" means the Director of the South Pacific Bureau for Economic Co-operation.

Article 3

ADDITION TO THE CONVENTION AREA

Any Party may add areas under its jurisdiction within the Pacific Ocean between the Tropic of Cancer and 60 degrees South latitude and between 130 degrees East longitude and 120 degrees West longitude to the Convention Area. Such addition shall be notified to the Depositary who shall promptly notify the other Parties and the Organisation. Such areas shall be incorporated within the Convention Area ninety days after notification to the Parties by the Depositary provided there has been no objection to the proposal to add new areas by any Party affected by that proposal. If there is any such objection the Parties concerned will consult with a view to resolving the matter.

Article 4

GENERAL PROVISIONS

1. The Parties shall endeavour to conclude bilateral or multilateral agreements, including regional or sub-regional agreements, for the protection, development and management of the marine and coastal environment of the Convention Area. Such agreements shall be consistent with this Convention and in accordance with international law. Copies of such agreements shall be communicated to the Organisation and through it to all Parties to this Convention .

2. Nothing in this Convention or its Protocols shall be deemed to affect obligations assumed by a Party under agreements previously concluded.

3. Nothing in this Convention and its Protocols shall be construed to prejudice or affect the interpretation and application of any provision or term in the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972.

4. This Convention and its Protocols shall be construed in accordance with international law relating to their subject matter.

5. Nothing in this Convention and its Protocols shall prejudice the present or future claims and legal views of any Party concerning the nature and extent of maritime jurisdiction.

6. Nothing in this Convention shall affect the sovereign right of States to exploit, develop and manage their own natural resources pursuant to their own policies, taking into account their duty to protect and preserve the environment. Each Party shall ensure that activities within its jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of its national jurisdiction.

Article 5

GENERAL OBLIGATIONS

1. The Parties shall endeavour, either individually or jointly, to take all appropriate measures in conformity with international law and in accordance with this Convention and those Protocols in force to which they are party to prevent, reduce and control pollution of the Convention Area, from any source, and to ensure sound environmental management and development of natural resources, using for this purpose the best practicable means at their disposal, and in accordance with their

capabilities. In doing so the Parties shall endeavour to harmonize their policies at the regional level.

2. The Parties shall use their best endeavours to ensure that the implementation of this Convention shall not result in an increase in pollution in the marine environment outside the Convention Area.

3. In addition to the Protocol for the Prevention of Pollution of the South Pacific Region by Dumping and the Protocol Concerning Co-operation in Combating Pollution Emergencies in the South Pacific Region, the Parties shall co-operate in the formulation and adoption of other Protocols prescribing agreed measures, procedures and standards to prevent, reduce and control pollution from all sources or in promoting environmental management in conformity with the objectives of this Convention .

4. The Parties shall, taking into account existing internationally recognized rules, standards, practices and procedures, co-operate with competent global regional and sub-regional organisations to establish and adopt recommended practices, procedures and measures to prevent, reduce and control pollution from all sources and to promote sustained resource management and to ensure the sound development of natural resources in conformity with the objectives of this Convention and its Protocols. and to assist each other in fulfilling their obligations under this Convention and its Protocols.

5. The Parties shall endeavour to establish laws and regulations for the effective discharge of the obligations prescribed in this Convention. Such laws and regulations shall be no less effective than international rules, standards and recommended practices and procedures.

Article 6

POLLUTION FROM VESSELS

The Parties shall take all appropriate measures to prevent, reduce and control pollution in the Convention Area caused by discharges from vessels, and to ensure the effective application in the Convention Area of the generally accepted international rules and standards established through the competent international organisation or general diplomatic conference relating to the control of pollution from vessels.

Article 7

POLLUTION FROM LAND-BASED SOURCES

The Parties shall take all appropriate measures to prevent, reduce and control pollution in the Convention Area caused by coastal disposal or by discharges emanating from rivers, estuaries, coastal establishments, outfall structures, or any other sources in their territory.

Article 8

POLLUTION FROM SEABED ACTIVITIES

The Parties shall take all appropriate measures to prevent, reduce and control pollution in the Convention Area resulting directly or indirectly from exploration and exploitation of the seabed and its subsoil.

Article 9

AIRBORNE POLLUTION

The Parties shall take all appropriate measures to prevent, reduce and control pollution in the Convention Area resulting from discharges into the atmosphere from activities under their jurisdiction.

Article 10

DISPOSAL OF WASTES

1. The Parties shall take all appropriate measures to prevent, reduce and control pollution in the Convention Area caused by dumping from vessels, aircraft, or man-made structures at sea, including the effective application of the relevant internationally recognized rules and procedures relating to the control of dumping of wastes and other matter. The Parties agree to prohibit the dumping of radioactive wastes or other radioactive matter in the Convention Area. Without prejudice to whether or not disposal into the seabed and subsoil of wastes or other matter is "dumping", the Parties agree to prohibit the disposal into the seabed and subsoil of the Convention Area of radioactive wastes or other radioactive matter.

2. This article shall also apply to the continental shelf of a Party where it extends, in accordance with international law, outward beyond the Convention Area .

Article 11

STORAGE OF TOXIC AND HAZARDOUS WASTES

The Parties shall take all appropriate measures to prevent, reduce and control pollution in the Convention Area resulting from the storage of toxic and hazardous wastes. In particular, the Parties shall prohibit the storage of radioactive wastes or other radioactive matter in the Convention Area.

Article 12

TESTING OF NUCLEAR DEVICES

The Parties shall take all appropriate measures to prevent, reduce and control pollution in the Convention Area which might result from the testing of nuclear devices.

Article 13

MINING AND COASTAL EROSION

The Parties shall take all appropriate measures to prevent, reduce and control environmental damage in the Convention Area, in particular coastal erosion caused by coastal engineering, mining activities, sand removal, land reclamation and dredging.

Article 14

SPECIALLY PROTECTED AREAS AND PROTECTION OF WILD FLORA AND FAUNA

The Parties shall, individually or jointly, take all appropriate measures to protect and preserve rare or fragile ecosystems and depleted, threatened or endangered flora and fauna as well as their habitat in the Convention Area. To this end, the Parties shall, as appropriate, establish protected areas, such as parks and reserves, and prohibit or regulate any activity likely to have adverse effects on the species, ecosystems or biological processes that such areas are designed to protect. The establishment of such areas shall not affect the rights of other Parties or third States under international law. In addition, the Parties shall exchange information concerning the administration and management of such areas.

Article 15

CO-OPERATION IN COMBATING POLLUTION IN CASES OF EMERGENCY

1. The Parties shall co-operate in taking all necessary measures to deal with pollution emergencies in the Convention Area, whatever the cause of such emergencies, and to prevent, reduce and control pollution or the threat of pollution resulting therefrom. To this end, the Parties shall develop and promote individual contingency plans and joint contingency plans for responding to incidents involving pollution or the threat thereof in the Convention Area.

2. When a Party becomes aware of a case in which the Convention Area is in imminent danger of being polluted or has been polluted, it shall immediately notify other countries and territories it deems likely to be affected by such pollution, as well as the Organisation. Furthermore it shall inform as soon as feasible, such other countries and territories and the Organisation of any measures it has itself taken to reduce or control pollution or the threat thereof.

Article 16

ENVIRONMENTAL IMPACT ASSESSMENT

1. The Parties agree to develop and maintain, with the assistance of competent global, regional and subregional organisations as requested, technical guidelines and legislation giving adequate emphasis to environmental and social factors to facilitate balanced development of their natural resources and planning of their major projects which might affect the marine environment in such a way as to prevent or minimise harmful impacts on the Convention Area.

2. Each Party shall, within its capabilities, assess the potential effects of such projects on the marine environment, so that appropriate measures can be taken to prevent any substantial pollution of, or significant and harmful changes within, the Convention Area.

3. With respect to the assessment referred to in paragraph 2, each Party shall, where appropriate, invite:

(a) public comment according to its national procedures;

(b) other Parties that may be affected to consult with it and submit comments.

The results of these assessments shall be communicated to the Organisation, which shall make them available to interested Parties.

Article 17

SCIENTIFIC AND TECHNICAL CO-OPERATION

1. The Parties shall co-operate, either directly or with the assistance of competent global, regional and sub-regional organisations, in scientific research, environmental monitoring, and the exchange of data and other scientific and technical information related to the purposes of the Convention.
2. In addition, the Parties shall, for the purposes of this Convention, develop and co-ordinate research and monitoring programmes relating to the Convention Area and co-operate, as far as practicable, in the establishment and implementation of regional, sub-regional and international research programmes.

Article 18

TECHNICAL AND OTHER ASSISTANCE

The Parties undertake to co-operate, directly and when appropriate through the competent global, regional and sub-regional organisations, in the provision to other Parties of technical and other assistance in fields relating to pollution and sound environmental management of the Convention Area, taking into account the special needs of the island developing countries and territories.

Article 19

TRANSMISSION OF INFORMATION

The Parties shall transmit to the Organisation information on the measures adopted by them in the implementation of this Convention and of Protocols to which they are Parties, in such form and at such intervals as the Parties may determine.

Article 20

LIABILITY AND COMPENSATION

The Parties shall co-operate in the formulation and adoption of appropriate rules and procedures in conformity with international law in respect of liability and compensation for damage resulting from pollution of the Convention Area.

Article 21

INSTITUTIONAL ARRANGEMENTS

1. The Organisation shall be responsible for carrying out the following secretariat functions:

- (a) to prepare and convene the meetings of Parties;
- (b) to transmit to the Parties notifications, reports and other information received in accordance with this Convention and its Protocols;
- (c) to perform the functions assigned to it by the Protocols to this Convention;
- (d) to consider enquiries by, and information from, the Parties and to consult with them on questions relating to this Convention and the Protocols;
- (e) to co-ordinate the implementation of cooperative activities agreed upon by the Parties;
- (f) to ensure the necessary co-ordination with other competent global, regional and sub-regional bodies;
- (g) to enter into such administrative arrangements as may be required for the effective discharge of the secretariat functions;
- (h) to perform such other functions as may be assigned to it by the Parties; and
- (i) to transmit to the South Pacific Conference and the South Pacific Forum the reports of ordinary and extraordinary meetings of the Parties.

2. Each Party shall designate an appropriate national authority to serve as the channel of communication with the Organisation for the purposes of this Convention.

Article 22

MEETINGS OF THE PARTIES

1. The Parties shall hold ordinary meetings once every two years. Ordinary meetings shall review the implementation of this Convention and its Protocols and, in particular, shall:

- (a) assess periodically the state of the environment in the Convention Area;

- (b) consider the information submitted by the Parties under Article 19;
- (c) adopt, review and amend as required annexes to this Convention and to its Protocols, in accordance with the provisions of Article 25;
- (d) make recommendations regarding the adoption of any Protocols or any amendments to this Convention or its Protocols in accordance with the provisions of Articles 23 and 24;
- (e) establish working groups as required to consider any matters concerning this Convention and its Protocols;
- (f) consider co-operative activities to be undertaken within the framework of this Convention and its Protocols, including their financial and institutional implications and to adopt decisions relating thereto;
- (g) consider and undertake any additional action that may be required for the achievement of the purposes of this Convention and its Protocols; and
- (h) adopt by consensus financial rules and budget prepared in consultation with the Organisation, to determine, inter alia, the financial participation of the Parties under this Convention and those Protocols to which they are party.

2. The Organisation shall convene the first ordinary meeting of the Parties not later than one year after the date on which the Convention enters into force in accordance with Article 31.

3. Extraordinary meetings shall be convened at the request of any Party or upon the request of the Organisation, provided that such requests are supported by at least two-thirds of the Parties. It shall be the function of an extraordinary meeting of the Parties to consider those items proposed in the request for the holding of the extraordinary meeting and any other items agreed to by all the Parties attending the meeting.

4. The Parties shall adopt by consensus at their first ordinary meeting, rules of procedure for their meetings.

Article 23

ADOPTION OF PROTOCOLS

1. The Parties may, at a conference of plenipotentiaries, adopt Protocols to this Convention pursuant to paragraph

3 of Article 5.

2. If so requested by a majority of the Parties, the Organisation shall convene a conference of plenipotentiaries for the purpose of adopting Protocols to this Convention.

Article 24

AMENDMENT OF THE CONVENTION AND ITS PROTOCOLS

1. Any Party may propose amendments to this Convention. Amendments shall be adopted by a conference of plenipotentiaries which shall be convened by the Organisation at the request of two-thirds of the Parties.
2. Any Party to this Convention may propose amendments to any Protocol. Such amendments shall be adopted by a conference of plenipotentiaries which shall be convened by the Organisation at the request of two-thirds of the Parties to the Protocol concerned.
3. A proposed amendment to the Convention or any Protocol shall be communicated to the Organisation which shall promptly transmit such proposal for consideration to all the other Parties.
4. A conference of plenipotentiaries to consider a proposed amendment to the Convention or any Protocol shall be convened not less than ninety days after the requirements for the convening of the Conference have been met pursuant to paragraphs 1 or 2, as the case may be.
5. Any amendment to this Convention shall be adopted by a three-fourths majority vote of the Parties to the Convention which are represented at the conference of plenipotentiaries and shall be submitted by the Depositary for acceptance by all Parties to the Convention. Amendments to any Protocol shall be adopted by a three-fourths majority vote of the Parties to the Protocol which are represented at the conference of plenipotentiaries and shall be submitted by the Depositary for acceptance by all Parties to the Protocol.
6. Instruments of ratification, acceptance or approval of amendments shall be deposited with the Depositary. Amendments shall enter into force between Parties having accepted such amendments of the instruments on the thirtieth day following the date of receipt by the Depositary of the instruments of at least three-fourths of the Parties to this Convention or to the Protocol concerned, as the case may be. Thereafter the amendments shall enter into force for any other Party on the

thirtieth day after the date on which that Party deposits its instrument.

7. After the entry into force of an amendment to this Convention or to a Protocol, any new Party to the Convention or such Protocol shall become a Party to the Convention or Protocol as amended.

Article 25

ANNEXES AND AMENDMENT OF ANNEXES

1. Annexes to this Convention or to any Protocol shall form an integral part of the Convention or such Protocol respectively.

2. Except as may be otherwise provided in any Protocol with respect to its annexes, the following procedures shall apply to the adoption and entry into force of any amendments to annexes to this Convention or to annexes to any Protocol:

(a) any Party may propose amendments to the annexes to this Convention or annexes to any Protocol;

(b) any proposed amendment shall be notified by the Organisation to the Parties not less than sixty days before the convening of a meeting of the Parties unless this requirement is waived by the meeting;

(c) such amendments shall be adopted at a meeting of the Parties by a three-fourths majority vote of the Parties to the instrument in question;

(d) the Depositary shall without delay communicate the amendments so adopted to all Parties;

(e) any Party that is unable to approve an amendment to the annexes to this Convention or to annexes to any Protocol shall so notify in writing to the Depositary within one hundred days from the date of the communication of the amendment by the Depositary. A Party may at any time substitute an acceptance for a previous declaration of objection, and the amendment shall thereupon enter into force for that Party;

(f) the Depositary shall without delay notify all Parties of any notification received pursuant to the preceding sub-paragraph; and

(g) on expiry of the period referred to in subparagraph (e) above, the amendment to the annex shall become effective for all Parties to this Convention or to the Protocol concerned which have not submitted a

notification in accordance with the provisions of that sub-paragraph.

3. The adoption and entry into force of a new annex shall be subject to the same procedure as that for the adoption and entry into force of an amendment to an annex as set out in the provisions of paragraph 2, provided that, if any amendment to the Convention or the Protocol concerned is involved, the new annex shall not enter into force until such time as that amendment enters into force.

4. Amendments to the Annex on Arbitration shall be considered to be amendments to this Convention or its Protocols and shall be proposed and adopted in accordance with the procedures set out in Article 24.

Article 26

SETTLEMENT OF DISPUTES

1. In case of a dispute between Parties as to the interpretation or application of this Convention or its Protocols, they shall seek a settlement of the dispute through negotiation or any other peaceful means of their own choice. If the Parties concerned cannot reach agreement, they should seek the good offices of, or jointly request mediation by, a third Party.

2. If the Parties concerned cannot settle their dispute through the means mentioned in paragraph 1, the dispute shall, upon common agreement except as may be otherwise provided in any Protocol to this Convention, be submitted to arbitration under conditions laid down in the Annex on Arbitration to this Convention. However, failure to reach common agreement on submission of the dispute to arbitration shall not absolve the Parties from the responsibility of continuing to seek to resolve it by means referred to in paragraph 1.

3. A Party may at any time declare that it recognizes as compulsory ipso facto and without special agreement, in relation to any other Party accepting the same obligation, the application of the arbitration procedure set out in the Annex on Arbitration. Such declaration shall be notified in writing to the Depositary who shall promptly communicate it to the other Parties.

Article 27

RELATIONSHIP BETWEEN THIS CONVENTION AND ITS PROTOCOLS

1. No State may become a Party to this Convention unless it becomes at the same time a Party to one or more

Protocols. No State may become a Party to a Protocol unless it is, or becomes at the same time, a Party to this Convention.

2. Decisions concerning any Protocol pursuant to Articles 22, 24 and 25 of this Convention shall be taken only by the Parties to the Protocol concerned.

Article 28

SIGNATURE

This Convention, the Protocol Concerning Cooperation in Combating Pollution Emergencies in the South Pacific Region, and the Protocol for the Prevention of Pollution of the South Pacific Region by Dumping shall be open for signature at the South Pacific Commission Headquarters in Noumea, New Caledonia on 25 November 1986 and at the South Pacific Bureau for Economic Co-operation Headquarters, Suva, Fiji from 26 November 1986 to 25 November 1987 by States which were invited to participate in the Plenipotentiary Meeting of the High Level Conference on the Protection of the Natural Resources and Environment of the South Pacific Region held at Noumea, New Caledonia from 24 November 1986 to 25 November 1986.

Article 29

RATIFICATION, ACCEPTANCE OR APPROVAL

This Convention and any Protocol thereto shall be subject to ratification, acceptance or approval by States referred to in Article 28. Instruments of ratification, acceptance or approval shall be deposited with the Director who shall be the Depositary.

Article 30

ACCESSION

1. This Convention and any Protocol hereto shall be open to accession by the States referred to in Article 28 as from the day following the date on which the Convention or Protocol concerned was closed for signature.

2. Any State not referred to in paragraph 1 may accede to the Convention and to any Protocol subject to prior approval by three-fourths of the Parties to the Convention or the Protocol concerned.

3. Instruments of accession shall be deposited with the Depositary.

Article 31

ENTRY INTO FORCE

1. This Convention shall enter into force on the thirtieth day following the date of deposit of at least ten instruments of ratification, acceptance, approval or accession.
2. Any Protocol to this Convention, except as otherwise provided in such Protocol, shall enter into force on the thirtieth day following the date of deposit of at least five instruments of ratification, acceptance or approval of such Protocol, or of accession thereto, provided that no Protocol shall enter into force before the Convention. Should the requirements for entry into force of a Protocol be met prior to those for entry into force of the Convention pursuant to paragraph 1, such Protocol shall enter into force on the same date as the Convention.
3. Thereafter, this Convention and any Protocol shall enter into force with respect to any State referred to in Articles 28 or 30 on the thirtieth day following the date of deposit of its instrument of ratification, acceptance, approval or accession.

Article 32

DENUNCIATION

1. At any time after two years from the date of entry into force of this Convention with respect to a Party, that Party may denounce the Convention by giving written notification to the Depositary.
2. Except as may be otherwise provided in any Protocol to this Convention, any Party may, at any time after two years from the date of entry into force of such Protocol with respect to that Party, denounce the Protocol by giving written notification to the Depositary.
3. Denunciation shall take effect ninety days after the date on which notification of denunciation is received by the Depositary.
4. Any Party which denounces this Convention shall be considered as also having denounced any Protocol to which it was a Party.
5. Any Party which, upon its denunciation of a Protocol is no longer a Party to any Protocol to this Convention,

shall be considered as also having denounced this Convention.

Article 33

RESPONSIBILITIES OF THE DEPOSITARY

1. The Depositary shall inform the Parties, as well as the Organisation

(a) of the signature of this Convention and of any Protocol thereto and of the deposit of instruments of ratification, acceptance, approval, or accession in accordance with Articles 29 and 30;

(b) of the date on which the Convention and any Protocol will come into force in accordance with the provisions of Article 31;

(c) of notification of denunciation made in accordance with Article 32;

(d) of notification of any addition to the Convention Area in accordance with Article 3;

(e) of the amendments adopted with respect to the Convention and to any Protocol, their acceptance by the Parties and the date of their entry into force in accordance with the Provisions of Article 24; and

(f) of the adoption of new annexes and of the amendments of any annex in accordance with Article 25.

2. The original of this Convention and of any Protocol thereto shall be deposited with the Depositary who shall send certified copies thereof to the Signatories, the Parties, to the Organisation and to the Secretary-General of the United Nations for registration and publication in accordance with Article 102 of the United Nations Charter.

In witness whereof the undersigned, being duly authorised by their respective Governments, have signed this Convention.

Done at Noumea, New Caledonia on the twenty-fourth day of November in the year one thousand nine hundred and eighty-six in a single copy in the English and French languages, the two texts being equally authentic.

Annex on arbitration

Article 1

Unless the agreement referred to in Article 26 of the Convention provides otherwise, the arbitration procedure shall be in accordance with the rules set out in this Annex.

Article 2

The claimant Party shall notify the Organisation that the Parties have agreed to submit the dispute to arbitration pursuant to paragraph 2, or that paragraph 3 of Article 26 of the Convention is applicable. The notification shall state the subject matter of the arbitration and include the provisions of the Convention or any Protocol thereto, the interpretation or application of which is the subject of disagreement. The Organisation shall transmit this information to all Parties to the Convention or Protocol concerned.

Article 3

1. The Tribunal shall consist of a single arbitrator if so agreed between the Parties to the dispute within thirty days from the date of receipt of the notification for arbitration.

2. In the case of the death, disability or default of the arbitrator, the Parties to a dispute may agree upon a replacement within thirty days of such death, disability or default.

Article 4

1. Where the Parties to a dispute do not agree upon a Tribunal in accordance with Article 3 of this Annex, the Tribunal shall consist of three members:

(i) one arbitrator nominated by each Party to the dispute,

(ii) a third arbitrator who shall be nominated by agreement between the two first named and who shall act as its Chairman.

2. If the Chairman of a Tribunal is not nominated within thirty days of nomination of the second arbitrator, the Parties to a dispute shall, upon the request of one Party, submit to the Secretary-General of the Organisation within a further period of thirty days, an agreed list of qualified persons. The Secretary-General shall select the Chairman from such list as soon as possible. He shall not select a Chairman who is, or has

been, a national of one Party to the dispute except with the consent of the other Party to the dispute.

3. If one Party to a dispute fails to nominate an arbitrator as provided in subparagraph 1(i) within sixty days from the date of receipt of the notification for arbitration, the other Party may request the submission to the Secretary-General of the Organisation within a period of thirty days of an agreed list of qualified persons. The Secretary-General shall select the Chairman of the Tribunal from such list as soon as possible. The Chairman shall then request the Party which has not nominated an arbitrator to do so. If this Party does not nominate an arbitrator within fifteen days of such request, the Secretary-General shall, upon request of the Chairman, nominate the arbitrator from the agreed list of qualified persons.

4. In the case of the death, disability or default of an arbitrator, the Party to the dispute who nominated him shall nominate a replacement within thirty days of such death, disability or default. If the Party does not nominate a replacement, the arbitration shall proceed with the remaining arbitrators. In the case of the death, disability or default of the Chairman, a replacement shall be nominated in accordance with paragraphs 1(ii) and 2 within ninety days of such death, disability or default.

5. A list of arbitrators shall be maintained by the Secretary-General of the Organisation and composed of qualified persons nominated by the Parties. Each Party may designate for inclusion in the list four persons who shall not necessarily be its nationals. If the Parties to the dispute have failed within the specified time limits to submit to the Secretary-General an agreed list of qualified persons as provided for in paragraphs 2, 3 and 4, the Secretary-General shall select from the list maintained by him the arbitrator or arbitrators not yet nominated.

Article 5

The Tribunal may hear and determine counter-claims arising directly out of the subject matter of the dispute.

Article 6

The Tribunal may, at the request of one of the Parties to the dispute, recommend interim measures of protection.

Article 7

Each Party to the dispute shall be responsible for the costs entailed by the preparation of its own case. The remuneration of the members of the Tribunal and of all general expenses incurred by the arbitration shall be borne equally by the Parties to the dispute. The Tribunal shall keep a record of all its expenses and shall furnish a final statement thereof to the Parties.

Article 8

Any Party which has an interest of a legal nature which may be affected by the decision in the case may, after giving written notice to the Parties to the dispute which have originally initiated the procedure, intervene in the arbitration procedure with the consent of the Tribunal which should be freely given. Any intervenor shall participate at its own expense. Any such intervenor shall have the right to present evidence, briefs and oral arguments on the matter giving rise to its intervention, in accordance with procedures established pursuant to Article 9 of this Annex but shall have no rights with respect to the composition of the Tribunal.

Article 9

A Tribunal established under the provisions of this Annex shall decide its own rules of procedure.

Article 10

1. Unless a Tribunal consists of a single arbitrator, decisions of the Tribunal as to its procedure, its place of meeting, and any question related to the dispute laid before it, shall be taken by majority vote of its members. However, the absence or abstention of any member of the Tribunal who was nominated by a Party to the dispute shall not constitute an impediment to the Tribunal reaching a decision. In case of equal voting, the vote of the Chairman shall be decisive.

2. The Parties to the dispute shall facilitate the work of the Tribunal and in particular shall, in accordance with their legislation and using all means at their disposal:

(i) provide the Tribunal with all necessary documents and information; and

(ii) enable the Tribunal to enter their territory to

hear witnesses or experts, and to visit the scene of the subject matter of the arbitration.

3. The failure of a Party to the dispute to comply with the provisions of paragraph 2 or to defend its case shall not preclude the Tribunal from reaching a decision and rendering an award.

Article 11

The Tribunal shall render its award within five months from the time it is established unless it finds it necessary to extend that time limit for a period not to exceed five months. The award of the Tribunal shall be accompanied by a statement of reasons for the decision. It shall be final and without appeal and shall be communicated to the Secretary-General of the Organisation who shall inform the Parties. The Parties to the dispute shall immediately comply with the award.

Appendix RCT
Protocol Concerning Co-Operation in Combating Pollution
Emergencies in the South Pacific Region

PROTOCOL CONCERNING CO-OPERATION IN COMBATING POLLUTION EMERGENCIES IN THE SOUTH PACIFIC REGION

Noumea, 25 November 1986

The Parties to this Protocol,

Being Parties to the Convention for the Protection of the Natural Resources and Environment of the South Pacific Region adopted in Noumea, New Caledonia on the twenty-fourth day of November in the year one thousand nine hundred and eighty-six;

Conscious that the exploration, development and use of offshore and near shore minerals and the use of hazardous substances, as well as related vessel traffic, pose the threat of significant pollution emergencies in the South Pacific Region;

Aware that the islands of the region are particularly vulnerable to damage resulting from significant pollution due to the sensitivity of their ecosystems and their economic reliance on the continuous utilization of their coastal areas;

Recognizing that in the event of a pollution emergency or threat thereof, prompt and effective action should be taken initially at the national level to organise and co-ordinate prevention, mitigation and cleanup activities;

Recognizing further the importance of rational preparation and mutual co-operation and assistance in responding effectively to pollution emergencies or the threat thereof;

Determined to avert ecological damage to the marine environment and coastal areas of the South Pacific Region through the adoption of national contingency plans to be co-ordinated with appropriate bilateral and sub-regional contingency plans;

Have agreed as follows:

Article 1

DEFINITIONS

For the purposes of this Protocol:

(a) "Convention" means the Convention for the Protection of the Natural Resources and Environment of the South Pacific Region adopted in Noumea, New Caledonia on twenty-fourth day of November in the year one thousand nine hundred and eighty-six;

(b) "South Pacific Region" means the Convention Area as defined in Article 2 of the Convention and adjacent coastal areas;

(c) "related interests" of a Party refer, inter alia, to:

- (i) maritime, coastal, port, or estuarine activities;
- (ii) fishing activities and the management and conservation of living and non-living marine resources, including coastal ecosystems;

- (iii) the cultural value of the area concerned and the exercise of traditional customary rights therein;
- (iv) the health of the coastal population;
- (v) tourist and recreational activities;

(d) "pollution incident" means a discharge or significant threat of a discharge of oil or other hazardous substance, however caused, resulting in pollution or an imminent threat of pollution to the marine and coastal environment or which adversely affects the related interests of one or more of the Parties and of a magnitude that requires emergency action or other immediate response for the purpose of minimizing its effects or eliminating its threat.

Article 2

APPLICATION

This Protocol applies to pollution incidents in the South Pacific Region.

Article 3

GENERAL PROVISIONS

1. The Parties to this Protocol shall, within their respective capabilities, co-operate in taking all necessary measures for the protection of the South Pacific Region from the threat and effects of pollution incidents.
2. The Parties shall, within their respective capabilities, establish and maintain, or ensure the establishment and maintenance of, the means of preventing and combating pollution incidents, and reducing the risk thereof. Such means shall include the enactment, as necessary, of relevant legislation, the preparation of contingency plans, the development or strengthening of the capability to respond to a pollution incident and the designation of a national authority responsible for the implementation of this Protocol.

Article 4

EXCHANGE OF INFORMATION

Each Party shall periodically exchange with other Parties, either directly or through the Organisation, current information relating to the implementation of this Protocol, including the identification of the officials charged with carrying out the activities covered by it, and information on its laws, regulations, institutions and operational procedures relating to the prevention and the means of reducing and combating the harmful effects of pollution incidents.

Article 5

COMMUNICATION OF INFORMATION CONCERNING, AND REPORTING OF,

POLLUTION INCIDENTS

1. Each Party shall establish appropriate procedures to ensure that information regarding pollution incidents is reported as rapidly as possible and shall, inter alia:

(a) require appropriate officials of its government to report to it the occurrence of any pollution incident which comes to their attention;

(b) require masters of vessels flying its flag and persons in charge of offshore facilities operating under its jurisdiction to report to it the existence of any pollution incident involving their vessel or facilities;

(c) establish procedures to encourage masters of vessels flying its flag or of its registry to report, to the extent practicable, the existence of any pollution incident involving their vessel to any coastal State in the South Pacific Region which they deem likely to be seriously affected;

(d) request masters of all vessels and pilots of all aircraft operating in the vicinity of its coasts to report to it any pollution incident of which they are aware.

2. In the event of receiving a report regarding a pollution incident, each Party shall promptly inform all other Parties whose interests are likely to be affected by such incident as well as the flag State of any vessel involved in it. Each Party shall also inform the Organisation and, directly or through the Organisation, the competent international organisations. Furthermore, it shall inform, as soon as feasible, such other Parties and organisations of any measures it has itself taken to minimize or reduce pollution or the threat thereof.

Article 6

MUTUAL ASSISTANCE

1. Each Party requiring assistance to deal with a pollution incident may request, either directly or through the Organisation, the assistance of the other Parties. The Party requesting assistance shall specify the type of assistance it requires. The Parties whose assistance is requested under this article shall, within their capabilities, provide this assistance based on an agreement with the requesting Party or Parties and taking into account, in particular in the case of pollution by hazardous substances other than oil, the technological means available to them. If the Parties responding jointly within the framework of this article so request, the Organisation may co-ordinate the activities undertaken as a result.

2. Each Party shall facilitate the movement of technical personnel, equipment and material necessary for responding to a pollution incident, into, out of and through its territory.

Article 7

OPERATIONAL MEASURES

Each Party shall, within its capabilities, take steps including those outlined below in responding to a pollution incident:

- (a) make a preliminary assessment of the incident, including the type and extent of existing or likely pollution effects;
- (b) promptly communicate information concerning the situation to other Parties and the Organisation pursuant to article 5;
- (c) promptly determine its ability to take effective measures to respond to the pollution incident and the assistance that might be required and to communicate any request for such assistance to the Party or Parties concerned or the Organisation in accordance with article 6;
- (d) consult, as appropriate, with other affected or concerned Parties or the Organisation in determining the necessary response to a pollution incident;
- (e) carry out the necessary measures to prevent, eliminate or control the effects of the pollution incident, including surveillance and monitoring of the situation.

Article 8

SUB-REGIONAL ARRANGEMENTS

1. The Parties should develop and maintain appropriate sub-regional arrangements, bilateral or multilateral, in particular to facilitate the steps provided for in articles 6 and 7 and taking into account the general provisions of this Protocol.
2. The Parties to any arrangements shall notify the other Parties to this Protocol as well as the Organisation of the conclusion of such sub-regional arrangements and the provisions thereof.

Article 9

INSTITUTIONAL ARRANGEMENTS

The Parties designate the Organisation to carry out the following functions:

- (a) assisting Parties, upon request, in the communication of reports of pollution incidents in accordance with article 5;
- (b) assisting Parties, upon request, in the organisation of a response action to a pollution incident, in accordance with article 6;
- (c) assisting Parties, upon request, in the following areas:
 - (i) the preparation, periodic review, and updating of the contingency plans, referred to in paragraph 2 of Article 3, with a view, inter alia, to promoting the compatibility of the plans of

the Parties; and

(ii) the identification of training courses and programmes;

(d) assisting the Parties upon request, on a regional or sub-regional basis, in the following areas:

(i) the co-ordination of emergency response activities; and

(ii) the provision of a forum for discussions concerning emergency response and other related topics;

(e) establishing and maintaining liaison with:

(i) appropriate regional and international organisations; and

(ii) appropriate private organisations, including producers and transporters of substances which could give rise to a pollution incident in the South Pacific Region and clean-up contractors and cooperatives;

(f) maintaining an appropriate current inventory of available emergency response equipment;

(g) disseminating information related to the prevention and control of pollution incidents and the removal of pollutants resulting therefrom;

(h) identifying or maintaining emergency response communications systems;

(i) encouraging research by the Parties, as well as by appropriate international and private organisations, on the environmental effects of pollution incidents, the environmental effects of pollution incident control materials and other matters related to pollution incidents;

(j) assisting Parties in the exchange of information pursuant to article 4; and

(k) preparing reports and carrying out other duties assigned to it by the Parties.

Article 10

MEETINGS OF THE PARTIES

1. Ordinary meetings of the Parties to this Protocol shall be held in conjunction with ordinary meetings of the Parties to the Convention, held pursuant to article 22 of the Convention. The Parties to this Protocol may also hold extraordinary meetings as provided for in article 22 of the Convention.

2. It shall be the function of the meetings of the Parties:

(a) to review the operation of this Protocol and to consider special technical arrangements and other measures to improve its effectiveness;

(b) to consider any measures to improve cooperation under this Protocol including, in accordance with article 24 of the Convention, amendments to this Protocol.

Article 11

RELATIONSHIP BETWEEN THIS PROTOCOL AND THE CONVENTION

1. The provisions of the Convention relating to any Protocol shall apply with respect to the present Protocol.
2. The rules of procedure and the financial rules adopted pursuant to article 22 of the Convention shall apply with respect to this Protocol, unless the Parties to this Protocol agree otherwise.

In witness whereof the undersigned, being duly authorized by their respective Governments, have signed this Protocol.

Done at Noumea, New Caledonia on the twenty-fifth day of November in the year one thousand nine hundred and eighty-six, in a single copy in the English and French languages, the two texts being equally authentic.

Appendix RCU
Protocol for the Prevention of Pollution of the
South Pacific Region by Dumping

PROTOCOL FOR THE PREVENTION OF POLLUTION OF THE SOUTH PACIFIC REGION BY DUMPING

Noumea, 25 November 1986

The Parties to the Protocol,

Being Parties to the Convention for the Protection of the Natural Resources and Environment of the South Pacific Region, adopted in Noumea, New Caledonia on the twenty-fourth day of November in the year one thousand nine hundred and eighty-six;

Recognizing the danger posed to the marine environment by pollution caused by the dumping of waste or other matter;

Considering that they have a common interest to protect the South Pacific Region from this danger, taking into account the unique environmental quality of the region;

Desiring to enter into a regional agreement consistent with the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 as provided in Article VIII thereof according to which the Contracting Parties to that Convention have undertaken to endeavour to act consistently with the objectives and provisions of such regional agreement;

Have agreed as follows:

Article 1

DEFINITIONS

For the purpose of this Protocol "Convention" means the Convention for the Protection of the Natural Resources and Environment of the South Pacific Region adopted in Noumea, New Caledonia on the twenty-fourth day of November in the year one thousand nine hundred and eighty-six.

Article 2

GEOGRAPHICAL COVERAGE

The area to which this Protocol applies, hereinafter referred to as the "Protocol Area", shall be the Convention Area as defined in Article 2 of the Convention together with the continental shelf of a Party where it extends, in accordance with international law, outward beyond the Convention Area.

Article 3

GENERAL OBLIGATIONS

1. The Parties shall take all appropriate measures to prevent, reduce and control pollution in the Protocol Area by dumping.
2. Dumping within the territorial sea and the exclusive economic

zone or onto the continental shelf of a Party as defined in international law shall not be carried out without the express prior approval of that Party, which has the right to permit, regulate and control such dumping taking fully into account the provisions of this Protocol, and after due consideration of the matter with other Parties which by reason of their geographical situation may be adversely affected thereby.

3. National laws, regulations and measures adopted by the Parties shall be no less effective in preventing, reducing and controlling pollution by dumping than the relevant internationally recognized rules and procedures relating to the control of dumping established within the framework of the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972.

Article 4

PROHIBITED SUBSTANCES

1. The dumping in the Protocol Area of wastes or other matter listed in Annex I to this Protocol is prohibited except as provided in this Protocol.

2. No provision of this Protocol is to be interpreted as preventing a Party from prohibiting, insofar as that Party is concerned the dumping of wastes or other matter not mentioned in Annex I. That Party shall notify such measures to the Organisation.

Article 5

SPECIAL PERMITS

The dumping in the Protocol Area of wastes or other matter listed in Annex II to this Protocol requires, in each case, a prior special permit.

Article 6

GENERAL PERMITS

The dumping in the Protocol Area of all wastes or other matter not listed in Annexes I and II to this Protocol requires a prior general permit.

Article 7

FACTORS GOVERNING THE ISSUE OF PERMITS

The permits referred to in Articles 5 and 6 shall be issued only after careful consideration of all the factors set forth in Annex III to this Protocol. The Organisation shall receive records of such permits.

Article 8

ALLOCATION OF SUBSTANCES TO ANNEXES

Substances are allocated to Annexes I and II of this Protocol in accordance with Annex IV.

Article 9

FORCE MAJEURE

The provisions of Articles 4, 5 and 6 shall not apply when it is necessary to secure the safety of human life or of vessels, aircraft, platforms or other man-made structures at sea in cases of force majeure caused by stress of weather, or in any case which constitutes a danger to human life or a real threat to vessels, aircraft, platforms, or other man-made structures at sea, if dumping appears to be the only way of averting the threat and if there is every probability that the damage consequent upon such dumping will be less than would otherwise occur. Such dumping shall be so conducted as to minimise the likelihood of damage to human or marine life. Such dumping shall immediately be reported to the Organisation and, either through the Organisation or directly, to any Party or Parties likely to be affected, together with full details of the circumstances and of the nature and quantities of the wastes or other matter dumped.

Article 10

EMERGENCIES

1. A Party may issue a special permit as an exception to Article 4, in emergencies arising in the Protocol Area, posing unacceptable risk relating to human health and admitting no other feasible solution. Before doing so the Party shall consult any other country or countries that are likely to be affected and the Organisation which, after consulting other Parties, and international organisations as appropriate, shall in accordance with Article 15 promptly recommend to the Party the most appropriate procedures to adopt. The Party shall follow these recommendations to the maximum extent feasible consistent with the time within which action must be taken and with the general obligation to avoid damage to the marine environment and shall inform the Organisation of the action it takes. The Parties pledge themselves to assist one another in such situations.
2. This article does not apply with respect to materials in whatever form produced for biological and chemical warfare referred to in paragraph 6 of Section A of Annex I.
3. Any Party may waive its rights under paragraph 1 at the time of, or subsequent to, ratification, acceptance or approval of, or accession to this Protocol.

Article 11

ISSUANCE OF PERMITS

1. Each Party shall designate an appropriate authority or authorities to:

- (a) issue the special permits provided for in Article 5 and in the emergency circumstances provided for in Article 10;
- (b) issue the general permits provided for in Article 6;
- (c) keep records of the nature and quantities of the wastes or other matter permitted to be dumped and of the location, date and method of dumping; and
- (d) monitor individually, or in collaboration with other Parties, and competent international organisations, the condition of the Protocol Area for the purposes of this Protocol.

2. The appropriate authority or authorities of each Party shall issue the permits provided for in Articles 5 and 6 and in the emergency circumstances provided for in Article 10 in respect of the wastes or other matter intended for dumping:

- (a) loaded in its territory or at its offshore terminals; or
- (b) loaded by vessels flying its flag or vessels or aircraft of its registry when the loading occurs in the territory or at the offshore terminals of a State not Party to this Protocol.

3. In issuing permits under paragraphs 1 (a) and (b) the appropriate authority or authorities shall comply with Annex III together with such additional criteria, measures and requirements as they may consider relevant.

Article 12

IMPLEMENTATION AND ENFORCEMENT

1. Each Party shall apply the measures required to implement this Protocol to all:

- (a) vessels flying its flag and vessels and aircraft of its registry;
- (b) vessels and aircraft loading in its territory or at its offshore terminals wastes or other matter which are to be dumped; and
- (c) vessels, aircraft and fixed or floating platforms believed to be engaged in dumping in areas under its jurisdiction.

2. Each Party shall take in its territory appropriate measures to prevent and punish conduct in contravention of the provisions of this Protocol.

3. The Parties agree to co-operate in the development of procedures for the effective application of this Protocol particularly on the high seas, including procedures for the reporting of vessels and aircraft observed dumping in

contravention of the Protocol.

4. This Protocol shall not apply to those vessels and aircraft entitled to sovereign immunity under international law. However, each Party shall ensure by the adoption of appropriate measures that such vessels and aircraft owned or operated by it act in a manner consistent with the object and purpose of this Protocol and shall inform the Organisation accordingly.

Article 13

ADOPTION OF OTHER MEASURES

Nothing in this Protocol shall affect the right of each Party to adopt other measures, in accordance with the principles of international law, to prevent dumping.

Article 14

REPORTING OF DUMPING INCIDENTS

Each Party undertakes to issue instructions to its maritime inspection vessels and aircraft and to other appropriate services to report to its authorities any incidents or conditions in the Protocol Area which give rise to suspicions that dumping in contravention of the provisions of this Protocol has occurred or is about to occur. That Party shall, if it considers it appropriate, report accordingly to the Organisation and to any other Party concerned.

Article 15

INSTITUTIONAL ARRANGEMENTS

The Parties designate the Organisation to carry out the following functions:

- (a) to assist the Parties, upon request, in the communication of reports in accordance with Articles 9 and 14;
- (b) to convey to the Parties concerned all notifications received by the Organisation in accordance with Articles 4(2) and 10;
- (c) to transmit to the International Maritime Organisation as the organisation responsible for the secretariat functions under the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 records and any other information received in accordance with Article 7;
- (d) to keep itself informed on evolving international standards and the results of research and investigation, and to advise meetings of Parties to this Protocol of such developments and any modification of the Annexes which may become desirable; and
- (e) to carry out other duties assigned to it by the Parties.

Article 16

MEETING OF THE PARTIES

1. Ordinary meetings of the Parties to this Protocol shall be held in conjunction with ordinary meetings of the Parties to the Convention held pursuant to Article 22 of the Convention. The Parties to this Protocol may also hold extraordinary meetings in conformity with Article 22 of the Convention.

2. It shall be the function of the meetings of the Parties to this Protocol to:

(a) keep under review the implementation of this Protocol, and to consider the efficacy of the measures adopted and the need for any other measures, in particular in the form of Annexes.

(b) study and consider the records of the permits issued in accordance with Articles 5, 6, 7 and the emergency situation in Article 10, and of the dumping which has taken place;

(c) review and amend as required any Annex to this Protocol taking into account Annex IV;

(d) adopt as necessary guidelines for the preparation of records and procedures to be followed in submitting such records for the purposes of Article 7;

(e) develop, adopt and implement in consultation with the Organisation and other competent international organisations procedures pursuant to Article 10 including basic criteria for determining emergency circumstances and procedures for consultative advice and the safe disposal, storage or destruction of matter in such circumstances.

(f) invite, as necessary, the appropriate scientific body or bodies to collaborate with and to advise the Parties and the Organisation on any scientific or technical aspects relevant to this Protocol, including particularly the content and applicability of the Annexes; and

(g) perform such other functions as may be appropriate for the implementation of this Protocol.

3. The adoption of amendments to the Annexes to this Protocol pursuant to Article 25 of the Convention shall require a three-fourths majority vote of the Parties to this Protocol.

Article 17

RELATIONSHIP BETWEEN THIS PROTOCOL AND THE CONVENTION

1. The provisions of the Convention relating to any Protocol shall apply with respect to the present Protocol.

2. The rules of procedures and the financial rules adopted pursuant to Article 22 of the Convention shall apply with respect to this Protocol, unless the Parties to this Protocol agree otherwise.

In witness whereof the undersigned, being duly authorised by their respective Governments, have signed this Protocol.

Done at Noumea, New Caledonia on the twenty-fifth day of November in the year one thousand nine hundred and eighty-six, in a single copy in the English and French languages, the two texts being equally authentic.

Annex I

A.

The following substances and materials are listed for the purposes of Article 4 of this Protocol:

1. Organohalogen compounds.
2. Mercury and mercury compounds.
3. Cadmium and cadmium compounds.
4. Persistent plastics and other persistent synthetic materials, for example, netting and ropes, which may remain in suspension in the sea in such a manner as to interfere materially with fishing, navigation or other legitimate uses of the sea.
5. Crude oil and its wastes, refined petroleum products, petroleum distillate residues and any mixtures containing any of these taken on board for the purpose of dumping.
6. Materials in whatever form (e.g. solids, liquids, semi-liquids, gases, or in a living state) produced for biological and chemical warfare.
7. Organosphorous compounds.

B.

Section A does not apply to substances, other than substances produced for biological or chemical warfare, which are rapidly rendered harmless by physical, chemical or biological processes in the sea provided they do not:

- Ñ make edible marine organisms unpalatable, or
- Ñ endanger human health or that of marine biota.

The consultative procedure provided for under Article 10 shall be followed by a Party if there is doubt about the harmlessness of the substance.

C.

This Annex does not apply to wastes or other materials, such as sewage sludges and dredged spoils, containing the matters referred to in paragraphs 1-5 of Section A as trace contaminants. The dumping of such wastes shall be subject to the provisions of Annexes II and III as appropriate.

Annex II

The following substances and materials requiring special care are listed for the purposes of Article 5 of this Protocol.

A.

Wastes containing a significant amount of the matters listed below:

arsenic)
lead) and their compounds
copper)
zinc)

organosilicon compounds
cyanides
fluorides
pesticides and their by-products not covered in Annex I.

B.

In the issue of permits for the dumping of acids and alkalis, consideration shall be given to the possible presence in such wastes of the substances listed in section A and to the following additional substances:

beryllium)
chromium) and their compounds
nickel)
vanadium)

C.

Containers, scrap metal and other bulky wastes liable to sink to the sea bottom which may present a serious obstacle to fishing or navigation.

D.

Substances which, though of a non-toxic nature, may become harmful due to the quantities in which they are dumped, or which are liable to seriously reduce amenities.

Annex III

Provisions to be considered in establishing criteria governing the issue of permits for the dumping of matter at sea, taking into account Article 7 of this Protocol, include:

A. CHARACTERISTICS AND COMPOSITION OF THE MATTER

1. Total amount and average composition of matter dumped (e.g. per year).
2. Form (e.g. solid, sludge, liquid, or gaseous).
3. Properties: physical (e.g. solubility and density), chemical

and biochemical (e.g. oxygen demand, nutrients) and biological (e.g. presence of viruses, bacteria, yeasts, parasites).

4. Toxicity.

5. Persistence: physical, chemical and biological.

6. Accumulation and biotransformation in biological materials or sediments.

7. Susceptibility to physical, chemical and biochemical changes and interaction in the aquatic environment with other dissolved organic and inorganic materials.

8. Probability of production of taints or other changes reducing marketability of resources (e.g. fish, shellfish, etc.).

9. In issuing a permit for dumping, Parties should consider whether an adequate scientific basis and sufficient knowledge of the composition and characteristics of the wastes or other matter proposed for dumping exist for assessing the impact of such material on the marine environment and human health.

B CHARACTERISTICS OF DUMPING SITE AND METHOD OF DEPOSIT

1. Location (e.g. co-ordinates of the dumping area, depth and distance from the coast), location in relation to other areas (e.g. amenity areas, spawning, nursery and fishing areas and exploitable resources).

2. Rate of disposal per specific period (e.g. quantity per day, per week, per month).

3. Methods of packaging and containment, if any.

4. Initial dilution achieved by proposed methods of release.

5. Dispersal characteristics (e.g. effects of currents, tides and wind on horizontal transport and vertical mixing).

6. Water characteristics (e.g. temperature, pH, salinity, stratification, oxygen indices of pollution, dissolved oxygen (DO), chemical oxygen demand (COD), biochemical oxygen demand (BOD), nitrogen present in organic and mineral form including ammonia, suspended matter, other nutrients and productivity).

7. Bottom characteristics (e.g. topography, geochemical and geological characteristics and biological productivity).

8. Existence and effects of other dumpings which have been made in the dumping area (e.g. heavy metal background reading and organic carbon content).

9. In issuing a permit for dumping, Parties should consider whether an adequate scientific basis exists for assessing the consequences of such dumping, as outlined in this Annex taking into account seasonal variations.

C. GENERAL CONSIDERATIONS AND CONDITIONS

1. Possible effects on amenities (e.g. presence of floating or stranded materials, turbidity, objectionable odour, discolouration and foaming).
2. Possible effects on marine life, fish and shellfish culture, fish stocks and fisheries, seaweed harvesting and culture.
3. Possible effects on other uses of the sea (e.g. impairment of water quality for industrial use, underwater corrosion of structure, interference with ship operations from floating materials, interference with fishing or navigation through deposit of waste or solid objects on the sea floor and protection of areas of special importance of scientific or conservation purposes).
4. The practical availability of alternative land-based methods of treatment, disposal or elimination, or of treatment to render the matter less harmful for dumping at sea.

D. REFERENCES

Reference should also be made to "Guidelines for the Implementation and Uniform Interpretation of Annex III" as adopted by the Consultative Meeting of Contracting Parties to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972.

Annex IV

ALLOCATION OF SUBSTANCES TO ANNEXES

1. Substances are allocated to Annexes I and II on the ground of any combination of the following criteria:

Persistence and degradability,
Bioaccumulation potential,
Toxicity to marine life,
Toxicity to man, domestic animals, marine mammals and birds preying on marine organisms,
Carcinogenicity and mutagenicity,
Ability to interfere with other legitimate uses of the sea.

2. Annex I substances are those which have a high degree of persistence coupled with:

(a) the ability to accumulate to harmful levels in terms of toxicity to marine organisms and their predators, to domestic animals or to man; or

(b) the ability to accumulate through marine pathways to levels harmful in terms of carcinogenicity or mutagenicity to domestic animals or to man; or

(c) the ability to cause interference with fisheries, amenities or other legitimate uses of the sea.

3. Annex II substances are all those considered suitable for inclusion in Annexes except for those allocated to Annex I.

Appendix RCV
Waigani Convention (South Pacific)

Agreements on Environment and Development

Convention to Ban the Importation into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes within the South Pacific Region (Waigani Convention)

- Agreements Introduction
- General Environmental Concerns
- Atmosphere
- Hazardous Substances
- Marine Environment
- Marine Living Resources
- Nature Conservation and Terrestrial Living Resources
- Nuclear Safety
- Freshwater Resources

Objectives

- to prohibit the importation of hazardous wastes and radioactive wastes into Pacific Islands developing Parties;
- to reduce the transboundary movement of hazardous wastes to a minimum consistent with their environmentally sound management;
- to treat and dispose of hazardous wastes as close as possible to their source of generation in an environmentally sound way;
- to minimize the generation of hazardous wastes (quantity-potential hazard).

Scope

Legal scope

Open to all members of the South Pacific Forum, other states not members of the South Pacific Forum that have territories in the Convention area, and other States that do not have territories in the Convention area pursuant to a decision of the Conference of the Parties (COP). Not open to economic regional organizations.

Geographic scope

Regional. The Convention area comprises:

- the land territory, internal waters, territorial sea, continental shelf, archipelagic waters, and exclusive economic zones established in accordance with the international law of countries and territories located within the South Pacific region;
- those areas of high seas which are enclosed from all sides by the exclusive economic zones referred to above;
- areas of the Pacific Ocean between the Tropic of Cancer and 60°S and between 130°E and 120°W to the Convention area.

Time and place of adoption

16 September 1995, Waigani.

Entry into force

21 October 2001.

Status of participation

Ten Parties by 15 February 2002. Five Signatories, without ratification, acceptance, or approval. ([Click here to see an illustrative map.](#))

The Secretary-General of the South Pacific Forum Secretariat, Suva, Fiji, acts as depositary.

Affiliated instruments and organizations

Annexes contain detailed operational obligations on categories of wastes which are hazardous wastes, a list of hazardous characteristics, disposal operations, notification procedures, and arbitration.

Co-ordination with related instruments

Provisions are established to co-ordinate the Convention with:

- **Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention);**
- **Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention 1972);**
- **International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 relating thereto (MARPOL 73/78);**
- **Convention for the Protection of the Natural Resources and Environment of the South Pacific Region (Noumea Convention)** (see Conventions within the UNEP Regional Seas Programme);
- **Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (Rotterdam Convention on PIC);**
- **Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention on POPs);**
- **UN Convention on the Law of the Sea (LOS Convention);**
- **IAEA**, regarding *Code of Practice on the International Transboundary Movement of Radioactive Wastes*;
- the South Pacific Nuclear Free Zone Treaty (see **IAEA**).

A memorandum of understanding was passed with the Secretariat of the Basel Convention on 12 February 1996.

Secretariat

South Pacific Regional Environment Programme (SPREP),
PO Box 240, Vaitele,
Apia,
Western Samoa
Telephone: +685-21929
Telefax: +685-20231
E-mail: sprep@sprep.org.ws

Director

Mr Tamarii Pierre Tutangata.

Legal Officers

Mr Andrea Volentras and Dr Jacques Mougeot.

Decision-making bodies

Political

The COP shall keep under review and evaluate the implementation of the Convention, consider and adopt amendments or protocols, examine and approve the regular budget, harmonize policies, establish subsidiary bodies, and undertake additional actions.

The first meeting of the COP will be convened on the Marshall Islands on 22 July 2002. Thereafter, ordinary meetings shall be held at regular intervals to be determined by the

COP at its first meeting. The quorum for meetings shall be two-thirds of the Parties.

Scientific/technical

To be established by the COP.

Publications

- Annual reports and SPREP Action Plans.
- *Management of persistent Organic Pollutants in Pacific Island Countries* (2000).

Sources on the Internet

<http://www.sprep.org.ws/>

Yearbook reference

See Richard Herr (2002), '**Environmental Protection in the South Pacific: The Effectiveness of SPREP and its Conventions**', *Yearbook of International Co-operation on Environment and Development 2002/03*, 41-9.

Further Information?

The **paper version of the Yearbook of International Co-operation on Environment and Development 2002/2003** also includes information on:

- Finance;
- Rules and standards;
- Monitoring/implementation.

>> **See an example from the book (PDF format)**

Appendix RCW
Abidjan Convention (West and Central Africa) and Protocol
Concerning Co-Operation in Combating Pollution in Cases of
Emergency (1981)

CONVENTION FOR CO-OPERATION IN THE PROTECTION AND DEVELOPMENT
OF THE MARINE AND COASTAL ENVIRONMENT
OF THE WEST AND CENTRAL AFRICAN REGION; and PROTOCOL (1981)

ENTRY INTO FORCE: 5 August 1984

The Contracting Parties,

Conscious of the economic, social and health value of the marine environment and coastal areas of the West and Central African Region,

Fully aware of their responsibility to preserve their natural heritage for the benefit and enjoyment of present and future generations,

Recognizing the threat to the marine and coastal environment, its ecological equilibrium, resources and legitimate uses posed by pollution and by the absence of an integration of an environmental dimension into the development process,

Realizing fully the need for co-operation among the Contracting Parties in order to ensure sustainable, environmentally-sound development through a co-ordinated and comprehensive approach,

Realizing also the need for a carefully planned research, monitoring and assessment programme in view of the scarcity of scientific information on marine pollution in the West and Central African Region,

Noting that existing conventions concerning marine pollution do not cover, in spite of the progress achieved, all aspects and sources of marine pollution and do not entirely meet the special requirements of the West and Central African Region,

Have agreed as follows:

Article 1
GEOGRAPHICAL COVERAGE

This Convention shall cover the marine environment, coastal zones and related inland waters falling within the jurisdiction of the States of the West and Central African Region, from Mauritania to Namibia inclusive, which have become Contracting Parties to this Convention under conditions set forth in article 27 and paragraph 1 of article 28 (hereinafter referred to as the Convention area).

Article 2
DEFINITIONS

For the purposes of this Convention:

1. "Pollution" means the introduction by man, directly or indirectly, of substances or energy into the marine environment, coastal zones, and related inland waters resulting in such deleterious effects as harm to living resources, hazards to human health, hindrance to marine activities, including fishing, impairment of quality for use of sea-water and reduction of amenities.

2. "Organization" means the body designated as the secretariat of the Convention and its related protocols according to article 16 of the Convention.

Article 3
GENERAL PROVISIONS

1. The Contracting Parties may enter into bilateral or multilateral agreements, including regional or subregional agreements, for the protection of the marine and coastal environment of the West and Central African Region, provided that such agreements are consistent with this Convention and conform to international law. Copies of such agreements shall be deposited with the Organization and, through the Organization, communicated to all Contracting Parties.
2. Nothing in this Convention or related protocols shall be deemed to affect obligations assumed by a Contracting Party under agreements previously concluded.
3. Nothing in this Convention shall prejudice the codification and development of the law of the sea by the United Nations Conference on the Law of the Sea convened pursuant to resolution 2750 C (XXV) of the General Assembly of the United Nations, nor the present or future claims and legal views of any Contracting Party concerning the nature and extent of its maritime jurisdiction.

Article 4
GENERAL OBLIGATIONS

1. The Contracting Parties shall, individually or jointly as the case may be, take all appropriate measures in accordance with the provisions of this Convention and its protocols in force to which they are parties to prevent, reduce, combat and control pollution of the Convention area and to ensure sound environmental management of natural resources, using for this purpose the best practicable means at their disposal, and in accordance with their capabilities.
2. In addition to the Protocol concerning cooperation in combating pollution in cases of emergency opened for signature on the same date as this Convention, the Contracting Parties shall cooperate in the formulation and adoption of other protocols prescribing agreed measures, procedures, and standards to prevent, reduce, combat and control pollution from all sources or promoting environmental management in conformity with the objectives of this Convention.
3. The Contracting Parties shall establish national laws and regulations for the effective discharge of the obligations prescribed in this Convention, and shall endeavour to harmonize their national policies in this regard.
4. The Contracting Parties shall co-operate with the competent international, regional and subregional organizations to establish and adopt recommended practices, procedures and measures to prevent, reduce, combat and control pollution from all sources in conformity with the objectives of this Convention and its related protocols, and to assist each other in fulfilling their obligations under this Convention and its related protocols.
5. In taking measures to prevent, reduce, combat and control pollution of the Convention area or to promote environmental management, the Contracting Parties shall act so as not to transfer, directly or indirectly, damage or hazards from one area to another or transform one type of pollution into another.

Article 5
POLLUTION FROM SHIPS

The Contracting Parties shall take all appropriate measures in conformity with international law to prevent, reduce, combat and control pollution in the Convention area caused by normal or accidental discharges from ships, and shall ensure the effective application in the Convention area of the internationally recognized rules and standards relating to the control of this type of pollution.

Article 6
POLLUTION CAUSED BY DUMPING FROM SHIPS AND AIRCRAFT

The Contracting Parties shall take all appropriate measures to prevent, reduce, combat and control pollution in the Convention area caused by dumping from ships and aircraft, and shall ensure the effective application in the Convention area of the internationally recognized rules and standards relating to the control of this type of pollution.

Article 7
POLLUTION FROM LAND-BASED SOURCES

The Contracting Parties shall take all appropriate measures to prevent, reduce, combat and control pollution of the Convention area caused by discharges from rivers, estuaries, coastal establishments and outfalls, coastal dumping or emanating from any other sources on their territories.

Article 8
POLLUTION FROM ACTIVITIES RELATING TO
EXPLORATION AND EXPLOITATION OF THE SEA-BED

The Contracting Parties shall take all appropriate measures to prevent, reduce, combat and control pollution resulting from or in connection with activities relating to the exploration and exploitation of the sea-bed and its subsoil subject to their jurisdiction and from artificial islands, installations and structures under their jurisdiction.

Article 9
POLLUTION FROM OR THROUGH THE ATMOSPHERE

The Contracting Parties shall take all appropriate measures to prevent, reduce, combat and control pollution in the Convention area resulting from or transported through the atmosphere.

Article 10
COASTAL EROSION

The Contracting Parties shall take all appropriate measures to prevent, reduce, combat and control coastal erosion in the Convention area resulting from man's activities, such as land reclamation and coastal engineering.

Article 11
SPECIALLY PROTECTED AREAS

The Contracting Parties shall, individually or jointly as the case may be, take all appropriate measures to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other marine life. To this end, the Contracting Parties shall endeavour to establish protected areas, such as parks and reserves, and

to prohibit or control any activity likely to have adverse effects on the species, ecosystems or biological processes in such areas.

Article 12

CO-OPERATION IN COMBATING POLLUTION IN CASES OF EMERGENCY

1. The Contracting Parties shall co-operate in taking all necessary measures to deal with pollution emergencies in the Convention area, whatever the cause of such emergencies, and to reduce or eliminate damage resulting therefrom.
2. Any Contracting Party which becomes aware of a pollution emergency in the Convention area should, without delay, notify the Organization and, either through this Organization or directly, any other Contracting Party likely to be affected by such emergency.

Article 13

ENVIRONMENTAL IMPACT ASSESSMENT

1. As part of their environmental management policies, the Contracting Parties shall develop technical and other guidelines to assist the planning of their development projects in such a way as to minimize their harmful impact on the Convention area.
2. Each Contracting Party shall endeavour to include an assessment of the potential environmental effects in any planning activity entailing projects within its territory, particularly in the coastal areas that may cause substantial pollution of, or significant and harmful changes to, the Convention area.
3. The Contracting Parties shall, in consultation with the Organization, develop procedures for the dissemination of information concerning the assessment of the activities referred to in paragraph 2 of this article.

Article 14

SCIENTIFIC AND TECHNOLOGICAL CO-OPERATION

1. The Contracting Parties shall co-operate, with the assistance of competent international and regional organizations, in the field of scientific research, monitoring and assessment of pollution in the Convention area, and shall exchange data and other scientific information for the purpose of this Convention and its related protocols.
2. In addition, the Contracting Parties shall develop and co-ordinate national research and monitoring programmes concerning all types of pollution in the Convention area and shall establish, in co-operation with competent international and regional organizations, a regional network of national research centres and institutions to ensure compatible results. The Contracting Parties shall endeavour to participate in international arrangements for pollution research and monitoring in areas beyond their national jurisdiction.
3. The Contracting Parties shall co-operate directly or through competent international or regional organizations, in the development of programmes for technical and other assistance in fields related to marine pollution and sound environmental management of the Convention area.

Article 15

LIABILITY AND COMPENSATION

The Contracting Parties shall co-operate in the formulation and adoption of appropriate rules and procedures for the determination of liability and the payment of adequate and prompt compensation for damage resulting from pollution of the Convention area.

