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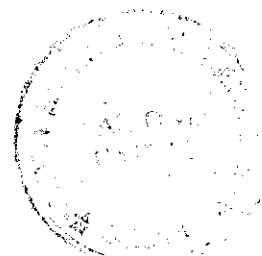
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Wider Caribbean Region

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**Draft Action Plan for the Caribbean  
Environment Programme**

**UNEP/CEPAL  
1979**

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DRAFT ACTION PLAN FOR THE CARIBBEAN ENVIRONMENT PROGRAMME

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## I INTRODUCTION

1. The second session of the Governing Council (1974) of the United Nations Environment Programme (UNEP) decided that "UNEP should concentrate ..... on the protection of the marine environment" and stressed "the importance of activities in the Caribbean" (decision 8/II).
2. The third session of UNEP's Governing Council (1975) recommended the initiation of a regional programme for the Caribbean and emphasized the environmental problems of the islands.
3. A Latin American Preparatory Meeting, held before the 1976 session of UNEP's Governing Council, agreed, by consensus, on the need for investigation of the environmental needs of the Caribbean.
4. At the fourth session of UNEP's Governing Council (1976), UNEP was urged to launch a regional programme for the Caribbean.
5. As a response to these decisions, under the auspices of UNEP and in consultation with the Governments of the Region, the Economic Commission for Latin America (ECLA), with the close collaboration of the specialized organizations of the United Nations and other intergovernmental and non-governmental organizations, this draft Action Plan for the Caribbean Environment Programme was prepared.
6. The principal objectives of the Action Plan are to assess the state of the environment of the Wider Caribbean Region and to assist the Governments of the Region to minimize environmental problems through environmental management of development activities. Furthermore, the Action Plan will establish a framework for activities requiring regional co-operation in order to strengthen the capability of the States and Territories of the Wider Caribbean Region to implement sound environmental management practices and thus to achieve sustainable development of the Region. In order to achieve these overall goals, the co-operation will specifically include:
  - assistance to the smaller (island) States and Territories;
  - use of the Region's human, financial and natural resources through technical co-operation between developing countries (TCDC);
  - regional self-reliance through the sharing of experiences on common problems;

- co-operation on problems of a transnational or international nature, including natural and man-induced disasters;
  - stimulation and co-ordination of international assistance activities;
  - strengthening of existing national and subregional institutions;
  - increasing public interest in, and awareness of the environment/development process.
7. The Region covered by this Action Plan is the Wider Caribbean, defined as comprising the States and Territories of the insular Caribbean (including the Bahamas), the north-eastern parts of South America from Colombia to French Guiana, Panama, the States of Central America, Mexico, the Gulf States of the United States, as well as the coastal and open waters of the Caribbean Sea proper, the Gulf of Mexico, and the waters of the Atlantic Ocean adjacent to the States and Territories mentioned above.
  8. The Region is a geographic entity made up of States and Territories with diverse economic and political structures, natural resources, social systems, environmental characteristics and potential developmental capabilities. These diversities have been recognized in the formulation of this Action Plan.
  9. It is recognized that the Wider Caribbean Region is a developing Region. Its nations are determined to stimulate economic and social development to satisfy basic needs. Many of the environmental problems of the Region result from underdevelopment, although some appear to be side-effects of the type or pattern of development pursued.
  10. The Region's tropical climate and ecology create distinctive development opportunities as well as certain limitations, which are fully recognized in the Action Plan.
  11. The insular nations of the Region have special needs due to the fragility of their ecosystems and their particularly limited carrying capacities. The Action Plan specifically recognizes these very special needs.
  12. The formulation of the Action Plan has been based upon:
    - (a) Consultations with Governmental officials carried out during the preparatory phase of the joint UNEP/ECLA Caribbean Environment Project.

