Caribbean Environment Programme

United Nations Environment Programme

EVALUATION OF PROJECTS AND ACTIVITIES IMPLEMENTED WITHIN THE FRAMEWORK OF THE CARIBBEAN ENVIRONMENT PROGRAMME (1988-1991)

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INTRODUCTORY REMARKS

The Caribbean Environment Programme[1] is a broad environmental programme of the 36 States and Territories of the Wider Caribbean region. The Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, together with the protocols associated with the Convention, constitute the legal framework of the Programme. The Programme is implemented through an Action Plan operated under the authority of the States and Territories participating in the Caribbean Environment Programme. UNEP, through the Regional Coordinating Unit for the Caribbean Environment Programme, provides the secretariat of the Convention and the Action Plan, and the technical coordination for the implementation of the agreed activities.

The development and achievements of the Caribbean Environment Programme were analyzed in a document[2] covering the period from 1976 to, 1987, i.e. from the initiation of preparatory activities in 1976 which led to the adoption of the Action Plan (Montego Bay, April 1981) and the Convention (Cartagena, March 1983), and the implementation of the initial phase of the Programme until the end of 1987.

The objective of the present document is to provide a concise critical overview of the development of the Caribbean Environment Programme from the beginning of 1988 until the end of 1991, although in some instances it refers also to developments in the first months of 1992. Some thoughts are also given in the document to the possible trends in the future development of the Programme.

Footnotes are used to, indicate documents where further details could be found regarding the information included in the overview.

[1] In the context of this document: "Action Plan" refers to the Action Plan for the Caribbean Environment Programme; "Convention" to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region; "Contracting Parties" to the Contracting Parties to the Convention; "Bureau" to the Bureau of the Contracting Parties; "Monitoring Committee" to the Monitoring Committee on the Action Plan; "countries" to the States and Territories participating in the Action Plan; "secretariat" to UNEP, and specifically to the Regional Coordinating Unit for the Caribbean Environment Programme.

[2] The Action Plan for the Caribbean Environment Programme: Evaluation of its Development and Achievements. UNEP Regional Seas Reports and Studies No.109 and CEP Technical Report No.1

I. STEPS IN THE DEVELOPMENT AND IMPLEMENTATION OF THE CARIBBEAN ENVIRONMENT PROGRAMME

1.1. The first decisive steps in revitalizing the Caribbean Environment Programme, after its virtual standstill in the 1985-1987 period, were the establishment of the Regional Coordinating Unit in Kingston (May 1987), and the convening of the Fourth Intergovernmental Meeting on the Action Plan and First Meeting of the Contracting Parties (Guadeloupe, 26-28 October 1987).

1.2. The major decisions taken at the meeting[3] were:

(a) to concentrate the implementation of the Action Plan on activities of regional relevance addressing the common problems of the Caribbean region;

(b) to re-evaluate the regional environmental problems and priorities;

(c) to prepare an in-depth evaluation of the Caribbean Environment Programme's achievements and shortcomings;

(d) to formulate a comprehensive long-term strategy for the future development of the Caribbean Environment Programme based on the reevaluation of the region's environmental problems and priorities and on the in-depth evaluation of the Programme;

(e) to adopt a workplan for the biennium 1988-1989, consisting of 35 activities grouped in four regional programmes:

- co-ordination and common costs of the Action Plan;
- environmental management of coastal areas and terrestrial ecosystems;
- assessment and control of marine pollution; and
- environmental training, education and public awareness;

(f) to recognize the Convention as the legal framework of the Action Plan, and the Action Plan as the operational instrument for the implementation of the Convention;

(g) to extend the Protocol concerning Co-operation in Combating Oil Spills so that it covers also hazardous substances other than oil; and

(h) to pursue the development of two additional protocols on:

- specially protected areas and wildlife; and
- control of pollution from land-based sources.

1.3. The ensuing paragraphs in this section of the document review the steps taken in connection with the decisions of the Guadeloupe meeting listed above and with the developments based on decisions of subsequent intergovernmental meetings.