Article 16 INSTITUTIONAL ARRANGEMENTS

1. The Contracting Parties designate the United Nations Environment Programme as the secretariat of the Convention to carry out the following functions:

- (i) To prepare and convene the meetings of Contracting Parties and conferences provided for in articles 17 and 18;
- (ii) To transmit to the Contracting Parties notifications, reports and other information received in accordance with articles 3, 12, and 22;
- (iii) To perform the functions assigned to it by the protocols to this Convention;
- (iv) To consider enquiries by, and information from, the Contracting Parties and to consult with them on questions relating to this Convention and its related protocols and annexes thereto;
- (v) To co-ordinate the implementation of cooperative activities agreed upon by the meetings of Contracting Parties and conferences provided for in article 17;
- (vi) To enter into such administrative arrangements as may be required for the effective discharge of the secretariat functions.

2. Each Contracting Party shall designate an appropriate national authority as responsible for the co-ordination of national efforts for implementing this Convention and its related protocols. The appropriate national authority shall serve as the channel of communication between the Contracting Party and the Organization.

Article 17 MEETINGS OF THE CONTRACTING PARTIES

1. The Contracting Parties shall hold ordinary meetings once every two years and extraordinary meetings at any other time deemed necessary, upon the request of the Organization or at the request of any Contracting Party, supported by at least three other Contracting Parties.

2. It shall be the function of the meetings of the Contracting Parties to keep under review the implementation of this Convention and its related protocols and, in particular:

- (i) To consider reports submitted by the Contracting Parties under article 22;
- (ii) To adopt, review and amend as required annexes to this Convention and to its related protocols, in accordance with the provisions of article 20;
- (iii) To make recommendations regarding the adoption of any additional protocols or amendments to this Convention or its related protocols in accordance with the provisions of articles 18 and 19;
- (iv) To establish working groups as required to consider any matters concerning this Convention and its related protocols and annexes;
- (v) To review the state of pollution in the Convention area;

- (vi) To consider and to adopt decisions concerning co-operative activities to be undertaken within the framework of this Convention and its related protocols, including their financial and institutional implications;
- (vii) To consider and undertake any additional action that may be required for the achievement of the purposes of this Convention and its related protocols.

Article 18
ADOPTION OF ADDITIONAL PROTOCOLS

1. The Contracting Parties, at a conference of plenipotentiaries, may adopt additional protocols to this Convention pursuant to paragraph 2 of article 4.
2. A conference of plenipotentiaries shall be convened for the purpose of adopting additional protocols by the Organization at the request of not less than two thirds of the Contracting Parties.
3. Pending the entry into force of this Convention, the Organization may, after consulting with the signatories to this Convention, convene a conference of plenipotentiaries for the purpose of adopting additional protocols.

Article 19
AMENDMENT OF THE CONVENTION OR PROTOCOLS

1. Any Contracting Party to this Convention may propose amendments to the Convention or to any of the protocols. The texts of any such draft amendments shall be communicated to the Contracting Parties by the Organization six months before their submission to an ordinary meeting of the Contracting Parties for examination.
2. Any amendment shall be adopted by a two-thirds majority of the Contracting Parties and shall enter into force twelve months after its approval.

Article 20
ANNEXES AND AMENDMENTS TO ANNEXES

1. Annexes to this Convention or to any of its protocols shall form an integral part of the Convention or such protocol.
2. Except as may be otherwise provided in any protocol, the procedure foreseen in article 19 shall apply to the adoption and entry into force of any amendments to annexes to this Convention or to any protocol.
3. The adoption and entry into force of a new annex to this Convention or to any protocol shall be subject to the same procedure as the adoption and entry into force of an amendment to an annex in accordance with the provisions of paragraph 2 of this article provided that, if any amendment to the Convention or the protocol concerned is involved, the new annex shall not enter into force until such time as the amendment to the Convention or the protocol concerned enters into force.

Article 21
RULES OF PROCEDURE AND FINANCIAL RULES

1. The Contracting Parties shall adopt rules of procedure for their meetings and conferences envisaged in articles 17 and 18 above.

2. The Contracting Parties shall adopt financial rules, prepared in consultation with the Organization, to determine, in particular, their financial participation.

Article 22
REPORTS

The Contracting Parties shall transmit to the Organization reports on the measures adopted in the implementation of this Convention and of protocols to which they are Parties, in such form and at such intervals as the meetings of Contracting Parties may determine.

Article 23
COMPLIANCE CONTROL

The Contracting Parties undertake to co-operate in the development of procedures enabling them to control the application of this Convention and its related protocols.

Article 24
SETTLEMENT OF DISPUTES

1. In case of a dispute between Contracting Parties as to the interpretation or application of this Convention or its related protocols, they shall seek a settlement of the dispute through negotiation or any other peaceful means of their own choice.

2. If the Parties concerned cannot settle their dispute through the means mentioned in the preceding paragraph, the dispute shall be submitted to arbitration under conditions to be adopted by the Contracting Parties in an annex to this Convention.

Article 25
RELATIONSHIP BETWEEN THE CONVENTION AND ITS RELATED PROTOCOLS

1. No State may become a Contracting Party to this Convention unless it becomes at the same time a Contracting Party to at least one protocol. No State may become a Contracting Party to a protocol unless it is, or becomes at the same time, a Contracting Party to this Convention.

2. Any protocol to this Convention shall be binding only on the Contracting Parties to the protocol in question.

3. Decisions concerning any protocol pursuant to articles 17, 19 and 20 of this Convention shall be taken only by the Parties to the protocol concerned.

Article 26
SIGNATURE

This Convention and the Protocol on Cooperation in Combating Pollution in Cases of Emergency shall be in Abidjan from 23 March to 22 June 1981 for signature by any coastal or island State, from Mauritania to Namibia inclusive.

Article 27
RATIFICATION, ACCEPTANCE AND APPROVAL

This Convention and any protocol thereto shall be subject to

ratification, acceptance, or approval. Instruments of ratification, acceptance or approval shall be deposited with the Government of the Ivory Coast, which will assume the functions of Depositary.

Article 28 ACCESSION

1. As from 23 June 1981, the present Convention and the Protocol concerning Co-operation in Combating Pollution in Cases of Emergency shall be open for accession by the States referred to in article 26.
2. After the entry into force of this Convention and any protocol thereto, any African State not referred to in article 26 may accede to them.
3. This Convention and any protocol thereto shall also remain open after the entry into force for accession by any other State, subject to the prior approval of three quarters of the States referred to in article 26 which have become Contracting Parties.
4. Instruments of accession shall be deposited with the Depositary.

Article 29 ENTRY INTO FORCE

1. This Convention and the first of its protocols shall enter into force on the same date, in accordance with the following paragraph 2.
2. The Convention and any of its protocols shall enter into force on the sixtieth day following the date of deposit of at least six instruments of ratification acceptance or approval of, or accession to, such Convention and protocol by the Parties referred to in article 26.
3. Thereafter, this Convention and any protocol thereto shall enter into force with respect to any State referred to in article 26 on the sixtieth day following the date of deposit of the instruments of ratification, acceptance, approval or accession.

Article 30 WITHDRAWAL

1. At any time after five years from the date of entry into force of this Convention, any Contracting Party may withdraw from this Convention by giving written notification of withdrawal.
2. Except as may be otherwise provided in any protocol to this Convention, any Contracting Party may, at any time after five years from the date of entry into force of such protocol, withdraw from such protocol by giving written notification of withdrawal.
3. Withdrawal shall take effect ninety days after the date on which notification of withdrawal is received by the Depositary.
4. Any Contracting Party which withdraws from this Convention shall be considered as also having withdrawn from any protocol to which it was a Party.
5. Any Contracting Party which, upon its withdrawal from a protocol, is no longer a Party to any protocol to this Convention, shall be considered as also having withdrawn from this Convention.

Article 31
RESPONSIBILITIES OF THE DEPOSITARY

1. The Depositary shall inform the Contracting Parties, any other Party referred to in article 26, and the Organization:

- (i) Of the signature of this Convention and any protocol thereto, and of the deposit of instruments of ratification, acceptance, approval or accession in accordance with articles 26, 27 and 28;
- (ii) Of the date on which the Convention and any protocol will come into force in accordance with the provisions of article 29;
- (iii) Of notifications of withdrawal made in accordance with article 30;
- (iv) Of the amendments adopted with respect to the Convention and to any protocol, their acceptance by the Contracting Parties and the date of entry into force of these amendments in accordance with the provisions of article 19;
- (v) Of the adoption of new annexes and of the amendment of any annex in accordance with article 20.

2. The original of this Convention and of any protocol thereto shall be deposited with the Depositary, the Government of the Ivory Coast which shall send certified copies thereof to the Contracting Parties, to the Organization of African Unity, to the Organization, and to the Secretary-General of the United Nations for registration and publication in accordance with Article 102 of the United Nations Charter.

In witness whereof the undersigned, being duly authorized by their respective Governments, have signed this Convention.

Done at Abidjan on this twenty-third day of March one thousand nine hundred and eighty-one in a single copy in the English, French and Spanish languages, the three texts being equally authentic.

PROTOCOL CONCERNING CO-OPERATION
IN COMBATING POLLUTION IN CASES OF EMERGENCY (1981)

Abidjan, 23 March 1981

Article 1

For the purposes of this Protocol:

1. "Appropriate National Authority" means the authority designated by the Government of a Contracting Party in accordance with paragraph 2 of article 16 of the Convention for Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region, and responsible for:

- (a) Combating and otherwise operationally responding to marine emergencies;

(b) Receiving and co-ordinating reports of particular marine emergencies;

(c) Co-ordinating activities relating to marine emergencies in general within its own Government and with other Contracting Parties.

2. "Marine Emergency" means any incident, occurrence or situation, however caused, resulting in substantial pollution or imminent threat of substantial pollution to the marine and coastal environment by oil or other harmful substances and includes, in particular, collisions, strandings and other incidents involving ships, including tankers, petroleum production blow-outs and the presence of oil or other harmful substances arising from the failure of industrial installations.

3. "Marine Emergency Contingency Plan" means a plan, prepared on a national, bilateral or multilateral basis, to deal with pollution and other adverse effects on the marine and coastal environment, or the threat thereof, resulting from accidents or other unforeseen events.

4. "Marine Emergency Response" means any activity intended to prevent, reduce, combat and control pollution by oil or other harmful substances or threat of such pollution resulting from marine emergencies and includes the clean-up of oil slicks and recovery or salvage of packages, freight containers, portable tanks, or road and rail wagons.

5. "Related Interests" means the interests of a Contracting Party directly or indirectly affected or threatened by a marine emergency, such as:

(a) Maritime, coastal, port or estuarine activities, including fisheries activities;

(b) Historic and tourist attractions of the area concerned;

(c) The health and well-being of the inhabitants of the area concerned, including the conservation of living marine resources and wildlife and the protection of marine and coastal parks and reserves.

6. "Convention" means the Convention for Cooperation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region.

7. "Organization" means the organization referred to in article 16 of the Convention as responsible for the secretariat functions of the Convention.

Article 2

The area to which this Protocol applies (hereinafter referred to as the "protocol area") shall be the same as the Convention area as defined in article 1 of the Convention.

Article 3

This Protocol shall apply to actual or potential marine emergencies which constitute a substantial pollution danger to the Protocol area and related interests of the Contracting Parties.

Article 4

The Contracting Parties undertake to co-operate in all matters relating to the taking of necessary and effective measures to protect their respective coastlines and related interests from the threat and effects of pollution resulting from marine emergencies.

Article 5

Each Contracting Party shall provide the other Contracting Parties and the Organization with information concerning:

(a) Its appropriate national authority;

(b) Its laws, regulations and other legal instruments relating generally to matters referred to in this Protocol, including those concerning the organization and operation of the appropriate national authority, to the extent that this organization and operation relates to matters referred to in this Protocol;

(c) Its national marine emergency contingency plans.

Article 6

The Contracting Parties shall exchange, either through the Organization or directly, information on research and development programmes, including results concerning ways in which pollution by oil and other harmful substances may be dealt with, and on experiences in combating such pollution.

Article 7

1. Each Contracting Party undertakes to require masters of ships flying its flag and pilots of aircraft registered in its territory, and persons in charge of offshore structures operating under its jurisdiction, to report by the most rapid and adequate channels in the circumstances, and in accordance with the annex to this Protocol, to any Contracting Party:

(a) All accidents causing or likely to cause pollution of the sea by oil or other harmful substances;

(b) The presence, characteristics and extent of spillages of oil or other harmful substances observed at sea which are likely to present a serious and imminent threat to the marine environment or to the coast or related interests of one or more of the Contracting Parties.

2. Any Contracting Party receiving a report pursuant to paragraph 1 above shall promptly inform the Organization and, either through the Organization or directly, the appropriate national authority of any Contracting Party likely to be affected by the marine emergency.

Article 8

1. Any Contracting Party requiring assistance for dealing with a marine emergency, including the recovery or salvage of packages, freight containers, portable tanks, or road or rail wagons, may call for assistance from any other Contracting Party. The call for assistance shall be made initially to other Contracting Parties whose coastlines and related interests might be affected by the marine emergency involved. The Contracting Parties to whom a request is made pursuant to this paragraph

undertake to use their best endeavours to render the assistance requested.

2. The assistance referred to in paragraph 1 of this article may include:

(a) The provision and reinforcement of personnel, material, and equipment;

(b) The provision and reinforcement of surveillance and monitoring capacity;

(c) The provision of pollution disposal sites; or

(d) The facilitation of the transfer of personnel, equipment and material into, out of, and through the territories of the Contracting Parties.

3. Any Contracting Party requesting assistance pursuant to paragraph 1 of this article shall report the results following from the request to the other Contracting Parties and to the Organization.

4. The Contracting Parties undertake to consider as soon as possible and in accordance with the means available to them the allocation of tasks for responding to marine emergencies within the Protocol area.

5. Each Contracting Party undertakes to inform the other Contracting Parties and the Organization of measures taken in dealing with marine emergencies in cases where those other Contracting Parties are not called upon to provide assistance.

Article 9

1. The Contracting Parties shall endeavour to maintain and promote, either individually or through bilateral or multilateral co-operation, marine emergency contingency plans and means for combating pollution by oil and other harmful substances. These means shall include, in particular, equipment, ships, aircraft and manpower prepared for operations in cases of emergency.

2. The Contracting Parties shall co-operate in developing standing instructions and procedures to be followed by their appropriate national authorities who have responsibility for receiving and transmitting reports of pollution by oil and other harmful substances made pursuant to article 7 of this Protocol. Such co-operation shall be designed to ensure speedy and routine reception, transmission and dissemination of these reports.

Article 10

1. Each Contracting Party shall act in accordance with the following principles in the conduct of marine emergency responses carried out under its authority:

(a) Make an assessment of the nature and extent of the marine emergency and transmit the results of the assessment to any other Contracting Party concerned;

(b) Determine the necessary and appropriate action to be taken with respect to the marine emergency in consultation, where appropriate, with other Contracting Parties;

(c) Make the necessary reports and requests for assistance under articles 7 and 8 of this Protocol; and

(d) Take appropriate and practical measures to prevent, reduce, combat and control the effects of pollution, including surveillance and monitoring of the marine emergency.

2. In carrying out marine emergency responses under this Protocol the Contracting Parties shall:

(a) Act in conformity with the principles of international law and with international conventions having applicability to marine emergency responses; and

(b) Inform the Organization of those marine emergency responses.

Article 11

1. Ordinary meetings of the Contracting Parties to this Protocol shall be held in conjunction with ordinary meetings of the Contracting Parties to the Convention, held pursuant to article 17 of the Convention. The Contracting Parties to this Protocol may also hold extraordinary meetings, as provided in article 17 of the Convention.

2. It shall be the function of the meetings of the Contracting Parties to this Protocol, in particular:

(a) To keep under review the implementation of this Protocol, and to consider the efficacy of the measures adopted and the need for any other measures, in particular in the form of annexes;

(b) To review and amend as required any annex to this Protocol;

(c) To discharge such other functions as may be appropriate for implementation of this Protocol.

Article 12

1. The provisions of the Convention relating to any protocol shall apply with respect to this Protocol.

2. The rules of procedure and financial rules adopted pursuant to article 21 of the Convention shall apply with respect to this Protocol, unless the Contracting Parties to this Protocol agree otherwise.

In witness whereof the undersigned, being duly authorized by their respective Governments, have signed this Protocol.

Done at Abidjan on this twenty-third day of March one thousand nine hundred and eighty-one in a single copy in the English, French and Spanish languages, the three texts being equally authentic.

Annex

GUIDELINES FOR THE REPORT TO BE MADE PURSUANT TO ARTICLE 7 OF THE PROTOCOL

1. Each report shall, as far as possible, contain:

(a) The identification of the source of pollution (e.g. identity of the ship), where appropriate;

(b) The geographical position, time and date of the occurrence of the incident or of the observation;

(c) The marine meteorological conditions prevailing in the area;

(d) Where the pollution originates from a ship, relevant details respecting the condition of the ship.

2. Each report shall also contain, whenever possible:

(a) A clear indication or description of the harmful substances involved, including the correct technical names of such substances (trade names should not be used in place of the correct technical names);

(b) A statement or estimate of the quantity concentration and likely condition of harmful substances discharged or likely to be discharged into the sea;

(c) Where relevant, a description of the packaging and identifying marks; and

(d) The name of the consignor, consignee or producer.

3. Each report shall clearly indicate, whenever possible, whether the harmful substance discharged or likely to be discharged is oil or a noxious liquid, solid or gaseous substance, and whether such substance was or is carried in bulk or contained package form, freight containers, portable tanks, or submarine pipelines.

4. Each report shall be supplemented, as necessary, by any relevant information requested by a recipient of the report or deemed appropriate by the person sending the report.

5. Any of the persons referred to in article 7 of this Protocol shall:

(a) Supplement, as far as possible, the initial report, and as necessary, with information concerning further development; and

(b) Comply as fully as possible with requests from affected Parties for additional information.

□

Appendix RCY
Antigua Convention (Northeast Pacific)



Antigua Convention

[Spanish version](#)

CONVENTION FOR COOPERATION IN THE PROTECTION AND SUSTAINABLE DEVELOPMENT OF THE MARINE AND COASTAL ENVIRONMENT OF THE NORTHEAST PACIFIC

The Contracting Parties,

Mindful of the need to protect and preserve the marine and coastal environment of the Northeast Pacific against all kinds and sources of environmental pollution and degradation.

Convinced of the ecological, economic, social and cultural value of the Northeast Pacific as a means of bonding between the countries of the region,

Considering the need to establish a regional cooperation framework to support and complement the coastal States of the Northeast Pacific in the effective implementation of the various international instruments relating to marine pollution and other forms of environmental degradation,

Mindful that, in conformity with the provisions of chapter 17 of Agenda 21 of the United Nations Conference on Environment and Development, the conservation and sustainable use of the marine and coastal environment and its natural resources in the Northeast Pacific is a joint responsibility of both national and municipal authorities and of civil society in its various organized manifestations,

Recognizing that the financial and human resources to implement the measures set out in this Convention will come, inter alia, from the public and private sectors, and that it is important to ensure the

participation of the latter as associates,

Recognizing also the importance of international and non-governmental bodies responsible for facilitating funding giving priority in their general policies to the activities and projects aimed at implementing the Convention,

Recognizing further the benefits of cooperation at a regional level, directly or with the assistance of the competent international organizations and the rest of the international community, for the protection and preservation of the marine environment and the coastal areas mentioned,

Mindful that they share various ecosystems and resources of the marine environment in the Northeast Pacific,

Have agreed as follows:

ARTICLE 1

Purpose

The principal purpose of the Convention is to establish a regional cooperation framework to encourage and facilitate the sustainable development of marine and coastal resources of the countries of the Northeast Pacific for the benefit of present and future generations of the region.

ARTICLE 2

Scope of application of this Convention

1. The scope of application of this Convention comprises the maritime areas of the Northeast Pacific, defined in conformity with the United Nations Convention on the Law of the Sea.
2. No provision of this Convention or its protocols shall be considered as affecting the rights, present or future claims or legal opinions of any Contracting Party relating to the boundaries of its maritime areas or maritime jurisdiction. No Party shall be entitled to call upon the norms

and conduct agreed as generating rights or precedents.

ARTICLE 3

Definitions

1. For the purposes of this Convention:

- (a) "Sustainable development" means the process of progressive change in the quality of life of human beings, which places it as the centre and primordial subject of development, by means of economic growth with social equity and the transformation of methods of production and consumption patterns, and which is sustained in the ecological balance and vital support of the region. This process implies respect for regional, national and local ethnic and cultural diversity, and the full participation of people in peaceful coexistence and in harmony with nature, without prejudice to and ensuring the quality of life of future generations;
- (b) "Economic assessment" means the assignment of monetary value to environmental goods and services for which no market values exist, so that their value may be explicitly reflected in every decision-making process based on monetary benefits and costs;
- (c) "Environmental services," means the services provided by the functions of nature itself (for example, the protection of soil by trees, the natural filtration and purification of water, the protection of habitat for biodiversity, etc.);
- (d) "Pollution of the marine environment" means the introduction by man, directly or indirectly, of substances or of energy into the marine environment (including estuaries and wetlands) which cause or may give rise to harmful effects such as damage to living resources or marine life, risks to human health, obstacles to maritime activities including fisheries and other legitimate uses of the sea, deterioration of sea water quality for their use, and impairment of leisure and aquaculture areas;
- (e) "Other forms of environmental deterioration" means activities of man-made origin that may alter the quality of the marine environment and its resources and affect them in such a way as to reduce their

natural recovery and regeneration capacity, such as erosion, the introduction of exotic species, protection capacity against natural phenomena, etc.;

(f) The term "discharges" refers to the pollution of the marine and coastal environment deriving from spills, disposal or dumping of wastes and hazardous substances from ships, aircraft, the atmosphere or land-based sources of pollution;

(g) "Dumping" means the deliberate discharge of substances or other materials into the sea or from ships or aircraft;

(h) "Monitoring" means the periodic measurement of environmental quality indicators;

(i) "National authority" means the authority designated by each Contracting Party in accordance with article 9, paragraph 2, and article 11, paragraph 1, subparagraphs (a), (b) and (d) of this Convention;

(j) "Executive Secretariat" means the body indicated in article 14 of this Convention.

(k)

ARTICLE 4

General provisions

The provisions of this Convention shall not affect the rights and obligations that the Contracting Parties may have assumed pursuant to special Conventions and accords that they may have concluded in respect of the protection of the marine and coastal environment of the region.

ARTICLE 5

General obligations

1. The Contracting Parties shall, unilaterally, bilaterally or multilaterally, adopt appropriate measures pursuant to the provisions of this Convention, to prevent, reduce, control and avoid pollution of the marine and coastal environment of the Northeast Pacific, as well as

other forms of deterioration that may affect these, and ensure sustainable environmental management of the marine and coastal areas and an effective development of their natural resources.

2. The Contracting Parties shall collaborate in the drafting, adoption and implementation of other protocols and Conventions that may establish effective rules, norms, practices and procedures for the implementation of this Convention.

3. Each Contracting Party shall adopt and bring into force the necessary legislative and administrative measures to make this Convention and its protocols effective.

4. The Contracting Parties shall collaborate as necessary at a regional level, directly or in cooperation with competent international organizations, in the drafting, adoption and implementation of rules, norms, practices and procedures for the effective protection and development of the marine and coastal environment of the Northeast Pacific against all types and sources of pollution, and for the sound planning and development of that environment and those areas and their appropriate environmental management, taking into account the special characteristics of the region. Such rules, norms, practices and procedures shall be communicated to the Executive Secretariat of the Convention.

5. The Contracting Parties shall adopt all necessary measures so that activities under their jurisdiction or control shall be carried out in such a way as not to cause detriment through pollution or other forms of environmental deterioration to other Parties or their environment, and so that pollution caused by accidents or activities under their jurisdiction or control may not, as far as possible, extend beyond the areas over which the Contracting Parties exercise sovereignty and jurisdiction. In cases where it is foreseen that such transboundary effect may cause harm, other interested Parties should be informed and consulted in the course of planning the activity.

6. In order to protect the environment and contribute to the sustainable management, protection and conservation of the marine environment of the region, the Contracting Parties shall:

(a) Apply, in accordance with their capacity, the precautionary

principle, by virtue of which, when confronted with serious or irreversible threats to the environment, the absence of complete scientific certainty should not serve as a pretext for delaying the adoption of effective measures to prevent environmental degradation, because of the costs involved;

(b) Promote the application of the "polluter pays" principle, by virtue of which those responsible for pollution should pay the full costs of measures to prevent, control, reduce and remedy such pollution, with due regard for the public interest;

(c) Encourage cooperation between States with respect to environmental impact procedures related to activities under their jurisdiction or control that may have adverse effects on the marine environment of other States or in areas outside the boundaries of their national jurisdiction, by means of notifications, exchange of information and consultations;

(d) Encourage the integrated development and management of coastal areas and shared water basins, taking into account the protection of areas of ecological and scenic interest and the sustainable use of natural resources;

(e) Promote the participation of local authorities and civil society in the processes of adopting decisions that affect the marine environment or their livelihood;

(f) Make available to civil society and local authorities information on the status of the marine environment of the region, on the measures adopted or about to be adopted to prevent, control, reduce and remedy adverse effects and the effectiveness of such measures;

(g) Exchange, through the competent authorities, the available data and information on the management of the use of the marine and coastal environment and on the implementation of this Convention.

ARTICLE 6

Measures to prevent, reduce, control and remedy pollution and other forms of deterioration of the marine and coastal environment

1. The Contracting Parties shall adopt measures to prevent, reduce, control and remedy pollution and other forms of deterioration of the marine and coastal environment, including:

(a) Discharge of toxic, injurious or harmful substances into the sea and coastal areas, especially those that are persistent, originating from sources or activities including:

(i) Land-based sources;

(ii) Atmospheric, including those effected through the atmosphere, and

(iii) Dumping;

(b) Pollution caused by ships and any other arrangement or installation that operates in the marine environment; in particular, measures to avoid discharges, accidental or not, addressing emergencies in accordance with generally accepted international standards;

(c) Biophysical modifications, including alteration and destruction of habitats.

2. Without prejudice to the foregoing, the Contracting Parties shall adopt measures aimed at:

(a) The planning and environmental management of uses and activities in marine and coastal areas;

(b) Improvement as necessary of the environmental impact assessment of installations and activities that it is thought may affect marine and coastal areas;

(c) The identification of areas to be protected and the rehabilitation of degraded habitats and ecosystems;

(d) The identification and protection of endangered species of flora and fauna, and those that may possibly require protection measures;

(e) The application of prevention and precaution criteria to the uses and development of activities that may affect the marine and coastal

resources of the region;

(f) The identification of marine coastal areas that are vulnerable to the action of extreme natural phenomena or events and a rise in sea level;

(g) The identification of marine coastal areas vulnerable to man-made activities.

ARTICLE 7

Erosion of coastal areas

The Contracting Parties shall adopt all appropriate measures to prevent, reduce, control and remedy erosion in coastal areas resulting from man-made activities and reduce the vulnerability of coasts to a rise in sea level and to sea-air and climatic interaction phenomena.

ARTICLE 8

Cooperation in cases of pollution and other forms of environmental deterioration resulting from emergency situations

1. The Contracting Parties shall cooperate, bilaterally, regionally or multilaterally in the prevention, containment, mitigation and restoration of damage resulting from:

(a) Pollution and/or environmental deterioration resulting from accidents;

(b) Pollution and/or environmental deterioration resulting from natural disasters, and

(c) Pollution and/or environmental deterioration resulting from deliberate man-made activities.

2. To this end, the Contracting Parties shall develop, individually or jointly, emergency and/or contingency plans, and shall adopt other measures where appropriate to respond to naturally caused or man-made disasters, including the probable effects of climate change and a rise in sea level.

3. The Contracting Parties shall provide the relevant timely information in cases of risk to coastal communities and infrastructure and of damage to the marine environment originating from pollution derived from man-made activities.

4. The Contracting Parties shall develop, individually or jointly, where appropriate, rehabilitation plans for fisheries that may require such, because of being affected by natural phenomena or pollution, and plans for the restoration of coastal habitats that may have suffered damage or been lost as a result of man-made activities or natural phenomena.

5. The Contracting Parties affected by pollution or other forms of deterioration of the environment resulting from emergency situations shall:

(a) Assess the nature, magnitude and scope of the emergency;

(b) Adopt appropriate measures to avoid or reduce the effects of pollution and other forms of environmental deterioration;

(c) Immediately provide information on the measures adopted or about to be adopted to combat pollution and other forms of environmental deterioration of the marine and coastal environment;

(d) Continue to observe the emergency situation while it lasts, and any changes thereto, and, in general, the changes in the pollution or other forms of environmental deterioration of the marine and coastal environment that may provoke emergency situations;

(e) Communicate to the other Contracting Parties and the Executive Secretariat of the Convention the information obtained as a result of those observations; and

(f) Initiate, once the emergency is over, a review of the effectiveness of the operation of the response mechanism to the crisis situation, as appropriate.

6. The Contracting Parties that may require assistance in combating, controlling, mitigating, diagnosing and forecasting the pollution and

other forms of environmental deterioration resulting from emergency situations may request, directly or through the Executive Secretariat, in cooperation with the other Contracting Parties, especially those that may be affected by the pollution and other forms of environmental deterioration.

7. Such cooperation may include assessment by experts and the provision of equipment and materials to combat pollution and other forms of environmental deterioration.

8. The Contracting Parties from whom assistance may have been requested shall consider that request as soon as possible, and, in the light of their capabilities, immediately inform the requesting Contracting Party of the form, scope and conditions of the cooperation they might provide.

ARTICLE 9

Monitoring of pollution and other forms of environmental deterioration

1. The Contracting Parties shall, directly or in collaboration with the relevant international bodies, establish and implement a regional monitoring programme for pollution in the marine and coastal environment of the Northeast Pacific.

2. To this end, the Contracting Parties shall designate the authorities responsible for the monitoring of pollution and other forms of environmental deterioration in their respective areas of sovereignty and jurisdiction, in conformity with international law.

3. In particular, when transboundary areas are involved, the Contracting Parties shall participate in bilateral and multisectoral projects and missions to assess marine pollution and other forms of environmental deterioration, in conformity with international law.

ARTICLE 10

Integrated management and sustainable development of the marine and coastal environment

1. As part of the implementation of their policies and strategies for integrated management and sustainable development of the marine and coastal environment, the Contracting Parties shall incorporate into their economic development projects in marine and coastal areas those environmental criteria that provide sustainability in the use of resources and in the maintenance of the integrity of ecosystems.

2. Also as part of these policies, the Contracting Parties shall strive to implement integrated management and bring about sustainable development of the marine and coastal environment. To this end, the Contracting Parties shall endeavour to:

(a) Formulate and implement plans and programmes at appropriate levels for the integrated management and sustainable development of the marine and coastal environment;

(b) Use environmental assessment and systematic observation as preventative and precautionary measures in the planning and implementation of projects;

(c) Encourage the preparation and use of methods of economic assessment of ecosystems and of marine and coastal ecosystems and of environmental goods and services at a national level;

(d) Integrate into a national plan and/or programme of integrated management and sustainable development sectoral plans in relation to coastal human settlements, aquaculture, industry, tourism, fisheries and ports that use or affect the coastal area;

(e) Adopt the use of an ecosystem approach in fisheries management measures;

(f) Promote the use of the best available techniques, including cleaner technologies appropriate to the conditions of the region, taking socio-economic factors into account;

(g) Promote the education, sensitization and participation of civil society and also the development of environmental information programmes regarding the marine and coastal environment;

(h) Establish protected coastal areas with the objective of maintaining biological integrity and diversity;

(i) Identify the habitats of living marine resources that contribute to the food security of coastal people and are of major socio-economic and ecological importance;

(j) Establish mechanisms, where appropriate, within their policies, plans and programmes for the integrated management of coastal areas, to review the problems arising from the assignation of uses and access to resources, from the coastal area, or from uses in which proper management is not observed.

3. The Contracting Parties shall endeavour to include an assessment of possible environmental effects when planning any activity that involves the implementation of projects inside their territory that may, especially in coastal areas, cause pollution in the area within the scope of this Convention or cause significant or harmful environmental alterations to it.

4. The Contracting Parties shall, in cooperation with the Executive Secretariat, work out methods for disseminating information on the assessment of the activities mentioned in the previous paragraph of this article.

5. The Contracting Parties shall adopt appropriate measures to protect and preserve rare or vulnerable ecosystems in the area within the scope of this Convention, as well as the habitats of species with low populations or that are threatened or endangered. To this end, the Contracting Parties shall endeavour to establish protected areas. The establishment of such areas shall not affect the rights of the other Contracting Parties or of third party States. In addition, the Contracting Parties shall exchange information regarding the administration and management of such areas.

ARTICLE 11

Information exchange

1. The Contracting Parties commit themselves, subject to their respective national legislation, to exchange with each other and transmit to the Executive Secretariat information regarding:

(a) The organization or competent national authorities responsible for the monitoring and control of pollution and other forms of environmental deterioration of the marine and coastal environment;

(b) The competent national authorities responsible for receiving information on marine pollution and other forms of environmental deterioration of the marine and coastal environment, and those responsible for carrying out assistance programmes or adopting assistance measures for the benefit of the Contracting Parties;

(c) Programmes being developed for research into pollution and other forms of environmental deterioration, with the objective of creating new methods and techniques to avoid, reduce and/or eliminate pollution or the deterioration of the marine and coastal environment, together with the results of such programmes and research;

(d) The competent national authorities responsible for planning the uses of marine and coastal areas.

2. The Contracting Parties shall coordinate the use of the available communication media so as to ensure the opportune reception, transmission and diffusion of the information that needs to be exchanged.

ARTICLE 12

Scientific and technological information

1. The Contracting Parties shall cooperate among themselves or through the Executive Secretariat or another competent international organization, where appropriate, in the fields of science and technology related to the marine and coastal environment, and shall exchange data and other scientific information relevant to the purposes of this Convention. To this end, the Contracting Parties shall, among themselves or through the Executive Secretariat or another competent international organization, undertake the following activities:

(a) Encouraging scientific, technological and educational assistance programmes, and those of any other kind, for the protection and sustainable development of marine and coastal areas, and for the

prevention, reduction and control of pollution and other forms of environmental deterioration in such areas. This assistance shall comprise, inter alia:

- (i) The training of scientific and technical staff;**
- (ii) Participation in relevant international programmes;**
- (iii) Capacity-building of the Contracting Parties to train teams and adopt those techniques and methods;**
- (iv) The supply of equipment and installations for research, monitoring and educational and other programmes;**
- (b) Extending the appropriate assistance to reduce to a minimum the effects of incidents or accidents that may cause pollution and other forms of environmental deterioration in the marine and coastal environment;**
- (c) Extending the assistance needed for the preparation of programmes related to environmental assessment; and,**
- (d) Cooperating in the preparation of appropriate assistance programmes for environmental management, including monitoring and supervision of the marine and coastal environment.**

2. The Contracting Parties, where appropriate, shall encourage and coordinate their national research programmes on all kinds and sources of marine and coastal pollution and other forms of environmental deterioration that exist within the geographical scope of application of this Convention, and shall cooperate in the establishment of regional research programmes and in the supervision and monitoring of marine and coastal area pollution and other forms of environmental deterioration in those areas.

ARTICLE 13

Liability and compensation

The Contracting Parties shall endeavour to adopt a protocol in respect

of liability and compensation for damage resulting from pollution in the area of application of the Convention.

ARTICLE 14

Institutional provisions

For the purposes of the administration and implementation of this Convention, the Contracting Parties shall designate the organization responsible for carrying out the functions of the Executive Secretariat of the Convention. The United Nations Environment Programme (UNEP) shall carry out such functions until such designation is formalized. In the meeting held for that purpose, the geographical seat of the Executive Secretariat shall be designated, as well as the procedure and funding for the execution of that function.

ARTICLE 15

Meetings of the Contracting Parties

- 1. The Contracting Parties shall hold ordinary and extraordinary meetings.**
- 2. The first meeting of the Contracting Parties shall be convened by the Executive Director of the United Nations Environment Programme not later than one year after the entry into force of this Convention.**
- 3. Ordinary meetings shall be held every two years, in conjunction with the Intergovernmental Meeting (General Authority) of the Action Plan for the Protection and Sustainable Development of the Marine and Coastal Environment of the Northeast Pacific. The Executive Secretariat shall convene such meetings sixty (60) days before the date of the meeting.**
- 4. Extraordinary meetings shall be convened by the Executive Secretariat at the request of any Contracting Party, provided that within six months of such a request being communicated to the Contracting Parties, it is supported by at least one third of them. The Executive Secretariat may also request the convening of extraordinary meetings, conditional on receiving the unanimous agreement of the**

Contracting Parties.

5. In their first meeting, the Contracting Parties shall adopt the rules of procedure for meetings of the Contracting Parties to the Convention.

(a) Decisions of the Contracting Parties shall be adopted by consensus, except in cases where the rules of procedure for meetings of Contracting Parties establish voting as the form of adopting decisions.

6. The meetings of the Contracting Parties shall have the function of keeping under continuous review the implementation of this Convention and its protocols, and in particular:

(a) The extent to which the Contracting Parties implement the provisions of the Convention, the effectiveness of the measures adopted and the need to undertake any additional action that may be required for the achievement of the purposes of this Convention and its protocols, including their institutional and financial aspects;

(b) To assess periodically the status of the environment in the area of application of the Convention;

(c) To revise and amend this Convention;

(d) To consider, adopt, revise and amend the protocols and their annexes;

(e) To establish such working groups as are deemed necessary to review any question related to this Convention, its protocols and annexes;

(f) The undertaking of any other function that may contribute to the achievement of the purposes of this Convention.

ARTICLE 16

Approval and entry into force of protocols

1. The Contracting Parties may adopt by consensus, in a meeting of the Contracting Parties, additional protocols to this Convention, pursuant

to paragraph 2 of article 5. Such protocols shall enter into force once the Depositary has received the fourth instrument of ratification or accession.

2. Subsequently, protocols shall enter into force in respect of any of the States or regional integration organizations at the moment when they deposit their respective instruments of ratification or accession with the Depositary.

ARTICLE 17

Amendments of the Convention or its protocols

1. Any Contracting Party may propose amendments to this Convention or its protocols. Such amendments shall be adopted at a meeting of the Contracting Parties convened by the Executive Secretariat at the request of a Contracting Party.

2. Amendments to this Convention and its protocols shall be adopted by consensus of the Contracting Parties.

3. Amendments shall be subject to ratification or accession and shall enter into force in the form established for the Convention and its protocols respectively to enter into force.

ARTICLE 18

Special exercise of the right to vote by economic integration organizations

In areas of their competence, economic integration organizations that have acceded to this Convention and its protocols shall exercise their right to vote with a number of votes equal to the number of its member States absent, with prior consent of the Contracting Parties to this Convention and its corresponding protocols. Such organizations shall not exercise their right to vote if it is exercised by their member States.

ARTICLE 19

Reports

The Contracting Parties shall transmit reports to the Executive Secretariat about the measures adopted for the implementation of this Convention and its additional protocols, in the form and with the frequency determined in its meetings. The Executive Secretariat shall circulate these reports to the Contracting Parties.

ARTICLE 20

Relationship between the Convention and its protocols

- 1. No State or economic integration organization may be a Contracting Party to a protocol that may be established in the future unless it is, or at the same time becomes a Contracting Party to this Convention.**
- 2. Protocols to this Convention shall be obligatory only for the Contracting Parties to the protocol in question.**
- 3. Decisions relating to any protocol pursuant to articles 15 and 17 of this Convention may only be adopted by the Contracting Parties to the protocol in question.**

ARTICLE 21

Signature

This Convention shall be open for signature in the city of Antigua Guatemala on February 18th, 2002 and in Guatemala City from February 19th, 2002 to February 18th, 2003 for States invited to participate in the Conference of Plenipotentiaries for the Adoption of the Convention for Cooperation in the Protection and Sustainable Development of the Marine and Coastal Areas of the Northeast Pacific and its respective Action Plan.

ARTICLE 22

Ratification, acceptance and approval

- 1. This Convention shall be subject to ratification, acceptance or approval by the signatory States. Instruments of ratification, acceptance or approval shall be deposited with the Depositary.**

2. This Convention shall be subject to compliance with the internal procedures of each Contracting Party.

ARTICLE 23

Accession

1. This Convention shall be open for accession by any State from the date on which the Convention is closed for signature, and once the Convention enters into force, it shall be open for accession by the economic integration organizations that have been invited to form part of this Convention. The instruments of accession shall be deposited with the Depository, who shall inform the Contracting Parties thereof.

2. In their instruments of accession, the organizations referred to in paragraph 1 above shall declare the extent of their competence with respect to the matters governed by the Convention. These organizations shall also inform the Depository of any substantial modification in the extent of their competence.

ARTICLE 24

Reservations

Reservations to this Convention shall only be allowed in respect of matters concerning the sovereignty and territorial integrity of the Contracting Parties and interpretative statements to the Convention.

ARTICLE 25

Settlement of disputes

In the event of a dispute between Contracting Parties concerning the interpretation or application of this Convention, the Contracting Parties concerned shall seek solution by negotiation or any other mechanism for the peaceful settlement of disputes established by international law.

ARTICLE 26

Entry into force

This Convention shall enter into force sixty (60) days after the date of deposit of the fourth instrument of ratification, acceptance, approval or accession with the Depository. Subsequently, this Convention shall enter into force with respect to States or regional integration organizations at the moment when they deposit their respective instruments of ratification, acceptance, approval or accession with the Depository.

ARTICLE 27

Withdrawal

- 1. At any time after two years from the date on which this Convention has entered into force for a Contracting Party, that Party may withdraw from the Convention.**
- 2. Such withdrawal shall be made by giving written notification to the Executive Secretariat, which shall immediately inform the Contracting Parties thereof.**
- 3. Any such withdrawal shall take effect six (6) months after the date of notification of the Depository.**

ARTICLE 28

Depository

- 1. The Depository of this Convention and its protocols shall be the Government of the Republic of Guatemala.**
- 2. The Depository shall inform the signatories and the Contracting Parties, as well as the Secretariat, of the signature of this Convention and its protocols and the deposit of instruments of ratification, acceptance, approval and accession; the date on which the Convention or a protocol enters into force for each Contracting Party; notification of any withdrawal and the date on which it becomes effective; amendments to the Convention or any protocol, their acceptance by the Contracting Parties and their date of entry into force; all matters**

relating to new annexes and changes to any annex; notifications by regional economic organizations of the extent of their competence with respect to matters governed by this Convention and relevant protocols, and any modification thereof.

3. The original of this Convention shall be deposited with the Depository, who shall send certified copies of it to the signatories and the Secretariat.

4. As soon as the Convention and its protocols enter into force, the Depository shall forward a certified copy of the relevant instrument to the Secretary-General of the United Nations for registration and publication, pursuant to article 102 of the United Nations Charter, and to the Executive Director of the United Nations Environment Programme.

IN WITNESS WHEREOF the Plenipotentiaries duly authorized to that effect by their respective governments, have signed this Convention drawn up in one single original in Spanish and English, both texts of which are equally authentic.

Done at the city of Antigua Guatemala, Republic of Guatemala, on the eighteenth day of February two thousand and two.

FOR THE REPUBLIC OF
COLOMBIA_____ FOR THE

REPUBLIC OF COSTA
RICA_____

FOR THE REPUBLIC OF EL
SALVADOR_____ FOR THE

REPUBLIC OF
GUATEMALA_____

FOR THE REPUBLIC OF
HONDURAS_____ FOR THE

UNITED MEXICAN STATES

FOR THE REPUBLIC OF
NICARAGUA_____ FOR THE

REPUBLIC OF PANAMA_____

Appendix RCZ
Bucharest Convention (Black Sea)



Bucharest Convention

**Convention on the Protection of the Black Sea Against Pollution
Signed 21 Apr 1992, in force 1994**

The Contracting Parties,

Determined to act with a view to achieve progress in the protection of the marine environment of the Black Sea and in the conservation of its living resources,

Conscious of the importance of the economic, social and health values of the marine environment of the Black Sea,

Convinced that the natural resources and amenities of the Black Sea can be preserved primarily through joint efforts of the Black Sea countries,

Taking into account the generally accepted rules and regulations of international law,

Having in mind the principles, customs and rules of general international law regulating the protection and preservation of the marine environment and the conservation of the living resources thereof,

Taking into account the relevant provisions of the Convention on Prevention of Marine Pollution by Dumping of Wastes and Other Matter of 1972 as amended; the International Convention on Prevention of Pollution from Ships of 1973 as modified by the Protocol of 1978 relating thereto as amended; the Convention on Control of Transboundary Movement of Hazardous Wastes and Their Disposal of 1989 and the International Convention on Oil Pollution Preparedness, Response and Cooperation of 1990,

Recognizing the significance of the principles adopted by the Conference on Security and Cooperation in Europe,

Taking into account their interest in the conservation, exploitation and development of the bio-productive potential of the Black Sea,

Bearing in mind that the Black Sea coast is a major international resort area where Black Sea Countries have made large investments in public health and tourism,

Taking into account the special hydrological and ecological characteristics of the Black Sea and the hypersensitivity of its flora and fauna to changes in the temperature and composition of the sea water,

Noting that pollution of the marine environment of Black Sea also emanates from land-based sources in other countries of Europe, mainly through rivers,

Reaffirming their readiness to cooperate in the preservation of the marine environment of the Black Sea and the protection of its living resources against pollution,

Noting the necessity of scientific, technical and technological cooperation for the attainment of the purposes of the Convention,

Noting that existing international agreements do not cover all aspects of pollution of the marine environment of the Black Sea emanating from third countries,

Realizing the need for close cooperation with competent international organizations based on a concerted regional approach for the protection and enhancement of the marine environment of the Black Sea,

Have agreed as follows:

**Article I
Area of application**

1. This Convention shall apply to the Black Sea proper with the southern limit constituted for the purposes of this Convention by the

line joining Capes Kelagra and Dalyan.

2. For the purposes of this Convention the reference to the Black Sea shall include the territorial sea and exclusive economic zone of each Contracting Party in the Black Sea. However, any Protocol to this Convention may provide otherwise for the purposes of that Protocol.

Article II **Definitions**

For the purposes of this Convention:

1. "Pollution of the marine environment" means the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazard to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities.

2. a) "Vessel" means seaborne craft of any type. This expression includes hydrofoil boats, air-cushion vehicles, submersibles, floating craft whether self-propelled or not and platforms and other man-made structures at sea.

b) "Aircraft" means airborne craft of any type.

3. a) "Dumping" means:

i) any deliberate disposal of wastes or other matter from vessels or aircraft;

ii) any deliberate disposal of vessels or aircraft;

b) "Dumping" does not include:

i) the disposal of wastes or other matter incidental to or derived from the normal operations of vessels or aircraft and their equipment, other than wastes or other matter transported by or to vessels or aircraft operating for purpose of disposal of such matter or derived from the treatment of such wastes or other matter on such vessels or aircraft;

ii) placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of this Convention.

4. "Harmful substance" means any hazardous, noxious or other substance, the introduction of which into the marine environment would result in pollution or adversely affect the biological processes due to its toxicity and/or persistence and/or bioaccumulation characteristics.

Article III General provisions

The Contracting Parties take part in this Convention on the basis of full equality in rights and duties, respect for national sovereignty and independence, non-interference in their internal affairs, mutual benefit and other relevant principles and norms of international law.

Article IV Sovereign immunity

This Convention does not apply to any warship, naval auxiliary or other vessels or aircraft owned or operated by a State and used, for the time being, only on government noncommercial service.

However, each Contracting Party shall ensure, by the adoption of appropriate measures not impairing operations of such vessels or aircraft owned or operated by it, that such vessels or aircraft act in a manner consistent, so far as is practicable, with this Convention.

Article V General undertakings

1. Each Contracting Party shall ensure the application of the Convention in those areas of the Black Sea where it exercises its sovereignty as well as its sovereign rights and jurisdiction without prejudice to the rights and obligations of the Contracting Parties arising from the rules of international law.

Each Contracting Party, in order to achieve the purposes of this Convention, shall bear in mind the adverse effect of pollution within its internal waters on the marine environment of the Black Sea.

2. The Contracting Parties shall take individually or jointly, as appropriate, all necessary measures consistent with international law and in accordance with the provisions of this Convention to prevent, reduce and control pollution thereof in order to protect and preserve the marine environment of the Black Sea.

3. The Contracting Parties will cooperate in the elaboration of additional Protocols and Annexes other than those attached to this Convention, as necessary for its implementation.

4. The Contracting Parties, when entering bilateral or multilateral agreements for the protection and preservation of the marine environment of the Black Sea, shall endeavour to ensure that such agreements are consistent with this Convention. Copies of such agreements shall be transmitted to the other Contracting Parties through the Commission as defined in Article XVII of this Convention.

5. The Contracting Parties will cooperate in promoting, within international organizations found to be competent by them, the elaboration of measures contributing to the protection and preservation of the marine environment of the Black Sea.

Article VI
Pollution by hazardous substances and matter

Each Contracting Party shall prevent pollution of the marine environment of the Black Sea from any source by substances or matter specified in the Annex to this Convention.

Article VII
Pollution from land-based sources

The Contracting Parties shall prevent, reduce and control pollution of the marine environment of the Black Sea from land-based sources, in accordance with the Protocol on the Protection of the Black Sea Marine Environment Against Pollution from Land-Based Sources which shall form an integral part of this Convention.

Article VIII
Pollution from vessels

The Contracting Parties shall take individually or, when necessary,

jointly, all appropriate measures to prevent, reduce and control pollution of the marine environment of the Black Sea from vessels in accordance with generally accepted international rules and standards.

Article IX

Cooperation in combating pollution in emergency situations

The Contracting Parties shall cooperate in order to prevent, reduce and combat pollution of the marine environment of the Black Sea resulting from emergency situations in accordance with the Protocol on Cooperation in Combatting Pollution of the Black Sea by Oil and Other Harmful Substances in Emergency Situations which shall form an integral part of this Convention.

Article X

Pollution by dumping

1. The Contracting Parties shall take all appropriate measures and cooperate in preventing, reducing and controlling pollution caused by dumping in accordance with the Protocol on the Protection of the Black Sea Marine Environment Against Pollution by Dumping which shall form an integral part of this Convention.

2. The Contracting Parties shall not permit, within areas under their respective jurisdiction, dumping by natural or juridical persons of non-Black Sea States.

Article XI

Pollution from activities on the continental shelf

1. Each Contracting Party shall, as soon as possible, adopt laws and regulations and take measures to prevent, reduce and control pollution of the marine environment of the Black Sea caused by or connected with activities on its continental shelf, including the exploration and exploitation of the natural resources of the continental shelf.

The Contracting Parties shall inform each other through the Commission of the laws, regulations and measures adopted by them in this respect.

2. The Contracting Parties shall cooperate in this field, as appropriate, and endeavour to harmonize the measures referred to in paragraph 1

of this Article.

Article XII
Pollution from or through the atmosphere

The Contracting Parties shall adopt laws and regulations and take individual or agreed measures to prevent, reduce and control pollution of the marine environment of the Black Sea from or through the atmosphere, applicable to the airspace above their territories and to vessels flying their flag or vessels and aircraft registered in their territory.

Article XIII
Protection of the marine living resources

The Contracting Parties, when taking measures in accordance with this Convention for the prevention, reduction and control of the pollution of the marine environment of the Black Sea, shall pay particular attention to avoiding harm to marine life and living resources, in particular by changing their habitats and creating hindrance to fishing and other legitimate uses of the Black Sea, and in this respect shall give due regard to the recommendations of competent international organizations.

Article XIV
Pollution by hazardous wastes in transboundary movement

The Contracting Parties shall take all measures consistent with international law and cooperate in preventing pollution of the marine environment of the Black Sea due to hazardous wastes in transboundary movement, as well as in combatting illegal traffic thereof, in accordance with the Protocol to be adopted by them.

Article XV
Scientific and technical cooperation and monitoring

1. The Contracting Parties shall cooperate in conducting scientific research aimed at protecting and preserving the marine environment of the Black Sea and shall undertake, where appropriate, joint programmes of scientific research, and exchange relevant scientific data and information.

2. The Contracting Parties shall cooperate in conducting studies aimed

at developing ways and means for the assessment of the nature and extent of pollution and of its effect on the ecological system in the water column and sediments, detecting polluted areas, examining and assessing risks and finding remedies, and in particular, they shall develop alternative methods of treatment, disposal, elimination or utilization of harmful substances.

3. The Contracting Parties shall cooperate through the Commission in establishing appropriate scientific criteria for the formulation and elaboration of rules, standards, and recommended practices and procedures for the prevention, reduction and control of pollution of the marine environment of the Black Sea.

4. The Contracting Parties shall, inter alia, establish through the Commission and, where appropriate, in cooperation with international organizations they consider to be competent, complementary or joint monitoring programmes covering all sources of pollution and shall establish a pollution monitoring system for the Black Sea including, as appropriate, programmes at bilateral or multilateral level for observing, measuring, evaluating and analyzing the risks or effects of pollution of the marine environment of the Black Sea.

5. When the Contracting Parties have reasonable grounds for believing that activities under their jurisdiction or control may cause substantial pollution or significant and harmful changes to the marine environment of the Black Sea, they shall, before commencing such activities, assess their potential effects on the basis of all relevant information and monitoring data and shall communicate the results of such assessments to the Commission.

6. The Contracting Parties shall co-operate as appropriate, in the development, acquisition and introduction of clean and low-waste technology, inter alia, by adopting measures to facilitate the exchange of such technology.

7. Each Contracting Party shall designate the competent national authority responsible for scientific activities and monitoring.

**Article XVI
Responsibility and liability**

- 1. The Contracting Parties are responsible for the fulfillment of their international obligations concerning the protection and the preservation of the marine environment of the Black Sea.**

- 2. Each Contracting Party shall adopt rules and regulations on the liability for damage caused by natural or juridical persons to the marine environment of the Black Sea in areas where it exercises, in accordance with international law, its sovereignty, sovereign rights or jurisdiction.**

- 3. The Contracting Parties shall ensure that recourse is available in accordance with their legal systems for prompt and adequate compensation or other relief for damage caused by pollution of the marine environment of the Black Sea by natural or juridical persons under their jurisdiction.**

- 4. The Contracting Parties shall cooperate in developing and harmonizing their laws, regulations and procedures relating to liability, assessment of and compensation for damage caused by pollution of the marine environment of the Black Sea, in order to ensure the highest degree of deterrence and protection for the Black Sea as a whole.**

Article XVII
The Commission

- 1. In order to achieve the purposes of this Convention, the Contracting Parties shall establish a Commission on the Protection of the Black Sea Against Pollution, hereinafter referred to as "the Commission".**

- 2. Each Contracting Party shall be represented in the Commission by one Representative who may be accompanied by Alternate Representatives, Advisers and Experts.**

- 3. The Chairmanship of the Commission shall be assumed by each Contracting Party, in turn, in the alphabetical order of the English language. The first Chairman of the Commission shall be the Representative of the Republic of Bulgaria.**

The Chairman shall serve for one year, and during his term he cannot act in the capacity of Representative of his country. Should the

Chairmanship fall vacant, the Contracting Party chairing the Commission shall appoint a successor to remain in office until the term of its Chairmanship expires.

4. The Commission shall meet at least once a year. The Chairman shall convene extraordinary meetings upon the request of any Contracting Party.

5. Decisions and recommendations of the Commission shall be adopted unanimously by the Black Sea States.

6. The Commission shall be assisted in its activities by a permanent Secretariat. The Commission shall nominate the Executive Director and other officials of the Secretariat. The Executive Director shall appoint the technical staff in accordance with the rules to be established by the Commission. The Secretariat shall be composed of nationals of all Black Sea States.

The Commission and the Secretariat shall have their headquarters in Istanbul. The location of the headquarters may be changed by the Contracting Parties by consensus.

7. The Commission shall adopt its Rules of Procedure for carrying out its functions, decide upon the organization of its activities and establish subsidiary bodies in accordance with the provisions of this Convention.

8. Representatives, Alternate Representatives, Advisers and Experts of the Contracting Parties shall enjoy in the territory of the respective Contracting Party diplomatic privileges and immunities in accordance with international law.

9. The privileges and immunities of the officials of the Secretariat shall be determined by agreement among the Contracting Parties.

10. The Commission shall have such legal capacity as may be necessary for the exercise of its functions.

11. The Commission shall conclude a Headquarters Agreement with the host Contracting Party.

Article XVIII
Functions of the Commission

The Commission shall:

1. Promote the implementation of this Convention and inform the Contracting Parties of its work.
2. Make recommendations on measures necessary for achieving the aims of this Convention.
3. Consider questions relating to the implementation of this Convention and recommend such amendments to the Convention and to the Protocols as may be required, including amendments to Annexes of this Convention and the Protocols.
4. Elaborate criteria pertaining to the prevention, reduction and control of pollution of the marine environment of the Black Sea and to the elimination of the effects of pollution, as well as recommendations on measures to this effect.
5. Promote the adoption by the Contracting Parties of additional measures needed to protect the marine environment of the Black Sea, and to that end receive, process and disseminate to the Contracting Parties relevant scientific, technical and statistical information and promote scientific and technical research.
6. Cooperate with competent international organizations, especially with a view to developing appropriate programmes or obtaining assistance in order to achieve the purposes of this Convention.
7. Consider any questions raised by the Contracting Parties.
8. Perform other functions as foreseen in other provisions of this Convention or assigned unanimously to the Commission by the Contracting Parties.

Article XIX
Meetings of the Contracting Parties

1. The Contracting Parties shall meet in conference upon

recommendation by the Commission. They shall also meet in Conference within ten days at the request of one Contracting Party under extraordinary circumstances.

2. The primary function of the meetings of the Contracting Parties shall be the review of the implementation of this Convention and of the Protocols upon the report of the Commission.

3. A non-Black Sea State which accedes to this Convention may attend the meetings of the Contracting Parties in an advisory capacity.

Article XX

Adoption of amendments to the Convention and/or to the Protocols

1. Any Contracting Party may propose amendments to the articles of this Convention.

2. Any Contracting Party to this Convention may propose amendments to any Protocol.

3. Any such proposed amendment shall be transmitted to the depositary and communicated by it through diplomatic channels to all the Contracting Parties and to the Commission.

4. Amendments to this Convention and to any Protocol shall be adopted by consensus at a Diplomatic Conference of the Contracting Parties to be convened within 90 days after the circulation of the proposed amendment by the depositary.

5. The amendments shall enter into force 30 days after the depositary has received notifications of acceptance of these amendments from all Contracting Parties.

Article XXI

Annexes and amendments to Annexes

1. Annexes to this Convention or to any Protocol shall form an integral part of the Convention or such Protocol, as the case may be.

2. Any Contracting Party may propose amendments to the Annexes to this Convention or to the Annexes of any Protocol through its Representative in the Commission. Such amendments shall be adopted

by the Commission on the basis of consensus. The depositary, duly informed by the Chairman of the Commission of its decision, shall without delay communicate the amendments so adopted to all the Contracting Parties. Such amendments shall enter into force 30 days after the depositary has received notifications of acceptance from all Contracting Parties.

3. The provisions of paragraph 2 of this Article shall apply to the adoption and entry into force of a new Annex to this Convention or to any Protocol.

Article XXII
Notification of entry into force of amendments

The depositary shall inform, through diplomatic channels, the Contracting Parties of the date on which amendments adopted under Articles XX and XXI enter into force.

Article XXIII
Financial rules

The Contracting Parties shall decide upon all financial matters on the basis of unanimity, taking into account the recommendations of the Commission.

Article XXIV
Relation to other international instruments

Nothing in this Convention shall affect in any way the sovereignty of States over their territorial sea, established in accordance with international law, and the sovereign rights and the jurisdiction which States have in their exclusive economic zones and their continental shelf in accordance with international law, and the exercise by ships and aircraft of navigational rights and freedoms as provided for in international law and as reflected in relevant international instruments.

Article XXV
Settlement of disputes

In case of a dispute between Contracting Parties concerning the interpretation and implementation of this Convention, they shall seek a settlement of the dispute through negotiations or any other peaceful

means of their own choice.

Article XXVI
Adoption of additional Protocols

1. At the request of a Contracting Party or upon a recommendation by the Commission, a Diplomatic Conference of the Contracting Parties may be convened with the consent of all Contracting Parties in order to adopt additional Protocols.

2. Signature, ratification, acceptance, approval, accession to, entry into force, and denunciation of additional Protocols shall be done in accordance with procedures contained, respectively, in Articles XXVIII, XXIX, and XXX of this Convention.

Article XXVII
Reservations

No reservations may be made to this Convention.

Article XXVIII
Signature, ratification, acceptance, approval and accession

1. This Convention shall be open for signature by the Black Sea States.

2. This Convention shall be subject to ratification, acceptance or approval by the States which have signed it.

3. This Convention shall be open for accession by any non-Black Sea State interested in achieving the aims of this Convention and contributing substantially to the protection and preservation of the marine environment of the Black Sea provided the said State has been invited by all Contracting Parties. Procedures with regard to the invitation for accession will be dealt with by the depositary.

4. The instruments of ratification, acceptance, approval or accession shall be deposited with the depositary. The depositary of this Convention shall be the Government of Romania.

Article XXIX
Entry into force

This Convention shall enter into force 60 days after the date of deposit

with the depositary of the fourth instrument of ratification, acceptance or approval. For a State acceding to this Convention in accordance with Article XXVIII, the Convention shall enter into force 60 days after the deposit of its instrument of accession.

Article XXX
Denunciation

After the expiry of five years from the date of entry into force of this Convention, any Contracting Party may, by written notification addressed to the depositary, denounce this Convention. The denunciation shall take effect on the thirty-first day of December of the year which follows the year in which the depositary was notified of the denunciation.

Done in English, on the twenty first day of the month of April of one thousand nine hundred and ninety two, in Bucharest.

Annex

1. Organotin compounds. 2. Organohalogen compounds e. g. DDT, DDE, DDD, PCB's. 3. Persistent organophosphorus compounds. 4. Mercury and mercury compounds. 5. Cadmium and cadmium compounds.

6. Persistent substances with proven toxic, carcinogenic, teratogenic or mutagenic properties. 7. Used lubricating oils. 8. Persistent synthetic materials which may float, sink or remain in suspension. 9. Radioactive substances and wastes, including used radioactive fuel. 10. Lead and lead compounds.

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Appendix RDA
Protocol on the Protection of the Black Sea Marine Environment
Against Pollution by Dumping



Protocol on The Protection of the Black Sea Marine Environment Against Pollution by Dumping

Signed 21 Apr 1992, in force 1994

Article 1

In accordance with Article X of the Convention, the Contracting Parties shall take individually or jointly all appropriate measures for the implementation of this Protocol.

Article 2

Dumping in the Black Sea of wastes or other matter containing substances listed in Annex 1 to this Protocol is prohibited.

The preceding provision does not apply to dredged spoils provided that they contain trace contaminants listed in Annex 1 below the limits of concentration to be defined by the Commission within a 3 year period from the entry into force of the Convention.

Article 3

Dumping in the Black Sea of wastes or other matter containing noxious substances listed in Annex II to this Protocol requires, in each case, a prior special permit from the competent national authorities.

Article 4

Dumping in the Black Sea of all other wastes or matter requires a prior general permit from the competent national authorities.

Article 5

The permits referred to in articles 3 and 4 above shall be issued after a

careful consideration of all the factors set forth in Annex III to this protocol by the competent national authorities of the relevant coastal State. The Commission shall receive records of such permits.

Article 6

The provisions of Articles 2, 3 and 4 shall not apply when the safety of human life or of vessel or aircraft at sea is threatened by complete destruction or total loss or in any other case when there is a danger to human life and when dumping appears to be the only way of averting such danger, and if there is every probability that the damage resulting from such dumping will be less than would otherwise occur. Such dumping shall be carried out so as to minimize the likelihood of damage to human or marine life. The Commission shall promptly be informed.

Article 7

1. Each Contracting Party shall designate one or more competent authorities to:

a) issue the permits provided for in Articles 3 and 4;

b) keep records of the nature and quantities of the wastes or other matter permitted to be dumped and of the location, date and method of dumping.

2. The competent authorities of each Contracting Party shall issue the permits provided for in Article 3 and 4 in respect of the wastes or other matter intended for dumping:

a) loaded within its territory;

b) loaded by a vessel flying its flag or an aircraft registered in its territory when the loading occurs within the territory of another State.