- (b) Analysis of the environmental problems associated with the socio-economic development of the Region.
- (c) Views and recommendations of the Advisory Panel for the Caribbean Environmental Project which was composed of environmental experts from the Caribbean Region.
- (d) Recommendations of the IOC/FAO/UNEP Workshop on Marine Pollution in the Caribbean and Adjacent Waters, Port of Spain, December 1976.
- (e) Recommendations of the First Meeting of the Planning Officials of ECLA's CDCC, Havana, February 1979.
- (f) Recommendations of the First Workshop of the OAS Caribbean Oil Pollution Task Force, Port of Spain, May 1979.
- (g) Recommendations of the USOFDA/AID Caribbean Disaster Preparedness Seminar, St. Lucia, June 1979.
- (h) Recommendations of the PAHO/CARICOM Environmental Health Strategy adopted by CARICOM Health Ministers, Antigua, July 1979.
- (i) Recommendations of the USMAB/UNESCO/CDB/UNDIESA/UNEP/ECLA Conference on Economic Growth and Environmental Management in the Smaller Caribbean Islands, Barbados, September 1979.
- (j) Findings and recommendations of the following sectoral overviews prepared for the development of the Caribbean Environment Programme:
  - The State of Marine Pollution in the Wider Caribbean Area (UNEP/ECLA, 1979);
  - The Status of Oil Pollution and Oil Pollution Control in the Wider Caribbean Region (IMCO 1979);
  - Overview on Energy and Environment in the Caribbean Area (UNIDO, 1979);
  - Overview on Environmental Health in the Wider Caribbean Region (PAHO/WHO, 1979);
  - Natural Disasters in the Wider Caribbean Area: An Overview (ECLA/UNEP, 1979);
  - Marine and Coastal Area Development in the Wider Caribbean Area: Overview study (UN/DIESA, 1979);

- Human Settlements in the Wider Caribbean Area: An Overview (UNEP/ECLA, 1979);
- Overview on Natural Resources for Food and Agriculture in the Wider Caribbean Region (FAO, 1979);
- Tourism and Environment in the Wider Caribbean Area: An Overview (OAS/CICATOUR, 1979);
- A Perspective on Environmental Education in the Wider Caribbean Region (UNEP/ECLA, 1979).

(k) A Strategy for the Conservation of Living Marine Resources and Processes in the Caribbean Region (IUCN, 1979).

(l) Recommendations of the Meeting of Government-Nominated Experts to Review the Draft Action Plan for the Wider Caribbean Region, Isla Margarita, Venezuela, January 1980.

13. The Action Plan is composed of elements providing for:

- (a) Assistance to Governments to improve their capabilities for assessing and monitoring their resource base and the changing conditions of their environment by identifying the environmental and socio-economic variables relevant to their resource base.
- (b) Development of strategies and co-operative activities promoting environmental quality and the sustainable utilization of natural resources.
- (c) Legal framework contributing to the harmonization of national legislation relevant to environmental issues.
- (d) The development of adequate supporting measures at the national and regional levels to strengthen the required institutional infrastructure needed for implementation of the Action Plan.

14. All components of the Action Plan are intended to be interdependent and provide a framework for comprehensive action to contribute to both the protection and the continued environmentally-sound development of the Region. No component will be an end in itself.

15. The strengthening of the institutional capabilities of the Caribbean States and Territories to assess their resource base and to monitor the changing conditions of their environment, particularly in their coastal and marine areas, is a high priority objective of the Action Plan.



16. An intensive assistance programme (training and technical assistance) is envisaged in the early phases of the implementation of the Action Plan in order to allow for a full participation of less-developed States and Territories of the Region.
17. The Action Plan will concentrate its activities on the coastal areas, making special reference to the interactions among terrestrial, coastal and marine ecosystems. The landward as well as the seaward limits of activities agreed as part of the Action Plan should be defined by the Governments of the Region.
18. The Action Plan recognizes two distinct action levels:
  - (a) Development of long-term comprehensive strategies for environmentally-sound development, taking into account the priorities, needs and capabilities of the Region.
  - (b) Specific action-oriented co-operative projects responsive to important and immediate environmental needs as perceived by the States and Territories of the Region and where the capabilities exist to initiate concrete actions without delay.
19. The experience gained through the ongoing national, regional and internationally supported activities relevant to this Action Plan will be taken fully into account.
20. A general description of the various components of the Action Plan and the priority areas within each one is given in the following paragraphs.

## II ENVIRONMENTAL ASSESSMENT

21. Amongst the major problems confronting the Wider Caribbean Region is the paucity of data on its natural resources and environmental processes. This lack of adequate information is particularly critical as it relates to issues of a fundamental nature such as (i) the potential of underutilized resources; (ii) the fragility of many of the ecosystems of the Region; and (iii) the presence of an archipelago of island-states which are ecosystems with limited resources and relatively large populations. Thus the environmental assessment function is a basic component that will underlie and facilitate the implementation of the environmental management elements of the Action Plan.

22. Due to the lack of basic environmental data, a co-ordinated resource inventory and environmental monitoring programme will be developed particularly for coastal and marine areas, as a basis for providing guidelines for environmentally-sound development. The operational details of these programmes will be based on existing and projected national and regional activities in this field.
23. The following will be the major activities of the environmental assessment programme:

General

24. Survey of national capabilities and needs to respond to environmental problems including scientific and administrative institutions, manpower, research facilities and equipment.

