110TH CONGRESS
1st Session

SENATE

TREATY DOC.
110–1

LAND-BASED SOURCES PROTOCOL TO CARTAGENA CONVENTION

MESSAGE

FROM

THE PRESIDENT OF THE UNITED STATES

TRANSMITTING

PROTOCOL CONCERNING POLLUTION FROM LAND-BASED SOURCES AND ACTIVITIES (THE "PROTOCOL") TO THE CONVENTION FOR THE PROTECTION AND DEVELOPMENT OF THE MARINE ENVIRONMENT OF THE WIDER CARIBBEAN REGION, WITH ANNEXES, DONE AT ORANJESTAD, ARUBA, ON OCTOBER 6, 1999, AND SIGNED BY THE UNITED STATES ON THAT SAME DATE

FEBRUARY 16, 2007.—The Protocol was read the first time, and together with the accompanying papers, referred to the Committee on Foreign Relations and order to be printed for the use of the Senate

U.S. GOVERNMENT PRINTING OFFICE

59–118 WASHINGTON : 2007

LETTER OF TRANSMITTAL

THE WHITE HOUSE, *February 15, 2007.*

To the Senate of the United States:

I transmit herewith, for the advice and consent of the Senate to ratification, the Protocol Concerning Pollution from Land-Based Sources and Activities (the "Protocol") to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, with Annexes, done at Oranjestad, Aruba, on October 6, 1999, and signed by the United States on that same date. The report of the Secretary of State is enclosed for the information of the Senate.

The Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (the "Cartagena Convention") is a regional framework agreement negotiated under the auspices of the Regional Seas Program of the United Nations Environment Program (UNEP). It sets out general legal obligations to protect the marine environment of the Gulf of Mexico, Straits of Florida, Caribbean Sea, and immediately adjacent areas of the Atlantic Ocean—collectively known as the Wider Caribbean Region. The United States became a Party to the Cartagena Convention in 1984. The Cartagena Convention envisions the development of protocols to further elaborate certain of its general obligations and to facilitate its effective implementation.

Negotiated with the active participation and leadership of the United States, the Protocol addresses one of the most serious sources of marine pollution in the Wider Caribbean Region. It is estimated that 70 to 90 percent of pollution entering the marine environment emanates from land-based sources and activities. Among the principal land-based sources of marine pollution in the Caribbean are domestic wastewater and agricultural nonpoint source runoff. Such pollution contributes to the degradation of coral reefs and commercial fisheries, negatively affects regional economies, and endangers public health, recreation, and tourism throughout the region.

The Protocol and its Annexes list priority source categories, activities, and associated contaminants that affect the Wider Caribbean Region, and set forth factors that Parties will be required to apply in determining prevention, reduction, and control strategies to manage land-based sources of pollution. In particular, the Parties are required to ensure that domestic wastewater discharges meet specific effluent limitations, and to develop plans for the prevention and reduction of agricultural nonpoint source pollution. The Protocol is expected to raise standards for treating domestic wastewater throughout the region to levels close to those already in place in the United States.

The United States would be able to implement its obligations under the Protocol under existing statutory and regulatory authority.

The Protocol is the first regional agreement to establish effluent standards to protect one of our most valuable resources, the marine environment. It differs markedly from other, similar regional agreements in its conceptual approach and the specificity of its obligations. As such, the Protocol is expected to set a new standard for regional agreements on this subject. Early ratification will demonstrate our continued commitment to global leadership and to the protection of the marine environment of the Wider Caribbean Region.

I recommend that the Senate give early and favorable consideration to the Protocol and its Annexes, with the declaration described in the accompanying report of the Secretary of State, and give its advice and consent to ratification.

GEORGE W. BUSH.

LETTER OF SUBMITTAL

DEPARTMENT OF STATE,
Washington, May 17, 2005.

The PRESIDENT,
The White House.

THE PRESIDENT: I have the honor to submit to you the Protocol Concerning Pollution from Land-Based Sources and Activities (the Protocol) to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, with Annexes, done at Oranjestad, Aruba on October 6, 1999. I recommend that the Protocol be transmitted to the Senate for its advice and consent to ratification.

The Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (the Cartagena Convention) is a regional framework agreement negotiated under the auspices of the Regional Seas Program of the United Nations Environment Program (UNEP). It sets out general legal obligations to protect the marine environment of the Gulf of Mexico, Straits of Florida, Caribbean Sea, and immediately adjacent areas of the Atlantic Ocean—collectively known as the Wider Caribbean Region. The United States became a Party to the Cartagena Convention in 1984. The Convention envisages the development of protocols to further elaborate certain of its general obligations and to facilitate its effective implementation.