Article 8

1. Each Contracting Party shall take the measures required to implement this Protocol in respect of:

- a) vessels flying its flag or aircraft registered in its territory;
- b) vessels and aircraft loading in its territory wastes or other matter which are to be dumped;
- c) platforms and other man-made structures at sea situated within its territorial sea and exclusive economic zone;
- d) dumping within its territorial sea and exclusive economic zone.

Article 9

The Contracting Parties shall cooperate in exchanging information relevant to Articles 5, 6, 7 and 8. Each Contracting Party shall inform the other Contracting Parties which may potentially be affected, in case of suspicions that dumping in contravention of the provisions of this Protocol has occurred or is about to occur.

Annex I Hazardous Substances and Matter

1. Organohalogen compounds e. g. DDT, DDE, DDD, PCB's.
2. Mercury and mercury compounds.
3. Cadmium and cadmium compounds.
4. Organotin compounds.
5. Persistent synthetic matter which may float, sink or remain insuspension.
6. Used lubricating oils.
7. Lead and lead compounds.
8. Radioactive substances and wastes, including used radioactive fuel.
9. Crude oil and hydrocarbons of any origin.

Annex II Noxious Substances

The following substances, compounds or matter have been selected mainly on the basis of criteria used in Annex I, while taking into account the fact that they are less harmful or more readily rendered harmless by natural processes. The control and strict limitation of the dumping of the substances referred to in this Annex shall be implemented in accordance with Annex III of this Protocol.

1. Biocides and their derivatives not covered in Annex I.
2. Cyanides, fluorides, and elemental phosphorus.
3. Pathogenic micro-organisms.

4. Nonbiodegradable detergents and their surface-active substances. 5. Alkaline or acid compounds. 6. Substances which, though of a non-toxic nature, may become harmful to the marine biota owing to the quantities in which they are discharged e. g. inorganic phosphorus, nitrogen, organic matter and other nutrient compounds. Also substances which have an adverse effect on the oxygen content of the marine environment. 7. The following elements and their compounds:

Zinc Selenium Tin Vanadium Copper Arsenic Barium Cobalt Nickel
Antimony Beryllium Thallium Chromium Molybdenum Boron
Tellurium Titanium Uranium Silver

8. Sewage Sludge

Annex III

In issuing permits for dumping at sea, the following factors shall be considered:

A. CHARACTERISTICS AND COMPOSITION OF THE MATTER

1. Amount of matter to be dumped (e. g. per year). 2. Average composition of the matter to be dumped. 3. Properties: physical (e. g. solubility, density), chemical and biochemical (e. g. oxygen demand, nutrients), biological (e. g. presence of bacteria, etc.).

The data should include sufficient information on the annual mean levels and seasonal variations of the mentioned properties.

4. Long-term toxicity. 5. Persistence: physical, chemical, biological. 6. Accumulation and transformation in the marine environment. 7. Susceptibility to physical, chemical and biochemical changes and interaction with other dissolved matter. 8. Probability of inducing effects which would reduce the marketability of resources (e. g. fish, shellfish).

B. CHARACTERISTICS OF DUMPING SITE AND DISPOSAL METHOD

1. Location (e. g. co-ordinates of the dumping area, depth and distance from the coast) and its relation to areas of special interest (e. g.

amenity areas, spawning, nursery and fishing grounds). 2. Methods and technologies of packaging and disposal of matter. 3. Dispersal characteristics. 4. Hydrological characteristics and seasonal variations in these characteristics (e. g. temperature, pH, salinity, stratification, turbidity, dissolved oxygen, biochemical oxygen demand, chemical oxygen demand, nutrients, productivity). 5. Bottom characteristics (e. g. topography, geochemical, geological and biological productivity). 6. Cases and effects of other dumping.

C. GENERAL CONSIDERATIONS

1. Possible effects on amenities (e. g. floating or stranded matter, water turbidity, objectionable odour, discoloration, and foaming).

2. Possible effects on marine life, fish stocks, maricultures areas, traditional fishing grounds, seaweed harvesting and cultivation sites.

3. Possible effects on other uses of the sea (e. g. impairment of water quality for industrial use, underwater corrosion of structures, interference with vessel operations or fishing due to floating matter or through deposit of wastes or objects on the sea bed, and difficulties in protecting areas of special interest for scientific research or protection of nature).

4. Practical availability of alternative land disposal methods.

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Appendix RDB
Protocol on Protection of the Black Sea Marine Environment
Against Pollution from Land Based Sources



Protocol on Protection of The Black Sea Marine Environment Against Pollution from Land Based Sources

Signed 21 Apr 1992, in force 1994

Article 1

In accordance with Article VII of the Convention, the Contracting Parties shall take all necessary measures to prevent, reduce and control pollution of the marine environment of the Black Sea caused by discharges from land-based sources on their territories such as rivers, canals, coastal establishments, other artificial structures, outfalls or run-off, or emanating from any other land-based source, including through the atmosphere.

Article 2

For the purposes of this Protocol, the fresh water limit means the landward part of the line drawn between the endpoints on the right and the left banks of a water course where it reaches the Black Sea.

Article 3

This protocol shall apply to the Black Sea as defined in Article I of the Convention and to the waters landward of the baselines from which the breadth of the territorial sea is measured and in the case of fresh-water courses, up to the fresh-water limit.

Article 4

The Contracting Parties undertake to prevent and eliminate pollution of the marine environment of the Black Sea from land-based sources by substances and matter listed in Annex I to this Protocol.

The Contracting Parties undertake to reduce and, whenever possible,

to eliminate pollution of the marine environment of the Black Sea from land-based sources by substances and matter listed in Annex II to this Protocol.

As to water courses that are tributaries to the Black Sea, the Contracting Parties will endeavour to cooperate, as appropriate, with other States in order to achieve the purposes set forth in this Article.

Article 5

Pursuant to the provisions of Article XV of the Convention, each Contracting Party shall carry out, at the earliest possible date, monitoring activities in order to assess the levels of pollution, its sources and ecological effects along its coast, in particular with regard to the substances and matter listed in Annexes I and II to this Protocol. Additional research will be conducted upstream of river sections in order to investigate fresh/salt water interactions.

Article 6

In conformity with Article XV of the Convention, the Contracting Parties shall cooperate in elaborating common guidelines, standards or criteria dealing with special characteristics of marine outfalls and in undertaking research on specific requirements for effluents necessitating separate treatment and concerning the quantities of discharged substances and matter listed in Annexes I and II, their concentration in effluents, and methods of discharging them.

The common emission standards and timetable for the implementation of the programme and measures aimed at preventing, reducing or eliminating, as appropriate, pollution from land-based sources shall be fixed by the Contracting Parties and periodically reviewed for substances and matter listed in Annexes I and II to this Protocol.

The Commission shall define pollution prevention criteria as well as recommend appropriate measures to reduce, control and eliminate pollution of the marine environment of the Black Sea from land-based sources.

The Contracting Parties shall take into consideration the following:

a) The discharge of water from municipal sewage systems should be made in such a way as to reduce the pollution of the marine environment of the Black Sea. b) The pollution load of industrial wastes should be reduced in order to comply with the accepted concentrations of substances and matter listed in Annexes I and II to this Protocol. c) The discharge of cooling water from nuclear power plants or other industrial enterprises using large amounts of water should be made in such a way as to prevent pollution of the marine environment of the Black Sea. d) The pollution load from agricultural and forest areas affecting the water quality of the marine environment of the Black Sea should be reduced in order to comply with the accepted concentrations of substances and matter listed in Annexes I and II to this Protocol.

Article 7

The Contracting Parties shall inform one another through the Commission of measures taken, results achieved or difficulties encountered in the application of this Protocol. Procedures for the collection and transmission of such information shall be determined by the Commission.

Annex I Hazardous Substances and Matter

The following substances or groups of substances or matter are not listed in order of priority. They have been selected mainly on the basis of their toxicity, persistence and bioaccumulation characteristics.

This Annex does not apply to discharges which contain substances and matter listed below that are below the concentration limits defined jointly by the Contracting Parties, not exceeding environmental background concentrations.

1. Organotin compounds. 2. Organohalogen compounds e. g. DDT, DDE, DDD, PCB's. 3. Persistent organophosphorus compounds. 4. Mercury and mercury compounds. 5. Cadmium and cadmium compounds. 6. Persistent substances with proven toxic carcinogenic, teratogenic or mutagenic properties.

7. Used lubricating oils. 8. Persistent synthetic materials which may

float, sink or remain in suspension. 9. Radioactive substances and wastes, including used radioactive fuel. 10. Lead and lead compounds.

Annex II Noxious Substances and Matter

The following substances and matter have been selected mainly on the basis of criteria used in Annex I, while taking into account the fact that they are less harmful or more readily rendered harmless by natural processes.

The control and strict limitation of the discharges of substances and matter referred to in this Annex shall be implemented in accordance with Annex III to this Protocol.

1. Biocides and their derivatives not covered in Annex I. 2. Cyanides, flourides, and elemental phosphorus. 3. Pathogenic micro-organisms. 4. Nonbiodegradable detergents and their surface-active substances. 5. Alkaline or acid compounds. 6. Thermal discharges. 7. Substances which, although of a non-toxic nature, may become harmful to the marine biota owing to the quantities in which they are discharged e. g. inorganic phosphorous, nitrogen, organic matter and other nutrient compounds. Also substances which have an adverse effect on the oxygen content in the marine environment. 8. The following elements and their compounds:

Zinc Selenium Tin Vanadium Copper Arsenic Barium Cobalt Nickel
Antimony Beryllium Thallium Chromium Molybdenum Boron
Tellurium Titanium Uranium Silver

9. Crude oil and hydrocarbons of any origin.

Annex III

The discharges of substances and matter listed in Annex II to this Protocol shall be subject to restrictions based on the following:

1. Maximum permissible concentrations of the substances and matter immediate before the outlet;
2. Maximum permissible quantity (load, inflow) of the substances and

matter per annual cycle or shorter time limit;

3. In case of differences between 1 and 2 above, the stricter restriction should apply.

When issuing a permit for the discharge of wastes containing substances and matter referred to in Annexes I and II to this Protocol, the national authorities will take particular account, as the case may be, of the following factors:

A. CHARACTERISTICS AND COMPOSITION OF THE WASTE

1. Type and size of waste source (e. g. industrial process). 2. Type of waste (origin, average composition). 3. Form of waste (solid, liquid, sludge, slurry). 4. Total amount (volume discharged. e. g. per year). 5. Discharge pattern (continuous, intermittent, seasonally variable, etc.). 6. Concentrations with respect to major constituents, substances listed in Annex I, substances listed in Annex II, and other harmful substances as appropriate. 7. Physical, chemical and biological properties of the waste.

B. CHARACTERISTICS OF WASTE CONSTITUENTS WITH RESPECT TO THEIR HARMFULNESS

1. Persistence (physical, chemical, biological) in the marine environment. 2. Toxicity and other harmful effects. 3. Accumulation in biological materials and sediments. 4. Biochemical transformation producing harmful compounds. 5. Adverse effects on the oxygen contents and balance.

6. Susceptibility to physical, chemical and biochemical changes and interaction in the marine environment with other seawater constituents which may produce harmful biological or other effects on any of the uses listed in section E below.

C. CHARACTERISTICS OF DISCHARGE SITE AND RECEIVING MARINE ENVIRONMENT

1. Hydrographic, meteorological, geological and topographic characteristics of the coastal area. 2. Location and type of discharge

(outfall, canal, outlet, etc.) and its relation to other areas (such as amenity areas, spawning, nursery and fishing areas, shellfish grounds) and other discharges. 3. initial dilution achieved at the point of discharge into the receiving marine environment. 4. Dispersal characteristics such as the effect of currents, tides and winds on horizontal transport and vertical mixing. 5. Receiving water characteristics with respect to physical, chemical, biological and ecological conditions in the discharge area. 6. Capacity of the receiving marine environment to receive waste discharges without undesirable effects.

D. AVAILABILITY OF WASTE TECHNOLOGIES

The methods of waste reduction and discharge for industrial effluents as well as household sewage should be selected taking into account the availability and feasibility of:

a) Alternative treatment processes; b) Recycling, re-use, or elimination methods; c) On-land disposal alternatives; and d) Appropriate clean and low-waste technologies.

E. POTENTIAL IMPAIRMENT OF MARINE ECOSYSTEMS AND SEA-WATER USES

1. Effects on human life through pollution impact on:

a) Edible marine organisms; b) Bathing waters; c) Aesthetics.

Discharges of wastes containing substances and matter listed in Annexes I and II shall be subject to a system of self-monitoring and control by the competent national authorities.

2. Effects on marine ecosystems, in particular living resources, endangered species, and critical habitats.

3. Effects on other legitimate uses of the sea.

Appendix RDC
Cartagena de Indias Convention (Wider Caribbean)

Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region

The Final Act of the Conference of the Plenipotentiaries on the Protection and Development of the Marine Environment of the Wider Caribbean Region

Cartagena de Indias, 24 March 1983

The Contracting Parties,

Fully aware of the economic and social value of the marine environment, including coastal areas, of the wider Caribbean region,

Conscious of their responsibility to protect the marine environment of the wider Caribbean region for the benefit and enjoyment of present and future generations,

Recognizing the special hydrographic and ecological characteristics of the region and its vulnerability to pollution,

Recognizing further the threat to the marine environment, its ecological equilibrium, resources and legitimate uses posed by pollution and by the absence of sufficient integration of an environmental dimension into the development process,

Considering the protection of the ecosystems of the marine environment of the wider Caribbean region to be one of their principal objectives,

Realizing fully the need for co-operation amongst themselves and with competent international organizations in order to ensure co-ordinated and comprehensive development without environmental damage,

Recognizing the desirability of securing the wider acceptance of international marine pollution agreements already in existence,

Noting however, that, in spite of the progress already achieved, these agreements do not cover all aspects of environmental deterioration and do not entirely meet the special requirements of the wider Caribbean region,

Have agreed as follows:

Article 1 CONVENTION AREA

1. This Convention shall apply to the wider Caribbean region, hereinafter referred to as "the Convention area" as defined in paragraph 1 of article [2](#).
2. Except as may be otherwise provided in any protocol to this Convention, the Convention area shall not include internal waters of the Contracting Parties.

Article 2 DEFINITIONS

For the purposes of this Convention:

1. The "Convention area" means the marine environment of the Gulf of Mexico, the Caribbean Sea and the areas of

the Atlantic Ocean adjacent thereto, south of 30 deg north latitude and within 200 nautical miles of the Atlantic coasts of the States referred to in article [25](#) of the Convention.

2. "Organization" means the institution designated to carry out the functions enumerated in paragraph 1 of article [15](#).

Article 3 GENERAL PROVISIONS

1. The Contracting Parties shall endeavour to conclude bilateral or multilateral agreements including regional or subregional agreements, for the protection of the marine environment of the Convention area. Such agreements shall be consistent with this Convention and in accordance with international law. Copies of such agreements shall be communicated to the Organization and, through the Organization, to all signatories and Contracting Parties to this Convention.
2. This Convention and its protocols shall be construed in accordance with international law relating to their subject-matter. Nothing in this Convention or its protocols shall be deemed to affect obligations assumed by the Contracting Parties under agreements previously concluded.
3. Nothing in this Convention or its protocols shall prejudice the present or future claims or the legal views of any Contracting Party concerning the nature and extent of maritime jurisdiction.

Article 4 GENERAL OBLIGATIONS

1. The Contracting Parties shall, individually or jointly, take all appropriate measures in conformity with international law and in accordance with this Convention and those of its protocols in force to which they are parties to prevent, reduce and control pollution of the Convention area and to ensure sound environmental management, using for this purpose the best practicable means at their disposal and in accordance with their capabilities.
2. The Contracting Parties shall, in taking the measures referred to in paragraph 1, ensure that the implementation of those measures does not cause pollution of the marine environment outside the Convention area.
3. The Contracting Parties shall co-operate in the formulation and adoption of protocols or other agreements to facilitate the effective implementation of this Convention.
4. The Contracting Parties shall take appropriate measures, in conformity with international law, for the effective discharge of the obligations prescribed in this Convention and its protocols and shall endeavour to harmonize their policies in this regard.
5. The Contracting Parties shall co-operate with the competent international, regional and subregional organizations for the effective implementation of this Convention and its protocols. They shall assist each other in fulfilling their obligations under this Convention and its protocols.

Article 5 POLLUTION FROM SHIPS

The Contracting Parties shall take all appropriate measures to prevent, reduce and control pollution of the Convention area caused by discharges from ships and, for this purpose, to ensure the effective implementation of the applicable international rules and standards established by the competent international organization.

Article 6 POLLUTION CAUSED BY DUMPING

The Contracting Parties shall take all appropriate measures to prevent, reduce and control pollution of the Convention area caused by dumping of wastes and other matter at sea from ships, aircraft or manmade structures at sea, and to ensure the effective implementation of the applicable international rules and standards.

Article 7 POLLUTION FROM LAND-BASED SOURCES

The Contracting Parties shall take all appropriate measures to prevent, reduce and control pollution of the Convention area caused by coastal disposal or by discharges emanating from rivers, estuaries, coastal establishments, outfall structures, or any other sources on their territories.

Article 8 POLLUTION FROM SEA-BED ACTIVITIES

The Contracting Parties shall take all appropriate measures to prevent, reduce and control pollution of the Convention area resulting directly or indirectly from exploration and exploitation of the sea-bed and its subsoil.

Article 9 AIRBORNE POLLUTION

The Contracting Parties shall take all appropriate measures to prevent, reduce and control pollution of the Convention area resulting from discharges into the atmosphere from activities under their jurisdiction.

Article 10 SPECIALLY PROTECTED AREAS

The Contracting Parties shall, individually or jointly, take all appropriate measures to protect and preserve rare or fragile ecosystems, as well as the habitat of depleted, threatened or endangered species, in the Convention area. To this end, the Contracting Parties shall endeavour to establish protected areas. The establishment of such areas shall not affect the rights of other Contracting Parties and third States. In addition, the Contracting Parties shall exchange information concerning the administration and management of such areas.

Article 11 CO-OPERATION IN CASES OF EMERGENCY

1. The Contracting Parties shall co-operate in taking all necessary measures to respond to pollution emergencies in the Convention area, whatever the cause of such emergencies, and to control, reduce or eliminate pollution or the threat of pollution resulting therefrom. To this end, the Contracting Parties shall, individually and jointly, develop and promote contingency plans for responding to incidents involving pollution or the threat thereof in the Convention area.
2. When a Contracting Party becomes aware of cases in which the Convention area is in imminent danger of being polluted or has been polluted, it shall immediately notify other States likely to be affected by such pollution, as well as the competent international organizations. Furthermore, it shall inform, as soon as feasible, such other States and competent international organizations of measures it has taken to minimize or reduce pollution or the threat thereof.

Article 12 ENVIRONMENTAL IMPACT ASSESSMENT

1. As part of their environmental management policies the Contracting Parties undertake to develop technical and other guidelines to assist the planning of their major development projects in such a way as to prevent or minimize harmful impacts on the Convention area.
2. Each Contracting Party shall assess within its capabilities, or ensure the assessment of, the potential effects of such

projects on the marine environment, particularly in coastal areas, so that appropriate measures may be taken to prevent any substantial pollution of, or significant and harmful changes to, the Convention area.

3. With respect to the assessments referred to in paragraph 2, each Contracting Party shall, with the assistance of the Organization when requested, develop procedures for the dissemination of information and may, where appropriate, invite other Contracting Parties which may be affected to consult with it and to submit comments.

Article 13 SCIENTIFIC AND TECHNICAL CO-OPERATION

1. The Contracting Parties undertake to cooperate, directly and, when appropriate, through the competent international and regional organizations, in scientific research, monitoring, and the exchange of data and other scientific information relating to the purposes of this Convention.
2. To this end, the Contracting Parties undertake to develop and co-ordinate their research and monitoring programmes relating to the Convention area and to ensure, in co-operation with the competent international and regional organizations, the necessary links between their research centres and institutes with a view to producing compatible results. With the aim of further protecting the Convention area, the Contracting Parties shall endeavour to participate in international arrangements for pollution research and monitoring.
3. The Contracting Parties undertake to cooperate, directly and, when appropriate, through the competent international and regional organizations, in the provision to other Contracting Parties of technical and other assistance in fields relating to pollution and sound environmental management of the Convention area, taking into account the special needs of the smaller island developing countries and territories.

Article 14 LIABILITY AND COMPENSATION

The Contracting Parties shall co-operate with a view to adopting appropriate rules and procedures, which are in conformity with international law, in the field of liability and compensation for damage resulting from pollution of the Convention area.

Article 15 INSTITUTIONAL ARRANGEMENTS

1. The Contracting Parties designate the United Nations Environment Programme to carry out the following secretariat functions:
 - a. To prepare and convene the meetings of Contracting Parties and conferences provided for in articles [16](#), [17](#) and [18](#);
 2. To transmit the information received in accordance with articles [3](#), [11](#) and [22](#);
 3. To perform the functions assigned to it by protocols to this Convention;
 4. To consider enquiries by, and information from, the Contracting Parties and to consult with them on questions relating to this Convention, its protocols and annexes thereto;
 5. To co-ordinate the implementation of cooperative activities agreed upon by the meetings of Contracting Parties and conferences provided for in articles [16](#), [17](#) and [18](#);
 6. To ensure the necessary co-ordination with other international bodies which the Contracting Parties consider competent.
2. Each Contracting Party shall designate an appropriate authority to serve as the channel of communication with the Organization for the purposes of this Convention and its protocols.

Article 16 MEETINGS OF THE CONTRACTING PARTIES

1. The Contracting Parties shall hold ordinary meetings once every two years and extraordinary meetings at any

other time deemed necessary, upon the request of the Organization or at the request of any Contracting Party, provided that such requests are supported by the majority of the Contracting Parties.

2. It shall be the function of the meetings of the Contracting Parties to keep under review the implementation of this Convention and its protocols and, in particular:
 - a. To assess periodically the state of the environment in the Convention area;
 2. To consider the information submitted by the Contracting Parties under article [22](#);
 3. To adopt, review and amend annexes to this Convention and to its protocols, in accordance with article [19](#);
 4. To make recommendations regarding the adoption of any additional protocols or any amendments to this Convention or its protocols in accordance with articles [17](#) and [18](#);
 5. To establish working groups as required to consider any matters concerning this Convention and its protocols, and annexes thereto;
 6. To consider co-operative activities to be undertaken within the framework of this Convention and its protocols, including their financial and institutional implications, and to adopt decisions relating thereto;
 7. To consider and undertake any other action that may be required for the achievement of the purposes of this Convention and its protocols.

Article 17 ADOPTION OF PROTOCOLS

1. The Contracting Parties, at a conference of plenipotentiaries, may adopt additional protocols to this Convention pursuant to paragraph 3 of article [4](#).
2. If so requested by a majority of the Contracting Parties, the Organization shall convene a conference of plenipotentiaries for the purpose of adopting additional protocols to this Convention.

Article 18 AMENDMENT OF THE CONVENTION AND ITS PROTOCOLS

1. Any Contracting Party may propose amendments to this Convention. Amendments shall be adopted by a conference of plenipotentiaries which shall be convened by the Organization at the request of a majority of the Contracting Parties.
2. Any Contracting Party to this Convention may propose amendments to any protocol. Such amendments shall be adopted by a conference of plenipotentiaries which shall be convened by the Organization at the request of a majority of the Contracting Parties to the protocol concerned.
3. The text of any proposed amendment shall be communicated by the Organization to all Contracting Parties at least 90 days before the opening of the conference of plenipotentiaries.
4. Any amendment to this Convention shall be adopted by a three-fourths majority vote of the Contracting Parties to the Convention which are represented at the conference of plenipotentiaries and shall be submitted by the Depositary for acceptance by all Contracting Parties to the Convention. Amendments to any protocol shall be adopted by a three-fourths majority vote of the Contracting Parties to the protocol which are represented at the conference of plenipotentiaries and shall be submitted by the Depositary for acceptance by all Contracting Parties to the protocol.
5. Instruments of ratification, acceptance or approval of amendments shall be deposited with the Depositary. Amendments adopted in accordance with paragraph 3 shall enter into force between Contracting Parties having accepted such amendments on the thirtieth day following the date of receipt by the Depositary of the instruments of at least three fourths of the Contracting Parties to this Convention or to the protocol concerned, as the case may be. Thereafter the amendments shall enter into force for any other Contracting Party on the thirtieth day after the date on which that Party deposits its instrument.
6. After entry into force of an amendment to this Convention or to a protocol, any new Contracting Party to the Convention or such protocols shall become a Contracting Party to the Convention or protocol as amended.

Article 19 ANNEXES AND AMENDMENTS TO ANNEXES

1. Annexes to this Convention or to a protocol shall form an integral part of the Convention or, as the case may be, such protocol.
2. Except as may be otherwise provided in any protocol with respect to its annexes, the following procedure shall apply to the adoption and entry into force of amendments to annexes to this Convention or to annexes to a protocol:
 - a. Any Contracting Party may propose amendments to annexes to this Convention or to annexes to any protocol at a meeting convened pursuant to article [16](#);
 2. Such amendments shall be adopted by a three-fourths majority vote of the Contracting Parties to the instrument in question present at the meeting referred to in article [16](#);
 3. The Depositary shall without delay communicate the amendments so adopted to all Contracting Parties to the Convention;
 4. Any Contracting Party that is unable to accept an amendment to annexes to this Convention or to annexes to any protocol shall so notify the Depositary in writing within 90 days from the date on which the amendment was adopted;
 5. The Depositary shall without delay notify all Contracting Parties of notifications received pursuant to the preceding subparagraph;
 6. On expiration of the period referred to in subparagraph (d), the amendment to the annex shall become effective for all Contracting Parties to this Convention or to the protocol concerned which have not submitted a notification in accordance with the provisions of that subparagraph;
 7. A Contracting Party may at any time substitute an acceptance for a previous declaration of objection, and the amendment shall thereupon enter into force for that Party.
3. The adoption and entry into force of a new annex shall be subject to the same procedure as that for the adoption and entry into force of an amendment to an annex, provided that, if it entails an amendment to the Convention or to one of its protocols, the new annex shall not enter into force until such time as that amendment enters into force.
4. Any amendment to the Annex on Arbitration shall be proposed and adopted, and shall enter into force, in accordance with the procedures set out in article [18](#).

Article 20 RULES OF PROCEDURE AND FINANCIAL RULES

1. The Contracting Parties shall unanimously adopt rules of procedure for their meetings.
2. The Contracting Parties shall unanimously adopt financial rules, prepared in consultation with the Organization, to determine, in particular, their financial participation under this Convention and under protocols to which they are parties.

Article 21 SPECIAL EXERCISE OF THE RIGHT TO VOTE

In their fields of competence, the regional economic integration organizations referred to in article [25](#) shall exercise their right to vote with a number of votes equal to the number of their member States which are Contracting Parties to this Convention and to one or more protocols. Such organizations shall not exercise their right to vote if the member States concerned exercise theirs, and vice versa.

Article 22 TRANSMISSION OF INFORMATION

The Contracting Parties shall transmit to the Organization information on the measures adopted by them in the implementation of this Convention and of protocols to which they are parties, in such form and at

such intervals as the meetings of Contracting Parties may determine.

Article 23 SETTLEMENT OF DISPUTES

1. In case of a dispute between Contracting Parties as to the interpretation or application of this Convention or its protocols, they shall seek a settlement of the dispute through negotiation or any other peaceful means of their own choice.
2. If the Contracting Parties concerned cannot settle their dispute through the means mentioned in the preceding paragraph, the dispute shall upon common agreement, except as may be otherwise provided in any protocol to this Convention, be submitted to arbitration under the conditions set out in the [Annex](#) on Arbitration. However, failure to reach common agreement on submission of the dispute to arbitration shall not absolve the Contracting Parties from the responsibility of continuing to seek to resolve it by the means referred to in paragraph 1.
3. A Contracting Party may at any time declare that it recognizes as compulsory ipso facto and without special agreement, in relation to any other Contracting Party accepting the same obligation, the application of the arbitration procedure set out in the [Annex](#) on Arbitration. Such declaration shall be notified in writing to the Depositary, who shall communicate it to the other Contracting Parties.

Article 24 RELATIONSHIP BETWEEN THE CONVENTION AND ITS PROTOCOLS

1. No State or regional economic integration organization may become a Contracting Party to this Convention unless it becomes at the same time a Contracting Party to at least one protocol to the Convention. No State or regional economic integration organization may become a Contracting Party to a protocol unless it is, or becomes at the same time, a Contracting Party to the Convention.
2. Decisions concerning any protocol shall be taken only by the Contracting Parties to the protocol concerned.

Article 25 SIGNATURE

This Convention and the Protocol concerning Cooperation in Combating Oil Spills in the Wider Caribbean Region shall be open for signature at Cartagena de Indias on 24 March 1983 and at Bogota from 25 March 1983 to 23 March 1984 by States invited to participate in the Conference of Plenipotentiaries on the Protection and Development of the Marine Environment of the Wider Caribbean Region, held at Cartagena de Indias from 21 to 24 March 1983. They shall also be open for signature between the same dates by any regional economic integration organization exercising competence in fields covered by the Convention and that Protocol and having at least one member State which belongs to the wider Caribbean region, provided that such regional organization has been invited to participate in the Conference of Plenipotentiaries.

Article 26 RATIFICATION, ACCEPTANCE AND APPROVAL

1. This Convention and its protocols shall be subject to ratification, acceptance or approval by States. Instruments of ratification, acceptance or approval shall be deposited with the Government of the Republic of Colombia, which will assume the functions of Depositary.
2. This Convention and its protocols shall also be subject to ratification, acceptance or approval by the organizations referred to in article [25](#) having at least one member State a party to the Convention. In their instruments of ratification, acceptance or approval, such organizations shall declare the extent of their competence with respect to the matters governed by the Convention and the relevant protocol. Subsequently these organizations shall inform the Depositary of any substantial modification in the extent of their competence.

Article 27 ACCESSION

1. This Convention and its protocols shall be open for accession by the States and organizations referred to in article [25](#) as from the day following the date on which the Convention or the protocol concerned is closed for signature.
2. After entry into force of this Convention and of any protocol, any State or regional economic integration organization not referred to in article [25](#) may accede to the Convention and to any protocol subject to prior approval by three fourths of the Contracting Parties to the Convention or the protocol concerned, provided that any such regional economic integration organization exercises competence in fields covered by the Convention and the relevant protocol and has at least one member State belonging to the wider Caribbean region, that is a party to the Convention and the relevant protocol.
3. In their instruments of accession, the organizations referred to in paragraphs 1 and 2 shall declare the extent of their competence with respect to the matters governed by the Convention and the relevant protocol. These organizations shall also inform the Depositary of any substantial modification in the extent of their competence.
4. Instruments of accession shall be deposited with the Depositary.

Article 28 ENTRY INTO FORCE

1. This Convention and the Protocol concerning Co-operation in Combating Oil Spills in the Wider Caribbean Region shall enter into force on the thirtieth day following the date of deposit of the ninth instrument of ratification, acceptance or approval of, or accession to, those agreements by the States referred to in article [25](#).
2. Any additional protocol to this Convention, except as otherwise provided in such protocol, shall enter into force on the thirtieth day following the date of deposit of the ninth instrument of ratification, acceptance, or approval of such protocol, or of accession thereto.
3. For the purposes of paragraphs 1 and 2, any instrument deposited by an organization referred to in article [25](#) shall not be counted as additional to that deposited by any member State of such organization.
4. Thereafter, this Convention and any protocol shall enter into force with respect to any State or organization referred to in article [25](#) or article [27](#) on the thirtieth day following the date of deposit of its instruments of ratification, acceptance, approval or accession.

Article 29 DENUNCIATION

1. At any time after two years from the date of entry into force of this Convention with respect to a Contracting Party, that Contracting Party may denounce the Convention by giving written notification to the Depositary.
2. Except as may be otherwise provided in any protocol to this Convention, any Contracting Party may, at any time after two years from the date of entry into force of such protocol with respect to that Contracting Party, denounce the protocol by giving written notification to the Depositary.
3. Denunciation shall take effect on the ninetieth day after the date on which notification is received by the Depositary.
4. Any Contracting Party which denounces this Convention shall be considered as also having denounced any protocol to which it was a Contracting Party.
5. Any Contracting Party which, upon its denunciation of a protocol, is no longer a Contracting Party to any protocol of this Convention, shall be considered as also having denounced the Convention itself.

Article 30 DEPOSITARY

1. The Depositary shall inform the Signatories and the Contracting Parties, as well as the Organization, of:
 - a. The signature of this Convention and of its protocols, and the deposit of instruments of ratification,

- acceptance, approval or accession;
 2. The date on which the Convention or any protocol will come into force for each Contracting Party;
 3. Notification of any denunciation and the date on which it will take effect;
 4. The amendments adopted with respect to the Convention or to any protocol, their acceptance by the Contracting Parties and the date of their entry into force;
 5. All matters relating to new annexes and to the amendment of any annex;
 6. Notifications by regional economic integration organizations of the extent of their competence with respect to matters governed by this Convention and the relevant protocols, and of any modifications thereto.
2. The original of this Convention and of any protocol shall be deposited with the Depositary, the Government of the Republic of Colombia, which shall send certified copies thereof to the Signatories, the Contracting Parties, and the Organization.
 3. As soon as the Convention and its protocols enter into force, the Depositary shall transmit a certified copy of the instrument concerned to the Secretary-General of the United Nations for registration and publication in accordance with Article 102 of the Charter of the United Nations.

In witness whereof the undersigned, being duly authorized by their respective Governments, have signed this Convention. Done at Cartagena de Indias this twenty-fourth day of March one thousand nine hundred and eighty-three in a single copy in the English, French and Spanish languages, the three texts being equally authentic.

Annex

ARBITRATION

Article 1

Unless the agreement referred to in article [23](#) the Convention provides otherwise, the arbitration procedure shall be conducted in accordance with articles [2](#) to [10](#) below.

Article 2

The claimant party shall notify the Secretariat that the parties have agreed to submit the dispute to arbitration pursuant to paragraph 2 or paragraph 3 of article [23](#) of the Convention. The notification shall state the subject-matter of arbitration and include, in particular, the articles of the Convention or the protocol, the interpretation or application of which are at issue. The Secretariat shall forward the information thus received to all Contracting Parties to the Convention or to the protocol concerned.

Article 3

The arbitral tribunal shall consist of three members. Each of the parties to the dispute shall appoint an arbitrator and the two arbitrators so appointed shall designate by common agreement the third arbitrator who shall be the chairman of the tribunal. The latter shall not be a national of one of the parties to the dispute, nor have his usual place of residence in the territory of one of these parties, nor be employed by any of them, nor have dealt with the case in any other capacity.

Article 4

1. If the chairman of the arbitral tribunal has not been designated within two months of the appointment of the second arbitrator, the Secretary-General of the United Nations shall, at the request of either party, designate him within a further two months period.
2. If one of the parties to the dispute does not appoint an arbitrator within two months of receipt of the request, the other party may inform the Secretary-General of the United Nations who shall designate the chairman of the arbitral tribunal within a further two months' period. Upon designation, the chairman of the arbitral tribunal shall request the party which has not appointed an arbitrator to do so within two months. After such period, he shall inform the Secretary-General of the United Nations, who shall make this appointment within a further two months' period.

Article 5

1. The arbitral tribunal shall render its decision in accordance with international law and in accordance with the provisions of this Convention and the protocol or protocols concerned.
2. Any arbitral tribunal constituted under the provisions of this annex shall draw up its own rules of procedure.

Article 6

1. The decisions of the arbitral tribunal, both on procedure and on substance, shall be taken by majority vote of its members.
2. The tribunal may take all appropriate measures in order to establish the facts. It may, at the request of one of the parties, recommend essential interim measures of protection.
3. The parties to the dispute shall provide all facilities necessary for the effective conduct of the proceedings.
4. The absence or default of a party to the dispute shall not constitute an impediment to the proceedings.

Article 7

The tribunal may hear and determine counterclaims arising directly out of the subject-matter of the dispute.

Article 8

Unless the arbitral tribunal determines otherwise because of the particular circumstances of the case, the expenses of the tribunal, including the remuneration of its members, shall be borne by the parties to the dispute in equal shares. The tribunal shall keep a record of all its expenses, and shall furnish a final statement thereof to the parties.

Article 9

Any Contracting Party that has an interest of a legal nature in the subject-matter of the dispute which may be affected by the decision in the case, may intervene in the proceedings with the consent of the tribunal.

Article 10

1. The tribunal shall render its award within five months of the date on which it is established unless it finds it

necessary to extend the time-limit for a period which should not exceed five months.

2. The award of the arbitral tribunal shall be accompanied by a statement of reasons on which it is based. It shall be final and binding upon the parties to the dispute.
3. Any dispute which may arise between the parties concerning the interpretation or execution of the award may be submitted by either party to the arbitral tribunal which made the award or, if the latter cannot be seized thereof, to another arbitral tribunal constituted for this purpose in the same manner as the first.

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Appendix RDD
Protocol Concerning Pollution from Land-Based Sources and
Activities to the Convention for the Protection and
Development of the Marine Environment of the Wider
Caribbean Region

PROTOCOL CONCERNING POLLUTION FROM LAND-BASED SOURCES AND ACTIVITIES TO THE CONVENTION FOR THE PROTECTION AND DEVELOPMENT OF THE MARINE ENVIRONMENT OF THE WIDER CARIBBEAN REGION

Adopted at Aruba on 6 October 1999

[Spanish](#) | [French](#) | [Word format](#)

The [Final Act](#) of the Conference of Plenipotentiaries to adopt the Protocol Concerning Pollution from Land-Based Sources and Activities in the Wider Caribbean Region

The Contracting Parties to this Protocol,

Being Parties to the [Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region](#), done at Cartagena de Indias on 24 March 1983,

Resolved, therefore, to implement the Convention and specifically Article 7,

Taking note of Article 4, paragraph 4 of the Convention,

Considering the principles of the Rio Declaration and Chapter 17 of Agenda 21 adopted by the United Nations Conference on the Environment and Development (Rio de Janeiro, 1992), and the Programme of Action for the Small Islands Developing States (Barbados, 1994), as well as the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (Washington, 1995), including the illustrative list of funding sources set forth in its Annex,

Recalling the relevant rules of international law as reflected in the 1982 United Nations Convention on the Law of the Sea and in particular its Part XII,

Conscious of the serious threat to the marine and coastal resources and to human health in the Wider Caribbean Region posed by pollution from land-based sources and activities,

Aware of the ecological, economic, aesthetic, scientific, recreational and cultural value of the marine and coastal ecosystems of the Wider Caribbean Region,

Recognising the inequalities in economic and social development among the countries of the Wider Caribbean Region and their needs for the achievement of sustainable development,

Determined to cooperate closely in taking the appropriate measures to protect the marine environment of the Wider Caribbean Region against pollution from land-based sources and activities,

Further recognising the need to encourage national, sub-regional and regional action through a national political commitment at the highest level, and international cooperation to deal with the problems posed by pollutants entering the Convention area from land-based sources and activities,

Have agreed as follows:

Article I Definitions

For the purposes of this Protocol:

- a. "Convention" means the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena de Indias, Colombia, March 1983);
- b. "Organisation" means the United Nations Environment Programme as referred to in Article 2(2) of the Convention;
- c. "Pollution of the Convention area" means the introduction by humans, directly or indirectly, of substances or energy into the Convention area, which results or is likely to result in such

deleterious effects as harm to living resources and marine ecosystems, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities;

- d. "Land-based sources and activities" means those sources and activities causing pollution of the Convention area from coastal disposal or from discharges that emanate from rivers, estuaries, coastal establishments, outfall structures, or other sources on the territory of a Contracting Party, including atmospheric deposition originating from sources located on its territory;
- e. "Most Appropriate Technology" means the best of currently available techniques, practices, or methods of operation to prevent, reduce or control pollution of the Convention area that are appropriate to the social, economic, technological, institutional, financial, cultural and environmental conditions of a Contracting Party or Parties; and
- f. "Monitoring" means the periodic measurement of environmental quality indicators.

Article II General Provisions

1. Except as otherwise provided in this Protocol, the provisions of the Convention relating to its protocols shall apply to this Protocol.
2. In taking measures to implement this Protocol, the Contracting Parties shall fully respect the sovereignty, sovereign rights and jurisdiction of other States, in accordance with international law.

Article III General Obligations

1. Each Contracting Party shall, in accordance with its laws, the provisions of this Protocol, and international law, take appropriate measures to prevent, reduce and control pollution of the Convention area from land-based sources and activities, using for this purpose the best practicable means at its disposal and in accordance with its capabilities.
2. Each Contracting Party shall develop and implement appropriate plans, programmes and measures. In such plans, programmes and measures, each Contracting Party shall adopt effective means of preventing, reducing or controlling pollution of the Convention area from land-based sources and activities on its territory, including the use of most appropriate technology and management approaches such as integrated coastal area management.
3. Contracting Parties shall, as appropriate, and having due regard to their laws and their individual social, economic and environmental characteristics and the characteristics of a specific area or subregion, jointly develop subregional and regional plans, programmes and measures to prevent, reduce and control pollution of the Convention area from land-based sources and activities.

Article IV Annexes

1. The Contracting Parties shall address the source categories, activities and associated pollutants of concern listed in [Annex I](#) to this Protocol through the progressive development and implementation of additional annexes for those source categories, activities, and associated pollutants of concern that are determined by the Contracting Parties as appropriate for regional or sub-regional action. Such annexes shall, as appropriate, include *inter alia*:
 - a. effluent and emission limitations and/or management practices based on the factors identified in [Annex II](#) to this Protocol; and
 - b. timetables for achieving the limits, management practices and measures agreed by the Contracting Parties.

2. In accordance with the provisions of the annexes to which it is party, each Contracting Party shall take measures to prevent, reduce and control pollution of the Convention area from the source categories, activities and pollutants addressed in annexes other than [Annexes I](#) and [II](#) to this Protocol.
3. The Contracting Parties may also develop such additional annexes as they may deem appropriate, including an annex to address water quality criteria for selected priority pollutants identified in [Annex I](#) to this Protocol.

Article V Cooperation and Assistance

1. Contracting Parties shall cooperate, bilaterally or, where appropriate, on a sub-regional, regional or global basis or through competent organisations in the prevention, reduction and control of pollution of the Convention area from land-based sources and activities.
2. In carrying out the obligations provided for in paragraph 1 above, Contracting Parties shall promote cooperation in the following areas:
 - a. monitoring activities undertaken in accordance with [Article VI](#);
 - b. research on the chemistry, fate, transport and effects of pollutants;
 - c. exchange of scientific and technical information;
 - d. identification and use of most appropriate technologies applicable to the specific source categories, activities and pollutants identified in Annex I to this Protocol; and
 - e. research and development of technologies and practices for the implementation of this Protocol.
3. Contracting Parties shall promote co-operation, directly or through competent sub-regional, regional and global organisations, with those Contracting Parties which request it in obtaining assistance for the implementation of this Protocol particularly to:
 - . develop scientific, technical, educational and public awareness programmes to prevent, reduce and control pollution of the Convention area from land-based sources and activities in accordance with this Protocol;
 - a. train scientific, technical and administrative personnel;
 - b. provide technical advice, information and other assistance necessary to address the source categories, activities and pollutants identified in Annex I to this Protocol; and
 - c. identify and approach potential sources of financing for projects necessary to implement this Protocol.

Article VI Monitoring and Assessment Programmes

1. Each Contracting Party shall formulate and implement monitoring programmes, as appropriate, in accordance with the provisions of this Protocol and relevant national legislation. Such programmes may, *inter alia*:
 - a. systematically identify and assess patterns and trends in the environmental quality of the Convention area; and
 - b. assess the effectiveness of measures taken to implement the Protocol.
2. Monitoring information shall be made available to the Scientific, Technical and Advisory Committee to facilitate the work of the Committee, as provided in [Article XIV](#).

3. These programmes should avoid duplication of other programmes, particularly of similar regional programmes carried out by competent international organisations.

Article VII Environmental Impact Assessment

1. The Contracting Parties shall develop and adopt guidelines concerning environmental impact assessments, and review and update those guidelines as appropriate.
2. When a Contracting Party has reasonable grounds to believe that a planned land-based activity on its territory, or a planned modification to such an activity, which is subject to its regulatory control in accordance with its laws, is likely to cause substantial pollution of, or significant and harmful changes to, the Convention area, that Contracting Party shall, as far as practicable, review the potential effects of such activity on the Convention area, through means such as an environmental impact assessment.
3. Decisions by the competent government authorities with respect to land-based activities, referred to in paragraph 2 above, should take into account any such review.
4. Each Contracting Party shall, subject to its domestic law and regulations, seek the participation of affected persons in any review process conducted pursuant to paragraph 2 above, and, where practicable, publish or make available relevant information obtained in this review.

Article VIII Development of Information Systems

The Contracting Parties shall cooperate directly or through relevant sub-regional, regional and, where appropriate, global organisations to develop information systems and networks for the exchange of information to facilitate the implementation of this Protocol.

Article IX Transboundary Pollution

Where pollution from land-based sources and activities originating from any Contracting Party is likely to affect adversely the coastal or marine environment of one or more of the other Contracting Parties, the Contracting Parties concerned shall use their best efforts to consult at the request of any affected Contracting Party, with a view to resolving the issue.

Article X Participation

Each Contracting Party shall, in accordance with its national laws and regulations, promote public access to relevant information and documentation concerning pollution of the Convention area from land-based sources and activities and the opportunity for public participation in decision-making processes concerning the implementation of this Protocol.

Article XI Education and Awareness

The Contracting Parties shall develop and implement individually and collectively programmes on environmental education and awareness for the public related to the need to prevent, reduce and control pollution of the Convention area from land-based sources and activities, and shall promote the training of individuals involved in such prevention, reduction and control.

Article XII Reporting

1. The Contracting Parties shall submit reports to the Organisation containing information on measures adopted, results obtained and any difficulties experienced in the implementation of this Protocol. These reports should include, whenever possible, information on the state of the Convention area. The Meeting of the Contracting Parties shall determine the nature of the information to be included, and the collection, presentation and timing of these reports, which will be made available to the public with the exception of information submitted in accordance with paragraph 3 below.
2. The Scientific, Technical and Advisory Committee shall use the data and information contained in these national reports to prepare regional reports on the implementation of this Protocol, including the state of the Convention area. The regional reports shall be submitted to the Contracting Parties in accordance with [Article XIV](#).

3. Information provided pursuant to paragraphs 1 and 2 above, that is designated by a Contracting Party as confidential, shall be used for the purposes referred to in paragraph 2 above in such a manner that assures its confidentiality.
4. Nothing in this Protocol shall require a Contracting Party to supply information the disclosure of which is contrary to the essential interests of its security.

Article XIII Institutional Mechanisms

1. Each Contracting Party shall designate a focal point to serve as liaison with the Organisation on the technical aspects of the implementation of this Protocol.
2. The Contracting Parties designate the Organisation to carry out the following Secretariat functions:
 - a. convene and service the meetings of the Contracting Parties;
 - b. assist in raising funds as provided for in [Article XVI](#);
 - c. provide such assistance that the Scientific, Technical and Advisory Committee may require to carry out its functions as referred to in [Article XIV](#);
 - d. provide the appropriate assistance as may be identified by the Contracting Parties to facilitate:
 - i. the development and implementation of the plans, programmes and measures necessary to achieve the objectives of this Protocol;
 - ii. the development of incentive programmes to implement this Protocol;
 - iii. the development of information systems and networks for the exchange of information for the purposes of facilitating the implementation of this Protocol, as referred to in [Article VIII](#); and
 - iv. the development and implementation of environmental education, training and public awareness programmes, as referred to in [Article XI](#);
 - e. communicate and work with the Caribbean Environment Programme on activities relevant to the implementation of this Protocol;
 - f. prepare common formats as directed by the Contracting Parties to be used as the basis for notifications and reports to the Organisation, as provided in [Article XII](#);
 - g. establish and update databases on national, sub-regional and regional measures adopted for the implementation of this Protocol, including any other pertinent information, in keeping with the provisions of [Articles III](#) and [XII](#);
 - h. compile and make available to the Contracting Parties reports and studies which may be required for the implementation of this Protocol or as requested by them;
 - i. cooperate with relevant international organisations;
 - j. provide to the Contracting Parties a report which shall include a draft budget for the coming year and an audited revenue and expenditure statement of the preceding year; and
 - k. carry out any other functions assigned to it by the Contracting Parties.

Article XIV Scientific, Technical and Advisory Committee

1. A Scientific, Technical and Advisory Committee is hereby established.
2. Each Contracting Party shall designate as its representative to the Committee an expert in the fields covered by this Protocol, who may be accompanied at its meetings by other experts and advisors also designated by the Contracting Party. The Committee may request scientific and technical advice from competent experts and organisations.
3. The Committee shall be responsible for reporting to and advising the Contracting Parties regarding the implementation of this Protocol. To carry out this function the Committee shall:
 - a. review on a regular basis the annexes to this Protocol as well as the state of pollution of the Convention area from land-based sources and activities and, where necessary, recommend amendments or additional annexes for consideration by the Contracting Parties;
 - b. examine, assess and analyze the information submitted by the Contracting Parties in accordance with [Articles VI](#) and [XII](#) and other relevant information to determine the effectiveness of the measures adopted to implement this Protocol, and submit regional reports to the Contracting Parties on the state of the Convention area. The regional reports shall set forth an assessment of the effectiveness and the socio-economic impact of measures adopted to implement the Protocol, and may propose any other appropriate measures;
 - c. provide advice to the Contracting Parties for the preparation and updating of information, including national inventories on marine pollution from land-based sources and activities;
 - d. provide guidance to the Contracting Parties:
 - i. on measures and methodologies to assess pollution loads in the Convention area, and to ensure regional compatibility in data; and
 - ii. on the development of plans, programmes and measures for the implementation of this Protocol;
 - e. advise on the formulation of common criteria, guidelines and standards for the prevention, reduction and control of pollution of the Convention area from land-based sources and activities;
 - f. propose priority measures for scientific and technical research and management of pollution from land-based sources and activities as well as for control, management practices and monitoring programmes, bearing in mind regional trends and conditions and any information available;
 - g. provide scientific and technical advice to the Meeting of the Contracting Parties regarding proposals for technical assistance;
 - h. formulate programmes on environmental education and awareness related to this Protocol;
 - i. develop a draft budget for the operation of the Scientific, Technical and Advisory Committee and submit it to the Contracting Parties for approval; and
 - j. carry out any other function related to the implementation of this Protocol which is assigned to it by the Contracting Parties.
4. The Committee shall adopt Rules of Procedure.

Article XV Meetings of the Contracting Parties

1. The ordinary meetings of the Contracting Parties to this Protocol shall generally be held in conjunction with the ordinary meetings of the Contracting Parties to the Convention held pursuant to Article 16 of the Convention. The Contracting Parties may also hold extraordinary meetings as deemed necessary, upon the request of the Organisation or at the request of any Contracting Party, provided that such requests are supported by the majority of the Contracting Parties. The meetings shall be governed by the Rules of Procedure adopted pursuant to Article 20 of the Convention.
2. It shall be the function of the meetings of the Contracting Parties to this Protocol to:
 - a. keep under review the implementation of this Protocol and the effectiveness of actions taken pursuant to it;
 - b. consider proposed amendments to this Protocol, including additional annexes, with a view to their subsequent adoption in accordance with the procedures established in the Convention and this Protocol;
 - c. approve the expenditure of funds identified in [Article XVI](#) that are not otherwise designated for a specific project by the donors;
 - d. review and adopt, as appropriate, regional reports developed by the Scientific, Technical and Advisory Committee in accordance with [Articles XII](#) and [XIV](#) as well as other information that a Contracting Party may transmit to the Meeting of the Contracting Parties;
 - e. take appropriate action with regard to the recommendations of the Scientific, Technical and Advisory Committee;
 - f. promote and facilitate, directly or through the Organisation, the exchange of information, experience and expertise and any other type of exchange between the Contracting Parties in accordance with [Article V](#); and
 - g. conduct such other business as appropriate.

Article XVI Funding

1. In addition to the financial participation by the Contracting Parties in accordance with Article 20, paragraph 2 of the Convention, the Organisation may, in response to requests from Contracting Parties, seek additional funds or other forms of assistance for activities related to this Protocol. These funds may include voluntary contributions for the achievement of specific objectives of this Protocol made by the Contracting Parties, other governments and government agencies, international organisations, non-governmental organisations, the private sector and individuals.
2. The Contracting Parties, taking into account their capabilities, shall endeavour as far as possible to ensure that adequate financial resources are available for the formulation and implementation of projects and programmes necessary to implement this Protocol. To this end, the Contracting Parties shall:
 - a. promote the mobilisation of substantial financial resources, including grants and concessional loans, from national, bilateral and multilateral funding sources and mechanisms, including multilateral financial institutions; and
 - b. explore innovative methods and incentives for mobilising and channeling resources, including those of foundations, non-governmental organisations and other private sector entities
3. In keeping with its development priorities, policies and strategies, each Contracting Party undertakes to mobilise financial resources to implement its plans, programmes and measures pursuant to this Protocol.

Article XVII Adoption and Entry into Force of New Annexes and Amendments to Annexes

1. Except as provided in paragraphs 2 and 3 below, the adoption and entry into force of new annexes and amendments to annexes to this Protocol shall take place in accordance with paragraphs 2 and 3 of Article 19 of the Convention.
2. The Contracting Parties may, at the time of adoption of any amendment to an annex, decide by a three-fourths majority vote of the Contracting Parties present and voting, that such amendment is of such importance that it shall enter into force in accordance with paragraphs 5 and 6 of Article 18 of the Convention.
3. With respect to any Contracting Party that has made a declaration with respect to new annexes in accordance with [Article XVIII](#), such annex shall enter into force on the thirtieth day after the date of deposit with the Depository of its instrument of ratification, acceptance, approval or accession with respect to such annexes.

Article XVIII Ratification, Acceptance, Approval and Accession

1. This Protocol, including Annexes [I](#) to [IV](#), shall be subject to ratification, acceptance, approval or accession as provided by Articles 26 and 27 of the Convention.
2. In its instrument of ratification, acceptance, approval or accession, any State or regional economic integration organisation may declare that any new annex shall enter into force for it only upon the deposit of its instrument of ratification, acceptance, approval or accession thereto.
3. Following entry into force of this Protocol, any new Contracting Party to this Protocol may, at the time of acceding, declare that such accession does not apply to any annex, other than Annexes [I](#) to [IV](#).

Article XIX Signature

This Protocol shall be open for signature at Oranjestad, Aruba on 6 October 1999, and at Santa Fe de Bogotá, Republic of Colombia, from 7 October 1999 to 6 October 2000, by any Party to the Convention.

IN WITNESS WHEREOF the [undersigned](#), being duly authorized by their respective governments, have signed this Protocol.

DONE AT Oranjestad, Aruba, this 6 October 1999, in a single copy in the English, French and Spanish languages, the three texts being equally authentic.

ANNEXES

ANNEX I Source Categories, Activities and Associated Pollutants of Concern

A. Definitions

For the purposes of subsequent Annexes:

1. "Point Sources" means sources where the discharges and releases are introduced into the environment from any discernable, confined and discrete conveyance, including but not limited to pipes, channels, ditches, tunnels, conduits or wells from which pollutants are or may be discharged; and
2. "Non-Point Sources" means sources, other than point sources, from which substances enter the environment as a result of land run-off, precipitation, atmospheric deposition, drainage, seepage or by hydrologic modification.

B. Priority Source Categories and Activities Affecting the Convention Area

The Contracting Parties shall take into account the following priority source categories and activities when formulating regional and, as appropriate, sub-regional plans, programmes and measures for the prevention, reduction and control of pollution of the Convention area:

Domestic Sewage
Agricultural Non-Point Sources
Chemical Industries
Extractive Industries and Mining
Food Processing Operations
Manufacture of Liquor and Soft Drinks
Oil Refineries
Pulp and Paper Factories
Sugar Factories and Distilleries
Intensive Animal Rearing Operations

C. Associated Pollutants of Concern

1. Primary Pollutants of Concern

The Contracting Parties shall consider, taking into account the recommendations and other work of relevant international organisations, the following list of pollutants of concern, which were identified on the basis of their hazardous or otherwise harmful characteristics, when formulating effluent and emission limitations and management practices for the sources and activities in this Annex:

- a. Organohalogen compounds and substances which could result in the formation of these compounds in the marine environment;
- b. Organophosphorus compounds and substances which could result in the formation of these compounds in the marine environment;
- c. Organotin compounds and substances which could result in the formation of these compounds in the marine environment;
- d. Heavy metals and their compounds;
- e. Crude petroleum and hydrocarbons;
- f. Used lubricating oils;
- g. Polycyclic aromatic hydrocarbons;
- h. Biocides and their derivatives;
- i. Pathogenic micro-organisms;
- j. Cyanides and fluorides;
- k. Detergents and other non-biodegradable surface tension substances;
- l. Nitrogen and phosphorus compounds;
- m. Persistent synthetic and other materials, including garbage, that float, flow or remain in suspension or settle to the bottom and affect marine life and hamper the uses of the sea;
- n. Compounds with hormone-like effects;
- o. Radioactive substances;
- p. Sediments; and

- q. Any other substance or group of substances with one or more of the characteristics outlined in paragraph 2 below.

2. Characteristics and Other Factors To Be Considered in Evaluating Additional Pollutants of Concern

The Contracting Parties should, taking into account the recommendations and other work of relevant international organisations, consider the following characteristics and factors, where relevant, in evaluating potential pollutants of concern other than those listed in paragraph 1 above:

- a. Persistency;
- b. Toxicity or other harmful properties (for example, carcinogenic, mutagenic and teratogenic properties);
- c. Bio-accumulation;
- d. Radioactivity;
- e. Potential for causing eutrophication;
- f. Impact on, and risks to, health;
- g. Potential for migration;
- h. Effects at the transboundary level;
- i. Risk of undesirable changes in the marine ecosystem, irreversibility or durability of effects;
- j. Negative impacts on marine life and the sustainable development of living resources or on other legitimate uses of the seas; and
- k. Effects on the taste or smell of marine products intended for human consumption or effects on the smell, colour, transparency or other characteristics of the water in the marine environment.

ANNEX II Factors To Be Used in Determining Effluent and Emission Source Controls and Management Factors

A. The Contracting Parties, when developing sub-regional and regional source-specific effluent and emission limitations and management practices pursuant to [Article IV](#) of this Protocol, shall evaluate and consider the following factors:

- 1. Characteristics and Composition of the Waste
 - a. Type and size of waste source (for example, industrial process);
 - b. Type and form of waste (origin, physical, chemical and biological properties, average composition);
 - c. Physical state of waste (solid, liquid, sludge, slurry);
 - d. Total quantity (units discharged, for example, per year or per day);
 - e. Discharge frequency (continuous, intermittent, seasonally variable, etc.);
 - f. Concentration with respect to major constituents contained in the wastes emanating from the source or activity; and
 - g. Interaction with the receiving environment.

2. Characteristics of the Activity or Source Category
 - a. Performance of existing technologies and management practices, including indigenous technologies and management practices;
 - b. Age of facilities, as appropriate; and
 - c. Existing economic, social and cultural characteristics.
3. Alternative Production, Waste Treatment Technologies or Management Practices
 - a. Recycling, recovery and reuse opportunities;
 - b. Less hazardous or non-hazardous raw material substitution;
 - c. Substitution of cleaner alternative activities or products;
 - d. Economic, social and cultural impacts of alternatives, activities or products;
 - e. Low-waste or totally clean technologies or processes; and
 - f. Alternative disposal activities (for example, land application).

B. Pursuant to [Article IV](#) of this Protocol, each Contracting Party shall, at a minimum, apply the effluent and emission source controls and management practices set out in subsequent annexes. A Contracting Party may impose more stringent source controls or management practices. To determine if more stringent limitations are appropriate, a Contracting Party should also take into account characteristics of the discharge site and receiving marine environment, including:

1. Hydrographic, meteorological, geographical and topographical characteristics of the coastal areas;
2. Location and type of the discharge (outfall, canal outlet, gullies, etc.) and its relation to sensitive areas (such as swimming areas, reef systems, sea grass beds, spawning, nursery and fishing areas, shellfish grounds and other areas that are particularly sensitive) and other discharges;
3. Initial dilution achieved at the point of discharge into the receiving marine environment;
4. Dispersion characteristics (due to currents, tides and wind) that may affect the horizontal transport and vertical mixing of the affected waters;
5. Receiving water characteristics with respect to the physical, chemical, biological and ecological conditions in the discharge area; and
6. Capacity of the receiving marine environment to assimilate waste discharges.

C. The Contracting Parties shall keep the source controls and management practices set out in subsequent annexes under review. They shall consider that:

1. If the reduction of inputs resulting from the use of the effluent and emission limitations and management practices established in accordance with this Annex do not lead to environmentally acceptable results, the effluent and emission limitations or management practices may need to be revised; and
2. The appropriate effluent and emission limitations and management practices for a particular source or activity may change with time in light of

technological advances, economic and social factors, as well as changes in scientific knowledge and understanding.

ANNEX III Domestic Wastewater

A. Definitions

For the purposes of this Annex:

1. "Domestic wastewater" means all discharges from households, commercial facilities, hotels, septage and any other entity whose discharge includes the following:
 - a. Toilet flushing (black water);
 - b. Discharges from showers, wash basins, kitchens and laundries (grey water); or
 - c. Discharges from small industries, provided their composition and quantity are compatible with treatment in a domestic wastewater system.

Small quantities of industrial waste or processed wastewater may also be found in domestic wastewater. (See Part D - Industrial Pretreatment.

2. "Class I waters" means waters in the Convention area that, due to inherent or unique environmental characteristics or fragile biological or ecological characteristics or human use, are particularly sensitive to the impacts of domestic wastewater. Class I waters include, but are not limited to:
 - a. waters containing coral reefs, seagrass beds, or mangroves;
 - b. critical breeding, nursery or forage areas for aquatic and terrestrial life;
 - c. areas that provide habitat for species protected under the Protocol Concerning Specially Protected Areas and Wildlife to the Convention (the SPAW Protocol);
 - d. protected areas listed in the SPAW Protocol; and
 - e. waters used for recreation.
3. "Class II waters" means waters in the Convention area, other than Class I waters, that due to oceanographic, hydrologic, climatic or other factors are less sensitive to the impacts of domestic wastewater and where humans or living resources that are likely to be adversely affected by the discharges are not exposed to such discharges.
4. "Existing domestic wastewater systems" means, with respect to a particular Contracting Party, publicly or privately owned domestic wastewater collection systems, or collection and treatment systems, that were constructed prior to entry into force of this Annex for such Contracting Party.
5. "New domestic wastewater systems" means, with respect to a particular Contracting Party, publicly or privately owned domestic wastewater collection systems, or collection and treatment systems, that were constructed subsequent to entry into force of this Annex for such Contracting Party, and includes existing domestic wastewater systems which have been subject to substantial modifications after such entry into force.

6. "Household systems" means on-site domestic wastewater disposal systems for homes and small commercial businesses in areas of low population density, or where centralised collection and treatment systems of domestic wastewater are not economically or technologically feasible. Household systems include, but are not limited to, septic tanks and drain fields or mounds, holding tanks, latrines and bio-digesting toilets.
7. "Wastewater collection systems" means any collection or conveyance system designed to collect or channel domestic wastewater from multiple sources.

B. Discharge of Domestic Wastewater

1. Each Contracting Party shall :
 - a. Consistent with the provisions of this Annex, provide for the regulation of domestic wastewater discharging into, or adversely affecting, the Convention area;
 - b. To the extent practicable, locate, design and construct domestic wastewater treatment facilities and outfalls such that any adverse effects on, or discharges into, Class I waters, are minimised;
 - c. Encourage and promote domestic wastewater reuse that minimises or eliminates discharges into, or discharges that adversely affect, the Convention area;
 - d. Promote the use of cleaner technologies to reduce discharges to a minimum, or to avoid adverse effects within the Convention area; and
 - e. Develop plans to implement the obligations in this Annex, including, where appropriate, plans for obtaining financial assistance.
2. Each Contracting Party shall be entitled to use whatever technology or approach that it deems appropriate to meet the obligations specified in Part C of this Annex.