Marine pollution

25. Assessment of the origin and magnitude of oil pollution in the Region including:
- Determination of existing national and regional capabilities for monitoring, characterizing, preventing and combating oil spills;
  - Studies on the sources, transport and distribution of oil and petroleum hydrocarbon pollution in the Region;
  - Identification of existing and potential hazards from exploration, exploitation and transport of oil;
  - Studies on the effect of oil pollution on tropical coastal ecosystems of economic importance such as mangrove swamps, coral reefs, beaches and coastal fisheries.
26. Assessment of the sources, amounts and pathways of industrial and domestic waste reaching the marine environment and its effects on marine ecosystems (in particular fisheries resources), human health and coastal amenities.

Coastal areas

27. Assessment of the impact of coastal and land-based activities on coastal marine resources comprising:
- identification of critical coastal areas within the Region;
  - studies on the characteristics of industrial, agricultural and domestic waste discharged into coastal areas (waste discharge profile);

- studies on the effects of pollutants and coastal development activities on important biological communities and habitats particularly those related to coastal fisheries and other coastal-dependent activities;
  - develop a basis for environmental quality criteria applicable for the tropical coastal waters of the Region.
28. Assessment of the coastal dynamics which have a significant impact on human health, marine ecosystems and human activities by modifying the fate of wastes, sediment and sand transport as well as coastal configuration.

#### Fisheries

29. Studies on the life-cycle of commercially important species of crustaceans, fishes and molluscs, with particular reference to the role played by coastal ecosystems such as mangroves, coastal lagoons, coral reefs and turtle grass beds.
30. Studies to establish the fisheries potential of the Region, its present utilization and the maximum sustainable yield.
31. Studies of the technologies applied at present to harvest coastal fisheries with a view to improving efficiency and productivity on a sustainable basis. Particular attention will be paid to artisanal fisheries.
32. Assessment of the suitability of species and techniques which might be suitable for commercial aquaculture.

#### Watersheds

33. Assessment of the effects of disturbances on the relationship between forest cover and water and soil resource utilization in connection with rational management of watersheds, particularly on small islands and coastal areas.

#### Natural disasters

34. Survey and evaluation of the disaster potential of natural phenomena (risk analysis) in order to develop adequate long-term planning for risk mitigation.
35. Survey and evaluation of existing natural disaster preparedness strategies and procedures with a view to developing appropriate regional and/or subregional response mechanisms.

### Energy

36. Detailed assessment of major sources of non-conventional energy and their potential for utilization including solar, biomass, wind, water and geothermal.

### Human settlements and tourism

37. Assessment and evaluation of the present characteristics and future population trends with particular attention to elements of growth, distribution, density and migration, taking into account the special problems of islands.
38. Assessment of existing coastal urbanization policies, and human settlements technologies applied in the Region, including building technologies appropriate to the environment of the Region.
39. Assessment of the impact of tourism on the physical, social and cultural environment, particularly as they affect coastal zones.
40. Identification of the interactions between the principal ecosystems of the Region in order to determine potential long-range effects caused by human activities.

### Environmental health

41. Survey of existing environmental health problems, with particular reference to:
  - water-borne diseases;
  - malnutrition and undernourishment;
  - impacts of industrial and domestic waste on human health including bioaccumulation and food contamination.

## III ENVIRONMENTAL MANAGEMENT

42. The key to environmentally-sound development is the management of the resources on a sustainable basis. Such environmental management should take into account the carrying capacity of the environment, the goals of development as defined by relevant national authorities, and the economic feasibility of their implementation.
43. Most of the Region's environmental needs can best be satisfied, and will continue to be principally dealt with, by individual States and Territories. Regional and subregional co-operative action, however, can strengthen and supplement national efforts, particularly in attending to joint concerns which, by their nature, lie outside the control of any single country. In addition, co-operative regional and subregional action can be especially beneficial to the smaller States and Territories, which have limited capability to deal with environmental problems.