The Protocol was negotiated with the active participation of the United States. The United States and other Parties to the Cartagena Convention recognized that land-based sources of marine pollution presented one of the greatest threats to the Wider Caribbean Region and that development of a legally binding protocol was a priority.

From the U.S. perspective, the Protocol's major attribute is its framework for the development of source-specific controls on land-based sources of marine pollution. Two specific, mandatory annexes were negotiated with, and will enter into force at the same time as, the Protocol. Of particular importance is Annex III, which establishes quantitative and measurable effluent standards for domestic wastewater discharges in the Region. Implementation of Annex III would result in significant progress toward addressing a major source of pollution in the Wider Caribbean Region. As more countries in the Region take actions to protect the marine environment, benefits will accrue to the health of people and ecosystems in the Gulf of Mexico, Straits of Florida, and the Caribbean. Those waters are interconnected across the region through circulation patterns and shared biological resources. It will also result in benefits to

local economies, commercial and recreational fisheries, tourism, and biodiversity throughout the region.

U.S. waters adjacent to the following U.S. states and territories fall within the geographic scope of the Protocol: Texas, Louisiana, Mississippi, Alabama, Florida, the Commonwealth of Puerto Rico, and the Territory of the U.S. Virgin Islands. Officials in these states and territories were consulted throughout the negotiating process and following conclusion of the Protocol in 2000.

The United States would be able to implement its obligations under the Protocol under existing statutory and regulatory authority.

All concerned agencies in the Executive Branch support ratification of the Protocol.

An article-by-article analysis of the treaty is attached. The United States would make the declaration provided for in Articles XVII and XVIII regarding the approval of new annexes.

The Protocol will enter into force on the thirtieth day after the deposit of the ninth instrument of ratification, acceptance or accession.

I recommend, therefore, that the 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 be transmitted to the Senate as soon as possible for its advice and consent to ratification.

Respectfully submitted.

CONDOLEEZZA RICE.

Attachment: as mentioned.

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

Article-by-Article Analysis

Article I (Definitions)

Article I of the Protocol defines the terms used in the Protocol. The Protocol adopts a broad definition of land-based sources and activities under Article 1 paragraph (d) i.e., "*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.*" Atmospheric deposition is a significant source of marine pollution and, although the Protocol does not have an annex that imposes specific obligations with respect to such sources, its general obligations do extend to atmospheric deposition.

It should also be noted that the term "Convention area" is defined in the Cartagena Convention. It encompasses "*the marine environment of the Gulf of Mexico, the Caribbean Sea and the areas of the Atlantic Ocean adjacent thereto, south of 30° north latitude and within 200 nautical miles of the Atlantic coasts of the States*" invited to join the Cartagena Convention. The Protocol employs the same term and geographic scope. As such, U.S. waters adjacent to the following U.S. states and territories fall within the geographic scope of the Protocol: Texas, Louisiana, Mississippi, Alabama, Florida, the Commonwealth of Puerto Rico, and the Territory of the U.S. Virgin Islands.

Article II (General Provisions)

Paragraph 1 of Article II of the Protocol incorporates by reference certain elements that are spelled out in the Cartagena Convention but not addressed in the Protocol. Paragraph 2 provides that Parties must "*respect the sovereignty, sovereign rights and jurisdiction of other States in accordance with international law.*"

Article III (General Obligations)

It should be noted that the United States is already bound, under Article 4(1) of the Cartagena Convention, to "*take all appropriate measures ... 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 [its] disposal and in accordance with [its] capabilities.*"

Article III of the Protocol sets forth in paragraph 1 general obligations on each Party to take appropriate measures to prevent, reduce and control pollution of the Convention area from land-based sources and activities. Paragraph 2 also requires each Party to develop and implement appropriate national plans, including effective means of preventing, reducing or controlling such pollution. Paragraph 3 calls for Parties to jointly develop, as appropriate, sub-regional and regional plans, programs, and measures to prevent, reduce, and control such pollution.

The United States will implement the general obligations in Article III through a number of existing statutes that already address land-based sources of marine pollution, primarily the Federal Water Pollution Control Act (also known as the "Clean Water Act"). Other federal statutes also regulate the release of pollutants into the environment, including the marine environment. These include the Coastal Zone Management Act, the Outer Continental Shelf Lands Act, the Clean Air Act, the Solid Waste Disposal Act, the Comprehensive Environmental Response, Compensation and Liability Act, and the Federal Insecticide, Fungicide and Rodenticide Act.