C. Effluent Limitations

Each Contracting Party shall ensure that domestic wastewater that discharges into, or adversely affects, the Convention area, is treated by a new or existing domestic wastewater system whose effluent achieves the effluent limitations specified below in paragraphs 1, 2 and 3 of this Part, in accordance with the following timetable:

Category	Effective Date of Obligation (in years after entry into force for the Contracting Party)	Effluent Sources
1	0	All new domestic wastewater systems
2	10	Existing domestic wastewater systems other than community wastewater systems
3	10*	Communities with 10,000 - 50,000 inhabitants

4	15	Communities with more than 50,000 inhabitants already possessing wastewater collection systems
5	20	Communities with more than 50,000 inhabitants not possessing wastewater collection systems
6	20	All other communities except those relying exclusively on household systems
* Contracting Parties which decide to give higher priority to categories 4 and 5 may extend their obligations pursuant to category 3 to twenty (20) years (time frame established in category 6).		

1. Discharges into Class II Waters

Each Contracting Party shall ensure that domestic wastewater that discharges into, or adversely affects, Class II waters is treated by a new or existing domestic wastewater system whose effluent achieves the following effluent limitations based on a monthly average:

Parameter	Effluent Limit
Total Suspended Solids	150 mg/l*
Biochemical Oxygen Demand (BOD ₅)	150 mg/l
pH	5-10 pH units
Fats, Oil and Grease	50 mg/l
Floatables	not visible
* Does not include algae from treatment ponds	

2. Discharges into Class I Waters

Each Contracting Party shall ensure that domestic wastewater that discharges into, or adversely affects, Class I waters is treated by a new or existing domestic wastewater system whose effluent achieves the following effluent limitations based on a monthly average:

Parameter	Effluent Limit
Total Suspended Solids	30 mg/l*
Biochemical Oxygen Demand (BOD ₅)	30 mg/l
pH	5-10 pH units
Fats, Oil and Grease	15 mg/l
Faecal Coliform (Parties may meet effluent limitations either for faecal coliform or for <i>E. coli</i> (freshwater))	Faecal Coliform: 200 mpn/100 ml; or a. <i>E. coli</i> : 126 organisms/100ml; b. enterococci: 35 organisms/100 ml

and enterococci (saline water).)	
Floatables	not visible
* Does not include algae from treatment ponds	

3. All Discharges

- a. Each Contracting Party shall take into account the impact that total nitrogen and phosphorus and their compounds may have on the degradation of the Convention area and, to the extent practicable, take appropriate measures to control or reduce the amount of total nitrogen and phosphorus that is discharged into, or may adversely affect, the Convention area.
- b. Each Party shall ensure that residual chlorine from domestic wastewater treatment systems is not discharged in concentrations or amounts that would be toxic to marine organisms that reside in or migrate to the Convention area.

D. Industrial Pretreatment

Each Contracting Party shall endeavour, in keeping with its economic capabilities, to develop and implement industrial pretreatment programmes to ensure that industrial discharges into new and existing domestic wastewater treatment systems:

- a. do not interfere with, damage or otherwise prevent domestic wastewater collection and treatment systems from meeting the effluent limitations specified in this Annex;
- b. do not endanger operations of, or populations in proximity to, collection and treatment systems through exposure to toxic and hazardous substances;
- c. do not contaminate sludges or other reusable products from wastewater treatment; and
- d. do not contain toxic pollutants in amounts toxic to human health and/or aquatic life.

Each Contracting Party shall endeavour to ensure that industrial pretreatment programmes include spill containment and contingency plans.

Each Contracting Party, within the scope of its capabilities, shall promote appropriate industrial wastewater management, such as the use of recirculation and closed loop systems, to eliminate or minimise wastewater discharges to domestic wastewater systems.

E. Household Systems

Each Contracting Party shall strive to, as expeditiously, economically and technologically feasible, in areas without sewage collection, ensure that household systems are constructed, operated and maintained to avoid contamination of surface or ground waters that are likely to adversely affect the Convention area.

For those household systems requiring septage pump out, each Contracting Party shall strive to ensure that the septage is treated through a domestic wastewater system or appropriate land application.

F. Management, Operations and Maintenance

Each Contracting Party shall ensure that new and existing domestic wastewater systems are properly managed and that system managers develop and implement training programmes for wastewater collection and treatment system operators. Managers and operators shall have access to operators' manuals and technical support necessary for proper system operation.

Each Contracting Party shall provide for an evaluation of domestic wastewater systems by competent national authorities to assess compliance with national regulations.

G. Extension Period

1. Any Contracting Party may, at least two years before the effective date of an obligation in categories 2, 3, 4 or 5 of the timetable in Part C above, submit

to the Organisation a declaration that, with respect to such category, it is unable to achieve the effluent limitations set forth in paragraphs 1 and 2 of Part C above in accordance with that timetable, provided that such Contracting Party:

- a. has developed action plans pursuant to Part B, paragraph 1(e);
 - b. has achieved the effluent limitations for a subset of the discharges associated with those categories, or a reduction of at least 5 percent of total loading of pollutants associated with those categories; and
 - c. has taken actions to achieve those effluent limitations, but has been unable to achieve those limitations due to a lack of financial or other capacity.
2. With respect to a Contracting Party that has submitted a declaration pursuant to paragraph 1 above, the effective date of an obligation in the timetable in Part C for categories 2, 3, 4 or 5 of that timetable shall be extended for a period of five years. The five-year period shall be extended for a maximum of one additional five-year period if the Contracting Party submits a new declaration prior to the expiration of the first period, and if it continues to meet the requirements set out in paragraph 1 above.
 3. The Contracting Parties recognise that the complete fulfilment* of the obligations contained in this Annex will require the availability and accessibility of financial resources.

* In this context, the Spanish word "cumplimiento" that appears in the Spanish text shall have the meaning of the English word "fulfilment" and not "compliance".

ANNEX IV Agricultural Non-Point Sources of Pollution

A. Definitions

For purposes of this Annex:

1. "Agricultural non-point sources of pollution" means non-point sources of pollution originating from the cultivation of crops and rearing of domesticated animals, excluding intensive animal rearing operations that would otherwise be defined as point sources; and
2. "Best management practices" means economical and achievable structural or non-structural measures designed to prevent, reduce or control the run-off of pollutants into the Convention area.

B. Plans for the Prevention, Reduction and Control of Agricultural Non-Point Sources of Pollution

Each Contracting Party shall, no later than five years after this Annex enters into force for it, formulate policies, plans and legal mechanisms for the prevention, reduction and control of pollution of the Convention area from agricultural non-point sources of pollution that may adversely affect the Convention area. Programmes shall be identified in such policies, plans and legal mechanisms to mitigate pollution of the Convention area from agricultural non-point sources of pollution, in particular, if these sources contain nutrients (nitrogen and phosphorus), pesticides, sediments, pathogens, solid waste or other such pollutants that may adversely affect the Convention area. Plans shall include *inter alia* the following elements:

1. An evaluation and assessment of agricultural non-point sources of pollution that may adversely affect the Convention area, which may include:
 - a. an estimation of loadings that may adversely affect the Convention area;

- b. an identification of associated environmental impacts and potential risks to human health;
 - c. the evaluation of the existing administrative framework to manage agricultural non-point sources of pollution;
 - d. an evaluation of existing best management practices and their effectiveness; and
 - e. the establishment of monitoring programmes.
 2. Education, training and awareness programmes, which may include:
 - a. the establishment and implementation of programmes for the agricultural sector and the general public to raise awareness of agricultural non-point sources of pollution and their impacts on the marine environment, public health and the economy;
 - b. the establishment and implementation of programmes at all levels of education on the importance of the marine environment and the impact of pollution from agricultural activities;
 - c. the establishment and implementation of training programmes for government agencies and the agricultural sector on the implementation of best management practices, including the development of guidance materials for agricultural workers on structural and non-structural best management practices, to prevent, reduce and control agricultural non-point sources of pollution; and
 - d. the establishment of programmes to facilitate effective technology transfer and information exchange.
 3. The development and promotion of economic and non-economic incentive programmes to increase the use of best management practices to prevent, reduce and control pollution of the Convention area from agricultural non-point sources.
 4. An assessment and evaluation of legislative and policy measures, including a review of the adequacy of plans, policies and legal mechanisms directed toward the management of agricultural non-point sources and the development of a plan to implement such modifications as may be necessary to achieve best management practices.

C. Reporting

Each Contracting Party shall report on its plans for prevention, reduction and control of pollution of the Convention area from agricultural non-point sources in accordance with [Article XII](#) of this Protocol.

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Appendix RDE
Protocol Concerning Co-operation in Combating Oil Spills in the
Wider Caribbean Region

Protocol Concerning Co-operation in Combating Oil Spills in the Wider Caribbean Region

Cartagena de Indias, 24 March 1983

The Contracting Parties to this Protocol,

Being Contracting Parties to the [Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region](#), done at Cartagena de Indias on 24 March 1983,

Conscious that oil exploration, production and refining activities, as well as related marine transport, pose a threat of significant oil spills in the wider Caribbean region,

Aware that the islands of the region are particularly vulnerable, owing to the fragility of their ecosystems and the economic reliance of certain of them on the continuous utilization of their coastal areas, to damage resulting from significant oil pollution,

Recognizing that, in the event of an oil spill or the threat thereof, prompt and effective action should be taken initially at the national level, to organize and co-ordinate prevention, mitigation and clean-up activities,

Recognizing further the importance of sound preparation, co-operation and mutual assistance in responding effectively to oil spills or the threat thereof,

Determined to avert, through the adoption of measures to prevent and combat pollution resulting from oil spills, damage to the marine environment, including coastal areas, of the Wider Caribbean Region,

Have agreed as follows:

Article 1 DEFINITIONS

For the purposes of this Protocol:

1. "Wider Caribbean Region" means the Convention area as defined in article [2](#) of the Convention and adjacent coastal areas.
2. "Convention" means the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region.
3. "Related interests" means the interests of a Contracting Party directly affected or threatened and concerning, among others:
 - a. Maritime, coastal, port or estuarine activities;
 - b. The historical and tourist appeal of the area in question, including water sports and recreation;
 - c. The health of the coastal population; and
 - d. Fishing activities and the conservation of natural resources.
4. "Oil spill incident" means a discharge, or a significant threat of a discharge, of oil, however caused, of a magnitude that requires emergency action or other immediate response for the purpose of minimizing its effects or eliminating the threat.
5. "Organization" means the institution referred to in paragraph 2 of article [2](#) of the Convention.
6. "Regional Co-ordinating Unit" means the unit referred to in the Action Plan for the Caribbean Environment Programme.

Article 2 APPLICATION

This Protocol applies to oil spill incidents which have resulted in, or which pose a significant threat of, pollution to the marine and coastal environment of the Wider Caribbean Region or which adversely affect the related interests of one or more of the Contracting Parties.

Article 3 GENERAL PROVISIONS

1. The Contracting Parties shall, within their capabilities, co-operate in taking all necessary measures, both preventive and remedial, for the protection of the marine and coastal environment of the Wider Caribbean Region, particularly the coastal areas of the islands of the region, from oil spill incidents.
2. The Contracting Parties shall, within their capabilities, establish and maintain, or ensure the establishment and maintenance of, the means of responding to oil spill incidents and shall endeavour to reduce the risk thereof. Such means shall include the enactment, as necessary, of relevant legislation, the preparation of contingency plans, the identification and development of the capability to respond to an oil spill incident and the designation of an authority responsible for the implementation of this Protocol.

Article 4 EXCHANGE OF INFORMATION

Each Contracting Party shall periodically exchange with the other Contracting Parties up-to-date information relating to its implementation of this Protocol, including the identity of the authorities responsible for such implementation, and information on their laws, regulations, institutions and operational procedures relating to the prevention of oil spill incidents and to the means of reducing and combating the harmful effects of oil spills.

Article 5 COMMUNICATION OF INFORMATION CONCERNING, AND REPORTING OF, OIL SPILL INCIDENTS

1. Each Contracting Party shall establish appropriate procedures to ensure that information regarding oil spill incidents is reported as rapidly as possible, and shall, inter alia:
 - a. Require its appropriate officials, masters of ships flying its flag and persons in charge of offshore facilities operating under its jurisdiction to report to it any oil spill incident involving their ships or facilities;
 - b. Request masters of all ships and pilots of all aircraft operating in the vicinity of its coasts to report to it any oil spill incident of which they are aware.
2. In the event of receiving a report regarding an oil spill incident, a Contracting Party shall immediately notify all other Contracting Parties whose interests are likely to be affected by such incident, as well as the flag State of any ship involved in it. The Contracting Party shall also inform the competent international organizations. Furthermore, as soon as feasible, it shall inform such Contracting Parties and competent international organizations of measures it has taken to minimize or reduce pollution or the threat thereof.

Article 6 MUTUAL ASSISTANCE

1. Each Contracting Party shall render assistance, within its capabilities, to other Contracting Parties which request assistance in responding to an oil spill incident within the framework of joint response action agreed between or among the requesting and assisting Contracting Parties.
2. Each Contracting Party shall, subject to its laws and regulations, facilitate the movement into, through and out of its territory of technical personnel, equipment and material necessary for responding to an oil spill incident.

Article 7 OPERATIONAL MEASURES

Each Contracting Party shall, within its capabilities, take steps including those outlined below in responding to an oil spill incident:

- a. Make a preliminary assessment of the incident, including the type and extent of existing or likely pollution effects;

- b. Promptly communicate information concerning the incident pursuant to article [5](#);
- c. Promptly determine its ability to take effective measures to respond to the incident and the assistance that might be required;
- d. Consult as appropriate with other Contracting Parties concerned in the process of determining the necessary response to the incident;
- e. Take the measures necessary to prevent, reduce or eliminate the effects of the incident, including monitoring of the situation.

Article 8 SUBREGIONAL ARRANGEMENTS

- 1. With a view to facilitating the implementation of the provisions of this Protocol, and in particular articles [6](#) and [7](#), the Contracting Parties should conclude appropriate bilateral or multilateral subregional arrangements.
- 2. Contracting Parties to this Protocol which enter into such subregional arrangements shall notify the other Contracting Parties, as well as the Organization, of the conclusion and the content of such arrangements.

Article 9 INSTITUTIONAL ARRANGEMENTS

The Contracting Parties designate the Organization to carry out, through the Regional Coordinating Unit when established and in close cooperation with the International Maritime Organization, the following functions:

- a. Assisting Contracting Parties, upon request, in the following areas:
 - i. The preparation, periodic review and updating of the contingency plans referred to in paragraph 2 of article [3](#), with a view, inter alia, to promoting the compatibility of the plans of the Contracting Parties, and
 - ii. Publicizing training courses and programmes;
 - b. Assisting Contracting Parties upon request, on a regional basis, in the following areas:
 - . The co-ordination of regional emergency response activities, and
 - i. The provision of a forum for discussion of such activities and related topics;
 - c. Establishing and maintaining liaison with:
 - . Competent regional and international organizations, and
 - i. Appropriate private entities conducting activities in the Wider Caribbean Region, including major oil producers, refiners, oil spill clean-up contractors and co-operatives, and oil transporters;
 - d. Maintaining a current inventory of emergency response equipment, materials and expertise available in the Wider Caribbean Region;
 - e. Disseminating information on the prevention and combating of oil spills;
 - f. Identifying or maintaining means for emergency response communications;
 - g. Encouraging research by the Contracting Parties, competent international organizations and appropriate private entities on oil spill-related matters, including the environmental impacts of oil spills and of oil spill control materials and techniques;

- h. Assisting the Contracting Parties in the exchange of information pursuant to article [4](#); and
- i. Preparing reports and carrying out other duties assigned to it by the Contracting Parties.

Article 10 MEETINGS OF THE CONTRACTING PARTIES

1. Ordinary meetings of the Contracting Parties to this Protocol shall be held in conjunction with ordinary meetings of the Contracting Parties to the Convention held pursuant to article [16](#) of the Convention. The Contracting Parties to this Protocol may also hold extraordinary meetings as provided for in article [16](#) of the Convention.
2. It shall be the function of the meetings of the Contracting Parties:
 - a. To review the operation of this Protocol and to consider special technical arrangements and other measures to improve its effectiveness;
 - b. To consider means whereby regional cooperation could be extended to incidents involving hazardous substances other than oil; and
 - c. To consider measures to improve co-operation under this Protocol including, in accordance with paragraph 2(d) of article [16](#) of the Convention, possible amendments to this Protocol.

Article 11 RELATIONSHIP BETWEEN THIS PROTOCOL AND THE CONVENTION

1. The provisions of the Convention relating to its protocols shall apply to this Protocol.
2. The rules of procedure and the financial rules adopted pursuant to article [20](#) of the Convention shall apply to this Protocol, unless the Contracting Parties to this Protocol agree otherwise.

In witness whereof the undersigned, being duly authorized by their respective Governments, have signed this Protocol.

Done at Cartagena de Indias this twenty-fourth day of March one thousand nine hundred and eighty-three in a single copy in the English, French and Spanish languages, the three texts being equally authentic.

Annex

On the basis of paragraph 2 (b) of Article [10](#) of this Protocol, the Contracting Parties at their first meeting are committed to preparing, through an annex, the changes necessary to extend this Protocol to regional co-operation to combat spills of hazardous substances other than oil. Pending the preparation and entry into force of such annex, the Protocol shall be provisionally applied upon its entry into force to hazardous substances other than oil.

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1998

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Appendix RDF
**Protocol Concerning Specially Protected Areas and Wildlife to the
Convention for the Protection and Development of the
Marine Environment of the Wider Caribbean Region**

Protocol Concerning Specially Protected Areas and Wildlife to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region

Adopted at Kingston on 18 January 1990

The Final Act of the Conference of Plenipotentiaries Concerning Specially Protected Areas and Wildlife in the Wider Caribbean Region

The Contracting Parties to this Protocol,

Being Parties to the [Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region](#), done at Cartagena de Indias, Colombia on 24 March 1983,

Taking into account Article [10](#) of the Convention which requires the establishment of specially protected areas,

Having regard to the special hydrographic, biotic and ecological characteristics of the Wider Caribbean Region,

Conscious of the grave threat posed by ill-conceived development options to the integrity of the marine and coastal environment of the Wider Caribbean Region,

Recognizing that protection and maintenance of the environment of the Wider Caribbean Region are essential to sustainable development within the region,

Conscious of the overwhelming ecological, economic, aesthetic, scientific, cultural, nutritional and recreational value of rare or fragile ecosystems and native flora and fauna to the Wider Caribbean Region,

Recognizing that the Wider Caribbean Region constitutes an interconnected group of ecosystems in which an environmental threat in one part represents a potential threat in other parts,

Stressing the importance of establishing regional co-operation to protect and, as appropriate, to restore and improve the state of ecosystems, as well as threatened and endangered species and their habitats in the Wider Caribbean Region by, among other means, the establishment of protected areas in the marine areas and their associated ecosystems,

Recognizing that the establishment and management of such protected areas, and the protection of threatened and endangered species will enhance the cultural heritage and values of the countries and territories in the Wider Caribbean Region, and bring increased economic and ecological benefits to them,

Have agreed as follows:

Article 1 DEFINITIONS

For the purpose of this Protocol:

- a. "Convention" means the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena de Indias, Colombia, March 1983);
- b. "Action Plan" means the Action Plan for the Caribbean Environment Programme (Montego Bay, April 1981);
- c. "Wider Caribbean Region" has the meaning given to the term "the Convention area" in Article [2\(1\)](#) of the Convention, and in addition, includes for the purposes of this Protocol:
 - i. waters on the landward side of the baseline from which the breadth of the territorial sea is measured and extending, in the case of water courses, up to the fresh water limit; and
 - ii. such related terrestrial areas (including watersheds) as may be designated by the Party having sovereignty and jurisdiction over such areas:
- d. "Organization" means the body referred to in Article [2\(2\)](#) of the Convention;

- e. "Protected area" means the areas accorded protection pursuant to article [4](#) of this Protocol;
- f. "Endangered species" are species or sub-species of fauna and flora, or their populations, that are in danger of extinction throughout all or part of their range and whose survival is unlikely if the factors jeopardizing them continue to operate;
- g. "Threatened species" are species or sub-species of fauna and flora , or their populations:
 - that are likely to become endangered within the foreseeable future throughout all or part of their range if the factors causing numerical decline or habitat degradation continue to operate; or
 - i. that are rare because they are usually localized within restricted geographical areas or habitats or are thinly scattered over a more extensive range and which are potentially or actually subject to decline and possible endangerment or extinction.
- h. "Protected species" are species or sub-species of fauna and flora, or their populations, accorded protection pursuant to Article [10](#) of this Protocol;
- i. "Endemic species" are species or sub-species of fauna and flora, or their populations, whose distribution is restricted to a limited geographical area;
- j. "Annex I" means the annex to the Protocol containing the agreed list of species of marine and coastal flora that fall within the categories defined in Article [1](#) and that require the protection measures indicated in Article [11](#)(1)(a). The annex may include terrestrial species as provided for in Article [1](#)(c)(ii);
- k. "Annex II" means the annex to the Protocol containing the agreed list of species of marine and coastal fauna that fall within the category defined in Article [1](#) and that require the protection measures indicated in Article [11](#)(1)(b). The annex may include terrestrial species as provided for in Article [1](#)(c)(ii); and
- l. "Annex III" means the annex to the Protocol containing the agreed list of species of marine and coastal flora and fauna that may be utilized on a rational and sustainable basis and that require the protection measures indicated in Article [11](#)(1)(c). The Annex may include terrestrial species as provided for in Article [1](#)(c)(ii).

Article 2 GENERAL PROVISIONS

- 1. This Protocol shall apply to the Wider Caribbean Region as defined in Article [1](#)(c).
- 2. The provisions of the Convention relating to its Protocols shall apply to this Protocol, including in particular, paragraphs 2 and 3 of Article [3](#) of the Convention.
- 3. The present Protocol shall not apply to warships or other ships owned or operated by a State while engaged in government non-commercial service. Nevertheless, each Party shall ensure through the adoption of appropriate measures that do not hinder the operation or operational capacities of vessels they own or operate, that they adhere to the terms of the present Protocol in so far as is reasonable and feasible.

Article 3 GENERAL OBLIGATIONS

- 1. Each Party to this Protocol shall, in accordance with its laws and regulations and the terms of the Protocol, take the necessary measures to protect, preserve and manage in a sustainable way, within areas of the Wider Caribbean Region in which it exercises sovereignty, or sovereign rights or jurisdiction:
 - a. areas that require protection to safeguard their special value; and
 - b. threatened or endangered species of flora and fauna.
- 2. Each Party shall regulate and, where necessary, prohibit activities having adverse effects on these areas and species. Each Party shall endeavour to co-operate in the enforcement of these

measures, without prejudice to the sovereignty, or sovereign rights or jurisdiction of other Parties. Any measures taken by such Party to enforce or to attempt to enforce the measures agreed pursuant to this Protocol shall be limited to those within the competence of such Party and shall be in accordance with international law.

3. Each Party, to the extent possible, consistent with each Party's legal system, shall manage species of fauna and flora with the objective of preventing species from becoming endangered or threatened.

Article 4 ESTABLISHMENT OF PROTECTED AREAS

1. Each Party shall, when necessary, establish protected areas in areas over which it exercises sovereignty, or sovereign rights or jurisdiction, with a view to sustaining the natural resources of the Wider Caribbean Region, and encouraging ecologically sound and appropriate use, understanding and enjoyment of these areas, in accordance with the objectives and characteristics of each of them.
2. Such areas shall be established in order to conserve, maintain and restore, in particular:
 - a. representative types of coastal and marine ecosystems of adequate size to ensure their long-term viability and to maintain biological and genetic diversity;
 - b. habitats and their associated ecosystems critical to the survival and recovery of endangered, threatened or endemic species of flora or fauna;
 - c. the productivity of ecosystems and natural resources that provide economic or social benefits and upon which the welfare of local inhabitants is dependent; and
 - d. areas of special biological, ecological, educational, scientific, historic, cultural, recreational, archaeological, aesthetic, or economic value, including in particular, areas whose ecological and biological processes are essential to the functioning of the Wider Caribbean ecosystems.

Article 5 PROTECTION MEASURES

1. Each Party taking into account the characteristics of each protected area over which it exercises sovereignty, or sovereign rights or jurisdiction, shall, in conformity with its national laws and regulations and with international law, progressively take such measures as are necessary and practicable to achieve the objectives for which the protected area was established.
2. Such measures should include, as appropriate:
 - a. the regulation or prohibition of the dumping or discharge of wastes and other substances that may endanger protected areas;
 - b. the regulation or prohibition of coastal disposal or discharges causing pollution, emanating from coastal establishments and developments, outfall structures or any other sources within their territories;
 - c. the regulation of the passage of ships, of any stopping or anchoring, and of other ship activities, that would have significant adverse environmental effects on the protected area, without prejudice to the rights of innocent passage, transit passage, archipelagic sea lanes passage and freedom of navigation, in accordance with international law;
 - d. the regulation or prohibition of fishing, hunting, taking or harvesting of endangered or threatened species of fauna and flora and their parts or products;
 - e. the prohibition of activities that result in the destruction of endangered or threatened species of fauna or flora and their parts and products, and the regulation of any other activity likely to harm or disturb such species, their habitats or associated ecosystems;

- f. the regulation or prohibition of the introduction of non-indigenous species;
- g. the regulation or prohibition of any activity involving the exploration or exploitation of the sea-bed or its subsoil or a modification of the sea-bed profile;
- h. the regulation or prohibition of any activity involving a modification of the profile of the soil that could affect watersheds, denudation and other forms of degradation of watersheds, or the exploration or exploitation of the subsoil of the land part of a marine protected area;
- i. the regulation of any archaeological activity and of the removal or damage of any object which may be considered as an archaeological object;
- j. the regulation or prohibition of trade in, and import and export of threatened or endangered species of fauna or their parts, products, or eggs, and of threatened or endangered species of flora or their parts or products, and archaeological objects that originate in protected areas;
- k. the regulation or prohibition of industrial activities and of other activities which are not compatible with the uses that have been envisaged for the area by national measures and/or environmental impact assessments pursuant to Article [13](#);
- l. the regulation of tourist and recreational activities that might endanger the ecosystems of protected areas or the survival of threatened or endangered species of flora and fauna; and
- m. any other measure aimed at conserving, protecting or restoring natural processes, ecosystems or populations for which the protected areas were established.

Article 6 PLANNING AND MANAGEMENT REGIME FOR PROTECTED AREAS

1. In order to maximize the benefits from protected areas and to ensure the effective implementation of the measures set out in Article [5](#), each Party shall adopt and implement planning, management and enforcement measures for protected areas over which it exercises sovereignty, or sovereign rights or jurisdiction. In this regard, each Party shall take into account the guidelines and criteria formulated by the Scientific and Technical Advisory Committee as provided for in Article [21](#) and which have been adopted by meetings of the Parties.
2. Such measures should include:
 - a. the formulation and adoption of appropriate management guidelines for protected areas;
 - b. the development and adoption of a management plan that specifies the legal and institutional framework and the management and protection measures applicable to an area or areas;
 - c. the conduct of scientific research on, and monitoring of, user impacts, ecological processes, habitats, species and populations; and the undertaking of activities aimed at improved management;
 - d. the development of public awareness and education programmes for users, decision-makers and the public to enhance their appreciation and understanding of protected areas and the objectives for which they were established;
 - e. the active involvement of local communities, as appropriate, in the planning and management of protected areas, including assistance to, and training of local inhabitants who may be affected by the establishment of protected areas;
 - f. the adoption of mechanisms for financing the development and effective management of protected areas and facilitating programmes of mutual assistance;

- g. contingency plans for responding to incidents that could cause or threaten to cause damage to protected areas including their resources;
- h. procedures to permit, regulate or otherwise authorize activities compatible with the objectives for which the protected areas were established; and
- i. the development of qualified managers, and technical personnel, as well as appropriate infrastructure.

Article 7 CO-OPERATION PROGRAMME FOR, AND LISTING OF, PROTECTED AREAS

1. The Parties shall establish co-operation programmes within the framework of the Convention and the Action Plan and in accordance with their sovereignty, or sovereign rights or jurisdiction to further the objectives of the Protocol.
2. A co-operation programme will be established to support the listing of protected areas. It will assist with the selection, establishment, planning, management and conservation of protected areas, and shall create a network of protected areas. To this end, the Parties shall establish a list of protected areas. The Parties shall:
 - a. recognize the particular importance of listed areas to the Wider Caribbean Region;
 - b. accord priority to listed areas for scientific and technical research pursuant to Article [17](#);
 - c. accord priority to listed areas for mutual assistance pursuant to Article [18](#); and
 - d. not authorize or undertake activities that would undermine the purposes for which a listed area was created.
3. The procedures for the establishment of the list of protected areas are as follows:
 - . The Party that exercises sovereignty, or sovereign rights or jurisdiction over a protected area shall nominate it to be included in the list of protected areas. Such nominations will be made in accordance with the guideline and criteria concerning the identification, selection, establishment, management, protection and any other matter adopted by the Parties pursuant to Article [21](#). Each Party making a nomination shall provide the Scientific and Technical Advisory Committee through the Organization with the necessary supporting documentation, including in particular, the information noted in Article [19\(2\)](#); and
 - a. After the Scientific and Technical Advisory Committee evaluates the nomination and supporting documentation, it will advise the Organization as to whether the nomination fulfills the common guidelines and criteria established pursuant to Article [21](#). If these guidelines and criteria have been met, the Organization will advise the Meeting of Contracting Parties who will include the nomination in the List of Protected Areas.

Article 8 ESTABLISHMENT OF BUFFER ZONES

Each Party to this Protocol may, as necessary, strengthen the protection of a protected area by establishing, within areas in which it exercises sovereignty, or sovereign rights or jurisdiction, one or more buffer zones in which activities are less restricted than in the protected area while remaining compatible with achieving the purposes of the protected area.

Article 9 PROTECTED AREAS AND BUFFER ZONES CONTIGUOUS TO INTERNATIONAL BOUNDARIES

1. If a Party intends to establish a protected area or a buffer zone contiguous to the frontier or to the limits of the zone of national jurisdiction of another Party, the two Parties shall consult each other with a view to reaching agreement on the measures to be taken and shall, inter alia, examine the possibility of the establishment by the other Party of a corresponding contiguous

protected area or buffer zone or the adoption by it of any other appropriate measures including co-operative management programmes.

2. If a Party intends to establish a protected area or a buffer zone contiguous to the frontier or to the limits of the zone of national jurisdiction of a State that is not a Party to this Protocol, the Party shall endeavour to work together with the competent authorities of that State with a view to holding the consultations referred to in paragraph 1.
3. Whenever it becomes known to a Party that a non-Party intends to establish a protected area or a buffer zone contiguous to the frontier or to the limits of the zone of national jurisdiction of a Party to this Protocol the latter shall endeavour to work together with that State with a view to holding the consultations referred to in paragraph 1.
4. If contiguous protected areas and/or buffer zones are established by one Party and by a State that is not a Party to this Protocol, the former should attempt, where possible, to achieve conformity with the provisions of the Convention and its Protocols.

Article 10 NATIONAL MEASURES FOR THE PROTECTION OF WILD FLORA AND FAUNA

1. Each Party shall identify endangered or threatened species of flora and fauna within areas over which it exercises sovereignty, or sovereign rights or jurisdiction, and accord protected status to such species. Each Party shall regulate and prohibit according to its laws and regulations, where appropriate, activities having adverse effects on such species or their habitats and ecosystems, and carry out species recovery, management, planning and other measures to effect the survival of such species. Each Party, in keeping with its legal system, shall also take appropriate actions to prevent species from becoming endangered or threatened.
2. With respect to protected species of flora and their parts and products, each Party, in conformity with its laws and regulations, shall regulate, and where appropriate, prohibit all forms of destruction and disturbance, including the picking, collecting, cutting, uprooting or possession of, or commercial trade in, such species.
3. With respect to protected species of fauna, each Party, in conformity with its laws and regulations, shall regulate, and where appropriate, prohibit:
 - a. the taking, possession or killing (including, to the extent possible, the incidental taking, possession or killing) or commercial trade in such species or their parts or products; and
 - b. to the extent possible, the disturbance of wild fauna, particularly during the period of breeding, incubation, estivation or migration, as well as other periods of biological stress.
4. Each Party shall formulate and adopt policies and plans for the management of captive breeding of protected fauna and propagation of protected flora.
5. The Parties shall, in addition to the measures specified in paragraph 3, co-ordinate their efforts, through bilateral or multilateral actions, including if necessary, any treaties for the protection and recovery of migratory species whose range extends into areas under their sovereignty, or sovereign rights or jurisdiction.
6. The Parties shall endeavour to consult with range States that are not Parties to this Protocol, with a view to co-ordinating their efforts to manage and protect endangered or threatened migratory species.
7. The Parties shall make provisions, where possible, for the repatriation of protected species exported illegally. Efforts should be made by Parties to reintroduce such species to the wild, or if unsuccessful, make provision for their use in scientific studies or for public education purposes.
8. The measures which Parties take under this Article are subject to their obligations under Article 11 and shall in no way derogate from such obligations.

Article 11 CO-OPERATIVE MEASURES FOR THE PROTECTION OF WILD FLORA AND FAUNA

1. The Parties shall adopt co-operative measures to ensure the protection and recovery of endangered and threatened species of flora and fauna listed in Annexes I, II and III of the present Protocol.
 - a. The Parties shall adopt all appropriate measures to ensure the protection and recovery of species of flora listed in Annex I. For this purpose, each Party shall prohibit all forms of destruction or disturbance, including the picking, collecting, cutting, uprooting or possession of, or commercial trade in such species, their seeds, parts or products. They shall regulate activities, to the extent possible, that could have harmful effects on the habitats of the species.
 - b. Each Party shall ensure total protection and recovery to the species of fauna listed in Annex II by prohibiting:
 - i. the taking, possession or killing (including, to the extent possible, the incidental taking, possession or killing) or commercial trade in such species, their eggs, parts or products;
 - ii. to the extent possible, the disturbance of such species, particularly during periods of breeding, incubation, estivation or migration, as well as other periods of biological stress.
 - c. Each Party shall adopt appropriate measures to ensure the protection and recovery of the species of flora and fauna listed in Annex III and may regulate the use of such species in order to ensure and maintain their populations at the highest possible levels. With regard to the species listed in Annex III, each Party shall, in co-operation with other Parties, formulate, adopt and implement plans for the management and use of such species, including:
 - . for species of fauna:
 - a. the prohibition of all non-selective means of capture, killing, hunting and fishing and of all actions likely to cause local disappearance of a species or serious disturbance of its tranquility;
 - b. the institution of closed hunting and fishing seasons and of other measures for maintaining their population;
 - c. the regulation of the taking, possession, transport or sale of living or dead species, their eggs, parts or products;
 - i. For species of flora, including their parts or products, the regulation of their collection, harvest and commercial trade.
2. Each Party may adopt exemptions to the prohibitions prescribed for the protection and recovery of the species listed in Annexes I and II for scientific, educational or management purposes necessary to ensure the survival of the species or to prevent significant damage to forests or crops. Such exemptions shall not jeopardize the species and shall be reported to the Organization in order for the Scientific and Technical Advisory Committee to assess the pertinence of the exemptions granted.
3. The Parties also shall:
 - . accord priority to species contained in the annexes for scientific and technical research pursuant to Article [17](#);
 - a. accord priority to species contained in the annexes for mutual assistance pursuant to Article [18](#).

4. The procedures to amend the annexes shall be as follows:
 - . any Party may nominate an endangered or threatened species of flora or fauna for inclusion in or deletion from these annexes, and shall submit to the Scientific and Technical Advisory Committee, through the Organization, supporting documentation, including, in particular, the information noted in Article 19. Such nomination will be made in accordance with the guidelines and criteria adopted by the Parties pursuant to Article 21;
 - a. the Scientific and Technical Advisory Committee shall review and evaluate the nominations and supporting documentation and shall report its views to the meetings of Parties held pursuant to Article 23;
 - b. the Parties shall review the nominations, supporting documentation and the reports of the Scientific and Technical Advisory Committee. A species shall be listed in the annexes by consensus, if possible, and if not, by a three-quarters majority vote of the Parties present and voting, taking fully into account the advice of the Scientific and Technical Advisory Committee that the nomination and supporting documentation meet the common guidelines and criteria established pursuant to Article 21;
 - c. a Party may, in the exercise of its sovereignty or sovereign rights, enter a reservation to the listing of a particular species in an annex by notifying the Depositary in writing within 90 days of the vote of the Parties. The Depositary shall, without delay, notify all Parties of reservations received pursuant to this paragraph;
 - d. a listing in the corresponding annex shall become effective 90 days after the vote for all Parties, except those which made a reservation in accordance with paragraph (d) of this Article; and
 - e. a Party may at any time substitute an acceptance for a previous reservation to a listing by notifying the Depositary, in writing. The acceptance shall thereupon enter into force for that Party.
5. The Parties shall establish co-operation programmes within the framework of the Convention and the Action Plan to assist with the management and conservation of protected species, and shall develop and implement regional recovery programmes for protected species in the Wider Caribbean Region, taking fully into account other existing regional conservation measures relevant to the management of those species. The Organization shall assist in the establishment and implementation of these regional recovery programmes.

Article 12 INTRODUCTION OF NON-INDIGENOUS OR GENETICALLY ALTERED SPECIES

Each Party shall take all appropriate measures to regulate or prohibit intentional or accidental introduction of non-indigenous or genetically altered species to the wild that may cause harmful impacts to the natural flora, fauna or other features of the Wider Caribbean Region.

Article 13 ENVIRONMENTAL IMPACT ASSESSMENT

1. In the planning process leading to decisions about industrial and other projects and activities that would have a negative environmental impact and significantly affect areas or species that have been afforded special protection under this Protocol, each Party shall evaluate and take into consideration the possible direct and indirect impacts, including cumulative impacts, of the projects and activities being contemplated.
2. The Organization and the Scientific and Technical Advisory Committee shall, to the extent possible, provide guidance and assistance, upon request, to the Party making these assessments.

Article 14 EXEMPTIONS FOR TRADITIONAL ACTIVITIES

1. Each Party shall, in formulating management and protective measures, take into account and provide exemptions, as necessary, to meet traditional subsistence and cultural needs of its local populations. To the fullest extent possible, no exemption which is allowed for this reason shall:

- a. endanger the maintenance or areas protected under the terms of this Protocol, including the ecological processes contributing to the maintenance of those protected areas; or
 - b. cause either the extinction of, or a substantial risk to, or substantial reduction in the number of, individuals making up the populations of species of fauna and flora within the protected areas, or any ecologically inter-connected species or population, particularly migratory species and threatened, endangered or endemic species.
2. Parties which allow exemptions with regard to protective measures shall inform the Organization accordingly.

Article 15 CHANGES IN THE STATUS OF PROTECTED AREAS OR PROTECTED SPECIES

1. Changes in the delimitation or legal status of an area, or part thereof, or of a protected species, may only take place for significant reasons, bearing in mind the need to safeguard the environment and in accordance with the provisions of this Protocol and after notification to the Organization.
2. The status of areas and species should be periodically reviewed and evaluated by the Scientific and Technical Advisory Committee on the basis of information provided by Parties through the Organization. Areas and species may be removed from the area listing or Protocol annexes by the same procedure by which they were incorporated.

Article 16 PUBLICITY, INFORMATION, PUBLIC AWARENESS AND EDUCATION

1. Each Party shall give appropriate publicity to the establishment of protected areas, in particular to their boundaries, buffer zones, and applicable regulations, and to the designation of protected species, in particular to their critical habitats and applicable regulations.
2. In order to raise public awareness, each Party shall endeavour to inform the public as widely as possible, of the significance and value of the protected areas and species and of the scientific knowledge and other benefits which may be gained from them or any changes therein. Such information should have an appropriate place in education programmes concerning the environment and history. Each Party should also endeavour to promote the participation of its public and its conservation organizations in measures that are necessary for the protection of the areas and species concerned.

Article 17 SCIENTIFIC, TECHNICAL AND MANAGEMENT RESEARCH

1. Each Party shall encourage and develop scientific, technical and management-oriented research on protected areas, including, in particular, their ecological processes and archaeological, historical and cultural heritage, as well as on threatened or endangered species of fauna and flora and their habitats.
2. Each Party may consult with other Parties and with relevant regional and international organizations with a view to identifying, planning and undertaking scientific and technical research and monitoring programmes necessary to characterize and monitor protected areas and species and to assess the effectiveness of measures taken to implement management and recovery plans.
3. The Parties shall exchange, directly or through the Organization, scientific and technical information concerning current and planned research and monitoring programmes and the results thereof. They shall, to the fullest extent possible, co-ordinate their research and monitoring programmes, and endeavour to standardize procedures for collecting, reporting, archiving and analyzing relevant scientific and technical information.
4. The Parties shall, pursuant to the provisions of paragraph 1 above, compile comprehensive inventories of:
 - a. areas over which they exercise sovereignty, or sovereign rights or jurisdiction that contain rare or fragile ecosystems; that are reservoirs of biological or genetic

diversity; that are of ecological value in maintaining economically important resources; that are important for threatened, endangered or migratory species; that are of value for aesthetic, recreational, tourist or archaeological reasons; and

- b. species of fauna or flora that may qualify for listing as threatened or endangered according to the criteria established under this Protocol.

Article 18 MUTUAL ASSISTANCE

1. The Parties shall co-operate, directly or with the assistance of the Organization or other relevant international organizations, in formulating, drafting, financing and implementing programmes of assistance to those Parties that express a need for it in the selection, establishment and management of protected areas and species.
2. These programmes should include public environmental education, the training of scientific, technical and management personnel, scientific research, and the acquisition, utilization, design and development of appropriate equipment on advantageous terms to be agreed among the Parties concerned.

Article 19 NOTIFICATIONS AND REPORTS TO THE ORGANIZATION

1. Each Party shall report periodically to the Organization on:
 - a. the status of existing and newly established protected areas, buffer zones and protected species in areas over which they exercise sovereignty or sovereign rights or jurisdiction; and
 - b. any changes in the delimitation or legal status of protected areas, buffer zones and protected species in areas over which they exercise sovereignty, or sovereign rights or jurisdiction.
2. The reports relevant to the protected areas and buffer zones should include information on:
 - a. name of the area or zone;
 - b. biogeography of the area or zone (boundaries, physical features, climate, flora and fauna);
 - c. legal status with reference to relevant national legislation or regulation;
 - d. date and history of establishment;
 - e. protected area management plans;
 - f. relevance to cultural heritage;
 - g. facilities for research and visitors; and
 - h. threats to the area or zone, especially threats which originate outside the jurisdiction of the Party.
3. The reports relevant to the protected species should include, to the extent possible, information on:
 - a. scientific and common names of the species;
 - b. estimated populations of species and their geographic ranges;
 - c. status of legal protection, with reference to relevant national legislation or regulation;
 - d. ecological interactions with other species and specific habitat requirements;
 - e. management and recovery plans for endangered and threatened species;

- e. research programmes and available scientific and technical publications relevant to the species; and
 - f. threats to the protected species, their habitats and their associated ecosystems, especially threats which originate outside the jurisdiction of the Party.
4. The reports provided to the Organization by the Parties will be used for the purposes outlined in Articles [20](#) and [22](#).

Article 20 SCIENTIFIC AND TECHNICAL ADVISORY COMMITTEE

1. A Scientific and Technical Advisory Committee is hereby established.
2. Each Party shall appoint a scientific expert appropriately qualified in the field covered by the Protocol as its representative on the Committee, who may be accompanied by other experts and advisors appointed by that Party. The Committee may also seek information from scientifically and technically qualified experts and organizations.
3. The Committee shall be responsible for providing advice to the Parties through the Organization on the following scientific and technical matters relating to the Protocol:
 - a. the listing of protected areas in the manner provided for in Article [7](#);
 - b. the listing of protected species in the manner provided for in Article [11](#);
 - c. reports on the management and protection of protected areas and species and their habitats;
 - d. proposals for technical assistance for training, research, education and management (including species recovery plans);
 - e. environmental impact assessment pursuant to Article [13](#);
 - f. the formulation of common guidelines and criteria pursuant to Article [21](#); and
 - g. any other matters relating to the implementation of the Protocol, including those matters referred to it by the meetings of the Parties.
4. The Committee shall adopt its own Rules of Procedures.

Article 21 ESTABLISHMENT OF COMMON GUIDELINES AND CRITERIA

1. The Parties shall at their first meeting, or as soon as possible thereafter, evaluate and adopt common guidelines and criteria formulated by the Scientific and Technical Advisory Committee dealing in particular with:
 - a. the identification and selection of protected areas and protected species;
 - b. the establishment of protected areas;
 - c. the management of protected areas and protected species including migratory species; and
 - d. the provision of information on protected areas and protected species, including migratory species.
2. In implementing this Protocol, the Parties shall take into account these common guidelines and criteria, without prejudicing the right of a Party to adopt more stringent guidelines and criteria.

Article 22 INSTITUTIONAL ARRANGEMENTS

1. Each Party shall designate a Focal Point to serve as liaison with the Organization on the technical aspects of the implementation of this Protocol.
2. The Parties designate the Organization to carry out the following Secretariat functions:
 - a. convening and servicing the meetings of the Parties;
 - b. assisting in raising funds as provided for in Article [24](#);
 - c. assisting the Parties and the Scientific and Technical Advisory Committee, in co-operation with the competent international, intergovernmental and non-governmental organizations in:
 - facilitating programmes of technical and scientific research as provided for in Article [17](#);
 - facilitating the exchange of scientific and technical information among the Parties as provided for in Article [16](#);
 - the formulation of recommendations containing common guidelines and criteria pursuant to Article [21](#);
 - the preparation, when so requested, of management plans for protected areas and protected species pursuant to Article [6](#) and [10](#) respectively;
 - the development of co-operative programmes pursuant to Articles [7](#) and [11](#);
 - the preparation, when so requested, of environmental impact assessments pursuant to Article [13](#);
 - the preparation of educational materials designed for various groups identified by the Parties;
 - the repatriation of illegally exported wild flora and fauna and their parts or products;
 - d. preparing common formats to be used by the Parties as the basis for notifications and reports to the Organization, as provided in Article [19](#);
 - e. maintaining and updating databases of protected areas and protected species containing information pursuant to Articles [7](#) and [11](#), as well as issuing periodically updated directories of protected areas and protected species;
 - f. preparing directories, reports and technical studies which may be required for the implementation of this Protocol;
 - g. co-operating and co-ordinating with regional and international organizations concerned with the protection of areas and species; and
 - h. carrying out any other function assigned by the Parties to the Organization.

Article 23 MEETINGS OF THE PARTIES

1. The ordinary meetings of the Parties shall be held in conjunction with the ordinary meetings of the Parties to the Convention held pursuant to Article [16](#) of the Convention. The Parties may also hold extraordinary meetings in conformity with Article [16](#) of the Convention. The meetings will be governed by the Rules of Procedure adopted pursuant to Article [20](#) of the Convention.
2. It shall be the function of the meetings of the Parties to this Protocol:
 - a. to keep under review and direct the implementation of this Protocol;

- b. to approve the expenditure of funds referred to in Article [24](#);
- c. to oversee and provide policy guidance to the Organization;
- d. to consider the efficacy of the measures adopted for the management and protection of areas and species, and to examine the need for other measures, in particular in the form of annexes, as well as amendments to this Protocol or to its annexes;
- e. to monitor and promote the establishment and development of the network of protected areas and recovery plans for protected species provided for in Articles [7](#) and [11](#);
- f. to adopt and revise, as needed, the guidelines and criteria provided for in Article [21](#);
- g. to analyze the advice and recommendations of the Scientific and Technical Advisory Committee pursuant to Article [20](#);
- h. to analyze reports transmitted by the Parties to the Organization under Article [22](#) of the Convention and Article [19](#) of this Protocol, as well as any other information which the Parties may transmit to the Organization or to the meeting of the Parties; and
- i. to conduct such other business as appropriate.

Article 24 FUNDING

In addition to the funds provided by the Parties in accordance with paragraph 2, Article [20](#) of the Convention, the Parties may direct the Organization, to seek additional funds. These may include voluntary contributions for purposes connected with the Protocol from Parties, other governments, government agencies, non- governmental, international, regional and private sector organizations and individuals.

Article 25 RELATIONSHIP TO OTHER CONVENTIONS DEALING WITH THE SPECIAL PROTECTION OF WILDLIFE

Nothing in this Protocol shall be interpreted in a way that may affect the rights and obligations of Parties under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Convention on the Conservation of Migratory Species of Wild Animals (CMS).

Article 26 TRANSITIONAL CLAUSE

1. The initial version of the annexes, which constitutes an integral part of the Protocol, shall be adopted by consensus at a Conference of Plenipotentiaries of the Contracting Parties to the Convention.

Article 27 ENTRY INTO FORCE

1. The Protocol and its annexes, once adopted by the Contracting Parties to the Convention, will enter into force in conformity with the procedure established in paragraph 2 of Article [28](#) of the Convention.
2. The Protocol shall not enter into force until the initial annexes have been adopted in accordance with Article [26](#).

Article 28 SIGNATURE

This Protocol shall be open for signature at Kingston, from 18 January 1990 to 31 January 1990 and at Bogotá from 1 February 1990 to 17 January 1991 by any party to the Convention.

IN WITNESS WHEREOF the [undersigned](#), being duly authorized by their respective governments, have signed this Protocol.

Done at Kingston, on this eighteenth day of January one thousand nine hundred and ninety in a single copy in the English, French and Spanish languages, the three texts being equally authentic.

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2000

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Appendix RDG
Lima Convention (South-East Pacific)

CONVENTION FOR THE PROTECTION OF THE MARINE ENVIRONMENT AND COASTAL AREA OF THE SOUTH-EAST PACIFIC

Lima, 12 November 1981

The High Contracting Parties,

Conscious of the need to protect and preserve the marine environment and coastal area of the South-East Pacific against all types and sources of pollution,

Convinced of the economic, social and cultural values of the South-East Pacific as a means of linking the countries of the region,

Considering that the various international agreements concerning marine pollution which are in force, despite all the progress achieved, do not cover all types and sources of pollution and do not completely satisfy the needs and requirements of the countries of the region,

Recognizing the desirability of co-operating at the regional level, either directly or with the assistance of the Permanent Commission of the South Pacific or other competent international organizations, in protecting and preserving the aforesaid marine environment and coastal area,

Have agreed on the following:

Article 1

GEOGRAPHICAL COVERAGE

The sphere of application of this Convention shall be the sea area and the coastal zone of the South-East Pacific within the 200-mile maritime area of sovereignty and jurisdiction of the High Contracting Parties and, beyond that area, the high seas up to a distance within which pollution of the high seas may affect that area.

Article 2

DEFINITIONS

For the purpose of this Convention:

(a) "Pollution of the marine environment" means the introduction by man, directly or indirectly, of substances or energy into the marine environment (including estuaries) which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of

the sea, impairment of quality for use of sea water and reduction of amenities;

(b) "National authority" means the authority designated by each Party, in accordance with article 9.

(c) "Executive Secretariat" means the body specified in article 13 of this Convention.

Article 3

GENERAL OBLIGATIONS

1. The High Contracting Parties shall endeavour, either individually or through bilateral or multilateral co-operation, to adopt appropriate measures in accordance with the provisions of this Convention and any supplementary instruments in force to which they are party in order to prevent, reduce and control pollution of the marine environment and coastal area of the South-East Pacific and to ensure appropriate environmental management of natural resources.

2. In addition to the "Agreement on Regional Cooperation in Combating Pollution of the South-East Pacific by Hydrocarbons or Other Harmful Substances in Cases of Emergency", the High Contracting Parties shall co-operate in formulating, adopting and implementing any other protocols that may establish rules, standards, practices and procedures for the implementation of this Convention.

3. The High Contracting Parties shall endeavour to ensure that such laws and regulations as they may promulgate to prevent, reduce and control pollution of their respective marine environment and coastal area from any source and to promote the appropriate environmental management of such environment and area are as effective as the existing international standards.

4. The High Contracting Parties shall co-operate, on a regional basis, directly or in collaboration with the competent international organizations, in formulating, adopting and implementing effective rules, standards, practices and procedures for the protection and preservation of the marine environment and coastal area of the South-East Pacific against all types and sources of pollution, and in promoting appropriate environmental management of such environment and area, taking into account characteristic regional features.

Such rules, standards, practices and procedures shall be communicated to the Executive Secretariat.

5. The High Contracting Parties shall take all measures necessary to ensure that activities under their jurisdiction or control are so conducted that they do not cause damage by pollution to others or to their environment, and that pollution arising from incidents

or activities under their jurisdiction or control does not, as far as possible, spread beyond the areas where the High Contracting Parties exercise sovereignty and jurisdiction.

Article 4

MEASURES TO PREVENT, REDUCE AND CONTROL POLLUTION OF THE MARINE ENVIRONMENT

The measures adopted by the High Contracting Parties to prevent and control pollution of the marine environment shall include, inter alia measures designed to minimize to the fullest possible extent:

(a) Release of toxic, harmful or noxious substances, especially those which are persistent:

- (i) From land-based sources
- (ii) From or through the atmosphere; and
- (iii) By dumping;

(b) Pollution from vessels, in particular measures for preventing accidents and dealing with emergencies, ensuring the safety of operations at sea, preventing intentional discharges and regulating the design, construction, equipment, operation and manning of vessels pursuant to the generally accepted international standards and rules; and

(c) Pollution from any other installations and devices operating in the marine environment, in particular measures for preventing accidents and dealing with emergencies, ensuring the safety of operations at sea, and regulating the design, construction, equipment, operations and manning of such installations or devices.

Article 5

EROSION OF COASTAL AREA

The High Contracting Parties shall adopt all appropriate measures to prevent, reduce and control erosion of the coastal area of the South-East Pacific resulting from the activities of man.

Article 6

CO-OPERATION IN CASES OF POLLUTION RESULTING FROM EMERGENCY SITUATIONS

1. High Contracting Parties which become aware of cases in which the marine environment is in danger of being damaged or has been damaged by pollution shall immediately notify the other High

Contracting Parties which they deem likely to be affected by such damage and the Executive Secretariat.

The High Contracting Parties, individually or by means of bilateral or multilateral co-operation, shall endeavour, to the extent possible, to eliminate the effects of pollution and to prevent or minimize damage.

Accordingly, the High Contracting Parties shall jointly endeavour to promote and develop contingency plans for responding to pollution incidents in the marine environment.

2. High Contracting Parties which are faced with pollution resulting from emergency situations shall:

(a) Make an assessment of the nature and extent of the emergency;

(b) Adopt appropriate measures to avoid or reduce the effects of the pollution;

(c) Immediately report the measures adopted and any action which they are undertaking or intend to undertake in order to combat the pollution;

(d) Observe the emergency situation for as long as it lasts, any changes that may occur and, in general, the development of the pollution.

The information obtained shall be communicated to the other High Contracting Parties and to the Executive Secretariat.

3. High Contracting Parties requiring assistance in combating pollution resulting from emergency situations may request, either directly or through the Executive Secretariat, the co-operation of other Parties, especially those which may be affected by the pollution.

Such co-operation may include expert advice and the provision of equipment and materials necessary to combat the pollution.

The High Contracting Parties to which a request has been addressed shall, as soon as possible, consider the request in the light of their capabilities and shall immediately inform the requesting Party of the form and conditions of the co-operation they are able to provide.

Article 7

MONITORING OF POLLUTION

The High Contracting Parties, directly or in collaboration with the competent international organizations, shall establish complementary or joint programmes for monitoring pollution in the South-East Pacific area, including, when appropriate, bilateral or

multilateral programmes, and shall endeavour to implement a pollution monitoring system for that area.

To this end, the High Contracting Parties shall designate the authorities responsible for monitoring pollution within their respective maritime areas of sovereignty and jurisdiction and shall participate, to the extent feasible, in international arrangements for that purpose in areas situated outside the limits of their sovereignty and jurisdiction.

Article 8

ENVIRONMENTAL IMPACT ASSESSMENT

1. As part of their environmental management policies, the High Contracting Parties shall develop technical and other guidelines to assist the planning of their development projects in such a way as to minimize their harmful impact in the sphere of application of the Convention.
2. Each High Contracting Party shall endeavour to include an assessment of the potential environmental effects in any planning activity entailing projects within its territory, particularly in the coastal areas, that may cause substantial pollution of, or significant and harmful changes to, the area of application of the Convention.
3. The High Contracting Parties shall, in cooperation with the Executive Secretariat, develop procedures for the dissemination of information concerning the assessment of the activities referred to in paragraph 2 of this article.

Article 9

EXCHANGE OF INFORMATION

The High Contracting Parties undertake to exchange among themselves, and to transmit to the Executive Secretary, information on the following:

- (a) The competent national organization or authorities responsible for combating marine pollution;
- (b) The competent national authorities and bodies responsible for receiving information on marine pollution and for carrying out assistance programmes of measures for the benefit of the Parties; and
- (c) The programmes and research which they are conducting in order to develop new methods and techniques for preventing marine pollution as well as the results of such programmes and research.

The High Contracting Parties shall co-ordinate the use of the

available communication media in order to ensure the timely reception, transmission and dissemination of the information to be exchanged.

Article 10

SCIENTIFIC AND TECHNOLOGICAL CO-OPERATION

1. The High Contracting Parties shall, to the extent possible, co-operate directly, or through the Executive Secretariat or other competent international organization, when appropriate, in the fields of science and technology, and shall exchange data and any other specific information for the purposes of this Convention.

To this end, the High Contracting Parties shall, directly or through the Executive Secretariat or another competent international organization:

(a) Promote programmes of scientific, educational, technical and other assistance for the protection and preservation of the marine environment and the coastal area, and for the prevention, reduction and control of marine pollution. Such assistance shall include, inter alia:

- (i) Training of scientific and technical personnel;
- (ii) Participation in relevant international programmes;
- (iii) Provision of necessary equipment and facilities;
- (iv) Strengthening the capacity of the High Contracting Parties to manufacture such equipment; and
- (v) Provision of facilities for, and advice on, research, monitoring, educational and other programmes;

(b) Provide appropriate assistance to minimize the effects of major incidents or accidents which may cause serious pollution of the marine environment;

(c) Provide appropriate assistance in the preparation of environmental assessments; and

(d) Co-operate in developing programmes for appropriate assistance in the environmental management of the marine environment and the coastal area.

2. The High Contracting Parties undertake, to the extent possible, to promote and co-ordinate their national research programmes on all the types of pollution which exist within the geographical sphere of application of this Convention, and to co-operate in the establishment of regional research programmes.

Article 11

LIABILITY AND COMPENSATION

1. The High Contracting Parties shall endeavour to formulate and adopt appropriate procedures for determining civil liability and compensation for damage resulting from pollution of the marine environment and coastal area caused by natural or juridical persons in their maritime and coastal areas as a consequence of any infringement by such persons of the provisions of this Convention and its supplementary instruments.

2. The High Contracting Parties shall ensure that recourse is available in accordance with their legal systems for compensation or other relief in respect of damage caused by pollution of the marine environment and coastal area by natural or juridical persons under their jurisdiction.

Article 12

MEETINGS OF THE HIGH CONTRACTING PARTIES

The High Contracting Parties shall hold ordinary and extraordinary meetings.

1. Ordinary meetings shall be held every two years on the same occasion as the Ordinary Meeting of the Permanent Commission of the South Pacific. These meetings shall be convened by the Executive Secretariat.

Extraordinary meetings shall be held whenever special circumstances so warrant. They shall be convened by the Executive Secretariat at the request of any High Contracting Party. The Executive Secretariat may also convene extraordinary meetings at its request following the unanimous agreement of the High Contracting Parties.

2. At ordinary meetings, the High Contracting Parties shall examine, inter alia, the following points:

(a) The extent to which this Convention is being implemented, the effectiveness of the measures taken and the need to develop other kinds of activities in furtherance of objectives of this Convention and the protocols thereto including their institutional and financial aspects;

(b) The adoption of additional protocols, the advisability of amending or revising this Convention and the protocols thereto, and the modification or expansion of any resolutions adopted in pursuance of the provisions of the Convention and protocols;

(c) The environmental assessment undertaken in the geographical area covered by this Convention; and

(d) The performance of any other function which may assist in achieving the purposes of this Convention.

Article 13

EXECUTIVE SECRETARIAT OF THE CONVENTION

For the purposes of the administration and application of this Convention, the High Contracting Parties hereby designate the Permanent Commission of the South Pacific to discharge the functions of Executive Secretariat under the Convention. At their first meeting, the High Contracting Parties shall establish the procedure and financing for the performance of this function.

Article 14

REPORTS

The High Contracting Parties shall transmit to the Executive Secretariat reports on the measures adopted for the implementation of this Convention and the additional protocols which form part of it, in such form and at such intervals as determined by their meetings. The Executive Secretariat shall bring these reports to the attention of the High Contracting Parties.

Article 15

ENTRY INTO FORCE

This Convention shall enter into force sixty days after the third instrument of ratification has been deposited with the General Secretariat of the Permanent Commission of the South Pacific.

Article 16

DENUNCIATION

This Convention may be denounced by any of the High Contracting Parties after it has been in force for two years for the High Contracting Party denouncing it.

Such denunciation shall be effected by means of written notification to the Executive Secretariat, which shall communicate it forthwith to the High Contracting Parties.

The denunciation shall take effect one hundred and eighty days after the date of such notification.

Article 17

AMENDMENTS TO THE CONVENTION OR ITS PROTOCOLS

1. Any High Contracting Party may propose amendments to this Convention or to its protocols. Such amendments shall be adopted

at a Conference of Plenipotentiaries convened by the Executive Secretary at the request of any Contracting Party.

2. Amendments to this Convention and the protocols shall be adopted unanimously by the High Contracting Parties.

3. The amendments shall be subject to ratification and shall enter into force after the third instrument of ratification has been deposited with the Executive Secretariat.

Article 18

ACCESSION

This Convention shall be open for accession by any State bordering the South-East Pacific. Accession shall be effected by the deposit of the relevant instrument with the Executive Secretariat, which shall communicate it to the High Contracting Parties.

This Convention shall enter into force for the State acceding to it sixty days after the deposit of the relevant instrument.

Article 19

ADOPTIONS OF PROTOCOLS

The High Contracting Parties may adopt unanimously, at a Conference of Plenipotentiaries, additional protocols to this Convention, which shall enter into force after the third instrument of ratification has been deposited with the Executive Secretariat.

Article 20

GENERAL PROVISION

The provisions of this Convention shall not affect any more stringent obligations which have been assumed by the High Contracting Parties under special conventions and agreements that they have concluded or may conclude on the protection of the marine environment.

At the request of any of the High Contracting Parties, the Executive Secretariat shall convene a Conference of Plenipotentiaries on this question.

Before the entry into force of this Convention, the Executive Secretariat may, after consultation with the signatories of the Convention, convene a Conference of Plenipotentiaries for the adoption of additional protocols.

Done in six identical copies, one of which shall be deposited with the General Secretariat of the Permanent Commission of the South Pacific, all being equally authentic for the purposes of implementation and interpretation.

In witness whereof the Plenipotentiaries, being duly authorized by their respective Governments, have signed this Convention in the city of Lima, on the twelfth day of November, one thousand nine hundred and eighty-one.

Appendix RDH
**Supplementary Protocol to the Agreement on Regional
Cooperation in Combating Pollution of the South-East Pacific
by Hydrocarbons or Other Harmful Substances in Cases of
Emergency**

Supplementary Protocol to the Agreement on Regional Cooperation
in Combating Pollution of the South-East Pacific by Hydrocarbons
or Other Harmful Substances in Cases of Emergency

Quito, 22 July 1983

The High Contracting Parties,

RECOGNIZING that the Agreement on Regional Cooperation in Combating Pollution of the South-East Pacific by Hydrocarbons or Other Harmful Substances in Cases of Emergency establishes general principles on the subject,

CONSIDERING that it is necessary to supplement those rules by specifying the co-operation mechanisms that would function in the event of a massive oil spill with which an individual country is unable to cope single-handedly, together with the contingency plan that each country should establish,

BEARING in mind that the high cost of the measures that should be adopted calls for a rational employment of equipment, material and experts so as to enhance the possibilities of making good use of external assistance,

Hereby agree as follows:

Article I

CO-OPERATION MECHANISMS IN THE EVENT OF OIL SPILLS

(a) Each High Contracting Party shall designate the authority responsible for requesting or providing assistance in cases of emergency and shall keep the other High Contracting Parties informed of any change or designation for this purpose.