44. Possible types of regional and subregional action include international consultations, co-operative research and joint actions by national institutions. The following present important opportunities for regional or subregional co-operation:
- (a) An analysis of the development trends in the Region, particularly in coastal areas, in order to determine possible areas of conflicts resulting from multiple demands on limited resources.
  - (b) Development of appropriate guidelines for environmental impact assessment of major development projects through case studies in order to provide the necessary planning criteria for the incorporation of the environmental dimension in the planning and implementation of socio-economic development programmes.
  - (c) Strengthening or expanding the relevant ongoing national, regional and internationally-supported development activities which demonstrate sound environmental management practices.
  - (d) Development of mechanisms for continuous exchange of environmental data and other relevant information between the States and Territories at a regional or subregional level.
  - (e) Formulation of coastal zone management schemes with particular reference to the preparation of guidelines for land use and waste disposal.
  - (f) Development of mechanisms for regional or subregional co-operation in combating, detecting, containing and cleaning up accidental oil spills.
  - (g) Strengthening of national capabilities to develop or improve programmes for water quality control in coastal areas.
  - (h) Development and strengthening of national institutional capabilities for pollution control and monitoring through training and harmonization of methodologies.
  - (i) Identification and protection of selected critical natural habitats in the Wider Caribbean Region.
  - (j) Identification and restoration of degraded coastal ecosystems and their integration in the general coastal management plans.
  - (k) Development of a co-operative programme on aquaculture based on locally applicable technology.
  - (l) Development of guidelines for the implementation of appropriate technologies and practices for waste disposal with special attention to recycling and energy generation.

- (m) Development of energy accounting systems as a basis for the formulation and implementation of sound energy policies.
- (n) Establishment of a regional or subregional integrated non-conventional energy pilot demonstration project, with a strong training component.
- (o) Development of an integrated regional programme for conservation and rational utilization of tropical forests.
- (p) Development of appropriate regional or subregional response mechanisms for natural disaster relief operations.

#### IV LEGAL ASPECTS

45. Environmental legislation is an important management tool in the hands of national policy-makers and planners. In order to facilitate the harmonization of national legislation related to environmental issues, in particular legislation regulating national activities that may affect territories beyond the control of national jurisdiction:
- (a) Assistance will be provided, to States and Territories requesting it, in analysing their needs for new or revised environmental legislation;
  - (b) Assistance will be provided, as appropriate, to aid States and Territories in exchanging information on national environmental legislation.
46. For the implementation of the Action Plan for the Caribbean Environment Programme, a formal regional legal agreement is desirable in order to:
- (a) provide a legal framework for implementing the Action Plan;
  - (b) create a legal basis for financing the Action Plan and the institutions participating in it on the regional, subregional, and national levels.
47. A formal regional legal agreement, if established for the above purposes, will also help in accomplishing a number of other objectives such as:
- (a) Providing a framework for harmonizing national legislation and creating, as necessary, new legislation, relating to environmental problems;

- (b) Providing a forum for regular (periodic) high-level consultation among participating Governments on implementation of the Action Plan;
  - (c) Establishing guidelines for co-ordinating environmental programmes and institutions at the regional and subregional levels;
  - (d) Stimulating accession by Governments within the Region to existing global and regional conventions relevant to the environmental issues of the Region.
48. Various options are available for the form of such a regional legal agreement: convention with or without technical protocols, declaration of principles, etc.
49. Aware of the need to give special protection to the Region, an appeal is made to Governments of the Region to strengthen the measures for the protection of the Region through ratification and implementation of the relevant international conventions, particularly:
- 1954 International Convention for the Prevention of Pollution of the Sea by Oil, and its amendments;
  - 1972 Convention on Prevention of Marine Pollution by Dumping of Wastes and Other Matter;
  - 1973 International Convention for the Prevention of Pollution from Ships as modified by the Protocol of 1978;
  - 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora;
  - 1979 Convention on the Conservation of Migratory Species of Wild Animals.

#### V SUPPORTING MEASURES

50. A host of supporting measures, including the development of appropriate institutional and financial arrangements, is required to ensure the harmonious development of the Action Plan.

##### Institutional arrangements

51. The results of the Action Plan will depend on action at regional, subregional, and national levels. It is therefore important to identify and develop appropriate institutional capabilities and

co-ordinating mechanisms at each of these levels. The following components are essential for this task.

(a) Regional co-ordinating unit (RCU)

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A ~~central~~ regional co-ordinating unit (RCU) will be established to ensure the timely and harmonious implementation of the Action Plan.

A Regional co-ordinating unit (RCU) will be established to <sup>UNEP</sup>

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The RCU will operate under the authority of /the organization/ to which the Governments of the States and Territories participating in the Action Plan assigned the overall task of co-ordinating its implementation. The RCU will be physically located in the Wider Caribbean Region.

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The principal function of RCU will be technical, i.e. the development and co-ordination of the work of national, subregional, <sup>international and governmental</sup> and regional institutions. Another important function of the RCU will be to organize <sup>periodic</sup> meetings of Government experts and intergovernmental meetings. <sup>Such meetings will</sup> monitor the progress of the implementation of the Action Plan and to ~~endorse and~~ decide on its further implementation.