Article IV (Annexes)

Article IV addresses the relationship between the Protocol and its annexes. The Protocol is structured such that the general obligations to address land-based sources and activities are complemented by more specific obligations for particular sources and activities which are set out in annexes to the Protocol. The Protocol currently contains two such annexes: Annex III, which addresses domestic wastewater discharges, and Annex IV, which addresses agricultural non-point source pollution. These Annexes are discussed in more detail below.

The Protocol also envisions that the Parties will develop new annexes to address other pollution sources, as provided in paragraph 1 of Article IV. Annexes I and II set out factors to be considered by the Parties in developing those

additional annexes. Annex I defines point sources and nonpoint sources, sets out a list of priority source categories and activities that affect the Convention area, and lists associated pollutants of concern.

Annex II lists factors to be used in determining effluent and emission source controls and management factors that the Parties are to apply, including the characteristics and composition of the waste; characteristics of the activity or source category; and alternative production, waste treatment technologies or management practices. Unlike the original four annexes, which apply to all Parties, a Party to the Protocol may elect not to be bound by additional annexes. (The process for amending these annexes and adding new annexes is addressed under Article XVII below.)

Article V (Cooperation and Assistance)

Article V requires Parties to cooperate (bilaterally or, where appropriate, on a subregional, regional or global basis) in the prevention, reduction and control of pollution in the Convention area from land-based sources and activities. In carrying out these provisions, Parties are to promote cooperation in monitoring, research, exchange of scientific information, identification and use of most appropriate technologies, and research and development of technologies to implement the Protocol. Parties are also to develop scientific technical, educational and public awareness programs, train personnel, provide technical advice; and identify financing sources to assist other Parties in implementing the Protocol.

The United States is already implementing these provisions through its participation in a number of regional and global international organizations, such as the United Nations Environment Program and the International Oceanographic Commission.

Article VI (Monitoring and Assessment Programs)

Article VI requires each Party to *"formulate and implement monitoring programmes, as appropriate, in accordance with the Provisions of this Protocol and relevant national legislation."* The purpose of the monitoring and assessment programs is to, inter alia, identify environmental patterns and trends, and assess management measures. The results of monitoring and assessment programs are to be provided to the Protocol's technical body.

The United States will implement this obligation through a variety of statutes that provide monitoring and general research authority, including the Clean Water Act, the National Coastal Monitoring Act, and the National Contaminated Sediment Assessment and Management Act.

Article VII (Environmental Impact Assessment)

Article VII requires each Party, to the extent practicable, to review the potential effects of planned activities that it has reasonable grounds to believe are likely to cause substantial pollution to the Convention area. The obligation is limited to activities that are subject, with respect to each Party, to "*its regulatory control in accordance with its laws.*"

For the United States, this provision would apply to activities that are conducted by the federal government or that are subject to regulatory control pursuant to a federal statute. The National Environmental Policy Act and Executive Order 12114 would be used to implement the requirement as far as major federal actions are concerned. With respect to other activities, the Clean Water Act, the Coastal Zone Management Act and a host of other federal laws regulate, including through reviews and assessments, activities under U.S. jurisdiction or control that can reasonably be foreseen to cause substantial marine pollution.

Article VIII (Development of Information Systems)

Article VIII requires the Parties to cooperate to develop information-sharing systems to facilitate implementation of the Protocol. The United States would participate in such a cooperative endeavor pursuant to existing statutory authority under, *inter alia*, the Clean Water Act and the Clean Air Act.

Article IX (Transboundary Pollution)

Article IX provides that, where pollution from land-based sources and activities from one Party is likely to adversely affect another Party, the Parties are to use their best efforts to consult with each other.

Article X (Participation)

Article X requires each Party, "*in accordance with its national laws and regulations,*" to "*promote public access to relevant information and documentation*

concerning pollution of the Convention area" and to promote the *"opportunity for public participation in decision-making processes concerning the implementation of this Protocol."* The United States already implements this requirement through a variety of statutes.

Article XI (Education and Public Awareness)

Article XI requires the Parties to develop environmental education programs for the public and to promote training for individuals involved in pollution prevention, reduction and control. The United States already conducts a variety of public education and training programs that would fulfill this obligation, including through the Department of Agriculture's Natural Resource Conservation Service (providing technical assistance to the agriculture sector), as well as through numerous federally-funded state education and training programs.

Article XII (Reporting)

Article XII addresses reporting. Under paragraphs 1 and 2, Parties are required to submit reports concerning their implementation of the Protocol, which will be used by the Protocol's "Scientific, Technical and Advisory Committee" to evaluate the state of the Convention area. Paragraphs 3 and 4 provide for the protection of information deemed confidential or essential to the interests of national security.