It shall also keep the other High Contracting Parties informed of the experts and equipment, material and other items which it is able to provide in cases of emergency.

(b) Requests for assistance shall be made by the most expeditious means, if possible by telex. Such requests should indicate the nature and scale of the assistance requested, stating the amount and type of such assistance and the approximate period for which it would be required.

The Executive Secretariat, in consultation with the High Contracting Parties, shall endeavour to establish a procedure for the fulfillment of such requests and for the exchange of information required in order to provide assistance in cases of emergency.

The requesting High Contracting Party should state exactly the number of experts it requires and the type, make and quantity of equipment and material required. It should also state how many trained personnel it has available to make use of such equipment

and material and the supplementary equipment and installations needed in order to operate them.

The High Contracting Party or Parties to which a request has been addressed shall consider the assistance requested and shall take a decision as soon as possible, immediately stating the form, extent and conditions of the co-operation that they will provide.

(c) Without prejudice to the provisions of the second section of paragraph (a), the High Contracting Parties shall conduct a study of the existing stock of items that may be provided and their estimated cost, so that the Agreement may be implemented in cases of emergency, and in particular on:

(i) The rental cost of each item of spill control equipment, including the payment of insurance coverage against possible damage and partial or total loss during the period for which assistance is extended;

(ii) The value of the material which they are able to provide in cases of emergency;

(iii) The cost of transporting the equipment and material from the various places where they are stored to specific destinations in the other High Contracting Parties;

(iv) The cost of the participation of experts and trained personnel in an assistance operation;

(v) The payment arrangements for the services, material and equipment requested.

The figures arrived at by each High Contracting Party on the basis of the above-mentioned estimates shall reflect the actual cost of the co-operation to be extended. They shall not incorporate any earnings or profit for the High Contracting Party providing the assistance.

(d) Each High Contracting Party shall determine the approximate length of time during which it would be able to provide the assistance requested. In any case, it shall enjoy priority in the use of equipment and material should an emergency occur simultaneously in its own maritime area of sovereignty and jurisdiction.

A High Contracting Party receiving material undertakes to pay for it or replace it promptly, including the cost of carriage back to the place from which it came.

In each case the High Contracting Parties shall adopt the most appropriate and expeditious procedures for replacing any material they requested, taking account of the time required to purchase and transport it to its final destination.

(e) The High Contracting Parties shall keep a record of the amount and condition of the equipment and material dispatched and received. Once such goods have been received, any damage or loss, up to the time they are returned or reimbursed, shall be borne by the High Contracting Party requesting the assistance.

(f) The experts participating in emergency operations shall furnish advice to the authority officially designated in accordance with paragraph (a) and shall in no case be responsible for taking decisions. Such experts shall receive the same treatment as experts of international organizations in the same field.

(g) In view of the urgency of the co-operation requested, the customs and immigration services shall extend special concessions permitting the free movement of equipment, material and personnel necessary for the implementation of this Protocol; such equipment, material and personnel shall be granted appropriate exemptions so that timely and effective assistance can be afforded.

Article II

DESCRIPTION OF THE NATIONAL CONTINGENCY PLAN

The National Contingency Plan referred to in article IV of the Agreement shall cover at least the following aspects:

(a) Allocation of institutional and functional responsibilities for directing and executing operations to prevent, control and clean up spills of hydrocarbons or other harmful substances;

(b) Selection of the areas most vulnerable or sensitive to ecological or economic damage which will require special protection;

(c) The natural, atmospheric and marine conditions prevalent in such vulnerable areas;

(d) Optimum control and clean-up methods in various circumstances and vulnerable areas;

(e) Financial and physical resources, such as material and equipment available in the country and in the vulnerable areas, and criteria for the allocation of specialized equipment;

(f) Plan of action in cases of emergency;

(g) Arrangements for requesting and using outside assistance; and

(h) List of personnel and institutions involved in the plan of action.

Article III

TRAINING, PROGRAMMES

The High Contracting Parties shall endeavour to develop and organize regular training programmes in order to maintain regional co-operation mechanisms referred to in this Protocol at peak efficiency.

Article IV

EXECUTIVE SECRETARIAT

For the purposes of the administration and application of this Protocol, the High Contracting Parties hereby designate the Permanent Commission of the South Pacific as Executive Secretariat of the Protocol. At their first meeting, the High Contracting Parties shall establish the procedure and financing for the performance of this function.

Article V

ENTRY INTO FORCE

This Protocol shall enter into force 60 days after the third instrument of ratification has been deposited with the General Secretariat of the Permanent Commission of the South Pacific.

Article VI

SCOPE OF THE PROTOCOL

Once this Additional Protocol enters into force, it shall form an integral part of the Agreement on Regional Co-operation in Combating Pollution of the South-East Pacific by Hydrocarbons or Other Harmful Substances in Cases of Emergency.

Article VII

DENUNCIATION

This Protocol may be denounced by any of the High Contracting Parties after it has been in force for two years for the High Contracting Party denouncing it.

Such denunciation shall be effected by means of a written notification to the Executive Secretariat, which shall communicate it forthwith to the High Contracting Parties.

The denunciation shall take effect 180 days after the date of such notification.

Article VIII

AMENDMENTS

This Protocol may be amended only with the unanimous agreement of the High Contracting Parties. Amendments shall be subject to ratification and shall enter into force once the third instrument of ratification has been deposited with the Executive Secretariat.

Article IX

ACCESSION

This Protocol shall be open for accession by any State bordering the South-East Pacific.

Accession shall be effected by the deposit of the relevant instrument with the Executive Secretariat, which shall communicate it to the High Contracting Parties.

This Protocol shall enter into force for the State acceding to it 60 days after the deposit of the relevant instrument.

Article X

RESERVATIONS

No reservations concerning this Protocol may be entered.

Done in six identical copies, one of which shall be deposited with the General Secretariat of the Permanent Commission of the South Pacific, all being equally authentic for the purposes of implementation and interpretation.

In witness whereof the Plenipotentiaries, being duly authorized by their respective Governments, have signed this Protocol in the city of Quito on the twenty-second day of July, one thousand nine hundred and eighty-three.

Appendix RDJ
Protocol for the Protection of the South-East Pacific Against
Pollution from Land-Based Sources

PROTOCOL FOR THE PROTECTION OF THE SOUTH-EAST PACIFIC AGAINST POLLUTION FROM LAND-BASED SOURCES

Quito, 23 July 1983

Article I

AREA OF APPLICATION

The sphere of application of this Protocol shall be the area of the South-East Pacific* within the 200-mile maritime area of sovereignty and jurisdiction of the High Contracting Parties and waters on the landward side up to the freshwater limit.

* The geographical coverage of this Protocol comprises the 200-mile maritime area of sovereignty and jurisdiction of the High Contracting Parties.

The fresh-water limit will be determined by each State Party, in accordance with the relevant technical and scientific criteria.

Article II

SOURCES OF POLLUTION

Marine pollution from land-based sources comprises:

- (a) Coastal outfalls or disposal and discharges;
- (b) Discharges through rivers, canals and other watercourses, including underground watercourses; and
- (c) In general, any other land-based source situated within the territories of the High Contracting Parties, whether through water, through the atmosphere or directly from the coast.

Article III

GENERAL OBLIGATIONS

The High Contracting Parties shall, either individually or through bilateral or multilateral cooperation, endeavour to adopt appropriate measures in accordance with the provisions of this Protocol to prevent, reduce and control pollution of the marine environment from land-based sources, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the

sea, impairment of quality for the use of sea water and reduction of amenities.

The High Contracting Parties shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment from land-based sources including rivers, estuaries, pipelines and outfall structures, taking into account internationally agreed rules, standards and recommended practices and procedures.

The High Contracting Parties shall endeavour to harmonize their policies in this connection at the regional level.

Article IV

OBLIGATIONS IN RESPECT OF ANNEX I

The High Contracting Parties shall endeavour to prevent, reduce, control and eliminate in their respective zones within the sphere of application of this Protocol pollution from land-based sources caused by the substances listed in annex I to this Protocol. To this end they shall, jointly or individually, elaborate and implement suitable programmes and measures.

Such programmes and measures shall take into account, for their progressive implementation, the capacity to adapt and reconvert existing installations, the economic capacity of the Parties and their need for development.

Without prejudice to the aim of eliminating discharges of the substances listed in annex I, to the extent that such substances occur, they shall be subject to a system of self-monitoring and control. Authorization by the competent national authorities shall depend upon the levels of such substances, taking into account the harm or deleterious effects which may result in the marine environment.

Article V

OBLIGATIONS IN RESPECT OF ANNEX II

The High Contracting Parties shall endeavour progressively to reduce in their respective zone within the sphere of application of this Protocol pollution from land-based sources caused by the substances or sources listed in annex II to this Protocol. To this end they shall, jointly or individually, elaborate and implement suitable programmes and measures.

Such programmes and measures shall take into account, for their

progressive implementation, the capacity to adapt and reconvert existing installations, the economic capacity of the Parties and their need for development.

Discharges of the substances listed in annex II to this Protocol shall be subject to a system of self-monitoring and control. Authorization by the competent national authorities shall depend on the levels of such substances, taking into account the harm or deleterious effects which may result in the marine environment.

Article VI

PRACTICES AND PROCEDURES

The High Contracting Parties shall endeavour to formulate and progressively adopt, acting individually or jointly as appropriate, in co-operation with the Executive Secretariat or another competent international organization, as the case may be, rules, standards and common practices and procedures dealing with:

- (a) Studies to determine the length, depth and position of coastal outfalls;
- (b) Special requirements for effluents necessitating separate treatment;
- (c) The quality of sea water necessary to guarantee the preservation of human health, living resources and ecosystems;
- (d) The control of products, installations and industrial and other processes causing significant pollution from land-based sources;
- (e) Special studies concerning the quantities discharged with a view to controlling the concentration of substances in effluents and the method of discharging the substances listed in annexes I and II, in order to comply with the provisions of subparagraph (c) of this article.

Such rules, standards, practices and procedures shall take into account local ecological, geographical and physical characteristics, the economic capacity of the Parties and their need for development, the level of existing pollution and the real absorptive capacity of the marine environment.

Article VII

CO-OPERATION AMONG THE PARTIES

High Contracting Parties requiring assistance in combating pollution from land-based sources may, either directly or through the Executive Secretariat, request the co-operation of other Parties, especially those which may be affected by the pollution.

Such co-operation may include expert advice and the provision of equipment and materials necessary to combat the pollution.

The High Contracting Parties to which a request has been addressed shall, as soon as possible, consider the request and shall meet it to the extent of their capabilities and shall immediately inform the requesting Party of the form, extent and conditions of the co-operation they are in a position to provide.

Article VIII

MONITORING PROGRAMMES

The High Contracting Parties shall, directly or in co-operation with the Executive Secretariat or another competent international organization, progressively establish individual or joint programmes involving two or more Parties for monitoring pollution from land-based sources in order to:

- (a) Make an assessment of the nature and extent of the pollution;
- (b) Adopt appropriate measures to avoid or reduce the effects of the pollution;
- (c) Assess the effects of the measures taken under this Protocol to reduce the pollution of the marine environment;
- (d) Report to the other High Contracting Parties and the Executive Secretariat on the measures to be adopted and any activity which they are undertaking or intend to undertake in order to combat the pollution.

Article IX

EXCHANGE OF INFORMATION

The High Contracting Parties undertake to exchange among themselves and to transmit to the Executive Secretariat information on the following:

- (a) The competent national authorities and bodies responsible for receiving information about pollution from land-based sources and for carrying out assistance programmes or measures among the

Parties;

(b) The competent national organization or authorities responsible for combating pollution from land-based sources;

(c) The research programmes which they are conducting in order to develop new methods and techniques for preventing pollution from land-based sources, as well as the results of such programmes; and

(d) The measures taken, the results achieved and the difficulties encountered in the application of this Protocol. Such information shall include inter alia:

- (i) Statistical data on the authorizations granted under articles IV and V of this Protocol;
- (ii) Data resulting from monitoring as provided for in article VIII of this Protocol;
- (iii) Quantities of pollutants discharged from their territories;
- (iv) Measures taken in accordance with articles IV and V of this Protocol.

The High Contracting Parties shall co-ordinate use of the available means of communication in order to ensure timely reception, transmittal and dissemination of the information to be exchanged.

Article X

SCIENTIFIC AND TECHNOLOGICAL CO-OPERATION

The High Contracting Parties shall, to the extent possible, co-operate directly, through the Executive Secretariat or another competent international organization, when appropriate, in the fields of science and technology and shall exchange data and any other scientific information for the purposes of this Protocol.

Article XI

OBLIGATION IN RESPECT OF THE OTHER HIGH CONTRACTING PARTIES

The High Contracting Parties shall take the necessary measures to ensure to the extent possible that activities under their jurisdiction or control are so conducted that they do not cause damage by pollution to the other Parties or to their environment

and that pollution rising from accidents or from activities under their jurisdiction or control does not spread beyond the areas in which the High Contracting Parties exercise sovereignty and jurisdiction.

Article XII

CONSULTATIONS BETWEEN THE PARTIES

When pollution from land-based sources of one of the High Contracting Parties is likely to affect adversely the interests of one or more of the Contracting Parties to this Protocol, the Parties affected shall, at the request of one or more of them, enter into consultation with a view to seeking a satisfactory solution.

At the sessions held by the High Contracting Parties in accordance with article XV, recommendations may be made with a view to reaching a satisfactory solution.

Article XIII

PUNITIVE MEASURES

Each High Contracting Party undertakes to ensure compliance with the provisions of this Protocol and to adopt measures available to it that it deems pertinent in order to prevent and penalize any act which infringes these provisions.

The High Contracting Parties shall report to the Executive Secretariat on the legislative measures and regulations they have adopted for the application of the provisions of the foregoing paragraph.

Article XIV

APPLICATION OF OTHER MEASURES

Nothing in this Protocol shall prevent the High Contracting Parties from adopting for application, either individually or by two or more of them, stricter measures to combat pollution from land-based sources.

Article XV

ORDINARY AND EXTRAORDINARY SESSIONS

The High Contracting Parties shall hold ordinary sessions every two years and extraordinary sessions at any time, whenever two or more of them so request.

Ordinary sessions shall be held at the same time as the sessions of the Co-ordinating Committee for Scientific Research or the Legal Commission of the Permanent Commission of the South Pacific.

At ordinary sessions, the High Contracting Parties shall examine, inter alia, the following:

(a) The extent to which this Protocol is being implemented, the effectiveness of the measures taken and the need to develop other kinds of activities in furtherance of the objectives of this Protocol;

(b) The need to amend or revise this Protocol and its annexes and to adopt additional protocols and the desirability of expanding or amending the resolutions adopted in pursuance of this Protocol and its annexes;

(c) The formulation and adoption of programmes and measures, in accordance with articles IV and V;

(d) The drafting and adoption of rules and standards, practices and procedures, in accordance with article VI;

(e) The need to make recommendations, in accordance with the provisions of article XII;

(f) The performance of any other function which may assist in achieving the aims of this Protocol.

Article XVI

EXECUTIVE SECRETARIAT

For the purposes of the administration and the application of this Protocol, the High Contracting Parties hereby designate the Permanent Commission of the South Pacific to discharge the functions of Executive Secretariat under the Protocol. At their first meeting, the High Contracting Parties shall establish the procedure and financing for the performance of this function.

Article XVII

ENTRY INTO FORCE

This Protocol shall enter into force 60 days after the third instrument of ratification has been deposited with the General Secretariat of the Permanent Commission of the South Pacific.

Article XVIII

DENUNCIATION

This Protocol may be denounced by any of the High Contracting Parties after it has been in force for two years for the High Contracting Party denouncing it.

Such denunciation shall be effected by means of written notification to the Executive Secretariat, which shall communicate it forthwith to the High Contracting Parties.

The denunciation shall take effect 180 days after the date of such notification.

Article XIX

AMENDMENTS

This Protocol may be amended only with the unanimous agreement of the High Contracting Parties. Amendments shall be subject to ratification and shall enter into force after the third instrument of ratification has been deposited with the Executive Secretariat.

Article XX

ACCESSION

This Protocol shall be open for accession by any coastal State in the South-East Pacific, on the unanimous invitation of the High Contracting Parties.

Accession shall be effected by deposit of the relevant instrument with the Executive Secretariat, which shall communicate it to the High Contracting Parties.

This Protocol shall, for the State acceding to it, enter into force 60 days after the deposit of the relevant instrument.

Article XXI

RESERVATIONS

No reservations concerning this Protocol may be entered.

Done in six identical copies, one of which shall be deposited with the General Secretariat of the Permanent Commission of the South Pacific, all being equally authentic for the purposes of implementation and interpretation.

In witness whereof, the Plenipotentiaries, being duly authorized by their respective Governments, have signed this Protocol in the city of Quito on the twenty-second day of July, one thousand nine hundred and eighty-three.

Annex I

A. The following substances, families and groups of substances are listed, not in order of priority, for the purposes of article IV of this Protocol. They have been selected mainly on the basis of their:

Toxicity;
Persistence;
Bioaccumulation.

1. Organohalogen compounds and substances which may form such compounds in the marine environment. **

** With the exception of those which are biologically harmless or which are rapidly converted into biologically harmless substances.

2. Organophosphorous compounds and substances which may form such compounds in the marine environment. **

3. Organotin compounds and substances which may form such compounds in the marine environment. **

4. Mercury and mercury compounds.

5. Cadmium and cadmium compounds.

6. Used lubricating oils.

7. Persistent synthetic materials which may float, sink or remain in suspension and which may interfere with any legitimate use of the sea.

8. Substances having proven carcinogenic, teratogenic or mutagenic properties in or through the marine environment.

9 Radioactive substances, including their wastes, when their discharges do not comply with the principles of radiation protection as defined by the competent international organizations, taking into account the protection of the marine environment.

B. The present annex does not apply to discharges which contain substances listed in section A that are below the limits defined jointly by the Parties.

Annex II

A. The following substances, families and groups of substances, or sources of pollution, listed not in order of priority for the purposes of article V of this Protocol, have been selected mainly on the basis of criteria used for annex I, while taking into account the fact that they are generally less noxious or are more readily rendered harmless by natural processes and therefore generally affect more limited coastal areas.

1. The following elements and their compounds:

Zinc
Copper
Nickel
Chromium
Lead
Selenium
Arsenic
Antimony
Molybdenum
Titanium
Tin
Barium
Beryllium
Boron
Uranium
Vanadium
Cobalt
Thallium
Tellurium
Silver

2. Biocides and their derivatives not covered in annex I.

3. Organosilicon compounds and substances which may form such compounds in the marine environment, excluding those which are biologically harmless or are rapidly converted into biologically

harmless substances.

4. Crude oils and hydrocarbons of any origin.
5. Cyanides and fluorides.
6. Non-biodegradable detergents and other surface-active substances.
7. Inorganic compounds of phosphorus and elemental phosphorus.
8. Pathogenic micro-organisms.
9. Thermal discharges.
10. Substances which have a deleterious effect on the taste and/or smell of products for human consumption derived from the aquatic environment, and compounds liable to give rise to such substances in the marine environment.
11. Substances which have, directly or indirectly, an adverse effect on the oxygen content of the marine environment, especially those which may cause eutrophication.
12. Acid or alkaline compounds of such composition and in such quantity that they may impair the quality of sea water.
13. Substances which, though of a non-toxic nature, may become harmful to the marine environment or may interfere with any legitimate use of the sea owing to the quantities in which they are discharged.

B. The control and strict limitation of the discharge of substances referred to in section A above must be implemented in accordance with annex III.

Annex III

With a view to the issue of an authorization for the discharge of wastes containing substances referred to in annexes I and II of this Protocol, particular account will be taken, as the case may be, of the following factors:

A. CHARACTERISTICS AND COMPOSITION OF THE WASTE

1. Type and size of waste source (e.g. industrial process).
2. Type of waste (origin, average composition).

3. Form of waste (solid, liquid, sludge, slurry).
4. Total amount (volume discharged, e.g. per year).
5. Discharge pattern (continuous, intermittent, seasonally variable, etc.)
6. Concentrations with respect to major constituents, substances listed in annex I, substances listed in annex II, and other substances as appropriate.
7. Physical, technical and biochemical properties of the waste.

B. CHARACTERISTICS OF WASTE CONSTITUENTS WITH RESPECT TO THEIR HARMFULNESS

1. Persistence (physical, chemical, biological) in the marine environment.
2. Toxicity and other harmful effects.
3. Accumulation in biological materials or sediments.
4. Biochemical transformation producing harmful compounds.
5. Adverse effects on the oxygen content and balance.
6. Susceptibility to physical, chemical and biochemical changes and interaction in the aquatic environment with other sea-water constituents which may produce harmful biological or other effects on any of the uses listed in section E below.

C. CHARACTERISTICS OF DISCHARGE SITE AND RECEIVING MARINE ENVIRONMENT

1. Hydrographic, meteorological, geological and topographic characteristics of the coastal area.
2. Location and type of discharge (outfall, canal, outlet, etc.) and its relation to other areas (such as amenity areas, spawning, nursery, and fishing areas, shellfish grounds) and other discharges.
3. Initial dilution achieved at the point of discharge into the receiving marine environment.
4. Dispersion characteristics such as effect of currents, tides and wind on horizontal transport and vertical mixing.
5. Receiving water characteristics with respect to physical, chemical, biological and ecological conditions in the discharge

area.

6. Capacity of the receiving marine environment to receive waste discharges without undesirable effects.

D. AVAILABILITY OF WASTE TECHNOLOGIES

The methods of waste reduction and discharge for industrial effluents as well as domestic sewage should be selected taking into account the availability and feasibility of:

- (a) Alternative treatment processes;
- (b) Re-use or elimination methods;
- (c) On-land disposal alternatives; and
- (d) Appropriate low-waste technologies.

E. POTENTIAL IMPAIRMENT OF MARINE ECOSYSTEMS AND SEA-WATER USES

1. Effects on human health through pollution impact on:

- (a) Edible marine organisms;
- (b) Bathing waters;
- (c) Aesthetics.

Discharges of waste containing substances listed in annexes I and II shall be subject to a system of self-monitoring and control by the competent national authorities.

2. Effects on marine ecosystems, in particular living resources, endangered species and critical habitats.

3. Effects on other legitimate uses of the sea.

*****□

Appendix RDK
**Protocol for the Conservation and Management of Protected
Marine and Coastal Areas of the South-East Pacific (1989)**

Protocol for the Conservation and Management of Protected Marine and Coastal Areas of the South-East Pacific (1989)

Adopted at Paipa (Colombia) on 21 September 1989

The High Contracting Parties,

Recognizing the need to adopt appropriate measures for the protection and preservation of those ecosystems which are fragile, vulnerable or of unique natural value, and flora and fauna threatened by depletion and extinction,

Considering that it is in the common interest to endeavour to manage coastal areas on the basis of a rational assessment of the proper balance between conservation and development,

Considering it necessary to establish protected areas with special emphasis on parks, reserves, flora and fauna sanctuaries and other such areas,

Bearing in mind that all activities liable to have adverse effects on the ecosystem, flora and fauna and their habitat must be regulated, and

Bearing in mind the 1981 Convention for the Protection of the Marine Environment and Coastal Area of the South-East Pacific,

Have agreed as follows:

Article I

Applicability

The area to which this Protocol applies shall be the maritime area of the South-East Pacific within the 200-mile maritime zone over which the High Contracting Parties exercise sovereignty and jurisdiction,

This Protocol shall also apply to the entire continental shelf when the High Contracting Parties extend it beyond their 200 miles.

The coastal zone, where interaction between land, sea and the

atmosphere is ecologically apparent, shall be determined by each State Party, in accordance with the relevant scientific and technical criteria.

Article II

General obligations

The High Contracting Parties undertake, either individually or through bilateral or multilateral co-operation, to adopt appropriate measures in accordance with the provisions of this Protocol in order to protect and preserve those ecosystems which are fragile, vulnerable or of unique natural or cultural value, with particular emphasis on flora and fauna threatened by depletion or extinction, and shall conduct studies for the purpose of restoring the environment or restocking flora and fauna, where necessary;

To this end, the High Contracting Parties shall establish areas

under their protection in the form of parks, reserves, flora and fauna sanctuaries and other such areas. In these areas integration management shall be established on the basis of studies and inventories of their resources, with a view to ensuring their sustained development, and any activity liable to have adverse effects on the ecosystem, flora and fauna or their habitat, shall be prohibited.

Article III

Information on protected areas

The High Contracting Parties undertake to provide each other, through the Executive Secretariat of this Protocol, with information on the designation of protected areas, specifying the relevant factors which were taken into account in making the designation, such as the importance of the areas from the scientific, ecological, economic,

historical, archaeological, cultural, educational, touristic, aesthetic or other point of view.

The information provided by the High Contracting Parties shall indicate the effects that it may have on the environment, coastal resources or the value thereof.

Each State Party shall endeavour, to the extent possible and prior to establishing its protected areas, to exchange information thereon with the other States Parties to the Protocol.

Each State Party shall inform the others, through the Executive Secretariat, of any change introduced in the legal status or delimitation of its protected areas.

The Executive Secretariat shall keep up to date a register of the information provided by States Parties on their protected areas and any regulatory measures that they may adopt for those areas. The Executive Secretariat shall transmit the information received to the other Parties in good time.

Article IV

Common criteria

The High Contracting Parties shall adopt common criteria for the establishment of areas under their protection. To that end, where they deem it appropriate, they shall request, jointly or individually, the advice and co-operation of the competent international organizations.

Article V

Regulation of activities

Each High Contracting Party shall establish integrated environmental management in the protected areas as follows:

- (a) It shall establish the management of flora and fauna in accordance with the particular characteristics of the protected areas;
- (b) It shall prohibit activities relating to prospecting and mining

of the soil and subsoil of the protected area;

(c) It shall regulate all scientific, archaeological or touristic activity in the area;

(d) It shall regulate trade affecting the flora, fauna and their habitat in the protected area;

(e) In general, it shall prohibit any activity liable to have adverse effects on species, ecosystems or biological processes protecting such areas, or on their status as national, scientific, ecological, economic, historical, cultural, archaeological or touristic assets.

Article VI

Buffer zones

The Contracting Parties shall establish, around the protected areas, buffer zones where none exist and wherein the uses made of the areas can be regulated in order to ensure compliance with the purposes of this Protocol.

Article VII

Measures to prevent, reduce and control pollution of Protected areas

The High Contracting Parties shall take measures, individually or jointly, to prevent or reduce and control environmental deterioration, including pollution in the protected areas, deriving from any source or activity, and they shall make every effort to harmonize their policies in the matter.

Such measures shall include, inter alia, those designed to:

1. Prohibit the dumping of toxic, harmful or noxious substances, especially those which are persistent, from land-based sources, including rivers, estuaries, drainage pipes and structures, from or through the atmosphere;

2. Prevent, reduce and control, to the extent possible:

- (a) Pollution from vessels, including measures to prevent

accidents and deal with emergency situations and to prevent dumping, whether intentional or unintentional;

- (b) The control and transport of hazardous substances;
- (c) The introduction of exotic species of flora and fauna, including transplants; and,
- (d) other activities likely to cause environmental deterioration.

Article VIII

Environmental impact assessment

The High Contracting Parties shall assess the environmental impact of any activity liable to produce adverse effects on protected areas and shall establish an integrated analysis procedure for that purpose. They shall also exchange information on alternative activities or measures suggested for preventing such effects.

Article IX

Scientific and technical research, environmental education and community participation

The High Contracting Parties shall promote scientific and technical research, environmental education and community participation as a basis for conserving and managing the protected areas.

Article X

Rules concerning co-operation

The High Contracting Parties shall take steps, through the Executive Secretariat of this Protocol, to co-operate in the management and conservation of the protected areas and shall, to that end, exchange information on the programmes and research carried out in those areas, and on the experiences of each area, particularly in

the scientific, legal and managerial fields. The Executive Secretary may also request such information from the universities and specialized institutions of the States Parties to this Protocol through the focal points.

The High Contracting Parties shall, directly or through the Executive Secretariat, promote programmes of scientific, technical, legal, educational and other assistance for the protected areas.

Such assistance shall include, inter alia:

- (i) Training of scientific and technical personnel;
- (ii) Participation in the respective programmes;
- (iii) Supplying experts and equipment;
- (iv) Supplying facilities for, and advice on, research, monitoring, educational, tourism and other programmes;
- (v) Organization of a technical file on the specialized legislation of each of the States Parties;
- (vi) Dissemination of specialized information on the protected areas.

Article XI

Environmental education

The High Contracting Parties shall promote environmental education and community participation in the conservation and management of the protected areas.

Article XII

Authorities of the protected areas

The High Contracting Parties undertake to supply, through the Executive Secretariat, information on:

- (a) The national organization and authorities responsible for managing the protected areas;
- (b) Research programmes in the protected areas.

Article XIII

Compliance and penalties

Each High Contracting Party undertakes to ensure compliance with the provisions of this Protocol and to adopt legal and administrative measures within its jurisdiction for preventing or penalizing any activity in violation of these provisions.

The High Contracting Parties shall notify the Executive Secretariat of the measures adopted for implementing the provisions of the preceding paragraph.

Article XIV

Meetings of the High Contracting Parties

The High Contracting Parties shall hold regular meetings at least every two years, or special meetings at any time, when two or more of the Parties so request. These meetings shall be convened by the Executive Secretariat.

At regular meetings, the High Contracting Parties shall adopt resolutions on the basis of an analysis, *inter alia*, of the following points:

- (a) The extent to which this Protocol is being implemented and the effectiveness of the measures taken and the need to develop other kinds of activities in compliance with the objectives of this Protocol;
- (b) the need for amendments to, or revisions of, this Protocol and the advisability of expansion or modification of the resolutions adopted in pursuance thereof;
- (c) The performance of any other function which may be of value in achieving the purposes of this Protocol.

The High Contracting Parties shall enable the authorities responsible for the protected areas to participate as technical

advisers in the meetings held.

Article XV

Executive Secretariat of the Protocol

For the purposes of administering and implementing this Protocol, the High Contracting Parties hereby appoint the General Secretariat of the Permanent Commission for the South Pacific (CPPS) to serve as Executive Secretariat of the Commission. At their first meeting, the Parties shall establish the procedure and financing for the performance of this function on behalf of the Commission.

Article XVI

Entry into force

This Protocol shall enter into force 60 days after the third instrument of ratification has been deposited with the General Secretariat of the Permanent Commission for the South Pacific (CPPS).

Article XVII

Denunciation

This Protocol may be denounced by any of the High Contracting Parties after it has been in force for two years for such denouncing Party.

Such denunciation shall take effect by means of written notification to the Executive Secretariat which shall communicate it forthwith to the High Contracting Parties.

The denunciation shall take effect 180 days after the date of the said notification.

Article XVIII

Amendments

This Protocol may be amended only by unanimous decision of the

High Contracting Parties. Amendments shall be subject to ratification and shall enter into force after the third instrument of ratification has been deposited with the Executive Secretariat.

Article XIX

Accession

This protocol shall be open for accession by any State bordering the South East Pacific.*

Accession shall be effected by the deposit of the relevant instrument with the Executive Secretariat which shall communicate it to the High Contracting Parties.

This Protocol shall enter into force for the State acceding thereto 60 days after the deposit of the relevant instrument.

Article XX

Reservations

No reservations to this Protocol shall be admissible.

DONE in seven identical copies, one of which shall be deposited with the General Secretariat of the Permanent Commission for the South Pacific (CPPS), all being equally authentic for the purposes of implementation and interpretation.

IN WITNESS WHEREOF this Protocol has been signed at Paipa, Colombia, on 21 September 1989.

* Applicable by extension to the coastal Latin American States of the East Pacific.

Appendix RDL
Kuwait Convention (Arabian/Persian Gulf)

KUWAIT REGIONAL CONVENTION FOR CO-OPERATION ON THE PROTECTION OF THE MARINE ENVIRONMENT FROM POLLUTION

Kuwait, 24 April 1978

The Government of the State of Bahrain,

The Imperial Government of Iran,

The Government of the Republic of Iraq,

The Government of the State of Kuwait,

The Government of the Sultanate of Oman,

The Government of the State of Qatar,

The Government of the Kingdom of Saudi Arabia,

The Government of the United Arab Emirates,

Realizing that pollution of the marine environment in the Region shared by Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates, by oil and other harmful or noxious materials arising from human activities on land or at sea, especially through indiscriminate and uncontrolled discharge of these substances, presents a growing threat to marine life, fisheries, human health, recreational uses of beaches and other amenities.

Mindful of the special hydrographic and ecological characteristics of the marine environment of the Region and its particular vulnerability to pollution.

Conscious of the need to ensure that the processes of urban and rural development and resultant land use should be carried out in such a manner as to preserve, as far as possible, marine resources and coastal amenities, and that such development should not lead to deterioration of the marine environment,

Convinced of the need to ensure that the processes of industrial development should not, in any way, cause damage to the marine environment of the Region, jeopardize its living resources or create hazards to human health,

Recognizing the need to develop an integrated management approach to the use of the marine environment and the coastal areas which will allow the achievement of environmental and development goals in a harmonious manner,

Recognizing also the need for a carefully planned research, monitoring and assessment programme in view of the scarcity of scientific information on marine pollution in the Region,

Considering that the States sharing the Region have a special responsibility to protect its marine environment,

Aware of the importance of co-operation and co-ordination of action on a regional basis with the aim of protecting the marine environment of the Region for the benefit of all concerned, including future generations,

Bearing in mind the existing international conventions relevant to the present Convention,

Have agreed as follows:

Article I

DEFINITIONS

For the purpose of the present Convention:

- a) marine pollution means the introduction by man, directly or indirectly, of substances or energy into the marine environment resulting or likely to result in such deleterious effects as harm to living resources, hazards to human health, hindrance to marine activities including fishing, impairment of quality for use of sea and reduction of amenities;
- b) "National Authority" means the authority designated by each Contracting States as responsible for the co-ordination of national efforts for implementing the Convention and its protocols;
- c) "Organization" means the organization established by the Contracting States in accordance with Article XVI;
- d) "secretariat" means the organ of the Organization established in accordance with Article XVI;
- e) "Action Plan" means the Action Plan for the Development and Protection of the Marine Environment and the Coastal Areas of Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates adopted at the Kuwait Regional Conference of Plenipotentiaries on the Protection and Development of

the Marine Environment and the Coastal Areas, convened from 15 to 23 April 1978.

Article II

GEOGRAPHICAL COVERAGE

a) The present Convention shall apply to the sea area in the Region bounded in the south by the following rhumb lines: from Ras Dharbat Ali in (16 deg 39 min N, 35 deg 3 min 30 sec E) then to a position in (16 deg 00 min N 53 deg 25 min E) then to a position in (17 deg 00 min N, 56 deg 30 min E) then to a position in (20 deg 30 min N, 60 deg 00 min E) then to Ras Al-Fasteh in (25 deg 04 min N, 61 deg 25 min E);

b) The Sea Area shall not include internal waters of the Contracting States unless it is otherwise stated in the present Convention or in any of its protocols.

Article III

GENERAL OBLIGATIONS

a) The Contracting States shall, individually and/or jointly, take all appropriate measures in accordance with the present Convention and those protocols in force to which they are party to prevent, abate and combat pollution of the marine environment in the Sea Area;

b) In addition to the Protocol concerning Regional Co-operation in Combating Pollution by Oil and other Harmful Substances in Cases of Emergency opened for signature at the same time as the present Convention, the Contracting States shall co-operate in the formulation and adoption of other protocols prescribing agreed measures, procedure and standards for the implementation of the Convention;

c) The Contracting States shall establish national standards, laws and regulations as required for the effective discharge of the obligation prescribed in paragraph (a) of this article, and shall endeavour to harmonise their national policies in this regard and for this purpose appoint the National Authority;

d) The Contracting States shall co-operate with the competent international, regional and subregional organizations to establish and adopt regional standards, recommended practices and procedures to prevent, abate and combat pollution from all sources in conformity with the objectives of the present Convention, and to assist each other in fulfilling their obligations under the present Convention;

e) The Contracting States shall use their best endeavour to ensure that the implementation of the present Convention shall not cause transformation of one type of pollution to another which could be more detrimental to the environment.

Article IV

POLLUTION FROM SHIPS

The Contracting States shall take all appropriate measures in conformity with the present Convention and the applicable rules of international law to prevent, abate and combat pollution in the Sea Area caused by intentional or accidental discharges from ships, and shall ensure effective compliance in the Sea Area with applicable international rules relating to the control of this type of pollution, including load-on-top, segregated ballast and crude oil washing procedures for tankers.

Article V

POLLUTION CAUSED BY DUMPING FROM SHIPS AND AIRCRAFT

The Contracting States shall take all appropriate measures to prevent, abate and combat pollution in the Sea Area caused by dumping of wastes and other matter from ships and aircraft, and shall ensure effective compliance in the Sea Area with applicable international rules relating to the control of this type of pollution as provided for in relevant international conventions.

Article VI

POLLUTION FROM LAND-BASED SOURCES

The Contracting States shall take all appropriate measures to prevent,

abate and combat pollution caused by discharges from land reaching the Sea Area whether water-borne, air-borne, or directly from the coast including outfalls and pipelines.

Article VII

POLLUTION RESULTING FROM EXPLORATION AND EXPLOITATION OF THE BED OF THE TERRITORIAL SEA AND ITS SUB-SOIL AND THE CONTINENTAL SHELF

The Contracting States shall take all appropriate measures to prevent, abate and combat pollution in the Sea Area resulting from exploration and exploitation of the bed of the territorial sea and its sub-soil and the continental shelf, including the prevention of accidents and the combating of pollution emergencies resulting in damage to the marine environment.

Article VIII

POLLUTION FROM OTHER HUMAN ACTIVITIES

The Contracting States shall take all appropriate measures to prevent, abate and combat pollution of the Sea Area resulting from land reclamation and associated suction dredging and coastal dredging .

Article IX

CO-OPERATION IN DEALING WITH POLLUTION EMERGENCIES

a) The Contracting States shall, individually and/or jointly, take all necessary measures, including those to ensure that adequate equipment and qualified personnel are readily available, to deal with pollution emergencies in the Sea Area, whatever the cause of such emergencies, and to reduce or eliminate damage resulting therefrom;

b) Any Contracting State which becomes aware of any pollution emergency in the Sea Area shall, without delay, notify the Organization referred to under Article XVI and, through the secretariat any Contracting State likely to be affected by such emergency.

Article X

SCIENTIFIC AND TECHNOLOGICAL CO-OPERATION

a) The Contracting States shall co-operate directly, or, where appropriate, through competent international and regional organizations, in the field of scientific research, monitoring and assessment concerning pollution in the Sea Area, and shall exchange data as well as other scientific information for the purpose of the present Convention and any of its protocols;

b) The Contracting States shall co-operate further to develop and co-operate national research and monitoring programmes relating to all types of pollution in the Sea Area and to establish in cooperation with competent regional or international organizations, a regional network of such programmes to ensure compatible results. For this purpose, each Contracting State shall designate the National Authority responsible for pollution research and monitoring within the areas under its national jurisdiction. The Contracting States shall participate in international arrangements for pollution research and monitoring in areas beyond their national jurisdiction .

Article XI

ENVIRONMENTAL ASSESSMENT

a) Each Contracting State shall endeavour to include an assessment of the potential environmental effects in any planning activity entailing projects within its territory, particularly in the coastal areas, which may cause significant risks of pollution in the Sea Area;

b) The Contracting States may, in consultation with the secretariat, develop procedures for dissemination of information of the assessment of the activities referred to in paragraph (a) above;

c) The Contracting States undertake to develop, individually or jointly, technical and other guidelines in accordance with standard scientific practice to assist the planning of their development projects in such a way as to minimize their harmful impact on the marine environment. In this regard international standards may be used where appropriate.

Article XII

TECHNICAL AND OTHER ASSISTANCE

The Contracting States shall co-operate directly or through competent regional or international organizations in the development of programmes of technical and other assistance in fields relating to marine pollution in co-ordinating with the Organization referred to in Article XVI.

Article YIII

LIABILITY AND COMPENSATION

The Contracting States undertake to co-operate in the formulation and adoption of appropriate rules and procedure for the determination of:

- a) civil liability and compensation for damage resulting from pollution of the marine environment, bearing in mind applicable international rules and procedures relating to those matters; and
- b) liability and compensation for damage resulting from violation of obligations under the present Convention and its protocols.

Article XIV

SOVEREIGN IMMUNITY

Warships or other ships owned or operated by a State, and used only on Government non-commercial service, shall be exempted from the application of the provisions of the present convention. Each Contracting State shall, as far as possible, ensure that its warships or other ships owned or operated by that State, and used only on Government non-commercial service, shall comply with the present Convention in the prevention of pollution to the marine environment.

Article XV

DISCLAIMER

Nothing in the present Convention shall prejudice or affect the rights or claims of any Contracting State in regard to the nature or extent of its maritime jurisdiction which may be established in conformity with international law.

Article XVI

REGIONAL ORGANIZATION FOR THE PROTECTION OF THE MARINE ENVIRONMENT

a) The Contracting States hereby establish a Regional Organization for the Protection of the Marine Environment, the permanent headquarters of which shall be located in Kuwait.

b) The organization shall consist of the following organs:

(i) a Council which shall be comprised of the Contracting States and shall perform the functions set forth in paragraph (d) of Article XVII;

(ii) a secretariat which shall perform the functions set forth in paragraph (a) of Article XVIII; and

(iii) a Judicial Commission for the Settlement of Disputes whose composition, terms of reference and rules of procedure shall be established at the first meeting of the Council.

Article XVII

COUNCIL

a) The meetings of the Council shall be convened in accordance with paragraph (a) of Article XVIII and paragraph (b) of Article XXX. The Council shall hold ordinary meetings once a year. Extraordinary meetings of the Council shall be held upon the request of at least one Contracting State endorsed by at least one other Contracting State or upon the request of the Executive Secretary endorsed by at least two Contracting States. Meeting of the Council shall be convened at the headquarters of the Organization or at any other place agreed upon by consultation amongst the Contracting States. Three-fourths of the Contracting States shall constitute a quorum.

b) The Chairmanship of the Council shall be given to each Contracting State in turn in alphabetical order of the names of the States in the English language. The Chairman shall serve for a period of one year and cannot during the period of chairmanship serve as a representative of his State. Should the chairmanship fall vacant, the Contracting State chairing the Council shall designate a successor to remain in office until the term of chairmanship of that Contracting State expires.

c) The voting procedure in the Council shall be as follows:

(i) each Contracting State shall have one vote;

(ii) decisions on substantive matters shall be taken by a unanimous vote of the Contracting States present and voting;

(iii) decisions on procedural matters shall be taken by three-fourths majority vote of the Contracting States present and voting.

d) The functions of the Council shall be:

(i) to keep under review the implementation of the Convention and its protocols, and the Action Plan referred to in paragraph (e) in Article 1;

(ii) to review and evaluate the state of marine pollution and its effects on the Sea Area on the basis of reports provided by the Contracting States and the competent international or regional organizations;

(iii) to adopt, review and amend as required in accordance with procedures established in Article XXI, the annexes to the Convention and to its protocols

(iv) to receive and to consider reports submitted by the Contracting States under Articles IX and XXIII;

(v) to consider reports prepared by the secretariat on questions relating to the Convention and to matters relevant to the administration of the Organization;

(vi) to make recommendations regarding the adoption of any additional protocols or any amendments to the Convention or to its protocols in accordance with Articles XIX and XX;

(vii) to establish subsidiary bodies and ad hoc working groups as required to consider any matters related to the Convention and its protocols and annexes to the Convention and its protocols;

(viii) to appoint an Executive Secretary and to make provision for the appointment by the Executive Secretary of such other personnel as may be necessary;

(ix) to review periodically the functions of the secretariat:

(x) to consider and to undertake any additional action that may be required for the achievement of the purposes of the Convention and its protocols.

Article XVIII

SECRETARIAT

a) The secretariat shall be comprised of an Executive Secretary and the personnel necessary to perform the following functions:

(i) to convene and to prepare the meetings of the Council and its subsidiary bodies and ad hoc working groups as referred to in Article XVII, and conferences as referred to in Articles XIX and XX;

(ii) to transmit to the Contracting States notifications, reports and other information received in accordance with Articles IX and XXIII;

(iii) to consider enquiries by, and information from, the Contracting States and to consult with them on questions relating to the Convention and its protocols and annexes thereto;

(iv) to prepare reports on matters relating to the Convention and to the administration of the Organization;

(v) to establish, maintain and disseminate an up-to-date collection of national laws of all States concerned relevant to the protection of the marine treatment;

(vi) to arrange, upon request, for the provision of technical assistance and advice for the drafting of appropriate national legislation for the effective implementation of the Convention and its protocols;

(vii) to arrange for training programmes in areas related to the implementation of the Convention and its protocols;

(viii) to carry out its assignments under the protocols to the Convention;

(ix) to perform such other functions as may be assigned to it by the Council for the implementation of the Convention and its protocols.

b) The Executive Secretary shall be the chief administrative official of the Organization and shall perform the functions that are necessary for the administration of the present Convention, the work of the secretariat and other tasks entrusted to the Executive Secretary by the Council and as provided for in its rules and procedures and financial rules.

Article XIX

ADOPTION OF ADDITIONAL PROTOCOLS

Any Contracting State may propose additional protocols to the present Convention pursuant to paragraph (b) of Article III at a diplomatic conference of the Contracting States to be convened by the secretariat at the request of at least three Contracting States. Additional protocols shall be adopted by a unanimous vote of the Contracting States present and voting.

Article XX

AMENDMENTS TO THE CONVENTION AND ITS PROTOCOLS

a) Any Contracting State to the present Convention or any of its protocols may propose amendments to the Convention or to the protocol concerned at a diplomatic conference to be convened by the secretariat at the request of at least three Contracting States. Amendments to the Convention and its protocols shall be adopted by a unanimous vote of the Contracting States present and voting.

b) Amendments to the Convention or any protocol adopted by a diplomatic conference shall be submitted by the Depositary for acceptance by all Contracting States. Acceptance of amendments to the Convention or to any protocol shall be notified to the Depositary in writing. Amendments adopted in accordance with this article shall enter into force for all Contracting States, except those which have notified the Depositary of a different intention, on the thirtieth day following the receipt by the Depositary of notification of their acceptance by at least three-fourths of the Contracting States to the Convention or any protocol concerned as the case may be.

c) After the entry into force of an amendment to the Convention or to a protocol, any new Contracting State to the Convention or such protocol shall become a Contracting State to the instrument as amended.

Article XXI

ANNEXES AND AMENDMENTS TO ANNEXES

a) Annexes to the Convention or to any protocol shall form an integral part of the Convention or such protocol.

b) Except as may be otherwise provided in any protocol, the following procedure shall apply to the adoption and entry into force of any amendments

to annexes to the Convention or to any protocol:

(i) any Contracting State to the Convention or to a protocol may propose

amendments to the annexes to the instrument in question at the meetings of the

Council referred to in Article XVII;

(ii) such amendments shall be adopted at such meetings by a unanimous vote;

(iii) the Depositary referred to in Article XXX shall communicate amendments

so adopted to all Contracting State without delay;

(iv) any Contracting State which has a different intention with respect to an

amendment to the annexes to the Convention or to any protocol shall notify the

Depositary in writing within a period determined by the Contracting States

concerned when adopting the amendment;

(v) the Depositary shall notify all Contracting States without delay of any

notification received pursuant to the preceding sub-paragraph;

(vi) on the expiry of the period referred to in sub-paragraph (iv) above, the

amendment to the annex shall become effective for all Contracting States to

the Convention or to the protocol concerned which have not submitted a

notification in accordance with the provisions of that sub-paragraph.

c) The adoption and entry into force of a new annex to the Convention or to

any protocol shall be subject to the same procedure as for the adoption and

entry into force of an amendment to an annex in accordance with the provisions

of this article, provided that, if any amendment to the Convention or the

protocol concerned is involved, the new annex shall not enter into force until

such time as the amendment to the Convention or the protocol concerned enters

into force.

Article XXII

RULES OF PROCEDURE AND FINANCIAL RULES

a) The Council shall, at the first meeting, adopt its own rules.

b) The Council shall adopt financial rules to determine, in particular, the

financial participation of the Contracting States.

Article XXIII

REPORTS

Each Contracting State shall submit to the secretariat reports on measures adopted in implementation of the provisions of the Convention and its protocols in such form and at such intervals as may be determined by the Council.

Article XXIV

COMPLIANCE CONTROL

The Contracting State shall co-operate in the development of procedures for the effective application of the Convention and its protocols, including detection of violations, using all appropriate and practicable measures of detection and environmental monitoring, including adequate procedures for reporting and accumulation of evidence.

Article XXV

SETTLEMENT OF DISPUTES

a) In case of a dispute as to the interpretation or application of this Convention or its protocols; the Contracting States concerned shall seek a settlement of the dispute through negotiation or any other peaceful means of their own choice.

b) If the Contracting States concerned cannot settle the dispute through the means mentioned in paragraph (a) of this article, the dispute shall be submitted to the Judicial Commission for the Settlement of Disputes referred to in paragraph (a) (iii) of Article XVI.

Article XXVI

SIGNATURE

The present Convention together with the Protocol concerning Regional Co-operation in Combating Pollution by Oil and other Harmful Substances in Cases of Emergency shall be open for signature in Kuwait from 24 April to 23 July

1978 by any State invited as a participant in the Kuwait Regional Conference of Plenipotentiaries on the Protection and Development of the Marine Environment and the Coastal Areas, convened from 15 to 23 April 1978 for the purpose of adopting the Convention and the Protocol.

Article XXVII

RATIFICATION, ACCEPTANCE, APPROVAL OR ACCESSION

- a) The present Convention together with the Protocol concerning Regional Co-operation in Combating Pollution by Oil and other Harmful Substances in Cases of Emergency and any other protocol thereto shall be subject to ratification, acceptance, or approval by the States referred to in Article XXVI.
- b) As from 24 July 1978, this Convention together with the Protocol concerning Regional Cooperation in Combating Pollution by Oil and other Harmful Substances in Cases of Emergency shall be open for accession by the States referred to in Article XXVI.
- c) Any State which has ratified, accepted, approved or acceded to the present Convention shall be considered as having ratified, accepted, approved or acceded to the Protocol concerning Regional Co-operation in Combating Pollution by Oil and other Harmful Substances in Cases of Emergency;
- d) Instruments of ratification, acceptance, approval or accession shall be deposited with the Government of Kuwait which will assume the functions of Depositary.

Article XXVIII

ENTRY INTO FORCE

- a) The present Convention together with the Protocol concerning Regional Co-operation in Combating Pollution by Oil and other Harmful Substances in Cases of Emergency shall enter into force on the nineteenth day following the date of deposit of at least five instruments of ratification, acceptance or approval of, or accession to, the Convention;
- b) Any other protocol to this Convention, except as otherwise provided in such protocol, shall enter into force on the ninetieth day following the date of deposit of at least five instruments of ratification, acceptance or approval

of, or accession to, such protocol;

c) After the date of deposit of five instruments of ratification, acceptance or approval of, or accession to, this Convention or any other protocol, this Convention or any such protocol shall enter into force with respect to any State on the ninetieth day following the date of deposit by that State of the instrument of ratification, acceptance, approval or accession.

Article XXIX

WITHDRAWAL

a) At any time after five years from the date of entry into force of this Convention, any Contracting State may withdraw from this Convention by giving written notification of withdrawal to the Depositary;

b) Except as may be otherwise provided in any other protocol to the Convention, any Contracting State may, at any time after five years from the date of entry into force of such Protocol, withdraw from such protocol by giving written notification of withdrawal to the Depositary;

c) Withdrawal shall take effect ninety days after the date on which notification of withdrawal is received by the Depositary;

d) Any Contracting State which withdraws from the Convention shall be considered as also having withdrawn from any protocol to which it was a party;

e) Any Contracting State which withdraws from the Protocol concerning Regional Co-operation in Combating Pollution by Oil and other Harmful Substances in Cases of Pollution Emergency shall be considered as also having withdrawn from the Convention.

Article XXX

RESPONSIBILITIES OF THE DEPOSITARY

a) The Depositary shall inform the Contracting States and the secretariat of the following:

(i) signature of this Convention and of any protocol thereto, and of the deposit of the instruments of ratification, acceptance, approval or accession in accordance with Article XXVII;

(ii) date on which Convention and any protocol will enter into force in

accordance with the provision of Article XXVIII;

(iii) notification of a different intention made in accordance with Articles XX and XXI;

(iv) notification of withdrawal made in accordance with Article XXIX;

(v) amendments adopted with respect to the Convention and to any protocol, their acceptance by the Contracting State and the date of entry into force of those amendments in accordance with the provisions of Article XX;

(vi) adoption of new annexes and of the amendment of any annex in accordance with Article XXI;

b) The Depositary shall call the first meeting of the Council within six months of the date on which the Convention enters into force.

The original of this Convention, of any protocol thereto, of any annex to the Convention or to a protocol, or of any amendment to the Convention, to a protocol or to an annex of the Convention or of a protocol shall be deposited with the Depositary, the Government of Kuwait who shall send copies thereof to all States concerned and shall register all such instruments and all subsequent actions in respect of them with the Secretariat of the United Nations in accordance with article 102 of the Charter of the United Nations.

In witness whereof the undersigned Plenipotentiaries, being duly authorised by their respective Governments, have signed the present Convention.

Done at Kuwait this twenty-fourth day of April, in the year one thousand nine hundred and seventy-eight in the Arabic, English and Persian languages, the three texts being equally authentic. In case of a dispute as to the interpretation or application of the Convention or its protocols, the English text shall be dispositively authoritative.

Appendix RDM
Protocol Concerning Regional Co-Operation in Combating
Pollution by Oil and Other Harmful Substances
in Cases of Emergency

PROTOCOL CONCERNING REGIONAL CO-OPERATION IN COMBATING POLLUTION
BY OIL AND OTHER HARMFUL SUBSTANCES IN CASES OF EMERGENCY

Adopted at Kuwait on 24 April 1978

The Contracting States

Being parties to the Kuwait Regional Convention for
Co-operation on the Protection of the Marine Environment from
Pollution (hereinafter referred to as "the Convention");

Conscious of the particular urgency to realize the ever
present potential emergencies which may result in substantial
pollution by oil and other harmful substances and to provide
co-operative and effective measures to deal with them;

Being aware that existing measures for responding to pollution
emergencies need to be enhanced on a national and regional basis
to deal with this problem in a comprehensive manner for the
benefit of the Region;

Have agreed as follows:

Article I

For the purposes of this Protocol:

1. "Appropriate Authority" means either the National Authority defined in Article I of the Convention, or the authority or authorities within the Government of a Contracting State, designated by the National Authority and responsible for:
 - a) combating and otherwise operationally responsible to marine emergencies;
 - b) receiving and co-ordinating information of particular marine emergencies;
 - c) co-ordinating available national capabilities, for dealing with marine emergencies in general within its own Government and with other Contracting States.
2. "Marine Emergency" means any casualty, incident, occurrence or situation, however caused, resulting in substantial pollution or imminent threat of substantial pollution to the marine environment by oil or other harmful substances and includes, inter alia, collisions, strandings and other incidents involving ships, including tankers blow-outs arising from petroleum drilling and production activities, and the presence of oil or other harmful substances arising from the failure of industrial installations;
3. "Marine Emergency Contingency Plan" means a plan or plans, prepared on a national, bilateral or multilateral basis, designed to co-ordinate the deployment, allocation and use of personnel material and equipment for the purpose of responding to marine emergencies;
4. "Marine Emergency Response" means any activity intended to prevent, mitigate or eliminate pollution by oil or other harmful

substances or threat of such pollution resulting from marine emergencies;

5. "Related Interests" means the interests of a Contracting State directly or indirectly affected or threatened by a marine emergency, such as:

a) Maritime, coastal, port or estuary activities including fisheries activities, constituting an essential means of livelihood of the persons concerned;

b) historic and tourist attractions of the area concerned;

c) the health of the coastal population and the well-being of the area concerned, including conservation of living marine resources and of wildlife;

d) industrial activities which rely upon intake of water, including distillation plants, and industrial plants using circulation water;

6. "Convention" means the Kuwait Regional Convention for Co-operation on the Protection of the Marine Environment from Pollution;

7. "Sea Area" means the area specified in paragraph (a) of Article II of the Convention;

8. "Council" means the organ of the Regional Organization for the Protection of the Marine Environment established under Article XVI of the Convention;

9. "Centre" means the Marine Emergency Mutual Aid Centre established under Article III, paragraph I of the present Protocol.

Article II

1. The Contracting States shall co-operate in taking the necessary and effective measures to protect the coastline and related interests of one or more of the States from the threat and effects of pollution due to the presence of oil or other harmful substances in the marine environment resulting from marine emergencies.

2. The Contracting States shall endeavour to maintain and promote, either individually or through bilateral or multilateral co-operation, their contingency plans and means for combating pollution in the Sea Area by oil and other harmful substances. These means shall include, in particular, available equipment, ships, aircraft and manpower prepared for operations in cases of emergency

Article III

1. The Contracting States hereby establish the Marine Emergency Mutual Aid Centre.

2. The objectives of the Centre shall be:

a) to strengthen the capacities of the Contracting States and to facilitate co-operation among them in order to combat pollution by oil and other harmful substances in cases of marine emergencies;

b) to assist Contracting States, which so request, in the development of their own national capabilities to combat pollution by oil and other harmful substances and to co-ordinate and facilitate information exchange, technological co-operation and training.

c) a later objective, namely the possibility of initiating operations to combat pollution by oil and other harmful substances at the regional level, may be considered. This possibility should be submitted for approval by the Council after evaluating the results achieved in the fulfilment of the previous objectives and in the light of financial resources which could be made available for this purpose.

3. The functions of the Centre shall be:

a) to collect and disseminate to the Contracting States information concerning matters covered by this Protocol, including:

(i) laws, regulations and information concerning appropriate authorities of the Contracting States and marine emergency contingency plans referred to in Article V of this Protocol;

(ii) information concerning methods, techniques and research relating to marine emergency response referred to in Article II of this Protocol; and

(iii) list of experts, equipment and materials available for marine emergency responses by the Contracting States;

b) to assist the Contracting States, as requested:

(i) in the preparation of laws and regulations concerning matters covered by this Protocol and in the establishment of appropriate authorities;

(ii) in the preparation of marine emergency contingency plans;

(iii) in the establishment of procedures under which personnel, equipment and materials involved in marine emergency responses may be expeditiously transported into, out of, and through their respective countries;

(iv) in the transmission of reports concerning marine emergencies; and

(v) in promoting and developing training programmes for combating pollution.

c) to co-ordinate training programmes for combating pollution and prepare comprehensive anti-pollution manuals;

d) to develop and maintain a communication/ information system appropriate to the needs of the Contracting States and the Centre for the prompt exchange of information concerning marine

emergencies required by this Protocol;

e) to prepare inventories of the available personnel, material, vessels, aircraft, and other specialized equipment for marine emergency responses;

f) to establish and maintain liaison with competent regional and international organizations, particularly the Inter-Governmental Maritime Consultative Organization, for the purposes of obtaining and exchanging scientific and technological information and data, particularly in regard of any new innovation which may assist the Centre in the performance of its functions;

g) to prepare periodic reports on marine emergencies for submission to the Council; and

h) to perform any other functions assigned to it either by this Protocol or by the Council.

4. The Centre may fulfill additional functions necessary for initiating operations to combat pollution by oil and other harmful substances on a regional level, when authorized by the Council, in accordance with paragraph 2 (c) above.

Article IV

1. The present Protocol shall apply to the Sea Area specified in paragraph (a) of Article II of the Convention.

2. For the purposes of dealing with a marine emergency, ports, harbours, estuaries, bays and lagoons may be treated as part of the Sea Area if the concerned Contracting State so decides.

Article V

Each Contracting State shall provide the Centre and the other Contracting States with information concerning:

a) its appropriate authority;

b) its laws, regulations, and other legal instruments relating generally to matters addressed in this Protocol, including those concerning the structure and operation of the authority referred to in paragraph (a) above;

c) its national marine emergency contingency plans .

Article VI

Each Contracting State shall provide to other Contracting States and the Centre information concerning:

a) existing and new methods, techniques, materials, and procedures relating to marine emergency response;

b) existing and planned research and developments in the areas referred to in Paragraph (a) above; and

c) results of research and developments referred to in Paragraph

(b) above.

Article VII

1. Each Contracting State shall direct its appropriate officials to require masters of ships pilots of aircraft and persons in charge of offshore platforms and other similar structures operating in the marine environment and under its jurisdiction to report the existence of any marine emergency in the Sea Area to the appropriate national authority and to the Centre.

2. Any Contracting State receiving a report pursuant to paragraph 1 above shall promptly inform the following of the marine emergency;

a) the Centre;

b) all other Contracting States;

c) the flag State of any foreign ship involved in the marine emergency concerned.

3. The content of the reports, including supplementary reports where appropriate, referred to in paragraph 1 above should conform to Appendix A of this Protocol.

4. Any Contracting State which submits a report pursuant to paragraph 2 (a) and (b) above, shall be exempted from the obligations specified in paragraph (b) of Article IX of the Convention.

Article VIII

The Centre shall promptly transmit information and reports which it receives from a Contracting State pursuant to Article V, VI and paragraph 2 of Article VII of this Protocol to all other Contracting States.

Article IX

Any Contracting State which transmits information pursuant to this Protocol may specifically restrict its dissemination. In such a case, any Contracting State or the Centre to whom this information has been transmitted shall not divulge it to any other person, government, or to any public or private organization without the specific authorization of the former Contracting State.

Article X

Any Contracting State faced with a marine emergency situation as defined in Paragraph 2 of Article I of this Protocol shall:

a) take every appropriate measure to combat pollution and/or to rectify the situation;

b) immediately inform all other Contracting States, either

directly or through the Centre, or any action which it has taken or intends to take to combat the pollution. The Centre shall promptly transmit any such information to all other Contracting-States;

c) make assessment of the nature and extent of the marine emergency, either directly or with the assistance of the Centre;

d) determine the necessary and appropriate action to be taken with respect to the marine emergency, in consultation, where appropriate, with other Contracting States, affected States and the Centre.

Article XI

1. Any Contracting State requiring assistance in a marine emergency response may call for assistance directly from any other Contracting State or through the Centre. Where the services of the Centre are utilized, the Centre shall promptly transmit requests received to all other Contracting States. The Contracting States to whom a request is made pursuant to this paragraph shall use their best endeavours within their capabilities to render the assistance requested.

2. The assistance referred to in paragraph 1 above may include:

a) personnel, material, and equipment, including facilities or methods for the disposal of recovered pollutant;

b) surveillance and monitoring capacity;

c) facilitation of the transfer of personnel, material, and equipment into, out of, and through the territories of the Contracting States.

3. The services of the Centre may be utilized by the Contracting States to co-ordinate any marine emergency response in which assistance is called for pursuant to paragraph 1 above.

4. Any Contracting State calling for assistance pursuant to paragraph 1 above shall report the activities undertaken with this assistance and its results to the Centre. The Centre shall promptly transmit any such report to all other Contracting States.

5. In cases of special emergencies, the Centre may call for the mobilization of resources made available by the Contracting States to combat pollution by oil and other harmful substances.

Article XII

1. Having due regard to the functions assigned to the Centre under this Protocol, each Contracting State shall establish and maintain an appropriate authority to carry out fully its obligations under this Protocol. With the assistance of the Centre, where appropriate, the appropriate authority of each Contracting State shall co-operate and co-ordinate its activities with counterparts in the other Contracting States.

2. Among other matters with respect to which cooperation and

co-ordination efforts shall be directed under paragraph 1 above are the following:

- a) distribution and allocation of stocks of material and equipment;
- b) training of personnel for marine emergency response;
- c) marine pollution surveillance and monitoring activities;
- d) methods of communication in respect of marine emergencies;
- e) facilitation of the transfer of personnel equipment and materials involved in marine emergency responses into, out of, and through the territories of the Contracting States;
- f) other matters to which this Protocol applies.