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The RCU will not itself conduct research. However, it will serve as a <sup>regional focus</sup> system for the collection, analysis and dissemination of information on results obtained through the Action Plan and as a centre which will <sup>assist</sup> ~~organize aid to~~ participants in the Action Plan in solving their specific environmental problems.

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The staff of the RCU will be <sup>recruited from</sup> ~~recruited from~~ the nationals of the States and Territories participating in the Action Plan. ^

(b) National focal points (NFP)

57. The active participation and co-operation of the States and Territories is the basic prerequisite for the success of the Action Plan. In order to achieve an efficient and well-co-ordinated co-operation, a national focal point (NFP), to deal with all matters relevant to the Action Plan, will be established (or an existing structure will be assigned this task) ~~(at a high level)~~ in each of the participating States and Territories.

58. The role of the national focal points will be:

- to co-ordinate the input of their national institutions into the Action Plan;
- to maintain links with the regional co-ordinating unit of the Action Plan.



(c) National institutions (NI)

59. National institutions (NI) designated by their Governments will provide the institutional basis for the activities agreed upon between the Governments as components of the Action Plan. They will be the principal executants of specific activities within the Action Plan.
60. In order to allow for their full participation in agreed activities, technical and managerial assistance (equipment, training, etc.) will be provided through the Action Plan to those national institutions requiring it.

(d) Subregional and regional institutions (organizations)

61. The existing subregional (~~covering only parts of the Wider Caribbean Region~~ <sup>including NGOs</sup>) and regional institutions will be used to the maximum possible extent for the implementation of specific activities or for the co-ordination of their implementation.
62. Whenever necessary, a national institution could also assume a subregional or regional role.
63. Technical and managerial assistance will be provided through the Action Plan to the subregional and regional institutions participating in it.

(e) Networking

64. In principle, each of the activities agreed as part of the Action Plan will be carried out by several national institutions (NI) located in the various States and Territories of the Region. They will be linked in networks of co-operating institutions.
65. The regional (RI) and subregional institutions (SRI) participating in specific activities will also be considered as members of the networks.
66. One member of each network will assume the role of the regional activity centre (RAC) for that network and co-ordinate the activity for which the network was established.

(f) International organizations

50a ~~50~~ The assistance of the international organizations, in particular those belonging to the United Nations system, is essential for the implementation of the Action Plan and therefore, their ~~technical and managerial~~ <sup>full</sup> support for specific projects will be solicited.

Public awareness

68. Notwithstanding the need for sound legislation and institutional development, adequate care and management of the environment can only be achieved with the help of the entire population. A high level of

awareness of the environment and its problems, particularly those caused by the actions of human beings, is required. For this purpose, the Action Plan will include an extensive programme of environmental education to offer the population correct information and help change those attitudes and habits which, at present, have a negative impact on the environment.

69. The awareness component of the Action Plan will include, inter alia:

- Educational programmes at all levels, closely related to local socio-economic and ecological characteristics;
- Promotion of media seminars and campaigns to increase public awareness of environmental issues.

#### Manpower development

70. The implementation of the activities approved as part of this action plan will require extensive training in many specialized fields. Such training will be achieved as appropriate among existing national and international institutions. For this purpose, strengthening of such institutions might be required.

#### Financial

71. Financial support for the activities agreed as part of the Caribbean Action Plan ~~will~~ come from several sources:

- (a) Voluntary contributions from States and Territories participating in the Action Plan;
- (b) Voluntary contributions from States supporting the Action Plan but not participating in it;
- (c) Financial support from the United Nations system;
- (d) Financial support from the regional and international organizations which are not part of the United Nations system.

72. All these contributions should be in cash or in kind (staff time, experts, training, facilities, services, etc). Although contributions in kind could be of great importance, contributions in cash are essential for the smooth implementation of the Action Plan.

73. Two mechanisms are envisaged as channels of cash contributions:

- A Caribbean Regional Trust Fund to cover the expenses related to common cost (co-ordination, meetings, etc.) and the costs of projects (activities) of general interest to all participants in the Action Plan;
- Contributions to specific projects (activities) agreed as part of the Action Plan.

74. Although the ultimate aim is that the implementation phase of the Caribbean Action Plan should be financially self-supporting, the United Nations system will, initially, provide financial support, progressively decreasing as the Governments of the Region, through a Trust Fund or other mechanism, assume fuller financial responsibility.