Article XIII (Institutional Mechanisms)

The Protocol contains provisions regarding the functions of the Secretariat, which are to be carried out under existing arrangements of the United Nations Environment Program.

Article XIV (Scientific, Technical and Advisory Committee)

The establishment of a subsidiary technical body of government-designated experts, the Scientific, Technical and Advisory Committee, will advise the Parties on implementation of the Protocol. The United States is an active participant in the interim Scientific, Technical and Advisory Committee, and we will continue our participation after the Protocol enters into force.

Article XV (Meetings of the Contracting Parties)

Meetings of the Parties to the Protocol will be held in conjunction with ordinary meetings of the Contracting Parties to the Cartagena Convention. Other meetings of the Parties or committees established to advise the Parties may be held as deemed necessary. The United States participates actively in meetings of the Parties of the Cartagena Convention and its protocols.

Article XVI (Funding)

Article XVI authorizes the members of the Protocol to seek funds from, inter alia, international organizations, non-governmental organizations, the private sector, and voluntary contributions by governments.

The United States already supports the mobilization of resources for projects to reduce land-based sources of marine pollution in the Caribbean, including technical assistance provided by USAID, EPA, NOAA and the State Department. The United States also supports multilateral assistance provided by institutions such as UNEP's Caribbean Environment Program and UNDP's Global Environment Fund. The United States would fulfill its requirements under this article by, among other things, continuing to support projects in this area and through periodic appropriations for relevant bilateral and/or multilateral assistance.

Article XVII (Adoption and Entry into Force of New Annexes and Amendments to Annexes)

Article XVII describes procedures for the adoption and entry into force of new annexes and of amendments to existing annexes. The Protocol generally incorporates the amendment process for annexes set out in the Cartagena Convention, i.e. following adoption by a three-fourths majority of the Parties, an amendment will enter into force for all Parties except those that indicate that they object to the amendment within ninety days of its adoption. An objecting Party may later agree to be bound by such an amendment. In the event that an annex amendment were adopted that was of such a nature that it needed to be sent to the Senate for advice and consent in order for the United States constitutionally to be bound by it, the executive Branch would take the necessary steps to ensure that such an amendment did not enter into force for the United States absent such advice and consent.

The Protocol differs from the Cartagena Convention in that paragraph 2 allows the Parties to decide at the time of the adoption of a particular amendment that it is of such importance that it will bind only those Parties that have affirmatively consented to be bound and will enter into force only once three-fourths of the Parties have so consented.

Further, with respect to the adoption of new annexes, the Protocol gives a Party the option to make entry into force for it of a new annex subject to its express consent to be bound. I recommend that the United States include the following declaration at the time of deposit of its instrument of ratification:

> *In accordance with Article XVIII, the United States declares that, with respect to the United States, any new annexes to the Protocol shall enter into force only upon the deposit of its instrument of ratification, acceptance, approval or accession with respect thereto.*

Article XVIII (Ratification, Acceptance, Approval and Accession)

Article XVIII provides that the provisions of the Cartagena Convention regarding ratification, acceptance, approval or accession apply to the Protocol. As noted above, each Party must accept the original four annexes in its consent to be bound by the Protocol, but may choose not to accept any additional annexes.

Article XIX (Signature)

Article XIX sets out arrangements for signature of the Protocol. The United States signed the Protocol on October 6, 1999.

Annex I (Source Categories, Activities and Associated Pollutants of Concerns)

and

Annex II (Factors to be Used in Determining Effluent and Emission Sources controls and Management Factors)

Annexes I and II are addressed above with Article IV.

Annex III (Domestic Wastewater)

Annex III establishes general obligations on the discharge of "domestic wastewater" and sets specific timetables and effluent limitations concerning such discharges into waters in the Convention area. It obligates Parties to employ measures to ensure that such effluent discharged into the most sensitive (Class I) waters meets specific levels for total suspended solids; biochemical oxygen demand; pH; fats, oil and grease; faecal coliform; and floatables. Levels are also set forth for wastewater effluent discharged into less sensitive (Class II) waters. EPA has determined that these provisions can be implemented by the United States under existing statutory and regulatory authorities, primarily the Clean Water Act, §§ 301, 302, 307, 402, and 403.

Annex III also allows for an extension of the timetable for up to 10 years for Parties unable to achieve the effluent limitations, provided that they meet certain minimum criteria regarding implementation of effluent controls. Under existing Clean Water Act regulations, all domestic wastewater discharges into or affecting the Convention area are subject to effluent limitations at least equal to those required under Annex III. All such discharges are subject to the limitations required for Class I waters under the Protocol, with the exception of certain domestic wastewater discharges authorized by a Clean Water Act section 301(h) modified permit. Section 301(h)-permitted discharges in the Wider Caribbean Region are subject to effluent limitations at least equal to those required for Class II waters under the Protocol and are only permitted for waters that fit the definition of Class II waters under the Protocol.