Article XIII

The Council shall:

- a) review periodically the activities of the Centre performed under this Protocol;
- b) decide on the degree to which, and stages by which, the functions of the Centre set out in Article III will be implemented; and
- c) determine the financial, administrative and other support to be provided by the Contracting States to the Centre for the performance of its functions .

In witness whereof the undersigned Plenipotentiaries, being duly authorized by their respective Governments, have signed this Protocol:

Done at Kuwait this twenty-fourth day of April, in the year one thousand nine hundred and seventy-eight in the Arabic, English and Persian languages, the three texts being equally authentic. In case of a dispute as to the interpretation or application of this Protocol, the English text shall be dispositively authoritative.

APPENDIX A

GUIDELINES FOR THE REPORT TO BE MADE PURSUANT TO ARTICLE VII OF THE PROTOCOL

1. Each report shall, as far as possible, contain, in general:
 - a) the identification of the source of pollution (e.g. identity of the ship), where appropriate;
 - b) the geographic position, time and date of the occurrence of the incident or of the observation;
 - c) the marine meteorological conditions prevailing in the area;
 - d) where the pollution originates from a ship, relevant details

respecting the conditions of the ship.

2. Each report shall contain, whenever possible, in particular:

a) a clear indication or description of the harmful substances involved, including the correct technical names of such substances (trade names should not be used in place of the correct technical names);

b) a statement or estimate of the quantities, concentrations and likely conditions of harmful substances discharged or likely to be discharged into the sea;

c) where relevant, a description of the packaging and identifying marks; and

d) the name of the consignor, consignee or producer.

3. Each report shall clearly indicate, whenever possible, whether the harmful substance discharged or likely to be discharged is oil or a noxious liquid, solid or gaseous substance, and whether such substance was or is carried in bulk or contained packaged form, freight containers, portable tanks, or submarine pipelines.

4. Each report shall be supplemented, as necessary, by any relevant information requested by a recipient of the report or deemed appropriate by the person sending the report.

5. Any of the persons referred to in Article VII paragraph 1 of this Protocol shall:

a) supplement as far as possible the initial report, as necessary, with information concerning further developments; and

b) comply as fully as possible with requests from affected States for additional information.

Appendix RDN
Protocol concerning Marine Pollution Resulting from Exploration
and Exploitation of the Continental Shelf

Protocol concerning Marine Pollution Resulting from
Exploration and Exploitation of the Continental Shelf

Done at Kuwait on 29 March 1989

THE CONTRACTING STATES,

BEING Parties to the Kuwait Regional Convention for Co-operation on the Protection of the Marine Environment from Pollution and to the Protocol concerning Regional Co-operation in Combating Pollution by Oil and other Harmful Substances in Cases of Emergency;

BEING AWARE of the Articles 76, 197 and 208 of the United Nations Convention on the Law of the Sea (1982);

RECOGNIZING the danger posed to the marine environment and to human health by pollution from exploration and exploitation of the Continental Shelf, and the serious problems resulting therefrom in the Sea Area under their national jurisdictions;

CONSCIOUS of the need for further and more particular measures to prevent and control marine pollution from exploration and exploitation of the sea-bed and its subsoil;

BEING MINDFUL of their existing obligations under International Law; and

PROMPTED by the desire to implement Article III, paragraph (b), Article VII, and Article XIX of the Convention;

HAVE AGREED AS FOLLOWS:

Article I

For the purposes of this Protocol:

1. "Centre" means the Marine Emergency Mutual Aid Centre established under Article III paragraph 1 of the "Protocol concerning Regional Co-operation in Combating Pollution by Oil and other Harmful Substances in Cases of Emergency".
2. "Certifying Authority" means any person or body of persons authorized by the Contracting State to issue a certificate of safety and fitness for purpose;
3. "Chemical Use Plan" means a plan drawn up by the operator of an offshore installation which shows -
 - a) the chemicals he intends to use in his operations;
 - b) the purpose or purposes for which he intends to use the chemicals;
 - c) the maximum concentrations of the chemicals he intends to use within any other substances, and maximum amounts he intends to use in any specified period;
 - d) the area within which the chemical may escape into the marine environment;

provided that where there is no known danger of a chemical escaping into the marine environment, it need not be included in the plan;

4. "Competent State Authority" means any Government department, Agency or other Authority in the Contracting State designated to exercise the power or discharge the function referred to in this Protocol, with such designation to be formally communicated to the Organization;

5. "Contracting State" means any State which has become a party to this Protocol;

6. "Convention" means the Kuwait Regional Convention for Cooperation on the Protection of the Marine Environment from Pollution;

7. "Council" means the organ of the Organization comprised of the Contracting States and established in accordance with Article XVI, paragraph (b) (i) of the Convention;

8. "Garbage" means kitchen and domestic waste, refuse and solid wastes, other than any for which provision is made by any other Article of this Protocol, save for Article XIII;

9. "Guidelines" means only guidelines issued by the Organization and any amendments thereto in each case approved by the Council;

10. "Licence" means a licence, permit including work permit, or authorization, formally issued under the authority of a Contracting State for undertaking an offshore operation;

11. "Marine pollution" shall have the meaning given to it in Article I(a) of the Convention;

12. "Offshore Installation" means any structure, plant or vessel, whether floating or fixed to or under the seabed, placed in a location in the Protocol Area (defined in Item 16 in this Article) for the purpose of offshore operations, including any tanker for the time being moored and used for the temporary storage of oil, and including any plant for treating, storing or regaining control of the flow of crude oil; and for the purposes of certification under Article VI, an installation includes any integral part of the structure, plant, equipment or vessel, any attached lifting gear or safety mechanism, and any other part or equipment specified by the Contracting State as part of the installation;

13. "Offshore Operations" means any operations conducted in the Protocol Area for the purposes of exploring of oil or natural gas or for the purposes of exploiting those resources, including any treatment before transport to shore and any transport of the same by pipeline to shore. It includes also any work of construction, repair, maintenance, inspection or like operation incidental to the main purpose of exploration or exploitation;

14. "Operator" means any natural or juridical person who undertakes offshore operations as defined under item (13) of Article I of this Protocol;

15. "Organization" shall have the meaning given to it in Article I(c) of the Convention;

16. "Protocol Area" means all parts of the Continental Shelf of a Contracting State which fall within the Sea Area as defined in paragraph (a) of Article II of the Convention and all parts of its Continental Shelf contiguous therewith;

17. "Sewage" means -

i) drainage and other waste from any form of toilet, urinal or water closet;

ii) drainage from medical premises such as dispensary or sickbay, via wash-basins, wash-tubs and drains located in such premises;

iii) other wastewaters when mixed with significant quantities of the drainage defined above;

18. "Special Area" means that part of the Sea Area located north-west of the rhumb line between Ras Al Hadd (22°30'N, 59°48'E) and Ras Al Fasteh (25°04'N, 61°25'E).

Article II

Contracting States shall require that all appropriate measures are taken to prevent, abate and control marine pollution from offshore operations in those parts of the Protocol Area within their respective jurisdictions taking into account the best available and economically feasible technology. Contracting States acting individually or jointly shall also take all appropriate steps to combat marine pollution from offshore operations within the parts of the Protocol Area under their jurisdiction.

Such obligations shall be without prejudice to the more specific obligations accepted under this Protocol.

Article III

Each Contracting State shall ensure that in the Protocol Area under its jurisdiction any offshore operation shall be conducted under a licence, which may be granted subject to such conditions for the protection of the marine environment and coastal areas as the Competent State Authority sees fit to impose. The Competent State Authority shall require the operator to comply with relevant laws and regulations issued under the authority of the State, and shall have the power to take such measures as are necessary to enforce compliance therewith.

Article IV

1. Each Contracting State shall take measures to ensure the following:

a) Before licensing any offshore operation which could cause significant risks of pollution in the Protocol Area or any adjacent coastal area, the Competent State Authority shall

call for submission of an assessment of the potential environmental effects thereof. No such operation shall commence until a statement of those effects has been submitted, and no licence shall be granted until the Competent State Authority is satisfied that the operation will entail no unacceptable risk of such damage in the Protocol Area or any adjacent coastal area.

b) In deciding to call for an environmental impact statement, and in determining its scope, the Competent State Authority shall have regard to the Guidelines issued by the Organization.

c) Whenever a Competent State Authority has called for and received an environmental impact statement, it shall send to the Organization a summary of the potential environmental effects referred to in that statement. The Organization shall, within four days of its receipt, despatch copies of that summary to all the other Contracting States. The Competent State Authority before granting a licence for the proposed operation, shall allow all other Contracting States to submit representations to it through the Organization within a stated time which shall be reasonable taking into account the type of operation and the urgency of the need for a decision. It shall consider any such representations before licensing the said operation.

Notwithstanding the obligation to send a summary to the Organization, the Contracting State shall have the right to withhold information which might prejudice its national security.

2. Whenever a Contracting State does not call for an assessment of the environmental impact of a proposed offshore operation, it shall consider calling for a survey of the marine environment and the aquatic life therein to be made before the start of the proposed operation. The survey is to be carried out by or under the direct supervision of a body independent of the operator and approved by the Competent State Authority.

3. The Guidelines on Environmental Impact Assessment to be issued by the Organization shall contain guidance on the type of operation, and the circumstances in which it would cause significant risk of pollution in the Protocol Area or any adjacent coastal area.

Article V

1. Each Contracting State shall endeavour to ensure that offshore operations within its jurisdiction shall not cause unjustifiable interference with lawful navigation, fishing or any other activity carried on under a bilateral or multilateral agreement or on the basis of international law, and that in siting an installation, due regard shall be had to existing pipelines and cables. Regard shall also be had to the need for protecting sites of special ecological and cultural interests.

2. Each Contracting State shall take steps to ensure that, within the area of its jurisdiction, operators of offshore

installations survey the sea-bed in the vicinity of their installations, and remove any debris resulting from their operations which might interfere with lawful fishing:

- a) in the case of a pipeline, or other sub-sea apparatus immediately following completion of the work of installation;
- b) in the case of a production platform, immediately following its removal;
- c) in any case when the Competent State Authority might reasonably require survey and clean-up.

Article VI

Each Contracting State shall take all practicable measures to ensure that every offshore installation to be used in that part of the Protocol Area within its jurisdiction is certified by a Certifying Authority or its designer that it is safe and fit for the purpose for which it is to be used so as to ensure that it will not cause accidental damage to the marine environment.

Article VII

Each Contracting State shall take all practicable measures to ensure the following:

1. Operators shall at all times have available to their offshore installations, in good working order, equipment and devices to minimize the risk of accidental pollution and to facilitate prompt response to a pollution emergency, in accordance with good oilfield or other relevant industry practice.
2. Any such plant or equipment not included as part of an installation for the purposes of Article VI shall be subject to prior examination and approval by or on behalf of the Competent State Authority, and to periodic inspection, in accordance with good oilfield or other relevant industry practice.
3. Blow-out preventers and other safety equipment shall be tested periodically by the operator or on his behalf, and exercises in their operation carried out periodically, in accordance with good oilfield or other relevant industry practice.
4. Offshore installations above sea level shall carry lights and other warning instruments, in accordance with international maritime practice, maintained in good working order, and those lights and instruments shall also be operated in accordance with international maritime practice.
5. All persons engaged in offshore operations shall have had or be given training in accordance with good oilfield practice. Any person employed on an offshore installation for the first time shall undergo an induction course, and shall be given a manual which includes instruction on emergency procedures.

Article VIII

Each Contracting State shall take all practicable measures to ensure the following:

1. No operator shall start work on any stage of his offshore operations within its jurisdiction until he has:
 - a) prepared a Contingency Plan to deal with any event which may occur as a result of the operations, and which may cause significant pollution to the marine environment;
 - b) had that plan approved by the Competent State Authority;
 - c) shown to the satisfaction of that State authority that he has available to him sufficient expertise and resources to put that Plan fully into operation.
2. No Contingency Plan shall be approved unless it can be co-ordinated with any existing national or local Contingency Plans, and any Plans prepared by the Centre, and unless the operator can be required to participate in any exercise conducted in the implementation of such Contingency Plans.
3. Any person conducting offshore operations shall make and maintain arrangements to ensure that when an event occurs as a result of his operations which may cause significant pollution of the marine environment, a full report of that event is sent immediately to the State authority designated to receive such reports.
4. The respective roles and powers of the industry and the authorities shall be fully understood before an oil spill emergency, and shall be clearly defined in the operator's Contingency Plan, and in any national and local Contingency Plans.

Article IX

Each Contracting State shall take all practicable measures to ensure, subject to paragraph 2 below, the following:

- a) In that part of the Protocol Area which is a 'Special Area', no machinery space drainage from an offshore installation shall be discharged into the sea unless the oil content thereof does not exceed 15 mg per litre whilst undiluted. Any Contracting State may impose a more restrictive level in any area under its jurisdiction.
- b) No other discharge from an offshore installation into the sea within the Protocol Area, except one derived from drilling operations, shall have an oil content, whilst undiluted, greater than that stipulated for the time being by the Organization. The oil content so stipulated shall not be greater than 40 mg per litre as an average in any calendar month, and shall not at any time exceed 100 mg per litre.
- c) Discharge points for oily wastes shall be well below the surface of the sea as appropriate.
- d) All necessary precautions shall be taken to minimize

losses of oil into the sea from oil and gas collected or flared from well testing.

2. Measures passed in compliance with paragraph 1 of this Article may provide that there is no breach of their requirements if, when the oil content of a discharge is greater than the permitted concentrations, that excess was due to some accident or other cause beyond the control of the operator and his employees, and that they took all reasonable precautions and exercised all due diligence to avoid such excess. Alternatively, a defence of equivalent effect may be provided.

3. Each Contracting State shall ensure that the operator may be required to conduct surveys of environmental conditions in the vicinity of his offshore installation, periodically or on such occasions as the Competent State Authority may reasonably require.

The State itself may conduct or have conducted such a survey. If, without apparent reason, the results of that survey show a significant difference from the results of the operator's most recent survey, without prejudice to any other legal action, the State may charge the cost of its own survey to the operator.

4. Each Contracting State shall pass measures necessary to ensure the following:

a) Oil-based drilling fluids shall not be used in drilling operations in those parts of the Protocol Area within its jurisdiction except with the express sanction of the Competent State Authority. Such sanction shall not be given unless the Authority is satisfied that the use of such fluid is justified because of exceptional circumstances. If such fluid is used, the drill cuttings shall be effectively treated to minimize their oil content before being appropriately disposed of. Any wash waters shall not be discharged at any place from which they may be carried to mix with the same drill cuttings. The discharge point for the cuttings shall, as appropriate, be well below the surface of the water.

b) No oil-based drilling fluid shall be discharged to any parts of the Protocol Area within its jurisdiction.

c) Water-based drilling muds discharged from off-shore operations must not contain persistent systematic toxins which may continue to pose an environmental threat after the initial drilling fluid discharge.

Article X

1. Each Contracting State shall take all practicable measures to ensure the following:

a) Disposal into the sea of the following is prohibited:

i) all plastics, including but not limited to synthetic ropes, synthetic fishing nets and plastic garbage bags;

ii) all other garbage, including paper products, rags, glass, metal, bottles, crockery, dunnage, lining and packing materials;

b) Disposal into the sea of food wastes shall be made as far as practicable from land, but in any case not less than 12 nautical miles from the nearest land.

c) When the garbage is mixed with other discharges having different disposal or discharge requirements the more severe requirements shall apply.

d) Sewage shall not be discharged into the Protocol Area from an installation permanently manned by ten or more persons unless:

i) it has been comminuted and disinfected using a system approved by the Competent State Authority and is discharged at a distance of more than four nautical miles from the nearest land; or

ii) it is discharged at a distance of more than twelve nautical miles from the nearest land; or

iii) it has passed through a treatment plant approved by the Competent State Authority;

and in any case the discharge does not produce visible floating solids or discolouration of the surrounding water.

2. Each Contracting State shall provide at convenient points on its coastline, reception facilities for general garbage from manned offshore installations operating in the area of its jurisdiction.

Article XI

1. Each Contracting State shall take all appropriate measures to ensure the following:

a) Each operator of an offshore installation shall prepare, and submit for approval by the Competent State Authority, a "Chemical Use Plan". Application for amendments to the Plan may be submitted subsequently and approved. If at any time he wishes to use a chemical outside the scope of his approved Plan, and that chemical may escape into the marine environment, he shall notify the Competent State Authority, except that in case of emergency to prevent the risk of injury to person or extensive damage to property, the notification need not be given prior to the use of the chemical.

b) The Competent State Authority has a power to prohibit, limit or regulate the use of a chemical or product and to impose conditions on its storage and its use, for the purpose of protecting the marine environment. In exercising that power, the Authority shall have regard to any Guidelines issued by the Organization.

2. Each Contracting State shall take appropriate measures to ensure that seismic operations in the Protocol Area shall

take into account the Guidelines issued by the Organization.

Article XII

Each Contracting State shall require that, for offshore operations in any part of the Protocol Area within its jurisdiction, the operator shall:

1. provide adequate systems for collection and proper disposal of all unwanted substances or articles;
2. give proper instructions on their use;
3. endeavour to provide for penalties for improper disposal.

Article XIII

1. Each Contracting State shall ensure that the Competent Authority has the power to require the operator of an offshore installation:

a) in the case of a pipeline -

i) to flush and remove any residual pollutants from the pipeline, and

ii) to bury the pipeline, or remove part and bury the remaining parts thereof, so as to eliminate for the foreseeable future any risk of hindrance to navigation or fishing, taking all circumstances into account.

b) in the case of platforms and other sea-bed apparatus and structures, to remove the installation in whole or in part to ensure the safety of navigation and in the interests of fishing.

Each Contracting State shall also take all practicable measures to ensure that the operator has sufficient resources to guarantee that any such requirements can be met.

2. Where Contracting States have a common interest in fishing grounds in the Protocol Area, they shall endeavour to adopt a common policy on the removal of installations.

In determining in any case whether or not installations must be removed, Contracting States shall have regard to any Guidelines issued by the Organization. Whether pipelines are removed or not, they shall be flushed to remove residual pollutants.

3. Contracting States shall pass, and take all practicable steps to enforce, measures to ensure that no offshore installation which in use has floated at or near the sea-surface, and no equipment from an offshore installation, shall be deposited on the sea-bed of the continental shelf when it is no longer needed.

Article XIV

1. The provisions of the Convention relating to Protocols shall apply to this Protocol.

2. Procedures for amendments to Protocols and their Annexes adopted in accordance with Articles XX and XXI of the Convention shall apply to this Protocol.

3. The Rules of Procedure and Financial Rules adopted pursuant to Article XXII of the Convention, and amendments thereto, shall apply to this Protocol.

Article XV

1. This Protocol shall be open for signature in the State of Kuwait from 29 March to 26 June 1989 by any State which is party to the Kuwait Regional Convention for Co-operation on the Protection of the Marine Environment from Pollution.

2. This Protocol shall be subject to ratification, acceptance, approval or accession by the States Parties to the Convention. Instruments of ratification, acceptance, approval or accession shall be deposited with the Government of Kuwait which shall assume the functions of the Depository.

3. This Protocol shall enter into force on the ninetieth day following the date of deposit of at least five instruments of ratification, acceptance or approval of, or accession to this Protocol by the States as referred to in paragraph 2 of this Article.

In WITNESS WHEREOF the undersigned Plenipotentiaries, being duly authorized by their respective Governments, have signed this Protocol.

DONE AT KUWAIT this twenty-ninth day of March, in the year one thousand nine hundred and eighty-nine in the Arabic, English and Persian languages, the texts being equally authentic.

Appendix RDP
Protocol to the Kuwait Regional Convention for the Protection of
the Marine Environment
Against Pollution from Land-Based Sources

Protocol to the Kuwait Regional Convention for the Protection of
the Marine Environment Against Pollution from Land-Based Sources

21 February 1990

THE CONTRACTING STATES

BEING PARTIES to the Kuwait Regional Convention for Co-operation
on the Protection of the Marine Environment from Pollution;

RECOGNIZING the danger posed to the marine environment and to
human health by pollution from land-based sources and the
serious problems resulting therefrom in coastal waters of many
Contracting States, principally due to the release of untreated,
insufficiently treated and/or inadequately disposed of domestic
or industrial discharges;

NOTING that existing measures to prevent, abate and combat
pollution caused by discharges from land-based sources need to
be strengthened on a national and a regional basis;

BEING AWARE of Articles 194, 207, 212 and 213 of the United
Nations Convention on the Law of the Sea (1982); and the
Montreal Guidelines for the Protection of the Marine Environment
against Pollution from Land-Based Sources (1985); and

DESIROUS to strengthen the implementation of Article III,
paragraph (b) and Article VI of the Convention;

HAVE AGREED as follows:*

Article I

DEFINITIONS

For the purpose of this Protocol:

1. "Combined Treatment" means common treatment of industrial
effluents along with domestic sewage;
2. "Competent State Authority" means the Authority designated by
the Contracting State for the purpose of this Protocol;
3. "Contracting State" means any State which has become a party
to this Protocol;
4. "Convention" means the Kuwait Regional Convention for
Co-operation on the Protection of the Marine Environment from
Pollution;
5. "Council" means the organ of the Organization as referred to
in sub-paragraph (i) of paragraph (b) of Article XVI of the
Convention;
6. "Freshwater Limit" means the place in watercourses where, at
low tide and in a period of low freshwater flow, there is an
appreciable increase in salinity due to the presence of
sea-water;
7. "Joint Pretreatment/Treatment" means common
pretreatment/treatment of the effluents from more than one

industrial source;

8. "Land-Based Sources" means municipal, industrial or agricultural sources, both fixed and mobile on land, discharges from which reach the Marine Environment, as outlined in Article III of this Protocol;

9. "Marine Environment" means the Protocol Area as defined in Article II of this Protocol;

10. "Organization" means the Regional Organization for the Protection of the Marine Environment established in accordance with Article XVI of the Convention;

11. "Pollution" means "Marine Pollution" as defined in paragraph (a) of Article I of the Convention;

Article II

AREA OF APPLICATION

The area to which this Protocol applies (hereinafter referred to as the "Protocol Area") shall be the Sea Area as defined in Article II, paragraph (a) of the Convention, together with the waters on the landward side of the baselines from which the breadth of the territorial sea of the Contracting States is measured and extending, in the case of watercourses, up to the freshwater limit and including inter tidal zones and salt-water marshes communicating with the sea.

Article III

SOURCES OF POLLUTION

This Protocol shall apply to discharges reaching the Protocol Area from land-based sources within the territories of the Contracting States, in particular:

(a) from outfalls and pipelines discharging into the sea;

(b) through rivers, canals or other watercourses, including underground watercourses:

(c) from fixed or mobile offshore facilities serving purposes other than exploration and exploitation of the sea bed, its subsoil and the continental shelf; and

(d) from any other land-based sources situated within the territories of the Contracting States, whether through water, through the atmosphere or directly from the coast.

Article IV

SOURCE CONTROL

1. The Contracting States undertake to implement the action programmes based on source control as outlined in Annex I to this Protocol. To this end, they shall develop and implement, jointly or individually, as appropriate, the necessary programmes and measures.

2. The programmes and measures and the timetables for their implementation aimed at reducing pollution from land-based sources, shall be fixed by the Contracting States and periodically reviewed and revised, if necessary every two years, in accordance with the provisions of Article XIV of this Protocol.

Article V

JOINT AND/OR COMBINED EFFLUENT TREATMENT

1. The Contracting States in their endeavour not to inhibit the development of new industries, and especially that of small industrial operations, and recognizing the economic and technical difficulties often encountered by such operations in properly treating their effluents individually, undertake to implement, to the extent possible, industrial location planning programmes as outlined in Annex II to this Protocol. To this end, they shall develop and implement, jointly and/or individually, as appropriate, the necessary programmes and measures.

2. The Regional guidelines and criteria along with programmes and measures and the time-tables for their implementation, aimed at reducing pollution from land-based sources through joint and/or combined effluent treatment, shall be fixed by the Contracting States and periodically reviewed and revised, if necessary every two years, in accordance with the provisions of Article XIV of this Protocol.

Article VI

REGIONAL AND LOCAL REGULATIONS/PERMITS FOR RELEASE OF WASTES

1. As outlined in Annex III to this Protocol, the Contracting States shall progressively develop and adopt, in co-operation with competent Regional and International organizations as appropriate:

(a) Regional guidelines, standards or criteria, as appropriate, for the quality of sea-water used for specific purposes that is necessary for the protection of human health, living resources and ecosystems;

(b) Regional regulations for the waste discharge and/or degree of treatment for all significant types of land-based sources;

(c) Stricter local regulations for waste discharge and/or degree of treatment for specific sources based on local pollution problems and desirable water usage considerations.

Stricter regulations for specific sources serve the purpose of preserving the quality of seawater required for the intended use. In developing such regulations the local ecological, geographical and physical characteristics, as well as, the level of existing pollution in the Marine Environment shall be taken into consideration.

2. The programmes for the implementation of the above measures shall be adopted and shall take into account, for their progressive application the cost of measures involved, the

capacity to modify existing installations, the economic capacity of the Contracting States and their need for sustainable development.

3. Polluters shall be required to obtain a permit to discharge from the Competent State Authorities. Such permits shall allow for review and modification of discharge conditions reflecting the periodic update of regulations.

4. Guidelines, standards or criteria, as well as regulations, programmes and measures shall be developed and adopted in accordance with the provisions of Article XIV of this Protocol and periodically updated, if necessary every two years, to reflect the increasing information through the monitoring programme described in Article VII of this Protocol, the changes in the industrial and other human activities and possible advances in science and the pollution control technologies.

Article VII

MONITORING AND DATA MANAGEMENT

1. The Contracting States, within the framework of the provisions of Article X of the Convention, shall carry out monitoring activities, if necessary in co-operation with the competent Regional and International organizations, in order to:

a) collect data on natural conditions of the Protocol Area as regards its physical, biological and chemical characteristics;

b) collect data on inputs of substances or energy that cause or potentially cause pollution from land-based sources, including information on the distribution of sources and the quantities of pollutants introduced to the Protocol Area;

c) assess systematically the levels of pollution within their internal and territorial waters, in particular with regard to the substances that may have a potential significant impact on the Marine Environment. For the selection of the sampling locations and substances to be measured, information available, inter alia, from source inventories, discharge outfalls and marine environment characteristics shall be considered; and

d) evaluate the effectiveness of measures taken under this Protocol in meeting the environmental objectives.

2. Contracting States shall collaborate jointly or collectively to establish comparable monitoring programmes, as well as analytical quality control programmes and to promote data storage, retrieval and exchange.

Article VIII

ENVIRONMENTAL IMPACT ASSESSMENT

1. The Contracting States shall require on priority basis an assessment of the potential environmental impacts during the planning and implementation stages of selected development projects within their territories, particularly in the coastal areas, which may cause significant risks of pollution from land-based sources to the Protocol Area, in order to ensure that

appropriate measures are taken to prevent or mitigate such risks.

2. The Contracting States shall develop, with the assistance of the Organization, technical and other guidelines concerning the assessment of the potential environmental impacts of development projects referred to in paragraph 1, including possible transboundary effects. The assessment should, where appropriate, contain inter alia the following:

(a) A description of the geographical location of the activities to be carried out;

(b) A description of the initial ecological state of the marine environment and the coastal area which may be affected by the activities;

(c) An indication of the nature, aims and scope of the proposed activities;

(d) A description of the methods, installations and other means to be used;

(e) A description of the foreseeable direct and indirect long-term and short-term effects of the activities on the Marine Environment, including fauna, flora and the ecological balance;

(f) A statement setting out the measures proposed to reduce to the minimum the risk of pollution by carrying out the activities and, in addition, possible process and pollution abatement alternatives to such measures;

(g) An indication of the measures to be taken for the protection of the Marine Environment from pollution during and, as appropriate, at the end of the proposed activities;

(h) Definition of commitments to ongoing environmental management and monitoring;

(i) Cost-benefit analysis as appropriate;

(j) A brief summary of the assessment.

3. The implementation of the selected projects referred to in paragraph 1 should be made subject to a prior written authorization from the Competent State Authorities which takes fully into account the findings of the environmental impact assessment.

4. The Contracting States shall co-operate with the Organization to develop procedures for the dissemination to all Contracting States of the reports on the results of such assessment with a view to enable the Contracting States which may be affected by the environmental impacts of the development projects to consult with the Contracting State concerned.

Article IX

SCIENTIFIC AND TECHNOLOGICAL CO-OPERATION

The Contracting States, in conformity with Article X of the

Convention, shall co-operate in scientific and technological fields related to pollution from land-based sources, particularly research on inputs, pathways and effects of pollutants and on the development of new methods for their treatment, reduction or elimination. To this end, the Contracting States shall, in particular, endeavour to:

- (a) exchange scientific and technical information;
- (b) co-ordinate their research programmes of common nature.

Article X

SCIENTIFIC, TECHNICAL AND OTHER ASSISTANCE

1. The Contracting States shall, directly or with the assistance of the Organization or competent Regional and International organizations, co-operate with a view to formulate and implement programmes of assistance, particularly in the fields of science, education and technology, for the prevention, reduction and control of pollution from land-based sources.
2. Such technical assistance shall include, in particular, the training of scientific and technical personnel, as well as the acquisition, utilization, maintenance and production of appropriate equipment.

Article XI

WATERCOURSES SHARED BY STATES

1. If discharges from a watercourse which flows through the territories of Contracting States are likely to cause pollution of the Protocol Area, the Contracting States in question, in accordance with the provisions of this Protocol in so far as each of them is concerned, are called upon to co-operate with a view to ensuring its full application.
2. A Contracting State shall not be responsible for any pollution originating on the territory of a non-Contracting State. However, the Contracting State shall endeavour to co-operate with such State so as to make possible full application of the Protocol.

Article XII

EXCHANGE OF INFORMATION

1. The Contracting States shall inform one another directly or through the Organization of measures taken of results achieved and, if the case arises, of difficulties encountered in the application of this Protocol. Procedures for the collection and submission of such information shall be determined by the Council.
2. Such information shall include inter alia:
 - (a) Relevant statistical data in accordance with Articles VI and VII of this Protocol;
 - (b) Data resulting from monitoring as provided for in Article

VII of this Protocol;

(c) Quantities of pollutants discharged or emitted from their territories;

(d) Measures taken in accordance with Articles IV, V and VI of this Protocol.

Article XIII

RESPONSIBILITY AND LIABILITY FOR DAMAGE

1. Contracting States shall ensure that recourse is available in accordance with their legal systems for prompt and adequate compensation or other relief in respect of damage caused by pollution of the Marine Environment by natural or juridical persons under their jurisdiction.

2. Contracting States shall formulate and adopt appropriate procedures for the determination of liability for damage resulting from pollution from land-based sources.

Article XIV

INSTITUTIONAL ARRANGEMENTS

The Council, in accordance with Article XVII of the Convention, shall be responsible for keeping under review the implementation of this Protocol. To this end, the Council shall, inter alia:

(a) consider the efficacy of the measures adopted and the advisability of adopting any other measures, in particular in the form of annexes;

(b) revise and amend any annex to this Protocol, as appropriate;

(c) formulate, adopt and review programmes and measures in accordance with Articles IV, V, VI, VII, IX and X of this Protocol;

(d) adopt Regional guidelines, standards or criteria in accordance with Articles IV, V and VI of this Protocol;

(e) formulate procedures for exchange of information in accordance with Articles VIII and XII of this Protocol;

(f) consider information submitted by the Contracting States under Articles VIII and XII of this Protocol;

(g) discharge such other functions as appropriate for the application of this Protocol; and

(h) establish any such institutional mechanism as deemed necessary for the achievement of the objectives of this Protocol.

Article XV

GENERAL PROVISIONS

1. The provisions of the Convention relating to any Protocol

shall apply to this Protocol.

2. Procedures for amendments to Protocols and their Annexes adopted in accordance with Articles XX and XXI of the Convention shall apply to this Protocol.

3. The Rules of Procedures and Financial rules adopted pursuant to Article XXII of the Convention, and amendments thereto, shall apply to this Protocol.

4. The Annexes form an integral part of this Protocol unless expressly provided otherwise thereto.

Article XVI

FINAL PROVISIONS

1. This Protocol shall be open for signature in the State of Kuwait from 21 February to 21 May 1990 by any State which is party to the Kuwait Regional Convention for Co-Operation on the Protection of the Marine Environment From Pollution .

2. This Protocol shall be subject to ratification, acceptance, approval or accession by the States parties to the Convention. Instruments of ratification, acceptance, approval or accession shall be deposited with the Government of Kuwait which shall assume the functions of the Depository.

3. This Protocol shall enter into force on the ninetieth day following the date of deposit of at least five instruments of ratification, acceptance or approval of, or accession to this Protocol by the States as referred to in paragraph 1 of this Article.

IN WITNESS WHEREOF the undersigned Plenipotentiaries, being duly authorized by their respective Governments, have signed this Protocol.

DONE AT KUWAIT this twenty-first day of February, in the year one thousand nine hundred ninety in the Arabic, English and Persian languages, the texts being equally authentic.

*A Meeting of the Plenipotentiaries was held in Kuwait on 21 February 1990 for signing the Protocol concerning the Protection of the Marine Environment against Pollution from Land-Based Sources.

Annex I

POLLUTION ABATEMENT THROUGH SOURCE CONTROL

With regard to the issue of pollution abatement through source control referred to in Article IV of this Protocol, consideration should be given to the control and progressive replacement of products, installations and industrial or other processes causing significant pollution to the Marine Environment. In this regard, particular attention will be given, but not limited, to the following factors:

a) Curtailment and/or regulation of import, transportation, manufacturing or processing of certain harmful substances.

- b) Change of raw materials.
- c) Change of manufacturing processes.
- d) Good operating and housekeeping practices.
- e) Segregation of waste streams and minimization of pollutant dilution prior to treatment.
- f) Recovery, re-use and recycling.

The programmes, measures and the timetables required for the implementation of source control will be developed and priorities allocated on the basis of the results of on-going assessment studies.

Problem areas of Regional interest, where cost effective measures can be implemented, will receive attention for the purpose of establishing general management schemes. Such areas are, for example, the collection, treatment, and proper disposal of spent lubricating oils, blood and paunch from slaughterhouses, the control of fuel combustion processes and the implementation of source control in selected processes within large industries.

Annex II

PROMOTION OF JOINT AND/OR COMBINED EFFLUENT TREATMENT

Without undue prejudice to the multifaceted constraints that often govern the selection of the location of new industries, a programme will be undertaken, as referred to in Article VI of this Protocol, to promote:

- a) agglomeration of industries in a way that enhances the possibility of joint effluent pretreatment and/or treatment, as the need may be;
- b) location within the limits of city sewer systems of certain types of industry so as to enhance combined treatment of industrial and domestic wastes.

Promotion of joint and/or combined effluent treatment, if properly planned, could result in greatly reduced treatment, monitoring and enforcement costs as well as in increased treatment reliabilities. To this end, Regional guidelines and criteria will be developed dealing with topics of common interest, such as:

- the compatibility of effluent from different sources;
- pretreatment requirements prior to discharge into domestic and/or industrial sewer systems;
- cost sharing for the construction and operation of treatment plants.

Such guidelines and criteria will assist Contracting States in developing their own specific programmes and measures. While initial plans may deal with the location problem of new

industries, the end objective will be the progressive attraction of existing selected small industries as the infrastructure and facilities are developed in the designated areas.

Annex III

GUIDELINES, REGULATIONS AND PERMITS FOR THE RELEASE OF WASTES

1. With a view to guidelines, standards or criteria, as well as to regulations, programmes, measures, and discharge permits for release of wastes referred to in Article VI of this Protocol, particular attention will be given, inter alia, to the following factors:

a) Regional regulations for the waste discharge and/or degree of treatment should be specific for each kind of source and, if necessary, may be different between existing and new sources. Their development should be based on treatment technology, cost and nature of pollutants considerations, as well as on an overview of the state of the environment in the Protocol Area.

b) Regional guidelines and, as appropriate, standards or criteria should be developed for the quality of sea water used for specific purposes.

c) For areas where the water quality standards for the intended use cannot be achieved through the implementation of the above Regional regulations, stricter local regulations for the waste discharge and/or degree of treatment should be developed. Such local regulations will apply to the specific sources in the areas under consideration.

d) Regional regulations along with the programmes, measures and the timetables required for the implementation should be developed on a priority basis, inter alia, for the following types of wastes:

i) Ballast water, slops, bilges and other oily water discharges generated by land-based reception facilities and ports through loading and repair operations.

ii) Brine water and mud discharges from oil and gas drilling and extraction activities from land-based sources.

iii) Oily and toxic sludges from crude oil and refined products storage facilities.

iv) Effluents and emissions from petroleum refineries.

v) Effluents and emissions from petrochemical and fertilizer plants.

vi) Toxic effluents and emissions from industries such as chlor-alkali, primary aluminium production, pesticides, insecticides, and lead recovery plants.

vii) Emissions from natural gas flaring and desulfurization plants.

viii) Dust emissions from major industrial sources, such as cement, lime, asphalt and concrete plants.

ix) Effluents and emissions from power and de-salination plants.

x) Wastes generated from coastal development activities which may have a significant impact on the Marine Environment.

xi) Sewage and solid wastes.

e) As the diagram 1 [not reproduced] attached to this Annex illustrates, pollution abatement is an iterative process. Pollution abatement action will start from high priority measures, which will be selected to be pragmatic, cost-effective, while addressing the most critical environmental problems as perceived today. The monitoring programme as specified in Article VII of this Protocol, will be providing the necessary feed-back for the required corrective action by yielding the database for assessing the effectiveness of implemented programmes, the current state of the environment and its trends. Corrective action, whenever required, will be taken through periodic updates of the regulations, programmes and measures and review of the conditions in discharge permits, in accordance with the provisions of Articles IV and VI of this Protocol.

2. Provisions for establishing criteria governing the issue of permits for the discharging of waste matter in the Marine Environment, should also take into consideration inter alia the following:

a) Characteristics and Composition of Waste

i) Type and size of waste source, e.g. industrial process;

ii) Type of waste (origin, average composition);

iii) Form of waste (solid, liquid, sludge, slurry);

iv) Total amount (volume discharged, e.g. per year);

v) Discharge pattern (continuous, intermittent, seasonably variable, etc.);

vi) Concentrations with respect to major constituents;

vii) Properties: physical, e.g. solubility and density; chemical and biochemical, e.g. oxygen demand, nutrients; and biological, e.g. presence of viruses, bacteria, yeast, parasites;

viii) Toxicity;

ix) Persistence: physical, chemical and biological;

x) Accumulation and biotransformation in biological materials or sediments;

xi) Susceptibility to physical, chemical and biochemical changes and interaction in the aquatic environment with other dissolved organic and inorganic materials;

xii) Probability of producing taints or other changes reducing marketability of resources, e.g. fish, shellfish, etc.

b) Characteristics of Discharge Site and Receiving Marine Environment

i) Hydrographic, meteorological, geological, biological and topographical characteristics of the discharge site.

ii) Location and type of the discharge (outfall, canal, outlet, etc.) and its relation to other areas, e.g. amenity areas, spawning, nursery and fishing areas, shellfish grounds and exploitable resources.

iii) Rate of disposal per specific period, e.g. quantity per day, per week and per month.

iv) Initial dilution achieved at the point of discharge into the receiving marine environment.

v) Methods of packaging and containment, if any.

vi) Dispersion characteristics such as effects of currents, tides and wind on horizontal transport and vertical mixing.

vii) Water characteristics, e.g. temperature, pH, salinity, stratification, oxygen indices of pollution - dissolved oxygen (DO), chemical oxygen demand (COD), biochemical oxygen demand (BOD) - nitrogen present in organic and mineral form including ammonia, suspended matter, other nutrients and productivity.

viii) Existence and effects of other discharges which have been made in the discharge site, e.g. heavy metal background levels and organic carbon content.

c) Availability of Waste Technologies

The methods of waste reduction and discharge for industrial effluents as well as domestic sewage should be selected taking into account the availability and feasibility of:

i) Alternative treatment processes;

ii) Re-use or elimination methods;

iii) On-land disposal alternative; and

iv) Appropriate low-waste technologies.

d) General Considerations and Conditions

i) Possible effects on amenities, e.g. presence of floating or stranded materials, turbidity, objectionable odour, discoloration and foaming.

ii) Effects on human health through pollution impact on: Edible marine organisms; bathing waters; aesthetics; etc.

iii) Effects on marine ecosystems, in particular living resources, endangered species and critical habitats.

iv) Possible effects on other uses of the sea, e.g. impairment of water quality for industrial use, underwater corrosion of

structure, interference with ship operations from floating materials, interference with fishing or navigation through deposit of waste or solid objects on the seafloor and protection of areas of special importance for scientific or conservation purposes.

Appendix RDQ
Draft Framework Convention for the Protection of the
Marine Environment of the Caspian Sea

Framework Convention for the Protection of the Marine Environment of the Caspian Sea

The Republic of Azerbaijan
The Islamic Republic of Iran
The Republic of Kazakhstan
The Russian Federation
Turkmenistan,

The Contracting Parties to this Convention :

Noting of the deterioration of the marine environment of the Caspian Sea due to its pollution arising from various sources as a result of human activities, including the discharge, emission and disposal of harmful and hazardous substances, wastes and other pollutants, both in the sea and from land-based sources;

Firmly resolved to preserve living resources of the Caspian Sea for present and future generations;

Acknowledging the need to ensure that land-based activities do not make harm for the marine environment of the Caspian Sea;

Mindful of the danger for the marine environment of the Caspian Sea and to its unique hydrographic and ecological characteristics related to the problem of sea-level fluctuation;

Reaffirming the importance of protection of the marine environment of the Caspian Sea;

Recognising the importance of co-operation among the Caspian States and with relevant international organizations with the aim to protect and conserve the marine environment of the Caspian Sea;

HAVE AGREED as follows:

I. GENERAL PROVISIONS

Article 1. Use of Terms

For the purposes of this Convention:

"Action Plan" means the Action Plan for the protection and sustainable development of the marine environment of the Caspian Sea.

"Contracting Party" means a Caspian Sea Littoral State, which has consented to be bound by this Convention.

"Dumping" means:

- (i) any deliberate disposal of wastes or other matter from vessels, aircraft, platforms, or other man-made structures in the Caspian Sea;
- (ii) any deliberate disposal of vessels, aircraft, platforms, or other man-made structures in the Caspian Sea;

"Hazardous substance" means any substance, which is toxic, carcinogenic, mutagenic, teratogenic or bio-accumulative, especially when they are persistent.

"National Authority" means the authority designated by each Contracting Party to be responsible for the co-ordination of national action for implementing this Convention and its protocols.

["Organisation" means the Caspian Sea Littoral States cooperation organization agreed upon by all Caspian Sea Littoral States in February 1992 in Tehran to coordinate, inter alia, the implementation of this Convention and its protocols]

"Pollution" means the introduction by man, directly or indirectly, of substances or energy into the environment resulting or likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health and hindrance to legitimate uses of the Caspian Sea;

"Pollution from land-based sources" means:

(a) pollution of the sea from all kinds of point and non-point sources based on land reaching the marine environment, whether water-borne, air-borne or directly from the coast. It includes pollution resulting from any predetermined disposal from land to the seabed by way of tunnel, pipeline or other means.

"Environmental emergency" means a situation that causes, or poses an imminent threat of causing, severe pollution or other damage to the marine environment of the Caspian Sea, and that results from natural causes, such as floods, or from human activities, such as industrial accidents.

"Industrial accident" means an event resulting from an uncontrolled development in the course of any activity involving harmful and hazardous substances, either in an installation, for example during manufacture, use, storage, handling, or disposal; or during transportation.

"Vessel" stands for a vessel of any kind that operates in the marine environment. The term includes hovercraft, hydrofoil boats, submarines, towed and self-driving boats, as well as platforms and other manmade offshore structures.

"Invasive alien species" means an alien species whose establishment and spread threaten ecosystems, habitats or species with economic or environmental harm.

Article 2. Objective

The objective of this Convention, to be pursued in accordance with its relevant provisions, is the protection of the Caspian environment from all sources of pollution including the protection, preservation, restoration and sustainable and rational use of the living resources of the Caspian Sea.

Article 3. Scope of Application

This Convention shall be applied to the marine environment of the Caspian Sea, taking into account its water level fluctuations, and the land affected by proximity to the sea

II. GENERAL OBLIGATIONS

Article 4. General Obligations

The Contracting Parties shall:

(a) individually or jointly take all appropriate measures to prevent, reduce and control pollution of the Caspian Sea;

(b) individually or jointly take all appropriate measures to protect, preserve and restore the environment of the Caspian Sea;

(c) use the resources of the Caspian Sea in such a way as not to cause harm to the marine environment of the Caspian Sea ;

(d) cooperate with each other and with competent international organizations for the achievement of the objective of this Convention.

Article 5. Principles

In their actions to achieve the objective of this Convention and to implement its provisions, the Contracting Parties shall be guided by, inter alia, the following principles:

(a) the precautionary principle, by virtue of which, where there is a threat of serious or irreversible damage to the Caspian Sea environment, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent such damage;

(b) “the polluter pays” principle, by virtue of which the polluter bears the costs of pollution including its prevention, control and reduction;

(c) the principle of accessibility of information on the pollution of the marine environment of the Caspian Sea according to which the Contracting Parties provide each other with relevant information in the maximum possible amount.

Article 6. Duty to Co-operate

The Contracting Parties shall co-operate on a multilateral and bilateral basis in the development of protocols to this Convention prescribing additional measures, procedures and standards for the implementation of this Convention.

III. PREVENTION, REDUCTION AND CONTROL OF POLLUTION

Article 7. Pollution from Land-Based Sources

1. The Contracting Parties shall take all appropriate measures to prevent, reduce and control pollution of the Caspian Sea from land-based sources.

2. The Contracting Parties shall co-operate in the development of protocols to this Convention prescribing additional measures for prevention, reduction and control of pollution of the Caspian Sea from land-based sources. Such protocols may include, inter alia, the following measures:

- (a) the emission of pollutants is prevented, controlled and reduced at source through application, inter alia, of low- and non-waste technology;
- (b) the pollution from land-based point sources is prevented, reduced and controlled through licensing of waste-water discharges by competent national authorities of the Contracting Parties;
- (c) licensing of waste-water discharges is based on promoting the use of environmentally sound technology;
- (d) requirements stricter than those provided in sub-paragraphs (b) and (c) of this Article, are imposed according to additional protocols to this convention when the quality of the receiving water or the affected ecosystem of the Caspian Sea so requires;
- (e) various treatments are to be applied to municipal waste water and, where necessary, in a step-by-step approach;
- (f) appropriate measures are to be taken in order to reduce organic substances inputs from industrial and municipal sources, such as the application of the best available environmentally sound technology;
- (g) appropriate measures based on best environmental practices are to be developed and implemented for the reduction of inputs of organic substances and hazardous substances from non-point sources, including agriculture;
- (h) measures on their conservation and full liquidation should be taken for some coastal sources of pollution that continue to have negative impact on the Caspian Sea.

3. If the discharge from a watercourse, flowing through the territories of two or more Contracting Parties or forming a boundary between them, is likely to cause pollution of the Caspian Sea, the Contracting Parties

shall co-operate in taking all appropriate measures to prevent, reduce and control such pollution, including, where appropriate, the establishment of joint bodies responsible for identifying and resolving potential pollution problems.

Article 8. Pollution from Seabed Activities

The Contracting Parties shall take all appropriate measures to prevent, control and reduce pollution of the Caspian Sea resulting from seabed activities. They are encouraged to co-operate in the development of protocols to this Convention to that effect.

Article 9. Pollution from Vessels

The Contracting Parties shall take all appropriate measures to prevent, reduce and control pollution of the Caspian Sea from vessels and shall co-operate in the development of protocols and agreements to the Convention prescribing agreed measures, procedures and standards to that effect, taking into account relevant international standards.

Article 10. Pollution Caused by Dumping

1. The Contracting Parties shall take all appropriate measures to prevent, hindrance, reduce and control pollution of the Caspian Sea caused by dumping from vessels and aircraft registered in their territory or flying their flag.

2. The Contracting Parties shall co-operate in the development of protocols to the Convention prescribing agreed measures, procedures and standards to that effect.

3. The provisions of this Article shall not apply when the safety of a vessel or aircraft at sea is threatened by the complete destruction or total loss of the vessel or aircraft or in any case which constitutes a danger to human or marine life, if dumping appears to be the only way of averting the threat, and if there is every probability that the damage consequent upon such dumping will be less than would otherwise occur. Such dumping shall be so conducted as to minimise the likelihood of damage to human or marine life or hindrance to legitimate uses of the sea and must be reported and dealt with in accordance with the provisions of the protocols referred to in paragraph 2 of this Article.

Article 11. Pollution from Other Human Activities

1. The Contracting Parties shall take all appropriate measures to prevent, reduce and control pollution of the Caspian Sea resulting from other human activities not covered by Articles 7-10 above, including land reclamation and associated coastal dredging and construction of dams.

2. The Contracting Parties shall take all appropriate measures to reduce the possible negative impact of anthropogenic activities aimed at mitigating the consequences of the sea-level fluctuations on the Caspian Sea ecosystem.

Article 12. Prevention of Introduction, Control and Combatting of Invasive Alien Species

The Contracting Parties shall take all appropriate measures to prevent the introduction into the Caspian Sea and to control and combat invasive alien species, which threaten ecosystems, habitats or species.

Article 13. Environmental Emergencies

1. The contracting Parties shall take all appropriate measures and cooperate to protect human beings and the marine environment against consequences of natural or man-made emergencies. To this end, preventive, preparedness and response measures, including restoration measures, shall be applied.

2. For the purpose of undertaking preventive measures and setting up preparedness measures, the Contracting Party of origin shall identify hazardous activities within its jurisdiction, capable of causing environmental emergencies, and shall ensure that other contracting Parties are notified of any such proposed or existing activities. The Contracting Parties shall agree to carry out environmental impact assessment of hazardous activities, and to implement risk-reducing measures.

3. The Contracting Parties shall cooperate for the setting up of early warning systems for industrial accidents and environmental emergencies. In the event of an environmental emergency, or imminent threat thereof, the Contracting Party of origin shall ensure that the Contracting Parties likely to be affected, are, without delay, notified at appropriate levels.
4. The Contracting Parties shall take all appropriate measures to establish and maintain adequate emergency preparedness measures, including measures to ensure that adequate equipment and qualified personnel are readily available, to respond to environmental emergencies.

IV. PROTECTION, PRESERVATION AND RESTORATION OF THE MARINE ENVIRONMENT

Article 14. Protection, Preservation, Restoration and Rational Use of Marine Living Resources

1. The Contracting Parties shall have particular regard to the protection, preservation, restoration and rational use of marine living resources and shall take all appropriate measures on the basis of the best scientific evidence available to:

(a) “develop and increase the potential of living resources for conservation, restoration and rational use of environmental equilibrium in the course of satisfying human needs in nutrition and meeting social and economic objectives”.

(b) maintain or restore populations of marine species at levels that can produce the maximum sustainable yield as qualified by relevant environmental and economic factors and taking into consideration relationships among species;

(c) ensure that marine species are not endangered by over-exploitation;

(d) promote the development and use of selective fishing gear and practices that minimise waste in the catch of target species and that minimise by-catch of non-target species;

(e) protect, preserve and restore endemic, rare and endangered marine species;

(f) conserve biodiversity, habitats of rare and endangered species, as well as vulnerable ecosystems.

2. The Contracting Parties shall co-operate in the development of protocols in order to undertake the necessary measures for protection, preservation and restoration of marine living resources.

Article 15. Coastal Zone Management

1. The Contracting Parties shall endeavour to take necessary measures to develop and implement national strategies and plans for planning and management of the land affected by proximity to the sea.

2.

Article 16. Caspian Sea Level Fluctuation

The Contracting Parties shall co-operate in the development of protocols to the Convention prescribing to undertake the necessary scientific research and, insofar as is practicable, the agreed measures and procedures to alleviate implications of the sea level fluctuations of the Caspian Sea.

V. PROCEDURES

Article 17. Environmental Impact Assessment

1. Each Contracting Party shall take all appropriate measures to introduce and apply procedures of

environmental impact assessment of any planned activity, that are likely to cause significant adverse effect on the marine environment of the Caspian Sea.

2. Each Contracting Party will take all appropriate measures to disseminate results of environmental impact assessment carried out in accordance with paragraph 1 of this Article, to other Contracting Parties.

3. The Contracting Parties shall co-operate in the development of protocols that determine procedures of environmental impact assessment of the marine environment of the Caspian Sea in transboundary context.

Article 18. Co-operation Between the Contracting Parties

1. The Contracting Parties shall co-operate in formulating, elaborating and harmonising rules, standards, recommended practices and procedures consistent with this Convention and with the account of requirements, commonly used in international practice, in order to prevent, reduce and control pollution of and to protect, preserve and restore the marine environment of the Caspian Sea.

2. The Contracting Parties shall co-operate in the formulation of an Action Plan for the Protection of the marine environment of the Caspian Sea in order to prevent, reduce and control pollution and to protect, preserve and restore the marine environment of the Caspian Sea.

3. In fulfilment of their obligations as set in paragraphs 1 and 2 of this Article, the Contracting Parties shall work, inter alia, jointly or individually:

- a) to collect, compile and evaluate data in order to identify sources that cause or likely to cause pollution of the Caspian Sea and to exchange information among the Contracting Parties, as appropriate;
- b) development of programmes for monitoring quality and quantity of water”;
- (c) development of contingency plans for pollution emergency cases;
- (d) to elaborate emission and discharge limits for waste and to evaluate the effectiveness of control programmes;
- (e) to elaborate water quality objectives and criteria and to propose relevant measures for maintaining and, where necessary, improving existing water quality;
- (f) to develop harmonised action programmes for the reduction of pollution loads from municipal and industrial point and diffuse sources, including agriculture, urban and other runoff;

Article 19. Monitoring

1. The Contracting Parties shall endeavour to establish and implement individual and/or joint programmes for monitoring environmental conditions of the Caspian Sea.

2. The Contracting Parties shall agree upon a list and parameters of pollutants which discharge into and concentration in the Caspian Sea shall be regularly monitored.

3. The Contracting Parties shall, at regular intervals, carry out individual or joint assessments of the environmental conditions of the Caspian Sea and the effectiveness of measures taken for the prevention, control and reduction of pollution of the marine environment of the Caspian Sea.

4. For these purposes, the Contracting Parties shall endeavour to harmonise rules for the setting up and operation of monitoring programmes, measurement systems, analytical techniques, data processing and evaluation procedures for data quality.

5. The Contracting Parties shall develop a centralised database and information management system to function as a repository of all relevant data, serve as the basis for decision-making and as a general source of information and education for specialists, administrators and the general public.

Article 20. Research and Development

The Contracting Parties shall co-operate in the conduct of research into and development of effective techniques for the prevention, control and reduction of pollution of the Caspian Sea and, to this effect, the Contracting Parties shall endeavour to initiate or intensify specific research programmes, where necessary, aimed, inter alia, at:

- (a) developing methods for the assessment of the toxicity of harmful substances and investigations of its affecting process on the environment of the Caspian Sea;
- (b) developing and applying environmentally sound or safe technologies;
- (c) the phasing out and/or substitution of substances likely to cause pollution;
- (d) developing environmentally sound or safe methods for the disposal of hazardous substances;
- (f) developing environmentally sound or safe techniques for water-construction works and water-regulation;
- (g) assessing the physical and financial damage resulting from pollution;
- (h) improvement of knowledge about the hydrological regime and ecosystem dynamics of the Caspian Sea including sea level fluctuations and the effects of such fluctuations on the Sea and coastal ecosystems;
- (i) studying the levels of radiation and radioactivity in the Caspian Sea.

Article 21. Exchange of and Access to Information

1. The Contracting Parties shall directly or through the Secretariat exchange on a regular basis information, in accordance with the provisions of this Convention.
2. The Contracting Parties shall endeavour to ensure public access to environmental conditions of the Caspian Sea, measures taken or planned to be taken to prevent, control and reduce pollution of the Caspian Sea in accordance with their national legislation and taking into account provisions of existing international agreements concerning public access to environmental information.

VI. INSTITUTIONAL ARRANGEMENTS

Article 22. The Conference of the Parties

1. A Conference of the Parties is hereby established.
2. The Conference of the Parties shall consist of one representative for each of the Contracting Parties, who shall have one vote. Each representative may be assisted by one or more advisers.
3. The first meeting of the Conference of the Parties shall be convened not later than twelve months after the date of the entry into force of the Convention. Thereafter, the Conference of the Parties shall hold ordinary meetings at regular intervals to be determined by the first meeting of the Conference of the Parties.
4. Extraordinary meetings of the Conference of the Parties shall be held at such other times as may be deemed necessary by the Conference of the Parties, or at the written request of any Party provided that it is supported by at least two other Contracting Parties.

5. The meetings of the Conference of the Parties shall be held in the Contracting Parties on the basis of rotation in alphabetical order of English language or at the location of the Secretariat.
6. The Chairmanship of the Conference of the Parties shall be held in turn by each Contracting Party in alphabetical order of the names of the Contracting Parties in English language.. Should the Chairmanship fall vacant, the Contracting Party chairing the Conference shall designate a successor to remain in office until the term of chairmanship of that Contracting Party expires.
7. [The working languages of the Conference of the Parties shall be English, Farsi and Russian].
8. All decisions of the Conference of the Parties shall be made by unanimous vote of the Contracting Parties.
9. The Conference of the Parties shall , at its first meeting, decide on:
 - a) establishing such other institutions of the Convention as may be deemed necessary;
 - b) the arrangements for the permanent Secretariat of the Convention, including its location and staffing;
 - c) the rules of procedure and financial rules for itself and its subsidiary bodies.
10. The functions of the Conference of the Parties shall be:
 - (a) to keep under review the implementation of this Convention, its protocols and the Action Plan;
 - (b) to keep under review the content of this Convention and its protocols;
 - (c) to consider and adopt any additional protocols or any amendments to this Convention or to its protocols and to adopt and amend the annexes to this Convention and to its protocols;
 - (d) to receive and consider reports submitted by the Contracting Parties and to review and evaluate the state of the marine environment and, in particular, the state of pollution and its effects, on the basis of reports provided by the Contracting Parties and by any competent international or regional organisation;
 - (e) to consider reports prepared by the Secretariat on matters relating to this Convention;
 - (f) to seek, where appropriate, the technical and financial services of relevant international bodies and scientific institutions for the purposes of the objective of this Convention;
 - (g) to establish such subsidiary bodies as may be deemed necessary for the implementation of this Convention and its protocols;
 - (h) to appoint the Executive Secretary of the Framework Convention and such other personnel as may be required taking into account the equitable representation of the Contracting Parties,;
 - (i) to perform such other functions as may be required for the achievement of the objective of this Convention.

Article 24. The Secretariat of the Convention

1. The Secretariat of the Convention is hereby established.
2. The Secretariat shall be comprised of the Executive Secretary of the Convention and such other personnel as required to perform the functions specified hereafter.
3. The Executive Secretary shall be the chief administrative officer of the Secretariat of the Convention, and shall perform such functions which are necessary for the administration of the work of the Secretariat of the Convention, as determined by the Conference of the Parties and in accordance with the rules of procedure and financial rules adopted by the Conference of the Parties.
4. The functions of the Secretariat shall be:
 - (a) to arrange for and service meetings of the Conference of the Parties and its subsidiary bodies;
 - (b) to prepare and transmit to the Contracting Parties notifications, reports and other information received;

- (c) to consider enquiries by and information from the Contracting Parties and to consult with them on matters relating to the implementation of this Convention and its protocols;
- (d) to prepare and transmit reports on matters relating to the implementation of this Convention and its protocols;
- (e) to establish, maintain the database of and disseminate national laws of the Contracting Parties and international laws relevant to the protection of the Caspian Sea;
- (f) to arrange, upon request by any Contracting Party, for the provision of technical assistance and advice for the effective implementation of the Convention and its protocols;
- (g) to carry out functions as may be established under the protocols to this Convention;
- (h) to co-operate, as appropriate, with relevant regional and international organisations and programmes;
- (i) to perform such other functions as may be determined by the Conference of the Parties.

VII. PROTOCOLS AND ANNEXES

Article 24. Adoption of Protocols

1. Any Contracting Party may propose protocols to this Convention. Such protocols shall be adopted by unanimous decision of the Parties at a meeting of the Conference of the Parties. Protocols shall enter into force after their ratification or approval by all the Contracting Parties in accordance with their constitutional procedures, unless the protocol does not envisage a different procedure for adoption. Protocols shall form an integral part of this Convention.

2. The text of any proposed protocol shall be communicated to the Contracting Parties by the Conference Of the Parties at least six months before the meeting of the Contracting Parties at which the protocol is proposed for adoption.

[PS. Articles from then on need to be renumbered, as former article 25 was moved to the end]

Article 26. Adoption of Annexes and Amendments

1. The annexes to this Convention or to any protocol shall form an integral part of the Convention or of such protocol, as the case may be, and, unless expressly provided otherwise, a reference to this Convention or its protocols constitutes at the same time a reference to any annexes thereto. Such annexes shall be restricted to procedural, scientific, technical and administrative matters.
2. Annexes to this Convention or to any protocol shall be proposed and adopted according to the procedure laid down in Article 27.
3. The proposal, adoption and entry into force of amendments to annexes to this Convention or to any protocol shall be subject to the same procedure as for the proposal, adoption and entry into force of annexes to the Convention or annexes to any protocol.
4. If an annex or an amendment to an annex is related to an amendment to this Convention or to any protocol, the annex or amendment shall not enter into force until such time as the amendment to this Convention or to the protocol concerned enters into force.

VIII. IMPLEMENTATION AND COMPLIANCE

Article 27. Implementation of the Convention

1. Each Contracting Party shall designate a National Authority to co-ordinate implementation of the provisions of this Convention in its territory and under its jurisdiction.

2. The provisions of this Convention shall not affect the right of the Contracting Parties individually or jointly to adopt and implement more stringent measures than those provided for in this Convention.

Article 28. Reports

Each National Authority shall submit to the Secretariat reports on measures adopted for the implementation of the provisions of this Convention and its protocols in format and at intervals to be determined by the Conference of the Parties. The Secretariat shall circulate the received reports to all Contracting Parties.

Article 29. Implementation and Compliance

1. The Contracting Parties shall co-operate in the development of procedures to ensure compliance with the provisions of this Convention or its protocols.

Article 30. Liability and Compensation for Damage

The Contracting Parties, taking into account relevant principles and norms of international law, shall undertake to develop appropriate rules and procedures concerning liability and compensation for damage to the environment of the Caspian Sea resulting from violations of the provisions of this Convention and its protocols.

Article 31. Settlement of Disputes

In case of a dispute between Contracting Parties concerning the application or interpretation of this present Convention or its protocols, the Contracting Parties concerned shall seek solution by negotiation or by any other peaceful means of their own choice.

IX. FINAL CLAUSES

Article 32. Signature, Ratification, Acceptance, Approval and Accession

1. The Convention shall be open for signature only by Caspian Littoral States at [] from [] to [].
2. The Convention shall be subject to ratification, acceptance or approval by the Caspian Littoral States.. It shall be open for accession by any Caspian Littoral State in accordance with their national legislation from the date on which the Convention is closed for signature.
3. Instruments of ratification, acceptance, approval or accession shall be deposited with the Depository.

Article 33. Reservations

No reservation may be made to this Convention.

Article 34. Entry into Force

The Convention shall enter into force on the ninetieth day after the date of deposit of the instrument of ratification, acceptance, approval or accession by all Caspian Littoral States.

[PS. Article 35 was formerly article 25 which, it was decided, be moved to the end]

Article 35. Amendment of the Convention or Protocols

1. Any Contracting Party may propose amendments to this Convention or to any protocol. Such amendments shall be adopted by unanimous decision of the Parties at a meeting of the Conference of the Parties.

2. The text of any proposed amendment to this Convention or to any protocol shall be submitted to the Secretariat which shall communicate it to all Contracting Parties at least 90 days before the meeting at which the amendment is proposed for adoption.

[PS. Articles need to be renumbered]

Article 35. Depository

[...] shall assume the functions of the Depository.

Article 36. Authentic texts

The original of this Convention, of which the Azerbaijani, English, Farsi, Russian, Kazakh and Turkmen texts are equally authentic, shall be deposited with the Depository. In case of dispute arising as to the interpretation or application of this Convention or its protocols, the English text shall be dispositively authoritative.

Article 39. Nothing in this Convention shall be interpreted as to prejudge the outcome of the negotiations on the final legal status of the Caspian Sea.

IN WITNESS WHEREOF the undersigned, being duly authorised to that effect, have signed this Convention

Done at on the day of 1999

Appendix RDR
Draft Protocol Concerning Regional Co-Operation In Combating
Oil Pollution In Cases Of Emergency (Caspian Sea)

ANNEX 3

**DRAFT PROTOCOL
CONCERNING REGIONAL CO-OPERATION
IN COMBATING OIL POLLUTION
IN CASES OF EMERGENCY**

**DRAFT PROTOCOL CONCERNING REGIONAL CO-OPERATION IN
COMBATING OIL POLLUTION IN CASES OF EMERGENCY**

The Contracting Parties to the present Protocol,

Being Parties to the Framework Convention for the Protection of the Marine Environment of the Caspian Sea, adopted at [] on [],

Desirous of implementing articles 6, 8, 9, 13 and 18(3)(c) of the said Convention,

Recognizing that pollution of the Caspian Sea by oil may threaten the marine environment in general and the interests of Caspian Sea littoral States in particular,

Noting that such pollution has many origins, but *recognizing* that special measures are necessary in the event of accidents and other pollution incidents originating from ships, pipelines, fixed and floating platforms, and abandoned wellheads;

Concerned to act promptly and effectively in the event of a pollution incident at sea which would endanger the coasts or the related interests of a Caspian Sea littoral State, with a view to reducing the damage caused by such an incident,

Stressing the importance of genuine preparation at national level to combat pollution incidents at sea,

Recognizing moreover that it is important that reciprocal assistance and international cooperation be instituted amongst States in order to protect their coasts and their related interests;

Emphasizing also the importance of measures taken both individually and jointly in order to minimize the risks of pollution incidents in the Caspian Sea,

Mindful of the success of regional agreements in other parts of the world, the aim of which is to provide assistance in the event of major marine pollution incidents by oil or other hazardous substances,

Recognizing that grave pollution of the sea by oil, or a threat thereof, in the Caspian Sea involves a danger for the littoral States and the marine environment,

Taking into account the intention of the littoral States to protect the marine and coastal environment from pollution by oil,

Taking into account also the relevant international conventions and, in particular, those dealing with preparedness for and response to pollution incidents, and liability and compensation for pollution damage,

Wishing to further develop co-operation and mutual assistance among Caspian Sea littoral States in combating oil pollution,

Have agreed as follows:

Article 1

DEFINITIONS

For the purpose of this Protocol:

- (a) "Convention" means the Framework Convention for the Protection of the Marine Environment of the Caspian Sea, adopted at [] on [];
- (b) "Pollution incident" means an occurrence or series of occurrences having the same origin, which results or may result in a discharge of oil and which poses or may pose a threat to the marine environment, or to the coastline or related interests of one or more States, and which requires emergency action or other immediate response;
- (c) "Oil" means petroleum in any form including crude oil, fuel oil, sludge, oil refuse and refined products;
- (d) "Related interests" means the interests of a Caspian Sea littoral State directly affected or threatened by a pollution incident including, *inter alia*:
 - (i) the health of the coastal population;
 - (ii) the conservation of biological diversity and the sustainable use of marine and coastal biological resources;
 - (iii) maritime activities in coastal waters, in ports or estuaries, including fishing activities;
 - (iv) the cultural, aesthetic, scientific and educational value of the area;
 - (v) the historical and touristic appeal of the area in question, including water sports and recreation;
 - (vi) industrial activities which rely on the intake of seawater, including desalination plants and power plants;
- (e) "Ship" means a vessel of any type whatsoever operating in the marine environment and includes hydrofoil boats, air-cushion vehicles, submersibles, and floating craft of any type;
- (f) "Offshore installation" means any fixed or floating offshore installation or structure engaged in gas or oil exploration, exploitation or production activities, or loading or unloading of oil;
- (g) "Sea ports and oil handling facilities" means those facilities which present a risk of an oil pollution incident and includes, *inter alia*, sea ports, oil terminals, pipelines and other oil handling facilities;
- (h) "Marine pollution emergency plan" means a contingency plan (other than a National Contingency Plan) setting out the arrangements, including the nomination of an On Scene Commander and the provision of an adequate level of oil spill combating equipment commensurate with the spill risk, for responding to incidents which

cause or may cause marine pollution by oil, with a view to preventing such pollution or reducing or minimizing its effect;

- (i) “Regional Centre” means the Caspian Regional Thematic Centre for Emergency Response.

Article 2

PROTOCOL AREA

The area to which this Protocol applies shall be the marine environment of the Caspian Sea as defined in the Convention.

Article 3

GENERAL PROVISIONS

1. The Parties shall take, individually or jointly, all appropriate measures in accordance with this Protocol to prepare for and respond to pollution incidents.
2. The Parties shall jointly develop and establish guidelines for the practical, operational and technical aspects of joint action.

Article 4

NATIONAL SYSTEMS AND CONTINGENCY PLANS FOR COMBATING POLLUTION INCIDENTS

1. Each Party shall establish a national system for responding promptly to pollution incidents. This system shall include, as a minimum, the designation of:
 - (a) the competent national authority (or authorities) with responsibility for preparedness and response to pollution incidents ;
 - (b) the national operational contact point or points with responsibility for receiving and transmitting reports on pollution incidents, as mentioned in article 6(2)(c) of this Protocol;
 - (c) the competent national authority entitled to act on behalf of the State to request assistance or to decide to render assistance when requested.
2. Each Party shall prepare and implement a national contingency plan for preparedness and response to pollution incidents. The national contingency plan shall include, *inter alia*:
 - (a) a description of the administrative organization, and the responsibilities of each of the constituent authorities, in preparing for and combating pollution incidents;
 - (b) identification of the likely sources of discharges of oil;

- (c) identification of sensitive areas and vulnerable resources, and priorities for their protection;
- (d) an itemization of the equipment and human resources which might be available for combating pollution incidents;
- (e) specification of the means for temporary storage and final disposal of recovered oil.

3. Each Party shall establish, if necessary in cooperation with the oil and shipping industries and any other relevant entities, and shall maintain in operational condition a minimum level of pre-positioned equipment in order to be able to deal effectively with discharges of oil. The quantity of equipment should be commensurate with the risk involved.

4. Each Party shall, individually or within the framework of bilateral or multilateral cooperation, establish programmes of exercises and staff training to improve the state of readiness of the bodies responsible for dealing with pollution incidents.

Article 5

DISSEMINATION AND EXCHANGE OF INFORMATION

1. Each Party undertakes to disseminate to the other Parties, either directly or through the Regional Centre:
 - (a) the information prescribed in articles 4(1) and 4(2)(a);
 - (b) information on new ways in which pollution of the sea by oil may be avoided and about new effective measures for combating pollution including the results of research programmes;
 - (c) information on major pollution incidents dealt with.
2. The Parties shall also communicate such information to the Regional Centre.

Article 6

OPERATIONAL MEASURES

1. For the sole purposes of this Protocol, the Caspian Sea shall be divided into responsibility zones, which shall be agreed at a meeting of the Parties to this Protocol. Until such time as responsibility zones are defined and agreed by all Parties, each Party shall be responsible for its national oil pollution preparedness and response and shall assume the obligations in paragraphs 2 to 4 of this article on an interim basis.
2. A Party in whose responsibility zone a pollution incident occurs shall:
 - (a) make the necessary assessments of the nature, extent and possible consequences of the pollution incident or, as the case may be, the type and approximate quantity of oil and the direction and speed of drift of the spillage;

- (b) take every practicable measure to prevent, reduce and, to the fullest possible extent, eliminate the effects of the pollution incident;
 - (c) immediately inform all Parties likely to be affected by the pollution incident of these assessments and of any action which it has taken or intends to take, and simultaneously provide the same information to the Regional Centre;
 - (d) keep these substances under observation for as long as they are present in its responsibility zone and shall keep the other Parties informed of developments concerning the pollution incident and of the measures taken or planned.
3. When oil slicks drift into an adjacent responsibility zone, the responsibility for evaluation and for the notification of the other Parties, as stipulated above, shall be transferred to the Party in whose responsibility zone the oil slicks are now located, unless otherwise agreed by the Parties concerned.
4. Where action is taken to combat pollution originating from a ship, all possible measures shall be taken to safeguard:
- (a) human lives ;
 - (b) the ship itself, whilst respecting the need to prevent or minimize damage to the environment.

Any Party which takes such action shall inform the International Maritime Organization either directly or through the Regional Centre.

Article 7

ZONES OF JOINT INTEREST

1. Provided that the responsibility zones of each Party (referred to in Article 6) have been defined, two or more Parties may designate zones of joint interest and shall inform the other Parties, through the Convention Secretariat, of their proposal. Such zones of joint interest shall only become effective if there are no objections from the other Parties.
2. If pollution occurs in a zone of joint interest, the Party in whose responsibility zone the incident occurs shall not merely inform the neighbouring Party immediately as required by article 6(2)(c) but shall also invite that Party to take part in the evaluation of the nature of the incident and to decide whether the incident must be regarded as being of sufficient gravity and magnitude to warrant joint action by both Parties in combating it.
3. Subject to the provisions of paragraph 4 of this article, the responsibility for initiating such joint action shall lie with the Party in whose responsibility zone the incident occurs. This Party shall designate an authority and instruct it to coordinate action; the said authority shall then assume responsibility for action, request any assistance which may be needed and coordinate all available resources. The neighbouring Party shall provide such appropriate support as its resources permit and shall likewise appoint an authority for liaison purposes.

4. The neighbouring Party may assume responsibility for coordinating action, subject to an agreement with the Party in whose responsibility zone the incident occurs, where:

- (a) the neighbouring Party is directly threatened by the incident, or
- (b) the ship or ships in question flies or fly the flag of the neighbouring Party, or
- (c) the greater part of the resources likely to be used in the operation to combat pollution belong to the neighbouring Party.

If this paragraph is invoked, the Party in whose responsibility zone the incident occurs shall give the Party assuming responsibility for the coordination of action all requisite assistance.

Article 8

POLLUTION REPORTING PROCEDURES

1. Each Party shall issue instructions to masters or other persons having charge of ships flying its flag to report without delay to the nearest coastal State any event on his ship involving a discharge, release or emission of oil, or any probable discharge, release or emission.

2. Each Party shall issue instructions to persons in charge of offshore installations, sea ports and oil handling facilities to report without delay to the appropriate national authorities any events arising from their own activities involving a discharge, release or emission of oil, or any probable discharge, release or emission.

3. Each Party shall issue instructions:

- (a) to masters or other persons having charge of ships flying its flag;
- (b) to its maritime inspection vessels and aircraft;
- (c) to the pilots of civil aircraft; and
- (d) to persons in charge of offshore installations, sea ports and oil handling facilities

to report without delay to the competent national authorities any observed event at sea, in sea ports or at oil handling facilities involving the discharge of oil and also to report the presence of any observed floating oil slicks.

4. The information collected in accordance with paragraphs 1 to 3 shall be communicated immediately to the other Parties likely to be affected by the pollution incident and to the Regional Centre. In the case of ships, these pollution reports shall comply with the relevant provisions drawn up by the International Maritime Organization.

Article 9

EMERGENCY PLANS ON BOARD SHIPS, ON OFFSHORE INSTALLATIONS,
IN SEA PORTS AND AT OIL HANDLING FACILITIES

1. Each Party shall take the necessary steps to ensure that ships flying its flag shall have on board a pollution emergency plan as required by, and in accordance with, the relevant international regulations.
2. Each Party shall require masters of ships flying its flag, in the event of a pollution incident, to follow the procedures described in the emergency plan and in particular to provide the competent authorities, at the latter's request, with such detailed information about the ship and its cargo which is relevant for actions to be taken in pursuance of article 6, and to cooperate with these authorities.
3. Each Party shall require that:
 - (a) operators in charge of offshore installations;
 - (b) authorities or operators in charge of sea ports; and
 - (c) operators in charge of oil handling facilities

shall prepare marine pollution emergency plans that are coordinated with the national system established in accordance with article 4 and are approved in accordance with procedures established by the competent national authority.

Article 10

ASSISTANCE

1. A Party requiring assistance to deal with a pollution incident, or the threat of a pollution incident, may request assistance from the other Parties. The Party requesting assistance shall specify the type of assistance which it requires, which may include expert advice, specialized personnel and strike teams, equipment, products, ships and aircraft. Parties from whom assistance is requested under this article shall use their best endeavours to render this assistance insofar as their resources permit.
2. Each Party shall take the necessary legal and administrative measures to facilitate:
 - (a) the arrival and utilization in and departure from its territory of ships, aircraft and other modes of transport engaged in responding to a pollution incident or transporting personnel, cargoes, materials and equipment required to deal with such an incident; and
 - (b) the expeditious movement into, through and out of its territory of the personnel, cargoes, materials and equipment referred to in subparagraph (a).

Article 11

REIMBURSEMENT OF COSTS OF ASSISTANCE

1. Unless an agreement concerning the financial arrangements governing actions of Parties to deal with pollution incidents has been concluded on a bilateral or multilateral basis prior to the pollution incident, Parties shall bear the costs of their respective action in dealing with pollution in accordance with paragraph 2.
2.
 - (a) If the action was taken by one Party at the express request of another Party, the requesting Party shall reimburse to the assisting Party the costs of its action. If the request is cancelled, the requesting Party shall bear the costs already incurred or committed by the assisting Party;
 - (b) if the action was taken by a Party on its own initiative, that Party shall bear the cost of its action;
 - (c) the principles laid down above in subparagraphs (a) and (b) shall apply unless the Parties concerned otherwise agree in any individual case.
3. Unless otherwise agreed, the costs of the action taken by a Party at the request of another Party shall be fairly calculated according to the law and current practice of the assisting Party concerning the reimbursement of such costs.
4. The Party requesting assistance and the assisting Party shall, where appropriate, cooperate in concluding any action in response to a compensation claim. To that end, they shall give due consideration to existing legal regimes. Where the action thus concluded does not permit full compensation for expenses incurred in the assistance operation, the Party requesting assistance may ask the assisting Party to waive reimbursement of the expenses exceeding the sums compensated or to reduce the costs which have been calculated in accordance with paragraph 3. It may also request a postponement of the reimbursement of such costs.
5. The provisions of this article shall not be interpreted as in any way prejudicing the rights of Parties to recover from third parties the costs of actions taken to deal with pollution incidents, or the threat of pollution incidents, under other applicable provisions and rules of national and international law. The Parties may cooperate and provide mutual assistance in recovering the costs involved in their actions.

Article 12

ENVIRONMENTAL SAFETY OF MARITIME TRAFFIC

1. In conformity with generally accepted international safety standards and within the framework of their recognized competencies, the Parties shall take the necessary steps to assess the environmental safety, individually, bilaterally or multilaterally, of the recognized routes used by maritime traffic in the Caspian Sea and shall take initiatives, where appropriate, within the framework of the International Maritime Organization, aimed at reducing the risks of accidents and the environmental consequences thereof by, for example, identification of the more likely collision areas of the Caspian Sea.

2. Each Party shall develop means for monitoring shipping by establishing departments dealing with shipping movements. The Parties shall, to that end, consult each other regularly and shall participate actively in the studies needed for such development within the competent international bodies.

Article 13

ACCESS TO PORTS BY SHIPS IN DISTRESS

The Parties may define national or regional strategies concerning access to their ports of ships in distress presenting a threat to the marine environment. They shall cooperate to this end and inform the Regional Centre of the measures they have adopted.

Article 14

SUBREGIONAL AGREEMENTS

The Parties may negotiate, develop and maintain appropriate bilateral or multilateral subregional agreements in order to facilitate the implementation of this Protocol, or part of it. Such agreements should not prejudice the provisions of this Protocol. Upon request of the interested Parties, the Regional Centre shall assist them, within the framework of its functions, in the process of developing and implementing such bilateral or multilateral subregional agreements.

Article 15

FUNCTIONS OF THE REGIONAL CENTRE

1. The Regional Centre shall cooperate with and assist Parties to react swiftly and effectively to pollution incidents.
2. The functions of the Regional Centre shall include:
 - (a) establishing close working relationships with the competent national authorities of the Parties to this Protocol and, where necessary, with related bodies outside the Caspian Sea region dealing with pollution incidents;
 - (b) coordinating regional action with regard to training, exercises, technical cooperation and expertise in cases of emergency, and assisting national activities in these fields;
 - (c) collecting and disseminating information on pollution incidents (inventories, expert opinions, reports on incidents, technical progress for improving contingency plans, etc.);
 - (d) preparing systems for transmitting information, in particular the report formats to be exchanged in cases of emergency;
 - (e) acting as the focal point for exchanges of information on techniques for surveillance of marine pollution incidents in the Caspian Sea;

- (f) acting as the secretariat for meetings of the Parties to this Protocol;
- (g) undertaking such other functions as the meeting of Parties shall decide.

Article 16

MEETINGS

1. Ordinary meetings of the Parties to this Protocol may be held in conjunction with ordinary meetings of the Conference of the Parties to the Convention, held pursuant to article 22 of the Convention. The Parties to this Protocol may also hold extraordinary meetings, as provided for in article 22(4) of the Convention.

2. It shall be the function of the meetings of the Parties to this Protocol, in particular:

- (a) to define the responsibility zones and any zones of joint interest for the purposes of Articles 6 and 7 of this Protocol;
- (b) to monitor in general the implementation of this Protocol and to examine the effectiveness of measures taken;
- (c) to examine and discuss reports from the Regional Centre on the implementation of this Protocol;
- (d) to formulate and adopt strategies, action plans and programmes for the implementation of this Protocol, including implementation of the Caspian Sea Plan concerning Regional Co-operation in Combating Oil Pollution in Cases of Emergency;
- (e) to keep under review and consider the efficacy of these strategies, action plans and programmes, including the Caspian Sea Plan concerning Regional Co-operation in Combating Oil Pollution in Cases of Emergency, and the need to adopt any new strategies, action plans and programmes and to develop measures to that effect;
- (f) to identify and define as soon as possible those areas which, owing to their environmental characteristics, must be regarded as particularly sensitive locally or for the Caspian Sea environment in general;
- (g) to discharge such other functions as may be appropriate for the implementation of this Protocol.

Article 17

RELATIONSHIP WITH THE CONVENTION

1. The provisions of the Convention shall apply to the present Protocol.
2. The rules of procedure and the financial rules adopted pursuant to article 22(9)(c) of the Convention shall apply with respect to this Protocol, unless the Parties determine otherwise.

Article 18

EFFECT OF THE PROTOCOL ON DOMESTIC LEGISLATION

The provisions of this Protocol shall not affect the right of Parties to adopt more stringent measures than those provided for in this Protocol.

Article 19

AMENDMENT OF THE PROTOCOL

1. Any proposal from one of the Parties with a view to amendment of this Protocol shall be studied at a meeting of the Parties. Following adoption of the proposal by unanimous vote, the Parties shall be notified of the amendment by the Depositary Government.
2. Such an amendment shall enter into force on the first day of the second month following the date on which the Depositary Government receives notification of its approval by all Parties.

Article 20

SIGNATURE

This Protocol shall be open for signature at.....on..... and at.....from[2003] to[2003] by any Contracting Party to the Convention.

Article 21

RATIFICATION, ACCEPTANCE OR APPROVAL

This Protocol shall be subject to ratification, acceptance or approval. The instruments of ratification, acceptance or approval shall be deposited with the Government of [], which will assume the functions of Depositary.

Article 22

ACCESSION

As from....., this Protocol shall be open for accession by any Party to the Convention.

Article 23

ENTRY INTO FORCE

This Protocol shall enter into force on the ninetieth day following the deposit of the fifth instrument of ratification, acceptance, approval or accession.

Article 24

DENUNCIATION

1. After five years from the date of its entry into force, this Protocol may be denounced by any Party.
2. Denunciation shall be effected by a notification in writing addressed to the Depositary Government, which shall notify all the other Parties of any denunciation received and of the date of its receipt.
3. A denunciation shall take effect one year after its receipt by the Depositary Government.

Article 25

DUTIES OF THE DEPOSITARY GOVERNMENT

The Depositary Government shall inform all Caspian Sea littoral States of:

- (a) any signature of this Protocol;
- (b) the deposit of instruments of ratification, acceptance, approval or accession and the receipt of notice of denunciation;
- (c) the date of entry into force of this Protocol;
- (d) the receipt of notifications of approval concerning amendments to this Protocol and the date of entry into force of those amendments;
- (e) the definition of agreed responsibility zones and zones of joint interest defined in accordance with articles 6 and 7.

Article 26

AUTHENTIC TEXTS

The original of this Protocol, of which the Azerbaijani, English, Farsi, Russian, Kazakh and Turkmen texts are equally authentic, shall be deposited with the Depositary Government. In case of dispute arising as to the interpretation or application of this Protocol, the English text shall be definitive.

IN WITNESS WHEREOF, the undersigned, being duly authorized by their respective Governments, have signed this Protocol

DONE at, on the day of

Appendix RDS
Declaration on the Establishment of the Arctic Council



[TO MAINPAGE](#)

WHAT'S NEW

ABOUT

**ACTIVITIES AND
WORKING GROUPS**

CONTACT

ARCHIVES

**LINKS AND
ACRONYMS**

**SITE MAP
AND SEARCH**

Declaration on the Establishment of the Arctic Council

The representatives of the Governments of Canada, Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden and the United States of America (hereinafter referred as the Arctic States) meeting in Ottawa;

Affirming our commitment to the well-being of the inhabitants of the Arctic, including special recognition of the special relationship and unique contributions to the arctic of indigenous people and their communities;

Affirming our commitment to sustainable development in the Arctic region, including economic and social development, improved health conditions and cultural well-being;

Affirming concurrently our commitment to the protection of the Arctic environment, including the health of Arctic ecosystems, maintenance of biodiversity in the Arctic region and conservation and sustainable use of natural resources;

Recognizing the contributions of the Arctic Environmental Protection Strategy to these commitments;

Recognizing the traditional knowledge of the indigenous people of the Arctic and their communities and taking note of its importance and that of Arctic science and research to the collective understanding of the circumpolar Arctic;

Desiring further to provide a means for promoting cooperative activities to address Arctic issues requiring circumpolar cooperation, and to ensure full consultation with and the involvement of indigenous people and their communities and other inhabitants of the Arctic in such activities;

Recognizing the valuable contribution and support of the Inuit Circumpolar Conference, Saami Council, and the Association of Indigenous Minorities of the Far North, Siberia and the Far East of the Russian Federation in the development of the Arctic Council;

Desiring to provide for regular intergovernmental consideration of and consultation on Arctic issues.

Hereby declare:

1. The Arctic Council is established as a high level forum to:
 - a. provide a means for promoting cooperation, coordination and interaction among the Arctic States, with the involvement of the Arctic indigenous communities and other Arctic inhabitants on common arctic issues*, in particular issues of sustainable development and environmental protection in the Arctic.
 - b. oversee and coordinate the programs established under the AEPS on the Arctic Monitoring and Assessment Program (AMAP); conservation of Arctic Flora and Fauna (CAFF); Protection of the Arctic Marine Environment (PAME); and Emergency Preparedness and Response (EPPR).
 - c. adopt terms of reference for and oversee and coordinate a sustainable development program.
 - d. disseminate information, encourage education and promote interest in Arctic-related issues.

2. Members of the Arctic Council are: Canada, Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden and the United States of America (the Arctic States)

The Inuit Circumpolar Conference, the Saami Council and the Association of Indigenous Minorities in the Far north, Siberia, the Far East of the Russian Federation are Permanent Participants in the Arctic Council. Permanent participation is equally open to other Arctic organizations of indigenous

peoples** with majority Arctic indigenous constituency, representing:

- a. a single indigenous people resident in more than one arctic State; or
- b. more than one Arctic indigenous people resident in a single Arctic State.

The determination that such an organization has met this criterion is to be made by decision of the Council. The number of Permanent Participants should at any time be less than the number of members.

The category of Permanent Participation is created to provide for active participation and full consultation with the Arctic indigenous representatives within the Arctic Council.

3. Observer status in the Arctic Council is Open to:

- a. Non-arctic states;
- b. inter-governmental and inter-parliamentary organizations, global and regional; and
- c. non-governmental organizations

*The Arctic Council should not deal with matters related to military security

**The use of the term "peoples" in this declaration shall not be construed as having any implications as regard the rights which may attach to the term under international law. that the Council determines can contribute to its work.

4. The Council should normally meet on a biennial basis, with meetings of senior officials taking place more frequently, to provide for liaison and coordination. Each arctic State should designate a focal point on matters related to the Arctic Council.

5. Responsibility for hosting meetings of the Arctic Council, including provision of secretariat functions, should rotate sequentially among the Arctic States.

6. The Arctic Council, as its first order of business, should adopt rules of procedure for its meetings and those of its working groups.

7. Decisions of the Arctic Council are to be by consensus of the Members

8. The Indigenous Peoples' secretariat established under AEPS is to continue under the framework of the Arctic Council.

9. The Arctic Council should regularly review the priorities and financing of its programs and associated structures.

Therefore, we the undersigned representatives of our respective Governments, recognizing the Arctic Council's political significance and intending to promote its results, have signed this declaration.

Signed by the representatives of the Arctic States in Ottawa on the 19th of September, 1996

Appendix RDT
Arctic Offshore Oil and Gas Guidelines



ARCTIC COUNCIL

**ARCTIC OFFSHORE
OIL & GAS GUIDELINES**

PAME
Protection of the Arctic Marine Environment

The **Arctic Council** was established on September 19th, 1996 in Ottawa, Canada and succeeded the *Arctic Environmental Protection Strategy*. It is a high-level intergovernmental forum that provides a mechanism to address the common concerns and challenges faced by the Arctic governments and the people of the Arctic.

The members of the Council are Canada, Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden, and the United States of America. The Association of Indigenous Minorities of the North, Siberia and the Far East of the Russian Federation, the Inuit Circumpolar Conference, the Saami Council, the Aleutian International Association, Arctic Athabaskan Council and Gwich'in Council International are Permanent Participants in the Council. There is provision for non-arctic states, inter-governmental and inter-parliamentary organizations and non-governmental organizations to become involved as observers.

The main activities of the Council focus on the protection of the Arctic environment and sustainable development as a means of improving the economic, social and cultural well-being of the north.

PAME is the Arctic Council Working Group on Protection of the Arctic Marine Environment. The primary goal is to prevent, control and remediate marine pollution from land and sea-based activities.

Cover Photo: Concrete Island Drilling Structure (CIDS) in the Beaufort Sea, Alaska.

ARCTIC COUNCIL

**PROTECTION OF THE ARCTIC MARINE ENVIRONMENT
WORKING GROUP**

ARCTIC OFFSHORE OIL & GAS GUIDELINES

October 10, 2002

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*TRANSSHIPMENT OF OIL WILL BE ADDRESSED BY PAME IN ITS WORK ON ARCTIC SHIPPING.

Preamble

The Ministers of the Arctic States, Canada, Denmark, Iceland, Finland, Russia, Sweden, Norway and the United States of America, originally adopted the Guidelines at the Fourth Ministerial Conference on the Protection of the Arctic Environment, 11-12 June, 1997 in Alta, Norway by declaring: “**We receive** with appreciation...the “Arctic Offshore Oil and Gas Guidelines” developed under AEPS, and **agree** that these Guidelines be applied”.

The 2nd Ministerial Meeting of the Arctic Council 9-10 October 2002 in Inari, Finland recognized the updated version of these Guidelines by the following statement: "We... endorse the updated Offshore Oil and Gas Guidelines and encourage the concerned stakeholders to apply them."

The endorsement of these Guidelines recognizes a uniform understanding of the minimum actions needed to protect the Arctic marine environment from unwanted environmental effects caused by offshore oil and gas activities. The Ministers, however, acknowledge that further steps can be taken nationally as a part of the environmental and natural resource management policies of the Arctic States.

The users of these Guidelines will find that all stages of offshore oil and gas activity are included. The Introduction sets forth the background for the Guidelines and important general concerns. The chapters that follow set forth the specific operational steps which should be followed when planning for Arctic offshore oil and gas activities.

1. Introduction

1.1 Background

The Guidelines were originally written in response to the *Report of the Third Ministerial Conference on the Protection of the Arctic Environment (Inuvik, Canada, March 20-21, 1996)* which expressed *concern regarding the potential impacts related to future increases in offshore petroleum activity in the Arctic*. The Report requested PAME:

...(to develop) “guidelines for offshore petroleum activities in the Arctic, in particular guidelines for timely and effective measures for protection of the Arctic environment. In this regard, the Ministers welcomed the initiative of the United States to conduct a government designated expert meeting to develop such guidelines, in cooperation, as appropriate, with other AEPS Working Groups” (Paragraph 2.3.5(ii)).

In addition, the Inuvik Report requests AMAP to “*...review the feasibility of developing sub-regional cooperative oil- related monitoring and assessment activities, as appropriate.*” (Paragraph 2.1.2.1).

Finally, the Report requests EPPR to “*...continue their work on contributing to development of preventative, mitigating and response measures for oil and gas accidental releases in the Arctic*” (Paragraph 2.4.5).

Although PAME had the overall responsibility for developing the 1997 guidelines, they were the result of a group effort and reflect coordination within the Arctic Council working groups that the ministers emphasized in the 1996 Inuvik Report.

The 1997 Guidelines stated in Section 1.7 Periodic Review, “*These Guidelines should undergo periodic review and amendment, as necessary, to take into consideration experiences in the management and control of offshore oil and gas operations. The Guidelines must remain current if they are to support timely and effective measure for protection of the Arctic environment. An Experts Meeting should be held after the third anniversary of the adoption of the Guidelines to review and update them.*”

With establishment of the Arctic Council on September 19th, 1996 in Ottawa, Canada, and the Arctic Councils adoption of the existing four Working Groups of the AEPS in Alta, Norway in June 1997, and with the subsequent addition of the Sustainable Development Working Group, has strengthened the incentive of PAME and its members to continue to cooperate in and pursue support for efforts to protect the Arctic marine environment—such as providing an updated and improved Arctic Offshore Oil and Gas Guidelines.

The current updated and improved guidelines were completed by PAME under the Arctic Council but represent the combined efforts of PAME, EPPR, AMAP, CAFF and attempts to incorporate the principles of sustainable development. This review and update was greatly assisted by the involvement and comments received from representatives of

Arctic, regional and other governments, non-governmental organizations, industry, indigenous people, and the scientific community to provide agreed guidelines for offshore oil and gas activities in the Arctic.

It is acknowledged that a number of legal instruments related to offshore oil and gas activities exist, *e.g.* United Nations Convention on Law of the Sea; the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) and the London Convention 1972. It is assumed that Arctic petroleum activities will be conducted in compliance with applicable international law.

1.2 Goals

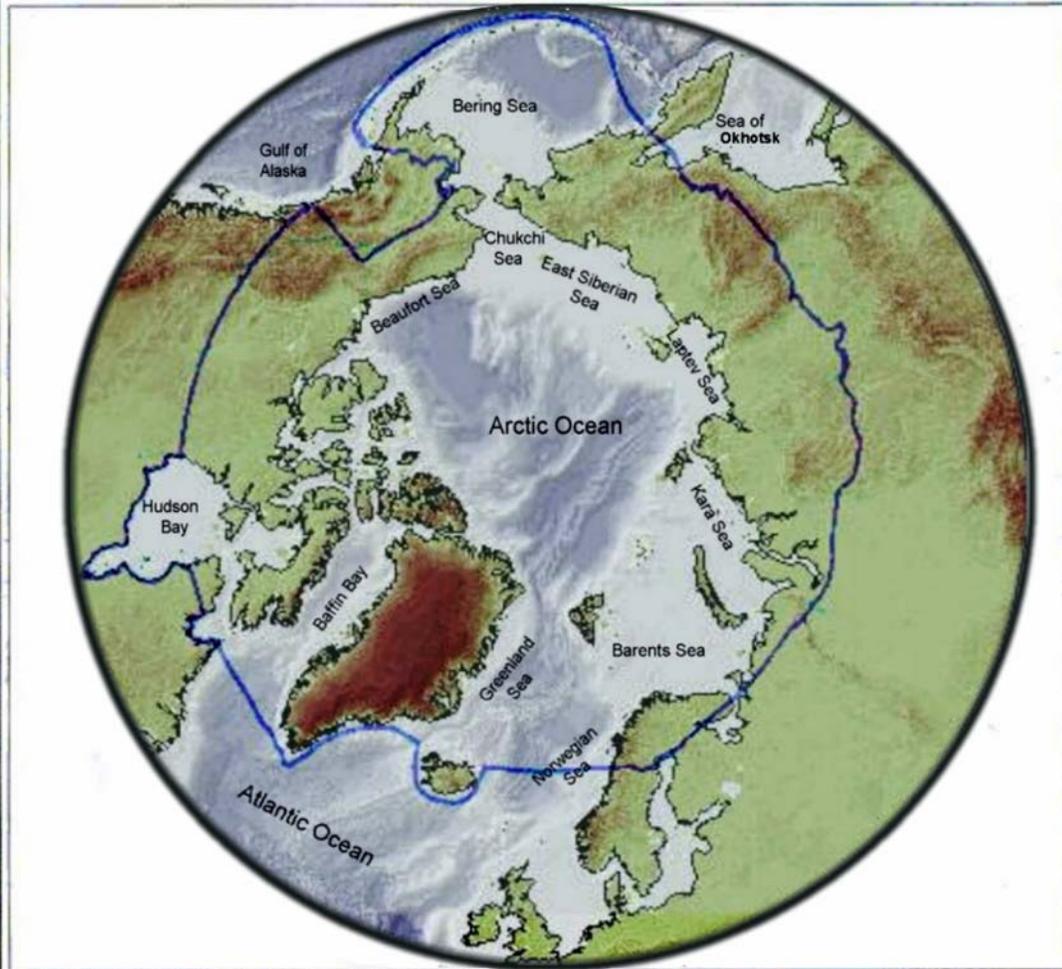
Purpose of the Guidelines

These Guidelines are intended to be of use to the Arctic nations central and regional authorities at all stages during planning, exploration and development of offshore oil and gas activities. They should be used to secure common policy and practices. The target group for the Guidelines is thus primarily the national authorities, but the Guidelines may also be of help to the industry when planning for oil and gas activities and to the public in understanding environmental concerns and practices of Arctic offshore oil and gas activities. While recognizing the non-binding nature of these Guidelines, they are intended to encourage the highest standards currently available. They are not intended to prevent States from setting stricter standards, where appropriate.

Policy development should take into account the domestic situation with respect to political, economic, legal, and administrative conditions, as well as technical competence. Consideration should be given to macro-economic effects, regional effects, and potential environmental impacts. Such consideration should result in a staged opening plan, and ensure protection of areas of special environmental concern. While these guidelines do not address socio-economic aspects in any detail, nor do they set standards for assessment of potential socio-economic effects of offshore oil and gas activities, these are nonetheless important to consider and integrate into the planning and conduct of exploration and development.

The Guidelines are intended to define a set of recommended practices for consideration by those responsible for regulation of offshore oil and gas activities (including transportation and related onshore activities being an integrated part of the offshore activity) in the Arctic (see Figure 1 and Annex A). It is hoped that regulators will identify the key issues related to protection of human health and safety and protection of the environment, while at the same time remaining sufficiently general to permit alternative regulatory approaches. It should be recognized that the eight Arctic nations have different systems with different emphasis on the division of responsibility between the operator and the regulator. This document attempts to present alternative approaches or general guidance where there may be a difference in approach. The goal is to assist regulators in developing a set of standards, which are applied and enforced consistently for all offshore Arctic oil and gas operators. Sensible regulation will vary to some degree

Arctic Council Working Group on the Protection
of the Arctic Marine Environment (PAME)



Note: The area of application of these Guidelines is described in Annex A

Figure 1
The Arctic Region

Scale: Approximately 1:45,000,000
Projection: Lambert-Azimuthal Equal Area

Neither the delineation of boundaries nor the use of any name in the publication implies an expression of opinion on the part of UNEP or Arctic Council concerning the legal status of any country or territory, or of its authorities, or concerning the delimitation of the frontiers of any country or territory.

based upon local circumstances. Thus, it is expected that, based on the outcome of environmental impact assessment procedures, regulators will establish policies such that offshore oil and gas activities are conducted so as to provide for human health and safety and protection of the environment.

Goals for Environmental Protection during Oil and Gas Activities in the Arctic Area

Offshore oil and gas activities in the Arctic should be planned and conducted so as to avoid:

- adverse effects on climate and weather patterns;
- significant adverse effects on air and water quality;
- significant changes in the atmospheric, terrestrial (including aquatic), glacial or marine environments in the Arctic;
- detrimental changes in the distribution, abundance or productivity of species or populations of species;
- further jeopardy to endangered or threatened species or populations of such species;
- degradation of, or substantial risk to, areas of biological, cultural, scientific, historic, aesthetic or wilderness significance; and
- adverse effects on livelihoods, societies, cultures and traditional lifestyles for northern and indigenous peoples.

1.3 General Principles

Arctic offshore oil and gas activities should be based on the following principles:

Principle of the Precautionary Approach

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

Polluter Pays Principle

National authorities should endeavor to promote the internationalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.

Sustainable Development

In permitting offshore oil and gas activities Arctic governments should be mindful of their commitment to sustainable development, including, *inter alia*:

- protection of biological diversity;
- the duty not to transfer, directly or indirectly, damage or hazards from one area of the marine environment to another or transform one type of pollution into another;
- promotion of the use of best available technology/techniques and best environmental practices (See some examples in [Annex B](#));
- the duty to cooperate on a regional basis for protection and preservation of the marine environment, taking into account characteristic regional features; and
- the need to maintain hydrocarbon production rates in keeping with sound conservation practices as a means of minimizing environmental impacts.

1.4 Existing Impacts and Future Threats

When considering near-shore oil and gas activities, interaction between existing contaminants and expected discharges should be assessed. Threats to marine Arctic areas from activities within Arctic countries at present mainly affect coastal areas. Impacts on offshore areas are mainly due to long-range transport by wind and sea currents, but also include sediment transport in sea ice.

The coastal areas of the Arctic may be contaminated by direct runoff from industry or mining, through river discharges, from dumping and from nuclear tests. Hot spots have been identified by [AMAP](#), but few of these are relevant in the context of these guidelines. Based on the results of the AMAP assessment persistent organic pollutants seem to be the main present threat to the Arctic environment. In addition, there seems to be some uncertainty concerning mercury that should be more closely monitored. Artificial radionuclides seem to pose only a nominal threat to the environment.

Based on AMAP results the most prominent future threats to the Arctic marine environment are persistent organic pollutants (POPs) and petroleum exploitation and transport.

1.5 Potential Impacts of Oil and Gas Activities on Environment and Society

Natural environment

Offshore oil and gas activities entail considerable inputs of gases to the air from power generation, flaring, well testing, leakage of volatile petroleum components, supply activities and shuttle transportation. Air emissions may have effects on the climate. They

may cause acidification on nearby land and contribute to emissions of any number of hazardous substances. Discharges of drill cuttings with associated oil and chemicals may have effects on sea floor flora and fauna and reduce both their abundance and diversity.

Discharges of produced water and chemicals to the water column appear to have acute effects on marine life only in the immediate vicinity of the installations. However, recent laboratory experiments on cod ([Meier, et. al, 2002](#)) suggest that small amounts of alkylphenols, found in produced water, had sub-lethal effects on the fish that might lead to disruption of the endocrine system in exposed animals.

Human environment

Oil and gas activities may have pronounced positive effects on a nation's employment and economy. They also have socio-economic effects, both negative and positive, on local communities and indigenous people. Where oil leasing revenues and/or oil industry-related employment opportunities go primarily to local communities, they can make a substantial difference in living standards and the community's ability to provide essential services. Exploration and development activities may affect traditional lifestyles of indigenous people.

1.6 Institutional Strengthening in the Regional Context

Management of Arctic oil and gas activities and their effects on the Arctic offshore and near shore areas requires participation of governments, the public and operators. Institutional mechanisms or capabilities are required at the local, national and regional levels to implement these Guidelines to:

- ensure the openness, transparency and consistent application of regulatory regimes;
- ensure that government agencies, local communities and non-governmental organizations are able to participate in their roles in environmental management;
- ensure that scientific and traditional knowledge are available to the processes and are effectively used; and
- facilitate regional activities and mechanisms that best suit the regional physical, biological and socioeconomic environments, and potential regional impacts.

To ensure that the above needs are addressed, Arctic States should:

- review their own needs, and regional needs, for institutional strengthening and capacity-building in these areas, and identify priority needs with schedules for addressing them; and
- cooperate in and facilitate bilateral and multilateral initiatives to address the needs, in concert with the public and with oil and gas industry operators.

1.7 Periodic Review

These Guidelines should undergo periodic review and amendment, as necessary, to take into consideration experiences in the management and control of offshore oil and gas operations. The Guidelines must remain current if they are to support timely and effective measure for protection of the Arctic environment. On the occasion of the third anniversary of their adoption, as prescribed in the 1997 edition, PAME under the Arctic Council reviewed and updated the Guidelines, resulting in the current document. On the third anniversary of the publication of the second edition, the guidelines should undergo another review and update.

1. Offshore Arctic oil and gas operations may result in a variety of related onshore activities and/or impacts. Individual governments should determine the extent to which these Guidelines apply when evaluating these activities.
2. Neither PAME nor the full Arctic Council has established a single geographic definition of the Arctic. This is left for Arctic states to determine. For the purposes of these Guidelines, the definition of the Arctic is contained in Annex A.

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2. Environmental Impact Assessment

Environmental impact assessment procedures should be used to determine the impacts of offshore oil and gas exploration, development, transportation and infrastructure. Arctic countries use a variety of methods and approaches. Assessments may have a broad scope or be project specific. The responsibility for conducting the environmental impact assessments (EIA) or preliminary impact assessments (PEIA) varies from country to country. In some countries the State assumes the responsibility for the PEIA and the operator is responsible for the EIA for specific projects or activities. In other countries all environmental assessments are conducted by the State (See Annex C).

Several approaches may be used for environmental assessments with a broad scope. Examples of these approaches follow:

- Regional assessments for oil and gas activities.
- Ecosystem based approach
- Integrated oceans and coastal management,
- Strategic Environmental Assessment (SEA)
- Regional cumulative impact assessment and studies
- Land use or spatial planning

The EIA Process for Norwegian Offshore Oil and Gas Activities

The Norwegian Petroleum Act requires an EIA to be carried out before any new area is opened for petroleum activities. This EIA is administered by the Ministry of Oil and Energy and is in its latest versions similar to a Strategic Environmental Impact Assessment. At present plans for a SEA of the Barents Sea is on hearing. As the whole of the Barents Sea is considered environmentally sensitive, a condition for further petroleum activities in this area is that there shall be no discharges of produced water or waste from drilling and that all other discharges should be minimized. When finished, and after a substantial hearing process, the EIA/SEA has to be approved by the National Assembly which also decides on which parts of the area to be opened and the condition for activities in the opened parts.

When licenses have been awarded and oil and/or gas resources have been found the operating company has to carry out a new EIA for the field in question as part of their plans for development and production. Operating companies furthermore cooperate to carry out regional EIAs. Regional EIAs are based on the exploration and production history of the region, but also include a certain number of fictive fields as a basis for prognoses of expected development and discharges. Regional EIAs have at present been developed for regions in the North and Norwegian Seas.

All EIAs/SEAs in the Norwegian sector have a stepwise development similar to the ones shown in the flowchart in [Annex C](#).

The Norwegian Ministry of Environment is at present putting great emphasis on developing management plans for the sea areas. The plans are made to avoid conflict between different users of the sea (fisheries and oil and gas development, for example) and to ascertain sustainable development and protection of sensitive resources. As a basis for the management plans SEAs are developed for all sectors having activities in the area, primarily fisheries, oil and gas activities and transportation. The first management plan will be developed for the Barents Sea which is considered particularly environmentally sensitive.

The EIA Process for U.S. Offshore Oil and Gas Activities

United States law requires an EIA process for major actions that are proposed, approved, regulated, or funded by federal agencies. In the United States this process is called an Environmental Impact Statement (EIS). Federal regulations implementing this law require that the EIS be integrated early with the planning for proposed activities. For offshore oil and gas plans or activities, the Minerals Management Service (MMS) initiates the EIS process early in the planning for proposed five-year oil and gas leasing programs, proposed lease sales, and requests from industry to approve oil and gas plans or permits. The MMS assumes full responsibility for funding and conducting the EIS.

The EIS for the proposed Five-Year OCS Oil and Gas Program analyzes alternative leasing configurations in all regions of the U.S. Outer Continental Shelf. This EIS is broader in scope and has less detailed analysis than subsequent EISs that are prepared for lease sales in particular regions. An EIS may also be prepared that provides a site-specific analysis for an individual development proposal. The scope, level of detail, and issues of concern for each EIS are tailored to the actual proposal. The programmatic EIS examines issues broadly, while a development plan EIS focuses on more immediate, geographically focused concerns. In all cases, the EIS analysis addresses only those issues that have a bearing on the decision at hand. For example, only the Five-Year Program EIS discusses alternative energy sources, while only a development plan EIS would analyze alternative pipeline routes within a particular area.

The EIA Process for Greenland Offshore Oil and Gas Activities

Opening of new areas for exploration

In Greenland areas are opened for oil exploration without an EIA. Exploration activities Prior to all major exploration activities (seismic-surveys and exploratory drillings) an EIA shall be carried out and approved in conjunction with the approval of each of the individual activities by the Bureau of Minerals and Petroleum (BMP), according to the Act on Mineral Resources in Greenland. The prepared EIA is usually in a preliminary form, as the activities are temporal, and the EIA is prepared in close cooperation with the BMP.

Exploitation activities

Prior to the initiation of a production phase an elaborate EIA covering all activities (development, production, storage, transportation, abandonment) shall be prepared and subsequently approved by the BMP.

The approval process

Prior to the approval of an EIA, the BMP will consult, among others, its environmental advisers in the NERI (the National Environmental Research Institute, Roskilde, Denmark).

Contact the BMP

For further information on telephone number +299 346800/telefax +299 324302 or search for information at our homepage on www.bmp.gl. On our homepage the Act on Mineral Resources in Greenland and the Standard Application and Requirements Concerning Offshore Seismic Operations in West Greenland, among other documents, can be found. Further information about NERI's can be found on www.dmu.dk.

EIA System in Finland

The Act on Environmental Impact Assessment Procedure came into force 1 September 1994. A new Act on EIA came into effect in 1999. The aim of the legislation is to further the assessment of environmental impacts and public participation in planning and decision-making. In the EIA procedure environmental consideration is integrated into the existing planning and permit procedures. In the EIA Decree there is a detailed list of different project types requiring EIA. The list is based on the lists in the EIA Directive (85/337/EEC as amended by)//11/EC) and the UN ECE Convention on EIA in a Transboundary Context (1991). In the Finnish EIA procedure the developer investigates the environmental impacts and prepares an assessment programme that contains information on the project and how the assessment will be carried out. On the basis of further studies and opinions given on the assessment programme, the developer prepares an assessment report where information on the project and of its various alternatives is presented, together with a comprehensive evaluation of their environmental impacts. The report will be appended to the decision-making material. The authorities are not allowed to make any decision on a permit procedure or a plan until the assessment procedure has been concluded. Co-ordination of the assessment procedure and related duties rests with a coordinating authority, the Regional Environmental Centres and with the Ministry of Trade and Industry in projects involving nuclear power plants as referred to in the Nuclear Energy Act (990/87). The citizens and authorities in the affected area will take part in the procedure and express their comments first on the assessments programme (scoping) and later on the assessment report itself. The act also includes provisions on assessing the environmental impact of projects whose effects extend into the territory of another state. The EIA procedure can also be applied in individual cases to a project not included in the list or to the modifications of a completed project that will be probably

have significant adverse environmental impact. The decision to apply the assessment procedure in the cases is made by the Ministry of the Environment. In the case of nuclear power projects, the Ministry of Trade and Industry makes the decision. The main tasks in the near future relate to promoting the effectiveness of EIA and the integration of Strategic Environmental Assessment (SEA) in the preparation of policies, plans and programmes. The new Environmental Protection Act and the new Land Use and Building Act have adopted features from EIA.

Many of these approaches address common elements. They assess environmental impacts on the ecosystem and social and economic effects. They include a long-term focus that addresses both effects and planning. They include a discussion on cumulative effects of oil and gas activities with the effects of other activities. They address competing interests.

Assessments may be either comprehensive or strategic.

This chapter should be read in concert with the AEPS Guidelines for Environmental Impact Assessment (EIA) in the Arctic.

Assessments should consider alternative development options and any impacts that alternative activities may have, including cumulative impacts of other existing and known planned activities.

PEIAs and EIAs should consider, in particular, the following effects (for example contamination, habitat disturbance and alteration) on:

- human communities including indigenous ways of life;
- cultural heritage;
- socio-economic systems;
- other human activities (e.g., tourism, scientific research, fishing, and shipping);
- overall landscape (e.g., fragmentation);
- subsistence lifestyles (e.g. harvest practices and availability of food supply);
- oil spill preparedness and response in sea ice conditions;
- permafrost and transition zones;
- climate;
- sustainability of renewable resources;
- flora and fauna including marine mammals;
- air, water and sediment quality;
- ports and shore reception facilities;
- ice dynamics; and
- the interaction among any of the above.

(See the table showing an overview of offshore activities and potential environmental effects in Annex D.)

2.1 Purpose

Environmental impact assessment aims at protecting the Arctic environment, its flora and fauna, abiotic components, and human health, security and well being from deleterious effects. It does this by improving understanding of the possible effects of human activities. A main purpose of the environmental impact assessment process is to integrate environmental considerations in the overall planning from the beginning.

2.2 Technique and Process

The EIA process

The EIA process is a series of interactive steps, including feedback mechanisms and quality assurance procedures. Some of the main features are:

Organization: A single organization should be given responsibility for coordination of the EIA process, including arrangements for logistical and financial support. A first task of this group should be to define the boundaries of the assessment area and reach agreement on the timetable to be followed.

Scope: The scope of the assessment should be comprehensive. However, it may be decided that initial assessments should give priority to environmental sectors considered to be most at risk from the planned activities. In the context of offshore petroleum activities this may for instance be particularly sensitive nesting or feeding habitats for seabirds, or spawning grounds for commercially important fish species, etc.

Data Quality Assurance: A system of quality assurance for data and their collection should be in place.

Timetable: It is essential that the EIA process is performed according to a realistic time table agreed upon at an early stage of the process. The time frame will vary depending on the extent and type of assessment to be carried out.

Sources of Information: Data for EIA purposes may be gathered from existing sources (scientific literature, databases, registers, traditional knowledge, etc.) and necessary additional information may be obtained through baseline investigations or monitoring programs.

Risk Assessment and Environmental Risk Analysis:

The reason for a risk assessment or analysis is to determine if an action has an acceptable level of risk. Both regulators and industry use the information gathered through an EIA and risk analysis to make decisions on whether a proposed activity or development should go forward as planned, to institute mitigating measures to reduce risk, or to choose another alternative action.

Prior to carrying out an environmental risk analysis, risk criteria should be defined. The risk criteria should be documented and the regulator and/or operator should update the

criteria during the course of operations as appropriate and necessary for enhancing the safety level and as an effort to achieve the objectives defined for the activities. Risk or acceptance criteria must at a minimum incorporate national and international laws and standards. They also should incorporate the precautionary principle.

The environmental risk analysis should be initiated as soon as practical to allow time if needed for public consultation. The analysis should be valid for the period of the year the operations will be carried out. If there is uncertainty of the timing of operations, the analysis should be valid for a longer period.

Risk associated with offshore oil and gas activities has two main elements--the risk that an event might happen, such as an oil spill, and the risk that something will be impacted, such as ecologically sensitive areas. A risk assessment should be carried out in order to estimate the risk (or probability) of an acute oil spill or other event. An environmental risk analysis should be conducted to identify impact sensitivities from an acute spill or event. As well as, spills that result from routine operations, including approved discharge of drilling fluids or cuttings. The analysis of each affected environmental resource should clearly distinguish between the risk of oil spills or other accident and impact severity. The risk of contact in an acute spill does not influence the impact severity. Probabilities related to acute oil spills should be estimated or modeled based on geological studies on resource estimates and distribution, development scenarios, site-specific and regional considerations, exploration and production plans, and historical data.

The analysis also should identify the need for risk reducing and contingency measures. Requirements stipulated by or in law or regulations, including requirements for risk reducing measures and the operator's safety objectives, should form the basis for defining an acceptable level of risk.

A flow-chart depicting an environmental risk analysis scheme is represented in Annex E.

2.3 Preliminary Environment Impact Assessment (PEIA)

A Preliminary Environmental Impact Assessment (or similar process) is a screening level review that should contain sufficient detail to permit assessment of whether a proposed activity may have a significant impact and should include:

- a description of the proposed activity, including its purpose, location, duration, and intensity;
- consideration of alternatives to the proposed activity and any impacts that the activity and its alternatives may have, including consideration of cumulative impacts in the light of other existing and known planned activities; and
- a determination whether significant impacts, that would require further assessment, are likely to occur.

2.4 Environmental Impact Assessment (EIA)

An Environmental Impact Assessment should be based on the best available information and include:

- a description of the proposed activity, including its purpose, location, duration, and intensity. This includes the physical characteristics of the proposed activity and its land use requirements during construction and operation phases. It should state the main characteristics of the development process proposed, including type and quantity of materials to be used;
- the estimated type and quantity of expected residues and emission (including air, water, soil, vibration, light, heat and radiation pollution);
- an environmental risk analysis of impacts including sensitivity mapping, and risk assessment of oil spills including trajectory modeling;
- the forecasting methods used to assess effects on the environment and any limitations on models due to lack of data, in undertaking the assessment;
- based on the above, an identification of the area of impact;
- a description of the reference/initial state of the area where the activity is to take place;
- the likely significant effects, direct or indirect and an evaluation of their spatial and temporal scales;
- the likelihood of transboundary impacts;
- potential socio-economic effects and the effects on traditional lifestyles of indigenous people;
- a description of the measures proposed to avoid, reduce or rectify identified potential significant adverse effects, taking into consideration the slow recovery and regenerative capacity of the Arctic;
- other development options, and where authorities prepare the analysis, this may include the alternative of no action. This discussion should include an evaluation of the different alternatives and the reasons for choosing the selected activity; and
- a summary in non-technical language, assisted with figures and diagrams, of the information specified above. If need be, other means of displaying this information, based on cultural heritage of the local and indigenous residents should be prepared.

2.5 Consultations and Hearings

Consultation is an effective dialogue between and amongst regulators, potential operators and stakeholders. In general, consultation should commence at the planning stage and continue throughout the lifetime of a project. It ensures transparent interaction and minimises potential risks for all parties. Consultation also provides a mechanism to resolve disagreements and provide appeal rights to all parties. Consultation is generally thought of in terms of public hearings, but it can also work effectively through informal discussions, focus group and key interviews and questionnaires. There is no single, standard approach to consultation, however some guiding principles promote effective consultation. These include:

- ❑ Effective consultation is two-way;
- ❑ Identifying and building relationships with potential consultees can take considerable time;
- ❑ Consultation programmes are integral to project planning and decisions making;
- ❑ There are limits to the consultation process;
- ❑ Consultation should be open and transparent

Collection and review of information from publicly available sources and stakeholders is important and continuous through the life of a project. Such information, including vital traditional knowledge can enhance the understanding of the project on all sides, including its social setting, the stakeholder community and the issue and values that are important to those stakeholders.

2.6 Decision/Implementation/Project monitoring/Modification

There should be a description of monitoring programs to determine effects, assess the effectiveness of mitigation measures and provide any early warning of adverse effects. The programs should be designed with flexibility so they can be modified to respond to unforeseen effects. These programs should be elaborated in a manner consistent with Chapter 5 (Monitoring). They should also provide for the possibility of modification of an activity, where warranted.

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3. Arctic Communities, Indigenous Peoples, Sustainability and Conservation of Flora and Fauna

Offshore oil and gas activities should be conducted so as to protect and minimize adverse impacts on living resources and the ecosystems on which they depend; to minimize adverse impacts on the traditional ways of life, resource uses and cultural values of Arctic indigenous communities; and to coordinate with other human activities in the region.

3.1 Living Resources

Necessary measures should be taken to ensure that Arctic flora and fauna and the ecosystems on which they depend are protected during all phases of offshore oil and gas activities. Special attention - particularly with regard to intrusive activities - is required for species (e.g. fish, birds, whales, seals, polar bears, and other marine mammals), which are resources for human use, particularly by indigenous people, and for special habitats (such as ice-edge zones, coastal lagoons and barrier islands, wetlands, estuaries, bays, and river deltas). Onshore features that should be considered for protection and/or avoidance during offshore exploration and production activities include areas used significantly by waterfowl (such as high-density nesting, brood-rearing, molting and staging areas), caribou (such as major calving and insect relief areas), and by musk oxen. Consistent with the interests of human safety and well-being, a primary governing policy in the Arctic should be the conservation of resources for sustainable use.

3.2 Cultural Values

In planning and executing offshore oil and gas operations, necessary measures should be taken, in consultation with neighboring indigenous communities, to recognize and accommodate the cultural heritage, values, practices, rights and resource use of indigenous residents. Arctic States, in cooperation with the oil and gas industry, should address the economic, social, health and educational needs based on equal partnership with indigenous people. All phases of oil and gas activity should avoid historic or prehistoric resources including archeological and sacred sites, historic shipwrecks and other potentially important cultural sites.

3.3 Other Human Activity

Offshore oil and gas activities should be conducted in coordination with other human activities in the region, such as tourism, fishing, shipping, and scientific research.

3.4 Arctic States should:

- Incorporate local and traditional knowledge into the decision-making process including the initial siting studies and disposition of resource use rights. For example, ethnological expert studies are being used in Russia in which scientific and local knowledge are combined;
- Ensure meaningful participation of indigenous people and other residents in the decision making process;
- Urge and, where appropriate, require industry to integrate cultural and environmental protection considerations into planning, design, construction and operational phases of oil and gas activities;
- Improve cross-cultural communication methods to ensure full and meaningful participation of indigenous residents including procedures to incorporate local knowledge;

- Identify and prohibit or restrict oil and gas activities in ecologically and culturally sensitive areas; and
- For use in planning and decisions, identify species, which are resources for human use and their ecological requirements, and identify patterns of their use as resources.

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4. Safety and Environmental Management

Two basic regulatory approaches are available for dealing with the safety and environmental aspects of offshore Arctic oil and gas operations. They are: (A) a performance-based system and (B) a prescriptive approach.

(A) In the performance based approach, the regulator sets specific quantifiable goals but does not specify how the operator must meet these goals. This system allows the operator the flexibility to specify how they intend to comply with a regulatory body's mandate that operations be conducted safely and in an environmentally sound manner. There are a variety of approaches available to the operator to meet the intent of this alternative, including the use of technical standards, company guidelines, "safety case" initiatives, or combinations of the above.

(B) The prescriptive approach to regulation is based on a series of specific regulatory requirements, which typically represent minimal expectations on behalf of the regulatory body. This approach can be complemented by a performance-based program. Under the prescriptive system, a regulatory body normally develops requirements addressing all phases of offshore operations. The requirements are typically developed from a series of existing standards, practices, guidelines, and procedures. Compliance with these requirements are normally evaluated by a regulatory body through review and evaluation of a series of plans, permits, and related documents and through a system of field based inspections and evaluations.

Either regulatory approach, performance or prescriptive, can be modified to form a 'hybrid' system of regulation, composed of appropriate elements from both regimes. Such a system of regulation may represent a viable alternative for a regulatory body to consider adopting due to the systems' ease of operation and flexibility.

Today, there has been significant interest by both the offshore oil and gas industry and the various regulatory bodies to adopt, when applicable, appropriate international standards as a component of a regulatory system (performance, prescriptive, or hybrid). Use of these international standards addresses the fact that more often than not, regulators are regulating a global industry and there is value in using global standards wherever practical.

In either approach, before oil and gas activities are approved, regulatory bodies should require the operator to demonstrate financial capacity to carry out all aspects of the

operation, including responding to environmental emergencies and decommissioning of facilities. More specifically, a financial estimate of the worst-case environmental emergency scenario should be developed and the operator should provide evidence of financial capability to undertake remediation measures and to compensate persons who may suffer losses as a result of the activity.

There are many similarities between the two systems of regulation. An important management tool to assist the operator in meeting the regulatory objectives of either system, eliminating unsafe behavior, and achieving continual improvement in safety and pollution prevention practices is defining and communicating a culture focus on safety and environmental performance to the workforce and ensuring that they are fully motivated to implement it through a management system. This philosophy can also be applied to a hybrid regulatory program. See Annex F.

4.1 Management Systems

Proper planning to address the environmental sensitivities of a project and to ensure safety of the work force is essential. Whether required by the regulator or conducted voluntarily within industry, environmental and safety planning should be contained in a formal management system. Often referred to as EMS (Environmental Management System), HSEMS (Health and Safety and Health Environmental Management System) or SEMP (Safety and Environmental Management Program) these systems focus attention on the influences that human error and poor organization have on accidents. Certification of management systems have been developed by the International Organization for Standardization (ISO 14000 series) and the American Petroleum Institute (Recommended Practice 75) as well as in Oil and Gas Producers (OGP) and UNEP/OGP publications.

These systems all have as a common and central feature a cyclic process involving sequential consideration of:

- Policy and strategic objectives;
- Organization, resources and documentation;
- Evaluation and risk management;
- Planning;
- Implementation and monitoring; and
- Auditing and Review

Each step of the cyclic process requires leadership and commitment by the implementing body and the principal aim of the system is to deliver continual environmental, safety and health performance. This is assessed by periodic audit or review of a management system's performance to ensure that necessary components are in place and that they are effective.

The key elements of a management system can be described as follows:

4.1.1 Policy and Strategic Objectives

The operator's management should define and document its safety and environmental policies and strategic objectives and ensure that these:

- ❑ Have equal importance with the operator's other policies and objectives;
- ❑ Are implemented and maintained at all organizational levels;
- ❑ Are publicly available;
- ❑ Commit the operator to meet or exceed all relevant regulatory and legislative requirements;
- ❑ Commit the operator to reduce the risks and hazards to health, safety and the environment of its activities, products and services;
- ❑ Provide for the setting of safety and environmental objectives that commit the operator to continuous efforts to improve performance.

The operator should also take steps to ensure that all contractors engaged in operations are also able to meet the requirements of the parent operator management system and applicable laws and regulations.

A more detailed and specific list of possible objectives is set out in [Annex F](#).

4.1.2 Organization, Resources and Documentation

Successful management of safety and environmental matters is a line responsibility, requiring the active participation of all levels of management and supervision. This should be reflected in the organizational structure and allocation of resources. The operator should define, document and communicate - with the aid of organizational diagrams where appropriate - the roles, responsibilities, authorities, accountabilities and interrelations necessary to implement the HSEMS and meet regulatory responsibilities. The operator should also stress and encourage individual and collective responsibility for safety and environmental performance to all employees. It should ensure that personnel are properly trained, competent, and have necessary authority and resources to perform their duties effectively.

4.1.3 Evaluation and risk management

The operator should maintain and implement procedures to identify systematically the hazards and effects, which may affect or arise from project inception through to abandonment and disposal. Procedures should be maintained to evaluate (assess) risk and effects from identified hazards against screening criteria, taking into account probabilities of occurrence and severity of consequences for:

- ❑ People;
- ❑ Environment; and
- ❑ Assets.

The operator should maintain procedures to select, evaluate and implement measures to

reduce risks and effects throughout the project. Risk reduction measures should include both those to prevent incidents (*i.e.* reducing the probability of occurrence) and to mitigate chronic and acute effects (*i.e.* reducing the consequences). In all cases, risks should be reduced to a level deemed as low as reasonably practicable, reflecting amongst other factors, local conditions and circumstances, the balance of costs and benefits and the current state of scientific and technical knowledge.