Parts D-F of Annex III call for Parties to take economically and technically feasible steps to manage industrial pre-treatment, household systems, and management, operation and maintenance of wastewater systems. EPA has determined that the United States also has existing statutory authority to implement these provisions, again primarily under the Clean Water Act, §§ 301 and 402.

Annex IV (Agricultural Non-Point Sources of Pollution)

Annex IV addresses agricultural non-point sources of pollution, and requires Parties to develop plans for the prevention, reduction and control of such pollutants that may adversely affect the convention area. Such plans must identify programs to mitigate pollution in the Convention area from agricultural non-point sources. They must include an evaluation of agricultural non-point sources and their impact on the Convention area; education, training, and awareness programs; incentives to

increase the use of best management practices; and assessment and evaluation of legislative and policy measures and plans to manage agricultural non-point sources. Each Party is required to report on its plans for prevention, reduction and control of agricultural non-point source pollution in accordance with article XII of the protocol. The United States has authority to implement each of the obligations in this annex under the Clean Water Act, § 319, and the Coastal Zone Management Act of 1972, 16 USCS § 1455b (2004).

In addition, there are certain USDA programs that will contribute to meeting the objectives of several provisions of Annex IV. Specifically:

Annex IV.B.1.(d). The Natural Resources Conservation Service (NRCS) has recently begun a measurement and evaluation tool "The Conservation Effects Assessment Project" which will be of utility in achieving this provision.

Annex IV.B.2 (a-d). The education functions of Cooperative Research, Education, and Education Service (CSREES) and the technical assistance infrastructure of NRCS will help to satisfy these provisions.

Annex IV.B.3. The 2002 Farm Bill offers programs to the agricultural community that provide financial and technical assistance (including incentives) for increasing the application of best management practices to reduce agricultural pollution.

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

UNITED NATIONS
1999

LIST OF ARTICLES

Article I	Definitions
Article II	General Provisions
Article III	General Obligations
Article IV	Annexes
Article V	Cooperation and Assistance
Article VI	Monitoring and Assessment Programmes
Article VII	Environmental Impact Assessment
Article VIII	Development of Information Systems
Article IX	Transboundary Pollution
Article X	Participation
Article XI	Education and Awareness
Article XII	Reporting
Article XIII	Institutional Mechanisms
Article XIV	Scientific, Technical and Advisory Committee
Article XV	Meetings of the Contracting Parties
Article XVI	Funding
Article XVII	Adoption and Entry into Force of New Annexes and Amendments to Annexes
Article XVIII	Ratification, Acceptance, Approval and Accession
Article XIX	Signature

LIST OF ANNEXES

Annexes I	Sources Categories, Activities and Associated Pollutants of Concern
Annexes II	Factors To Be Used in Determining Effluent and Emission Source Controls and Management Factors
Annexes III	Domestic Wastewater
Annexes IV	Agricultural Non-Point Sources of Pollution

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

The Contracting Parties to this Protocol,

Being Parties to the Convention for the Protection and Development of the Marine Environment in the Wider Caribbean Region, done at Cartagena de Indias, Colombia 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 cooperation, 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:

(a) 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;

(b) train scientific, technical and administrative personnel;

(c) provide technical advice, information and other assistance necessary to address the source categories, activities and pollutants identified in Annex I to this Protocol; and

(d) 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 Depositary 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.

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

(b) (c) Existing economic, social and cultural characteristics.
(c)

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 *E. coli* (freshwater) and enterococci (saline water).)	Faecal Coliform: 200 mpn/100 ml; or a. *E. coli*: 126 organisms/100ml; b. enterococci: 35 organisms/100 ml
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.

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

The Final Act was signed on 6 October 1999 by the following Contracting Parties to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region:

Barbados
Republic of Colombia
Republic of Costa Rica
Republic of Cuba
Commonwealth of Dominica
Dominican Republic
Republic of France
Jamaica
United Mexican States
Kingdom of the Netherlands
Republic of Panama
St. Lucia
Republic of Trinidad and Tobago
United Kingdom of Great Britain and Northern Ireland
United States of America
Republic of Venezuela

The Protocol was signed on 6 October 1999 by the following Contracting Parties to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region:

Republic of Costa Rica
Republic of France
Kingdom of the Netherlands
United States of America

○