4.1.4 Planning

The operator should maintain, within its overall work program, plans for achieving environmental objectives and performance criteria. These plans should include:

- ❑ A clear description of the objectives;
- ❑ Designation of responsibility for setting and achieving objectives and performance criteria at each relevant function and level of the organisation;
- ❑ The means by which they are to be achieved;
- ❑ Time scales for implementation;
- ❑ Programs for motivating and encouraging personnel towards a suitable HSE culture;
- ❑ Mechanisms to provide feedback to personnel on environmental performance;
- ❑ Processes to recognise good individual and team environmental performance; and
- ❑ Mechanisms for evaluation and follow-up.

The operator should develop, document and maintain and review plans and procedures for responding to emergencies. These plans and procedures should reflect site-specific characteristics. In order to assess effectiveness of response plans, the operator should maintain procedures to test emergency plans by scenario drills and other suitable means at appropriate intervals. Plans should be revised and up-dated as necessary in the light of experience gained.

4.1.5 Implementation and Monitoring

Activities and tasks should be conducted according to procedures and work instructions developed at the planning stage and modified during the design phase. Management should ensure the continuing adequacy of the safety and environmental performance of the operator through monitoring activities.

The objective of monitoring programs will vary, depending on the activity and operations in progress, but will include some or all of the following elements to;

- ❑ Check the overall effectiveness of the design and operational procedures in protecting the environment;
- ❑ Comply with regulations, standards, planning consents and compliance programmes;
- ❑ Identify sudden or long-term environmental trends or changes;
- ❑ Measure physical disturbance and subsequent recovery following rehabilitation;
- ❑ Study impact and recovery following accidents and incidents
- ❑ Confirm that environmental protection equipment and procedures are effective

- ❑ Compare actual impacts with those predicted in the Environmental Assessment;
- ❑ Maintain a system of records of compliance with environmental policy, operational requirements and planned results; and
- ❑ Provide for internal and external reporting of performance to authorities and stakeholders.

4.2 Auditing and Reviewing

Environmental auditing is a systematic, periodic, and objective review by regulated entities to evaluate facility operations and practices. Auditing provides a means to document environmental, organizational, management, and equipment performance in order to meet environmental requirements and to serve as a quality assurance check. Audits are the fundamental verification tool to ensure that environmental management procedures are being rigorously enforced. Audits are often conducted internally, but periodic reviews involving independent, external auditors are highly suggested.

Environmental audits should be encouraged by the highest levels of management and conducted as an independent function of the audited activities. An environmental audit does not replace or substitute for direct compliance activities such as obtaining permits, installing controls, monitoring compliance, reporting violations, keeping records, or conducting independent inspections.

- procedures should be maintained for audits to:
- determine whether environmental management system elements and activities conform to planned arrangements and are implemented effectively;
- examine line management systems and procedures, field operations, monitoring practices, and data to see if they fulfill the company's environmental policy, objectives, and performance criteria;
- check the accuracy of the Environmental Impact Assessment predictions and ensure that mitigation and monitoring recommendations are being implemented;
- verify implementation and effectiveness of mitigating measures;
- review incident reporting and remedy schemes;
- identify current and potential environmental problems;
- formulate thorough documentation, feedback, and implementation procedures;
- determine compliance with relevant legislative and regulative requirements; and
- identify areas for improvement, leading to progressively better environmental management.

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5. Monitoring

5.1 Aims and Objectives

Monitoring is an analytical tool used to assist in conserving and protecting ecological and socioeconomic resources and human health. The purpose of monitoring with respect to petroleum activities is to:

- ensure that regulatory and licensing requirements are satisfied;
- establish a basis for identifying environmental responses and trends;
- assess whether the observed environmental impacts are in line with the forecasted and accepted environmental impacts identified in the PEIA;
- detect the first signs of environmental changes, contamination or pollution;
- help assess whether the operator is meeting the goals of its environmental management plan;
- facilitate early detection of possible unforeseen effects; and
- aid future decisions about where, when, how and if oil and gas activities should be allowed to occur.

The design of a monitoring program should include a clear statement of the objectives of the program. Identification of methods utilized to assure quality control for all aspects of the monitoring process should be in-place early in the project's planning phase.

Monitoring should measure physical, chemical, biological and socio-economic conditions that may be impacted by the activities being conducted. Before petroleum activities commence, monitoring should begin with a comprehensive baseline investigation, which should incorporate existing information, and comprise as a minimum all monitoring sites and variables planned to be used in the long term monitoring program. The monitoring program should continue through the decommissioning and reclamation phase.

Monitoring should be conducted so as to distinguish between impacts due to the monitored activities and those from other sources. Monitoring should be coordinated regionally so that interactions between multiple activities may be more easily detected. The type of monitoring conducted depends on the specific type of activity anticipated and the nature of the environment that could be affected.

Prior to initiating offshore oil and gas activities, Arctic States should ensure funding is available within government and/or industry for monitoring.

5.2 Monitoring Targets

Priority monitoring should comprise the following areas during all phases of oil and gas activities to assess and minimize or mitigate adverse effects:

- environmental accounting of emissions to air, discharges to water and sea floor and emissions of noise;
- physical disturbance to sea floor, pelagic biota, ice edge communities and the sea shore, and effects on species populations, distribution and migration routes;
- levels of contaminants in bottom sediments and the water column;
- levels of contaminants and effects in living marine resources, seabirds and other wildlife, with particular attention to vulnerable life stages and areas of critical habitat;
- effects of petroleum activities on local human populations, subsistence access and harvest and other human activities; and
- environmental effects on the integrity of the infrastructure.

The primary emphasis of the monitoring will vary depending on the phase of the petroleum activity. Exploratory drilling and production activities will demand different monitoring emphasis. Similarly, monitoring will have different emphasis in the early stages of the life of a field/facility from later stages.

Monitoring programs should be reviewed on a regular basis to determine whether the results they are yielding indicate a need for changes in operational practices (for example, as a result of failing to achieve the initial hypotheses set out in the EIA or because of unforeseen impacts). Programs should also be reviewed to determine whether they should continue, be modified or terminated. Ultimately, the length and breadth of monitoring programs will be determined by the scale and duration of offshore oil and gas activities and the immediate or longer-term impacts.

The main emphasis of the baseline survey and/or EIA should be to make a complete inventory of environmental resources that may be affected by the planned petroleum activity and identify resources, areas or uses particularly sensitive to the various phases of the petroleum activities. Some resources may be more sensitive to acute oil spills, while others may be more sensitive to chronic discharges/emissions even at sub-lethal concentrations. Both types may have effects on local biological communities, directly or indirectly through effects on the ecosystems.

Programs for identification of biota particularly sensitive to pollution from petroleum activities should not only include adult stages and established communities (e.g. seabird feeding grounds, shoreline communities) but also early stages in the life cycle of plants and animals including larval stages, which are more vulnerable to oil and chemicals than adult stages. Therefore, not only vulnerable species should be identified prior to setting up a monitoring program, but particularly sensitive life stages should also be identified.

5.3 Monitoring methods

Monitoring of trends in levels of contaminants in sediment, water, ice/snow and biota has been the traditional way of monitoring impacts of pollutants on environment. This is still the backbone of most monitoring programs, since reliable trend data are needed both to document changes in the environment as the result of the activities and as a basis for the prediction of future changes.

Monitoring should not only measure the level of pollutant in sediment or biota, but also the effects that the contaminants may have on species, ecosystems and human health. These effects may be monitored by recording changes in biodiversity over time or by measuring effects on single specimens. Such methods, including the use of biological indicators, could give early warning of negative changes in the environment. Methods for monitoring effects should be an integrated part of monitoring programs.

The monitoring programs should not only be centered around field monitoring, but also include laboratory experiments and combinations of laboratory experiments and field

studies whenever relevant.

5.4 Monitoring Standards and Practices

Monitoring standards and practices should be established for all phases of offshore petroleum activities, including offshore seismic operations and marine transportation. Principal monitoring activities should occur during drilling, development, production, decommissioning, and reclamation, as well as during transportation of oil, gas, supplies and personnel.

Monitoring should have a long-term perspective showing developmental trends, and should form the basis for predicting what impacts to expect in the years to come. Monitoring surveys should be more frequent during the first years of investigation until the main impacts and trends are clarified and then as frequent as necessary in subsequent years. Environmental accounting and budgeting should be part of the monitoring system, showing the type and quantity of chemicals and substances that are used and discharged, what environmental impacts have been monitored, and what might be expected in the next few years.

Monitoring should start with a baseline survey establishing pre-activity population structure, distribution and size; habitat status; and existing level of contamination in the environment and biota. This information is essential if previous introductions of the contaminant in question have already taken place either naturally or from human activity. Usually, monitoring will be the chemical measurement of the level of the contaminant in the air, water, ice/snow, sediments, or biological tissue. The levels found are then compared to applicable criteria such as baseline data or appropriate standards. The ultimate goal, however, must be to measure the effects of contaminants on organisms.

Monitoring of contamination levels related to petroleum activities should take into account the source of the contaminant, the potential routes of transport (e.g., aqueous, particulate, or air borne) and the potential pathways for bioaccumulation. Besides the contaminant in question and the particular processes that might be involved, other considerations may include: wind strength and gustiness; ocean currents; relevant river flow; precipitation; air temperature; ocean temperature; sea ice conditions and movement; water depth; sea surface state; subsurface geology; and other resources affected.

Data from environmental monitoring should be harmonized in collaboration with AMAP and could be collected and stored in a central Arctic database repository, such as ARIA or ADD, where it would be available freely to all national environmental protection and monitoring authorities, for circumpolar environmental assessments, and for other users.

Whenever appropriate, operators should consider local indigenous populations for contractual monitoring activities as well as drawing upon traditional knowledge for the identification of historical environmental extremes and trends. Establishment of cooperative relationships with resident indigenous communities for biological sample collection, environmental observation and monitoring, should be pursued.

Results have shown that air emissions from the offshore installations may have an impact on nearby land areas and monitoring of these impacts may be included in updated monitoring guidelines.

5.5 Compliance Monitoring and Review

Results of monitoring should also be utilized by regulators in compliance audits and on-site regulatory supervision as the basis for requiring modification, postponement, or shut-down of operations or specific components of an operation and to change laws.

Monitoring activities can be conducted in conjunction with environmental audits to assure the operator that the equipment and procedures associated with an operation are functioning within design parameters and will not lead to any significant impact on the environment. Authorities should use environmental audits to verify that the results of monitoring are used by the petroleum companies and reflected in their environmental strategy (see [Annex G](#), Examples of Generalized Monitoring Plans).

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6. Operating Practices

6.1 Waste Management

Offshore oil and gas activities produce a variety of wastes in the form of aqueous and solid discharges and atmospheric emissions that need to be managed to avoid air and water pollution, smothering of benthic communities, and contamination of materials and food sources. Waste management is most effective when included in the overall planning from the beginning and combined with pollution prevention measures. Prevention and elimination of these discharges and emissions, which pose pollution threats to the Arctic environment, should be a targeted goal of regulatory activity. New technology makes this goal achievable in some situations. The appropriate waste management decision for each activity should also consider the feasibility of zero discharge to the marine environment in the area under review, whether the necessary onshore infrastructure exists, and whether an unacceptable transfer of pollutants from one media to another would result. If prevention and elimination of wastes is not possible, then application of best available techniques will allow for a hierarchical approach of source reduction and waste minimization to meet applicable regulations.

Examples of Recommended Preventative Management Techniques

- consider zero discharge of the main waste streams (produced water and drilling wastes) at the planning and construction stage, in particular zero discharge of drilling waste and produced water;
- reduce waste at the source by process modification, material elimination, material substitution, inventory control and management, improved housekeeping, and water recovery;
- reuse of materials or products such as chemical containers, and oil-based or synthetic-

based drilling fluids;

- recycle/recovery by the conversion of wastes into usable materials and/or extraction of energy or materials from wastes such as recycling scrap metal, recovery of hydrocarbons from tank bottoms and other oily sludge, burning waste oil for energy, and the use of produced water for enhanced recovery;
- reduce toxicity of effluents through the careful selection of drilling fluids and chemical products used in separation equipment and wastewater treatment systems;
- perform radiation surveys of equipment and sites to prevent or minimize the spread of Naturally Occurring Radioactive Materials (NORM); and
- where NORM-scale formation is anticipated, use scale inhibitors to minimize or prevent the buildup of radioactive scale in tubulars.

Management Techniques for Drilling Wastes and Production Effluents

Waste from Drilling Activities

Drilling wastes in the form of residual muds and cuttings comprise the principal wastes generated during well drilling. Initially, a determination needs to be made on whether or not to prohibit discharge based on the nature/volume of the discharge and its effect on the environment. In certain areas, due to identification of environmentally sensitive areas muds and cuttings may need to be managed in a manner that will prevent discharge. In areas where discharge is permitted, the method of disposal should be based upon careful consideration of mud formulation and specific environmental conditions at the site.

Where water-based muds are employed, additives containing oil, heavy metals, or other bioaccumulating substances should be avoided or removed prior to discharge. Persistent and toxic substances should be avoided or criteria for the maximum allowable concentration should be established. This is particularly true if cuttings with adhered mud are discharged offshore or disposed of on land. If the option of land disposal is used, then both the properties of the mud and the environmental conditions at the proposed disposal site should be carefully considered to determine acceptability of the disposal site. This is particularly important in the arctic where creation of a disposal site on land may lead to greater environmental damage.

Environmental considerations favor the use of non oil-based muds for drilling. In shallow portions of a well, saltwater and saltwater with clay are often used as the primary drilling fluid and the cuttings and residual mud can generally be safely discharged into the marine environment.

Discharge to the marine environment should be considered only where zero discharge technologies or reinjection are not feasible. Based upon site-specific biological, oceanographic and sea ice conditions, discharges should be at or near the sea floor or at a suitable depth in the water columns to prevent large sediment plumes that might affect benthic organisms, plankton productivity, or fish and marine mammal movements. These discharges should be considered on a case-by-case basis.

Where the use of non-aqueous fluids is required, for example in highly deviated wells or in certain geological formations, operators should ensure that fluids are recycled as far as practicable. Disposal of cuttings contaminated with such fluids should be assessed on the basis of a comparative assessment of alternatives, including re-use of the material, injection into geological formations and discharge on to the sea bed taking into account possible impacts on the sea and other environmental compartments.

Spent oil-based or synthetic-based muds can often be reconditioned and recycled. Injection into disposal wells or encapsulation of reserve fluid pits containing muds and cuttings, including those with acceptable levels of NORMs, and other pumpable wastes, are potential disposal techniques. Where geological conditions permit, reinjection of wastes into the reservoir achieves zero discharge to the marine environment of cuttings and drilling fluids. Management of down-hole disposal will require diligence to ensure that wastes do not migrate into unsealed or undesirable stratigraphic zones and that well integrity is maintained. Stabilized burial at approved onshore disposal sites is another potential alternative.

Production Waste Discharges

During production operations, produced water can be properly treated and discharged or may be reinjected in areas where marine discharge is undesirable. Treatment, work over, and completion fluids, which are brought to the surface in connection with production, may be commingled with waste waters from gas plants that are an integral part of production operations, unless those waters are classified as hazardous waste at the time of injection. In most cases they can be commingled with produced water for treatment and discharged within acceptable limits or reinjected.

Produced water treatment should be taken into account in the design phase and when significant modifications in operations are carried out. As characteristics of production water differ from one platform to another, there is no single system that can be applied successfully to all offshore platforms. Therefore, a site-specific combination of technologies based on the characteristics of produced water such as droplet size, stability of emulsion, ratio of droplets/dissolved hydrocarbons, other substances such as corrosion inhibitors and solids should be applied, and naturally occurring substances.

Regulators and the industry should give consideration to the options for reduction and possible elimination of produced water discharged to the sea through the application of BAT, for example, injection, down hole separation or water shut-off. The focus should be on reducing the volume of discharges of produced water with the highest loads of oil and other substances.

Regulatory agencies and industry should ensure that BAT and BEP are implemented on each platform and that BAT and BEP are regularly reviewed. In addition, regulatory agencies and industry should ensure that new offshore platforms or major modifications to existing platforms should consider design changes that minimize discharges, and preferably aspire to zero discharges of produced water.

Produced sand containing elevated levels of naturally occurring radioactive material should be re-injected, encapsulated, or removed from the site and stored in a safe and environmentally sound manner that is carefully controlled and whose risks and circumstances have been properly evaluated. Management of these wastes will require diligence to ensure that radioactive wastes taken to shore are handled and disposed of in accordance with applicable international law and in an appropriate and approved manner. Radioactive materials should be transported in approved containers with proper labeling, which identify the substance and its special transport and handling requirements. Appropriate record keeping and proper notification for shippers should be maintained.

Deck wash and chemical/fluid releases are another concern to the marine environment, especially where oil-based muds are in use. A facility plan should be developed to address these potential conditions and methods of spill control and leak minimization should be incorporated into facility design and maintenance procedures. These plans, minimization efforts and controls shall be applied to, but not limited to, material storage areas, loading and unloading operations, oil/water separation equipment, wastewater treatment, waste storage areas, and facility runoff management systems.

All washdown waters, hydrocarbon contaminated rainwater and deck wash, and machinery drainage space fluids should be either processed through an oil-water separator prior to overboard discharge, meeting MARPOL 73/78 requirements, or injected where environmentally acceptable.

Waste from Well-Testing

Flaring can be a significant source of emissions to air. If flaring is considered environmentally unacceptable or if significant amounts of liquid hydrocarbons are produced during a test (i.e. extended well-testing operations), they may be processed.

Solids and Domestic Wastes

Disposal of solid and domestic wastes should be done in conformity with international law, such as MARPOL 73/78.

Sanitary Waste

Sanitary wastes such as sewage and gray waters should be processed according to international or local government standards prior to discharge into the marine environment. Processing in an acceptable sanitary waste treatment unit will generally properly treat waste streams prior to discharge.

Air Emissions

Air emissions associated with oil and gas exploration and production activities can be generally categorized as arising from two activities: (1) the combustion of fuels for power

generation; and (2) emissions arising directly from the production, treatment, storage, or transportation of produced oil and gas. International standards for certain air emissions from platforms are covered by MARPOL Annex VI (73/78).

Overall emissions reductions can best be achieved through programs that emphasize energy efficiency and conservation in all activities, exploration (survey and exploratory drilling), development (construction and drilling), production, and transportation.

Hazardous Waste Handling and Disposal

The most effective way of protecting human health and the environment from the dangers posed by hazardous wastes is to ensure the reduction of their generation to a minimum in terms of quantity and/or hazard potential, taking into account technological and economic aspects. Minimizing the generation of hazardous wastes requires the implementation of environmentally sound low-waste technologies, recycling options, good house-keeping and management systems. Necessary measures should be taken to ensure that management of hazardous wastes is protective of human health and the Arctic environment.

The availability of adequate disposal facilities should be ensured prior to allowing an activity to generate hazardous wastes. Hazardous wastes requiring transport to a disposal site should be packaged, labeled, and transported in conformity with generally accepted and recognized international rules and standards in the field of packaging, labeling, and transport. Due account should be taken of relevant internationally recognized practices. Transported hazardous wastes should be accompanied by a movement document from the point at which movement commences to the point of disposal.

6.2 Health, Safety and Environmental Supervision

The appropriate regulatory agencies should supervise the compliance by the responsible companies with applicable legislation, regulations, and/or conditions. The supervision should address the management system by means of audits and be supplemented as needed by onsite verifications by qualified personnel who are authorized to act as the lead agency on behalf of all applicable regulatory entities.

The regulatory supervision should cover all stages of design, fabrication, installation, operations and removal of offshore installations. It should address the operating company's management of design, operations, working conditions, record keeping and reporting, as well as procedures for ensuring compliance with permits and approved plans. The regulatory supervision should also encompass the company's systems for pollution control and monitoring, drilling and well operations techniques, production, and pipeline operations. Representatives of the regulatory agencies should have enforcement authority to take the appropriate action in case of violations, incidents of noncompliance, or if the operator fails to react adequately to the occurrence of dangerous situations. These actions can include issuing warnings, citations, and injunctions, or ordering a shut-

in of a particular component of the operation, cessation of a specific operation, or a complete shut-down of the installation.

Representatives of the regulatory agencies should have the right of access to the installations and to all related documentation and equipment at any time. The operating company shall provide for, as far as practical, the accommodation and when necessary the transportation of regulatory agency personnel. Supervisory activities may be carried out as scheduled or unscheduled visits. The frequency and extent of such activities will be decided by the regulatory agencies.

The regulatory agencies should establish plans for these supervisory activities for each operating company. The extent and the focal points of the regulatory supervision should be decided upon the basis of parameters such as: regulatory requirements, the previous experience with the operators compliance, environmental and geologic conditions, the type of activity conducted by the operator, the type of technology applied, and reported accidents and incidents.

6.3 Design and Operations

Offshore oil and gas activities should make use of the best available and safest technologies that are determined to be economically feasible and be conducted in a manner to minimize impact on the environment. Operators should identify technologies and procedures to be employed for each step of the process from prospecting to exploration, development, production, platform decommissioning, and site clearance. Regulators should examine technologies and procedures proposed for use by operators and their adequacy to ensure that they are appropriate for the Arctic.

Of primary importance is the need to ensure that wells remain under control at all times during drilling, well-completion, production, and well-workover operations. This capability must be maintained even while operating under extreme conditions.

When planning an offshore oil and gas operation, a risk analysis may be used as a tool to identify potential hazards and prevent personal injuries, loss of human lives, and pollution of the environment. Criteria used for conducting such an analysis should be based on local regulatory requirements, local environmental conditions in the area of operation, and the planned operational activity.

A risk analyses should:

- address prevention of injuries, loss of human life, and pollution of the environment;
- include risk criteria that has been defined prior to conducting the analysis and document the evaluations forming the basis of the acceptance criteria;
- be used to follow the progress of activities in planning and implementation;
- identify risk that has been assessed with reference to the acceptance criteria, form the basis of systematic selection of technical operational and organizational risk to be implemented;

- be updated on a continuous basis and included as part of the decision making process; and
- systematically follow-up implemented risk reducing measures and assumptions made in the analysis to ensure safety within the defined criteria.

Technology

Offshore platforms and other structures used for oil and gas activities in the Arctic should be designed, built, installed, maintained, and inspected to ensure their structural integrity taking into account the site-specific environmental conditions. Standards exist for the construction of fixed offshore platforms, including those constructed of steel and concrete. Standards, such as those under the International Organization for Standardization (ISO), are under development for offshore artificial islands including those constructed of sand, gravel and ice. In iceberg-prone areas, provision should be made for the emergency removal of removable installations.

A blowout preventor (BOP) system should be installed consisting of several remote controlled closing systems and a backup accumulator-charging system. When a sub-sea BOP stack is to be used in an area subject to ice scour, it should be placed in an excavation well below the maximum depth of ice scour. The BOPs and related equipment should be suitable for operation in subfreezing conditions.

A mud program should be prepared that has as its objective the maintenance of well control at all times. Mud temperatures should be controlled to minimize heat loss to permafrost zones in order to minimize thawing, which can result in serious problems while drilling.

Wells should be completed with casing strings and cement of sufficient quantity and quality to prevent the release of fluids from any stratum either to the water column or to another stratum. Special attention should be paid to cement placed across permafrost zones.

Prior to moving a well-completion rig, wells capable of production should either be shut in, both at the surface and the subsurface, or equipped with emergency shutdown systems. Production safety equipment capable of operating in an Arctic environment should be installed on all wells and production facility equipment. Wells open to hydrocarbon-bearing zones should be equipped with subsurface safety devices capable of shutting off the flow from the well in an emergency. All production facility equipment should be equipped with devices capable of protecting the facility and the environment from pollution.

Pipelines should be installed, operated, and maintained in a manner that minimizes disturbance of sea floor habitat and does not unreasonably interfere with other uses of the sea floor in the area. Design of offshore Arctic pipelines should follow recommended practices such as those from Det Norske Veritas or the American Petroleum Institute and take into account such things as thaw settlement, near shore strudel scouring, and ice keel

gouging. For example, in nearshore areas, pipelines should be buried below the maximum depth of potential damage from ice and strudel scour processes. Strengthened pipe, instrumented internal inspection devices, leak detection systems and techniques, cathodic protection, quality control, and preventive maintenance also must be considered in the design of Arctic pipeline systems. For multi-input pipelines, leak detection systems are not as sensitive for low-volume leaks. Therefore the operator/regulator may consider alternatives such as an alarmed metering system to provide continuous volumetric comparison between line inputs and onshore deliveries, or in order to detect leak rates below the threshold, a daily or more frequent volumetric line mass-balance comparison of inflows and outflows could be considered.

Procedures

Operators should submit a summary of the proposed project at the outset, followed by more detailed information prior to the initiation of each major activity, such as the drilling of a well. The application should describe all procedures to be employed, including those necessary to prevent harm to life and the marine environment. Special attention should be paid to operations in offshore areas underlain by permafrost.

Safe work procedures should be developed for all phases of the proposed operations, including construction activities, transportation, equipment operation and maintenance, safety tests and drills. For example, well-control exercises should be conducted regularly for each crew to develop an adequate level of response proficiency to conditions threatening a blowout. Exercises should cover a wide range of situations. As appropriate, procedures should also be developed to ensure that hot work, welding, burning, cutting, and other operations with the potential to cause ignition of flammable vapors are conducted safely. Safe work procedures may also be developed for cold work such as use of radioactive material, trenching and excavating, and work on fire suppression, gas detection or emergency shutdown devices. These procedures may include issuance of a work permit.

Procedures should be developed to protect personnel from the toxic effects of hydrogen sulfide, if it is encountered during drilling and production.

Well abandonment, platform decommissioning, and site clearance are discussed in Chapter 8 (Site Clearance and Decommissioning). Operators shall incorporate into the design of an installation needed measures to ensure that removal of the installation can be accomplished without causing significant impacts on the environment.

6.4 Human Health and Safety

Threats to human health and safety including unsafe working conditions are factors contributing to accidents that could lead to environmental pollution. Possible threats or hazards affecting the health and safety of personnel in Arctic offshore oil and gas activities take many forms and comes from multiple sources. Principal sources include, but are not limited to, the harsh Arctic environment, the structural integrity of the

installation, blowouts, fire and explosions, equipment failure, the transfer of personnel and supplies, and drilling, production, well completion, and workover operations.

All offshore activities should be conducted in a safe and skillful manner and equipment maintained in a safe condition for the health and safety of all persons and the protection of the associated facilities. All necessary precautions should be taken to control, remove, or otherwise manage any potential health, safety or fire hazards.

Management System and Work Procedures

One way to manage potential risks is through the use of an appropriate management system. A management system or plan should address the identification of potential hazards, the evaluation of risks to the health and safety of personnel and procedures to eliminate or reduce health and safety risks (See Chapter 4.1 **Management Systems**). Management plans should:

- identify and recognize significant health and safety risks;
- evaluate significant health and safety risks;
- plan and implement actions/procedures to manage risks;
- review and test preparedness and effectiveness on a regular basis;
- establish clear lines of communication with personnel;
- provide training to personnel;
- identify appropriate personnel protection equipment; and
- communicate contents of the management plan to all personnel.

Operators should ensure that all contractors pursue established safe working environment objectives. Safe working procedures should be established for all persons, including contractors, to ensure safe working conditions for all offshore activities. In addition work permits may be required for specific work activities including hot work, cutting, and welding (see 6.3 **Design and Operations**).

Another useful tool to consider in the management or elimination of risks is through the use of a Health, Safety and Environment (HSE) Committee. HSE Committee meetings could be held to ensure that critical safety and environmental control information is communicated to all parties throughout offshore operations. HSE meetings would coordinate among the operator, contractors, and employees to ensure a mutual understanding of potential hazards in working environment. Meetings would allow employees an opportunity to express safety concerns to be addressed by the operator.

Control of Materials

Materials specifications, inventories, separation, confinement, and handling of toxic or hazardous materials that can affect human health and safety should be determined, documented, labeled, and communicated to appropriate person and addressed (see 6.1 **Waste Management**).

6.5 Transportation of supplies and transportation infrastructure

Offshore transportation by air and water should be planned and carried out in a manner to eliminate or minimize adverse impact on the environment. The sections in these guidelines on management systems, monitoring programs and planning for emergencies should be applied, with adaptations where necessary, to transportation activities, as should the AEPS EIA Guidelines. Information gathering and mitigation measures identified at the environmental assessment stage of project planning should be fully utilized for minimizing the environmental impacts associated with transportation of supplies and people to and from offshore operations. For example, it may be necessary to select routes, flight altitudes and/or the time of voyages to avoid impact on wildlife or the harvesting of wildlife by area residents.

The planning and implementation of supply routes involves many considerations beyond environmental impacts. The system of transportation consists of supply bases, sea-routes and vessels. Procedures involved are the safe handling of cargo and safe navigation. All these elements must be carefully evaluated and accounted for prior to the field development. Transportation of supplies, infrastructure and crude oil, shall therefore be an integrated part of the environmental impact assessment outlined in these Guidelines.

Where roads are required, ice roads, which create seasonal rather than permanent physical barriers to animal movements, may be preferable to permanent roads. Planning and environmental studies should be done to ensure the use of water from lakes or rivers to make ice roads will not significantly affect important freshwater habitat, including habitat for migratory birds.

Ship-based transportation of supplies to offshore oil and gas installation are to be carried out under the administration of those requirements and guidelines laid down in the Safety of Life at Sea Convention, including in particular Chapter IX pertaining to the International Safety Management (ISM) Code, The International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC), and the International Convention on the Prevention of Pollution from Ships (MARPOL 73/78), among others. The basis of the ship owners management system should include guidelines, codes and relevant international conventions to safeguard those additional requirements of the harsh environment of the Arctic such as those established by the Marine Environment Protection Committee (MEPC) and Maritime Safety Committee (MSC) of the International Maritime Organization.

Supplies

In maintaining the activity of an oil or gas installation in every aspect, supplies of many categories are involved;

- Supplies for maintaining production;
- Supplies for installation maintenance and safe operation; and
- Supplies of domestic use.

Storage, packaging and operational procedures of handling are to be as in accordance with general rules of safe practice and to recommendations of the product manufacturer.

Supply base, routing and installations

Prior to field development, it is necessary to plan infrastructure required to serve the needs of the installation. In addition to systems for handling the production, a system is also required to secure sufficient and safe supply. Beside the installation itself, the main elements of such infrastructure are the supply bases and sea-routes. The location of such bases is often decided on the basis of compromises in which the requirements for safe transportation must compete with other possibly conflicting alternatives. This calls for an even closer focusing on safe routing. An Arctic land-offshore transport routing system might cover more than one field and therefore must be reliable. To assure safe operations, sufficient care must be taken regarding both climatic and environmental seasonal variations. In order to account for these factors, one should evaluate the possible need for ice handling and management procedures (integrated in the field operational plans if feasible) covering the installation, and the route as well as the supply base.

6.6 Training

Trained operator and contract personnel are the key to safe and environmentally sound oil and gas activities. Appropriate training plans, programs, and practices addressing offshore Arctic oil and gas activities should be established and implemented for these personnel in accordance with their duties and job responsibilities. (Refer to Chapter 7, **Emergencies**, for information concerning response training).

All personnel should be provided with training on basic safety and environmental issues and procedures specific to the offshore environment prior to assuming their duties. This training should provide personnel with the necessary skills and knowledge needed to conduct their jobs in a safe manner, provide for health and safety of all persons, and protect the environment.

Training programs should provide instruction on the operation of equipment, offshore operating practices, offshore emergency survival and fire fighting, local or regional regulatory requirements. It should include Arctic cultural, social, and environmental concerns including marine mammal interactions as dictated by an individuals job responsibilities. Where appropriate, traditional knowledge should be used in training programs.

Supervisory personnel should have a thorough knowledge of the operations and the operating procedures for which they are responsible. Individuals responsible for drilling, well completion, or workover operations should be properly trained in well control. Individuals responsible for production operations should be properly trained in production safety system operations.

A person designated by the operator to be in charge of the offshore operation should have a thorough knowledge of the operations and the operating procedures they are responsible for, and training in the following areas as appropriate:

- leadership and command ability;
- communication skills;
- team building;
- crisis management; and
- installation specific emergency training.

Periodic refresher training should be provided to personnel as appropriate. As required, procedures should be developed to monitor the effectiveness of training programs.

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7. Emergencies

Arctic States that are party to the International Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC 1990) and/or the International Convention for the Prevention of Pollution from Ships (MARPOL 1973/1978, Annex I – regulations for the prevention of pollution by oil), are required to ensure that operators have oil pollution emergency plans and that these plans are carried on board installations.

7.1 Preparedness

Operators should establish and maintain emergency preparedness so that the mitigation of an incident will be carried out without delay in a controlled, organized, and safe manner. Risk analyses should be carried out in order to identify the accidental events that may occur and the consequences of such accidental events. Hazardous situations and accidents should be defined for the operations in question. An analysis should be carried out to design the emergency preparedness requirements so as to meet the specific circumstances of the operation. The emergency preparedness required for the operation should be incorporated in the design and modification of the oil and gas installation, and for the selection of equipment. The performance requirements expected of both standby vessel and ice roads in emergencies should also be defined. This should include design criteria, equipment and manning requirements for standby vessels and design criteria and construction and maintenance requirements for roads. Emergency preparedness should be part of the safety and environmental program to ensure its integration into all phases of the operation in question.

Preparedness relating to oil pollution should ensure that the source of any oil pollution is first secured, and any release is effectively contained and collected near the source of the discharge as quickly as possible. Particular attention should be paid to response contingencies in ice conditions, where oil spill response, including containment, may require a range of techniques depending on the condition of the ice. The preparedness should also address protection of public health, environmental resources including shorelines, ice and water interfaces, and economic and cultural resources. The health and

safety of all persons who may be involved in an incident (e.g., local populations and their representatives, responders, volunteers, etc.) should be a predominant consideration, and should be integrated into the overall emergency preparedness regime.

The communication within the emergency preparedness organization should ensure effective administration and control of all response resources when abnormal conditions and emergencies occur. The means of communication and their use should ensure unambiguous and effective transmission of information.

A key factor in preparedness is ensuring that personnel involved in the response are trained and instructed in their roles and duties.

Preparedness planning of the operator should include co-ordination with any relevant municipal, local, state or federal emergency response plan.

Governments are responsible for oversight including national emergency contingency planning. Governments should also make appropriate arrangements that facilitate international coordination and cooperation.

7.2 Response

Refer to the EPPR Field Guide for Oil Spill Response in Arctic Waters for a practical introduction to oil spill response. Emergency response plans should address abnormal conditions and emergencies that can be anticipated during the oil and gas operation being carried out, including:

- personnel injury or loss of life;
- loss of well control, or release of flammable or toxic gas;
- fire, explosion or other emergencies that may occur;
- damage to the oil and gas installation;
- loss of support craft including aircraft;
- spills of oil or other pollutants; and
- hazards unique to the operation including ice encroachment; uncontrolled flooding of the installation; loss of ballast control or stability; pipeline leaks or ruptures; vessel collision; and heavy weather and difficulties with support facilities such as ice roads, aircraft or shuttle tankers.

Contents of Emergency Response Plans

An emergency response plan should contain at least the following elements:

- A Description of the Response Organization - This should clearly state its structure, roles, responsibilities and decision-making authorities;
- Policies and Procedures for Responding - This should include a summary of equipment to combat the particular condition or emergency situation, clearly stating the make and type of equipment, its capacity, location, type of transport, field of

operation and operational procedures and training for operating staff. The procedures should include each key person's duties, when and how the emergency equipment is to be employed, and the action to be carried out. Policies should state measures for limiting or stopping the event in question and conditions for terminating the action. The procedures should be designed so as to be expedient to use for the emergency;

- A Description of the Alarm and Communication Systems - This should include notification criteria, reporting procedures and policies regarding government notification. Primary and secondary communication facilities among operational components should also be identified;
- Alert Criteria - Procedures here should list precautionary measures to secure the well and evacuate personnel in the event of damage from severe weather, sea, ice, erosion or other event;
- On-Site First Aid - List available backup medical support, medevac facilities and other emergency facilities, such as emergency fueling sites. Also describe required survival equipment, including extreme weather survival gear, alternate accommodation facilities, and emergency power sources; and
- Relief Well Arrangements - The operator should outline his immediate response to a well control incident or blowout. Also, the operator should demonstrate the availability of the necessary equipment, and support systems to be utilized.
- Designated response operation center to coordinate response actions.
- "Emergency response contact list" in order to identify who and how key responders to an emergency are to be contacted.

Oil Spill Response Plan

Operators should be required to have site-specific or operator-specific plans. An oil spill response plan addresses an oil spill volume based on relevant well data, catastrophic loss of a tank ship or barge, or damage to a pipeline. The Plan should be supplemented by resource sensitivity maps arranged sequentially by month for those areas identified by spill trajectories as being potentially exposed to oil pollution. The plan should also describe the process for its development, which should include involvement by response entities, both government and private, health officials, scientists, local populations that may be affected, wildlife experts, trustees of resources, and anyone else who may be affected or who may have a role in the response. Operators should allow the opportunity for public review and comment of the Plan.

The oil spill response plan should include, in addition to the items described above, the following:

- a brief description of the operation;
- a description of the site, water depth, seasonal constraints, and logistical support;
- references to all environmental support material that would be relevant to establish cleanup priorities;
- details of the operator's capability in using real time wind and current data to implement an oil spill trajectory model both for open sea and for ice-infested areas;
- a map depicting sensitive areas to be protected;

- a description of cleanup and containment strategies required for shoreline and ice-covered areas
- a description of alternative cleanup strategies such as the use of dispersants, in situ burning, and no response;
- a strategy to respond to small spills from the installation, shore base or loading operations;
- provisions for transport, storage, and disposal of recovered oil and oil contaminated materials;
- spill response crew relief & logistics; and
- a list or inventory of spill response equipment.

Operators should have access to oil spill countermeasures equipment. The oil spill response plan should itemize equipment on-site for immediate containment purposes. The plan should also provide details of oil spill equipment and resources that are not on-site but will be mobilized in the event of a spill; the details should include type of equipment, required resources, logistics and timing of mobilizing the equipment to the site.

The oil spill response plan should include the qualifications and training of personnel responsible for the management of oil spill responses. It should clearly define their authority to take actions to respond to such emergencies.

A national preparedness and response system should be developed on the basis of protecting the health and safety, the environment, and the socio-economic interests of the nation's citizens.

Oil spill response plans must take the existence of ice conditions into account. Broken ice conditions make it difficult to respond to oil spills with conventional mechanical response equipment. With spills in solid and broken ice conditions, oil can be trapped in melting or freezing ice. However, new techniques that rely on natural containment attributes of ice allow conventional mechanical response equipment to be employed effectively to remove oil from solid and broken ice environments where, in open water conditions, it would normally spread widely over the ocean surface. Through ice movement and drift, oil can be carried a long distance from the original site of the spill. But deployment of oil tracking buoys in the ice can aid in maintaining the position of the oil and allow responders the opportunity to recover the oil once ice conditions are safe enough for removal activities. Where ice conditions exist, oil spill response plans must take these considerations into account.

Ice Management Plan

Where there may be pack ice, drifting icebergs or ice islands at the operational site, the operator should develop an ice management plan that provides for the protection of the installation.

The Plan should include details regarding ice detection, ice surveillance, data collection, forecasting and reporting of ice encroachment, multiyear ice hazards, ice loading, and structural loading. If required, the Plan should also include details of ice avoidance or ice deflection, including forecasting oil-in-ice drift.

The Plan should include alert criteria and alert procedures to ensure a totally effective mobilization of all relevant emergency preparedness resources, including procedures for moving the installation. Measures for danger limitation should be implemented when a hazardous situation occurs in order to prevent its developing into an accident situation.

Emergency Preparedness Maintenance

All the established technical, operational and organizational measures that make up the emergency preparedness of the individual activity, as well as, the actual equipment should be maintained in order to keep up a state of effective emergency preparedness.

Oil spill response exercises should be carried out on a scheduled basis allowing responders to use actual equipment. In addition, a communication exercise in response to an emergency should be conducted on a scheduled basis. Exercises should be reviewed to ensure compliance with all requirements relating to emergency preparedness. Any deviation should be identified and corrected immediately; the causes of such deviation should be identified. In accordance with the safety and environmental program, emergency preparedness work should be verified and documented.

Measures should be taken to update the established emergency preparedness based on continuous evaluation of experience, technological development and new knowledge.

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8. Decommissioning and Site Clearance

Decommissioning is an integral part of the life cycle of an offshore project. Plans for decommissioning should be incorporated at the design phase of a development and reviewed again when the facility is no longer needed for its current purpose. These plans should involve both technical considerations and financial provisions required to undertake the activity and any post-abandonment clearance and/or monitoring work.

A decommissioning plan should be site- and condition-specific and should take into account sound science and field experience and balance environmental, safety, health, economic and technological factors as well as any constraints imposed by intergovernmental agreements. It is noted that those Arctic States that are Contracting Parties to the OSPAR Convention have agreed a binding package of measures (via OSPAR Decision 98/3) which generally prohibits disposal of installations at sea, but which allows for derogation from this prohibition in a limited number of instances. These include leaving in place the footings of a large steel jacket platform (with a jacket weight in excess of 10,000 tons) as well as a broad exemption for gravity-based concrete

structures for which leaving in place and/or disposal at a designated site may be considered.

Other Arctic States will need to take into account the provisions of the London Convention (1972) or when it enters into force the 1996 Protocol to that agreement where full or partial disposal at sea (including toppling and leaving in place) is considered. For both the 1972 and 1996 agreements, Contracting Parties to the London Convention (1972) have adopted specific guidelines for disposal of platforms.

In addition to these agreements dealing with the special case of disposal of platforms, the International Maritime Organization has adopted “Guidelines and standards for the removal of offshore installations and structures on the continental shelf and in the Exclusive Economic Zone” (Resolution A.672(16))” which govern safety of navigation. Amongst other things, the guidelines state that for structures placed on the seabed after 1998, complete removal should be feasible.

Decommissioning plans should be developed in consultation with the competent authorities and stakeholders, including indigenous residents, fishing groups and other interested parties. The decommissioning plan should address the both the facilities and the environment. (The London Convention (1972) Waste Assessment guidance is a useful reference in this regard.) Abandoned wells should be plugged and sealed. Pipelines may be removed, or cleaned flushed and left in space either on the seabed, if they will not interfere with other uses of the sea, or trenched. Removal of facilities should consider potential impacts on the site, including noise (as from the use of explosives), physical disturbance of communities established during the life of the facility and demobilization routes.

Site clearance and post decommissioning monitoring programs are important aspects. These will ensure that with the exception of facilities purposely left in place that the site is clear of debris and that no obstacles are left that might interfere with other uses of the site. Post abandonment monitoring can also be used to assess the recovery of the production site. Where an artificial island has been constructed as a platform for drilling or construction, it may be appropriate to allow natural processes to return the site to its former configuration.

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9. Abbreviations and Definitions

Accident: A sudden, unplanned, unintentional and undesired event or series of events that causes physical harm to a person or damage to property, or which has negative effects on the environment.

ADD: International Arctic Environmental Data Directory <http://www.grida.no/add/>

AEPS: Arctic Environmental Protection Strategy

AMAP: Arctic Mapping and Assessment Program, a working group under the Arctic Council. <http://www.amap.no/>

API: American Petroleum Institute <http://www.api.org>

BAT: Best Available Technology/Techniques

BEP: Best Environmental Practice

BOP: Blowout Preventor--Safety system that quickly closes a well in the course drilling to avoid blowouts.

CAFF: Conservation of Arctic Flora and Fauna-- a working group under the Arctic Council. <http://www.caff.is/>

Chemicals: A generic term for both chemical substance and/or mixture of substances (see definition for 'mixture of substances').

Chemical Substance: A chemical element and chemical compound of several elements, naturally or industrially produced.

Chemical waste: Oil/fuel residues, empty chemical and paint packaging, all kinds of chemical waste (solid and liquid) and all kinds of paint and solvents.

Contamination: concentrations of naturally occurring substances enhanced by man's activities or the occurrence of synthetic substances in the environment at concentrations that do not give rise to adverse effects;

DNV: Det Norske Veritas, Classification, Consulting and Certification Society.
<http://www.dnv.com/>

EIA: Environmental Impact Assessment

EMS: Environmental Management System

Emergency: An unplanned event which has caused injury, loss or damage or which is an actual or potential threat to human life, the environment or the installation and has made it necessary to deviate from the planned operation or suspend the use of standard operating procedures.

EPPR: Emergency Preparedness, Prevention and Response a working group and program of the Arctic Council. <http://eppr.arctic-council.org/>

Hazard: A physical situation with a potential for causing human injury, damage to property, negative effects on the environment or a combination of these. British Standards BS 8800 definition--A source or a situation with a potential for harm in terms

of human injury or ill-health, damage to property, damage to the environment, or a combination of these.

Hazard Analysis: The identification of undesired events that lead to the materialisation of a hazard, the analysis of the mechanisms by which these undesired events could occur and usually the estimation of the extent, magnitude and likelihood of any harmful effects.

Hazard Identification: (British Standards BS 8800) The process of recognising that a hazard exists and defining its characteristics.

HSEMS: Health, Safety, and Environmental Management System

HSE: Health, Safety and Environment

ISM: International Safety Management Code in Chapter IX of the Safety of Life at Sea Convention. <http://www.imo.org/>

ISO: International Organization for Standardization. <http://www.iso.ch/>

IMO: International Maritime Organization <http://www.imo.org/>

Impact: an alteration to the natural environment arising from the activity in question

Incident: A sudden, unplanned, unintentional and undesired event or series of events having the potential of causing physical harm to a person or damage to property, or which has negative effects on the environment. British Standards BS 8800 definition—An unplanned event which has the potential to lead to accident.

MARPOL: International Convention for the Prevention of Marine Pollution. 1973, 1978. MARPOL-Annex I, IV, V and Annex VI. International Maritime Organization <http://www.imo.org/>

MMS: United States Department of the Interior Minerals Management Service <http://www.mms.gov/>

MSC: Maritime Safety Committee of the International Maritime Organization. <http://www.imo.org/>

MEPC: Marine Environment Protection Committee of the International Maritime Organization <http://www.imo.org/>

NORM: Naturally Occurring Radioactive Materials

OGP: International Association of Oil and Gas Producers <http://www.ogp.org.uk/>

OPRC: International Convention on Oil Pollution Preparedness, Response and Cooperation (1990) <http://www.imo.org/>

PAME: Protection of the Arctic Marine Environment <http://www.pame.is/>

PEIA: Preliminary Environmental Impact Assessment

Performance Standard: A statement, which can be expressed in qualitative or quantitative terms, of the performance required of a system, item of equipment, person or procedure, and which is used as the basis for managing the hazard e.g. planning, measuring, control or audit - through the life cycle of the installation.

Petroleum activity: is in this context used for all activities being an integrated part of oil and gas activities, including shuttle transportation of petroleum, supply transportation etc.

Pollution: the introduction by man, directly or indirectly of substances or energy into the marine environment which results, or is likely to result in hazards to human health, harm to living resources and marine ecosystems, damage to amenities or interference with other legitimate uses of the sea.

POP: persistent organic pollutants

Risk: The probability that physical harm to persons will be suffered or negative effects on the environment or that damage to property will occur as a consequence of exposure to a hazard.

Risk Analysis: (United Kingdom Health and Safety Executive, Offshore Research Issue 134/DEC01) The estimation of risk from the basic activity “as is”

Risk Assessment: (Lloyds Register Definition) The quantitative evaluation of the likelihood of undesired events and the likelihood of harm or damage being caused together with the value judgments made concerning the significance of the results. (British Standard BS 8800 Definition) The overall process of estimating the magnitude of risk and deciding whether or not the risk is tolerable or acceptable. (United Kingdom Health Safety Executive (HSE), Offshore Research Issue 134/DEC01) A review as to acceptability of risk based on comparison with risk standards or criteria, and the trial of various risk reduction measures.

Risk Management: (United Kingdom Health Safety Executive (HSE), Offshore Research Issue 134/DEC01) The process of selecting appropriate risk reduction measures and implementing them in the on-going management of the activity.

Safety: freedom from unacceptable risks to, personal harm, damage to property, or environmental pollution.

Safe Job Analysis: A review of the work situation, in which the job is broken down into sub-activities. Possible elements of danger associated with each sub-activity are considered as well as how/which risk reducing measuring should be established.

SEA: Strategic Environmental Assessment--a systematic process for evaluating the environmental consequences of a proposed policy, plan or program initiative in order to ensure they are fully included and appropriately addressed at the earliest appropriate stage of decision-making on par with economic and social considerations.

SEMP: Safety and Environmental Management Program

UNEP: United Nations Environmental Program

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ANNEX A

Definition of the Arctic

Canada

Canada has defined its Arctic area to include the drainage area of the Yukon Territory, all lands north of 60 degrees North latitude and the coastal zone area of Hudson Bay and James Bay.

Denmark

The Arctic area within the Kingdom of Denmark is the Faroe Islands and Greenland, which is the world's largest island on which stands 9% of the World's ice cap.

Finland

In Finland the Arctic Area is defined as the territory north from the Polar Circle.

Iceland

Iceland has defined the whole of Iceland to be within the Arctic area.

Norway

Norway has no legal/formal definition of its Arctic areas, but for the purposes of these Guidelines, Norwegian Sea areas north of 65 degrees North form the Arctic.

Sweden

Sweden does not have any formal delimitation of the Arctic but has, for the purpose of AEPS, accepted the Arctic Circle as the southern delimitation of the Arctic area.

Russian Federation

In accordance with the draft Law of the Russian Federation "On Zoning of North Russia", the Arctic areas of North Russia include:

All lands and islands of the Arctic Ocean and its seas;

Within the Murmansk region: Pechenga district (coastal areas of the Barents Sea including populated centers located on Sredniy and Rybachiyy Peninsulas, as well as Liynakhamareye populated center, and the town-type settlement of Pechenga) Kolsk district (territories administered by the Tyuman and Ura-Guba rural government bodies), Lovozersk district (territory under the Sosnovsk rural government body), territory administered by the Severomorsk municipal

government, and closed administrative-territorial entities of Zaozersk, Skalistiy, Snezhnogorsk, Ostrovnoy, and the city of Polyarniy with populated centers administratively Attached to it;

Nenets autonomous national area – all territory;

Within the Komi Republic – city of Vorkuta, within areas managed by it;

Within the Yamal-Nenets autonomous national area; Priural, Tazov, and Yamal District, and territories and administered by the Salekhard and Labytnang Municipal governments;

Taimyr (Dolgan-Nenets autonomous area) – all territory;

Within the Krasnoyarsk territory – areas administered by the Norilsk municipal government;

Within Sakha Republic (former Yakutia): Allaikhov, Anabar, Bulun, Nizhnekolym, Olenek and Ust-Yan district:

Chuckchi autonomous national area – all territory;

Within the Koryak autonomous area -- Olutor district.

United States of America

All United States territory north of the Arctic Circle and all United States territory north and west of the boundary of formed by the Porcupine, Yukon and Kuskokwim Rivers; all contiguous seas, including the Arctic Ocean and the Beaufort, Bering and Chukchi Seas; and the Aleutian chain.

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ANNEX B

Criteria for the Definition of Practices and Techniques mentioned in Paragraph 3(b)(i) of Article 2 of the OSPAR Convention

BEST AVAILABLE TECHNIQUES (BAT)

1. The use of the best available techniques shall emphasise the use of non-waste technology, if available.
2. The term "best available techniques" means the latest stage of development (state of the art) of processes, of facilities or of methods of operation which indicate the practical suitability of a particular measure for limiting discharges, emissions and waste. In determining whether a set of processes, facilities and methods of operation constitute the best available techniques in general or individual cases, special consideration shall be given to:
 - (a) comparable processes, facilities or methods of operation which have recently been successfully tried out;
 - (b) technological advances and changes in scientific knowledge and understanding;
 - (c) the economic feasibility of such techniques;
 - (d) time limits for installation in both new and existing plants;
 - (e) the nature and volume of the discharges and emissions concerned.
3. It therefore follows that what is "best available techniques" for a particular process will change with time in the light of technological advances, economic and social factors, as well as changes in scientific knowledge and understanding.
4. If the reduction of discharges and emissions resulting from the use of best available techniques does not lead to environmentally acceptable results, additional measures have to be applied.
5. "Techniques" include both the technology used and the way in which the installation is designed, built, maintained, operated and dismantled.

BEST ENVIRONMENTAL PRACTICE (BEP)

6. The term "best environmental practice" means the application of the most appropriate combination of environmental control measures and strategies. In making a selection for individual cases, at least the following graduated range of measures should be considered:
 - (a) the provision of information and education to the public and to users about the environmental consequences of choice of particular activities and choice of products, their use and ultimate disposal;
 - (b) the development and application of codes of good environmental practice which covers all aspect of the activity in the product's life;
 - (c) the mandatory application of labels informing users of environmental risks related to a product, its use and ultimate disposal;
 - (d) saving resources, including energy;
 - (e) making collection and disposal systems available to the public;
 - (f) avoiding the use of hazardous substances or products and the generation of hazardous waste;

- (g) recycling, recovery and re-use;
 - (h) the application of economic instruments to activities, products or groups of products;
 - (i) establishing a system of licensing, involving a range of restrictions or a ban.
7. In determining what combination of measures constitute best environmental practice, in general or individual cases, particular consideration should be given to:
- (a) the environmental hazard of the product and its production, use and ultimate disposal;
 - (b) the substitution by less polluting activities or substances;
 - (c) the scale of use;
 - (d) the potential environmental benefit or penalty of substitute materials or activities;
 - (e) advances and changes in scientific knowledge and understanding;
 - (f) time limits for implementation;
 - (g) social and economic implications.
8. It therefore follows that best environmental practice for a particular source will change with time in the light of technological advances, economic and social factors, as well as changes in scientific knowledge and understanding.
9. If the reduction of inputs resulting from the use of best environmental practice does not lead to environmentally acceptable results, additional measures have to be applied and best environmental practice redefined.

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ANNEX C

Environmental Assessment Flowchart

Phase	Procedure	Activity	Responsible
<i>Opening of new area for petroleum activities</i>	<p><i>PEIA</i> ↓ hearing ↓ <i>EIA</i> ↓ hearing ↓ opening</p>	<p>Environmental survey</p> <p>Impact assessment</p> <p>Regulations</p>	Authorities
<i>Exploration</i>	<p><i>EIA</i> in Particularly Sensitive Areas</p> <p>Risk assessment</p> <p>Contingency planning and emergency response</p>	<p>Seismic</p> <p>Drilling</p>	Operator/Authorities
<i>Development</i>	<p><i>EIA</i> ↓ Permission for discharge ↓ <i>Baseline survey</i></p> <p>Risk assessment</p> <p>Contingency planning and emergency response</p>	<p>Construction activities</p> <p>Transportation</p> <p>Drilling</p>	Operator/Authorities
<i>Production</i>	<p><i>Monitoring</i></p> <p>Risk assessment</p> <p>Contingency planning and emergency response</p>	<p>Drilling</p> <p>Discharges to water</p> <p>Air emissions</p> <p>Transportation</p>	Operator/Authorities/ Third Party
<i>Decommissioning</i>	<p><i>PEIA/EIA</i> <i>Monitoring</i></p>		Operator/Authorities

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ANNEX D

Overview of offshore activities and potential environmental effects

Activity	Possible Causes	Potential environmental effects
Evaluation Seismic activity	Noise	Effects on fish ¹ , sea birds and marine mammals such as avoidance behavior.
Exploration Rig emplacement	Dredging, filling, anchoring, and/or rig set-down.	Seabed disturbance.
Drilling	Discharges of drill cuttings, drill fluids, excess cement, platform drainage, household discharges and emissions of exhaust gases. Discharges from supply vessels, helicopter transportation etc. Risk of blowouts.	Predominantly local effects on living resources. Potential effects on living resources such as birds and marine mammals, as well as susceptible areas of the coastal zone.
Development and production Facility and pipeline installation	Potentially more dredging, filling and anchoring. Extended risk of blowouts and oil spills.	Long and short-term seabed disturbances. As under exploration, but more extensive in both the water column and air.

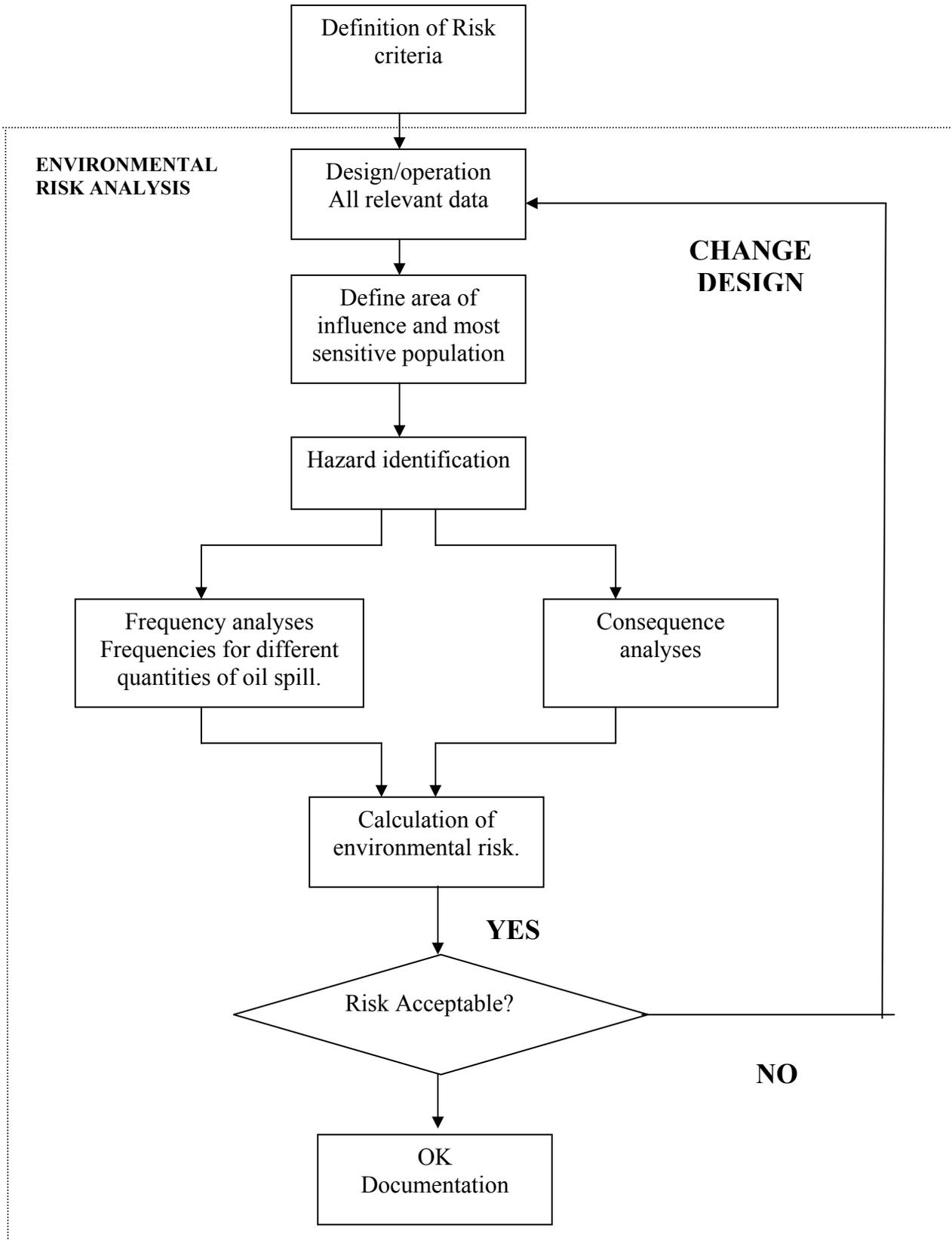
¹ Recent, large scale laboratory experiments on cod ([Meier, et. al, 2002](#)) have shown that alkylphenols of a similar type to those found in produced water have hormone disrupting effects. The alkylphenols affected the size of the gonads, made male fish more feminine and delayed the spawning time with several weeks, even at low concentrations. If these results may be transferred to natural conditions, produced water discharges may have considerable effects on stocks of cod and other fish.

Drilling	Discharges of produced water. Emissions of gases.	Potential effects on the reproduction of fish and possible contribution to climate effects, acidifying effects, etc.
Production	Spills, discharges and emissions connected to transportation (tankers, supply vessels, pipelines etc.).	Additional risks of effects on the marine environment and atmosphere.
Decommissioning and reclamation Removal of installations	Cutting piles containing oil and chemicals, dredging, air emissions, noise, etc.	Seabed disturbance, possible effects on fish, sea birds and marine mammals.
Leaving artificial islands or partial installations in-place	Exposed Biophilic substrate or surfaces.	Development of habitat for fish, mammals and/or birds.

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ANNEX E

Environmental Risk Analysis Flow Diagram



ANNEX F

Detailed elements that may be incorporated in to company safety and environmental policies and objectives

- ❑ Competent personnel are used during planning and implementation of the separate phases, including design, fabrication and installation and operation
- ❑ The operator's personnel and those of any Contractors are provided with necessary training
- ❑ Lines of responsibility, authority and communication are clearly defined and understood;
- ❑ Risk evaluation should be a part of the project management strategy in order to establish and maintain an acceptable level of health Safety and Environmental protection for the personnel and the environment;
- ❑ No activity should be performed unless an acceptable level of HSE protection can be maintained;
- ❑ Management of discharges should be achieved through the application of Best Available [Techniques/Technology]
- ❑ Experiences from arctic operations should be integrated into specifications, functional requirements, standards and procedures;
- ❑ Safety evaluations should be undertaken both prior to start-up and in subsequent phases of the operation;
- ❑ Administrative systems are established for the control of all documentation in all phases of the operation;
- ❑ Purchase documents and specifications should contain Quality Assurance requirements;
- ❑ Contractor's Quality Assurance systems should be evaluated and assessed and be the subject of regular audits;
- ❑ The quality of supplied materials should be documented;
- ❑ Quality Assurance and Quality Control during operations should function effectively and corrective action should be taken when quality control indicates deviation from specification;
- ❑ Operational programmes should be prepared and compiled with relevant regulations and their functional capability should be subject to verification;
- ❑ Specifications for repairs should be established and specifications provide sufficient basis and requirements for their execution;
- ❑ Temporary equipment may be installed and operated in a secure way and in accordance with established specifications;
- ❑ Modifications should not reduce the degree of safety originally specified;
- ❑ An emergency preparedness system should be established and maintained so that necessary measures can be activated effectively and authorities involved notified;
- ❑ Administrative decisions made by the supervisory personnel are communicated effectively to the personnel and contractors;
- ❑ There should be continuous control and monitoring of all aspects of the working environment with regard to health safety and environmental risks and that necessary actions are implemented

- ❑ There should be continuous control and monitoring of the danger of pollution of the external environment and that personnel at all times will perform their tasks in such a way that pollution is avoided ;
- ❑ Both operator and contractor personnel should be made aware of the potential danger of accidents and inherent health and pollution aspects and they are given necessary information, training and exercises.

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ANNEX G

Example of a Generalized Monitoring Plan

Region	Installation	Phase	Type of investigation	Part of environment	Elements to be included	Frequency
Region I	<i>Installation 1</i>	planning for development	baseline	Seabottom /water column /shoreline etc	inventory of biota/eco-systems, levels of all relevant contaminants, identification of particularly sensitive resources	once, before activities are started
		development	monitoring	Seabottom and other as relevant	physical disturbance, biota, contaminants	every year and as frequent as necessary, depending on the type of activity
		production	monitoring	Seabottom	relevant contaminants in environment and biota, effects on biota	every year first 3 years, thereafter every 3 years
				Water column		every 3 years and /or periodically as necessary
	Seashore and other as relevant	as relevant				
decommissioning	monitoring	Seabottom and water column, as relevant	levels of contaminants and effects on biota, as relevant	during operations and once at reclamation phase		
	<i>Installation 2</i>					
	<i>Installation 3</i>					
Region II	<i>Inst. 1</i>					
	<i>Inst. 2</i>					
	<i>Etc</i>					
Region III	<i>Inst. 1</i>					
	<i>Etc</i>					
Etc	National shelves should be divided into regions where monitoring of the individual installations is coordinated. Regional monitoring of the water column is coordinated for the entire shelf of each country.					

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