[3] Report of the Meeting. UNEP(OCA)/CAR IG.2/4

Concentration of the Action Plan on activities of regional relevance addressing the common problems of the Caribbean region

1.4. A number of projects initiated before the decision to concentrate the activities of the Action Plan on four regional programmes had to be completed, although some of them did not fit, strictly speaking, in the areas of the agreed regional programmes. Thus, the lack of financial resources, and the need to elaborate the regional programmes in greater detail before they could be implemented in a well coordinated way (see paragraph 1.10) somewhat delayed the concentration of the Action Plan on common problems of the region.

Nevertheless, with modifications to some of the ongoing projects, with the completion of a number of the "old projects", and with the initiation of new projects developed with the concept of regional relevance in mind, the Action Plan was gradually shifting its focus towards regional programmes as decided by the 1987 meeting in Guadeloupe (see paragraph 1.1 and sub-paragraph 1.2 (a)).

Re-evaluation of the regional problems and priorities

1.5. On the basis of national reports a draft regional overview of environmental problems and priorities affecting the coastal and marine resources has been prepared by the Secretariat. The draft was reviewed by the Meeting of Experts on the Caribbean Environment Programme (Mexico City, 7-9 September 1988). The recommendations and comments of the meeting[4] have been incorporated in the final text of the overview[5] which was presented to the Fifth Intergovernmental Meeting on the Action Plan and Second Meeting of the Contracting Parties (Kingston, 17-18 January 1990).

In-depth evaluation of the Action Plan's achievements and shortcomings

1.6. The evaluation of the Action Plan[6], covering the period 1976-1987, was prepared by the secretariat. The drafts of the evaluation were reviewed by the Meeting of Experts on the Caribbean Environment Programme (Mexico City, 7-9 September 1988) and by the Seventh and Eighth Meeting of the Monitoring Committee (Mexico City, 12-14 September 1988; Kingston 10-13 January 1990).

The final text of the evaluation was presented to the Fifth Intergovernmental Meeting on the Action Plan and Second Meeting of the Contracting Parties (Kingston, 17-18 January 1990).

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[4] Report of the Meeting. UNEP(OCA)/CAR WG.1/6

[5] Regional Overview of Environmental Problems and Priorities Affecting the Coastal and Marine Resources of the Wider Caribbean. CEP Technical Report No.2

[6] The Action Plan for the Caribbean Environment Programme: Evaluation of its Development and Achievements. CEP Technical Report No.1

Formulation of a comprehensive long-term strategy for the future development of the Action Plan

1.7. Taking into account the results of the re-evaluation of the regional problems and priorities (see paragraph 1.5) and the in-depth evaluation of the Action Plan (see paragraph 1.6), the draft of the strategy was prepared by the secretariat. The possible elements of the strategy were considered by the Meeting of Experts on the Caribbean Environment Programme (Mexico City, 7-9 September 1988), and the draft of the strategy was reviewed by the Eighth Meeting of the Monitoring Committee and Special Meeting of the Bureau (Kingston, 10-13 January 1990). The final text of the strategy[7], including the amendments suggested by this meeting[8], was adopted by the Fifth Intergovernmental Meeting on the Action Plan and Second Meeting of the Contracting Parties to, the Cartagena Convention[9] (Kingston, 17-18 January 1990).

1.8. The adopted strategy contains a set of long- and short-term (1990-1995) goals and objectives. The long-term goal of the Programme was defined as the achievement of sustainable development of marine and coastal resources in the Wider Caribbean Region through effective integrated management that allows for increased economic growth. The strategy underlying this goal was expected to be based on the following main principles: mutual technical assistance, strengthening the environmental policy and legislative framework, encouraging integrated resource management, institutional strengthening, standardization of approaches and methodologies, ensuring public participation, encouraging policy-oriented research, exchange of relevant information, human resources development, increasing technology transfer, attracting adequate financial resources, and joint management of transboundary resources.

Implementation of the 1988-1989 and 1990-1991 workplans

1.9. Notwithstanding the problems mentioned in paragraph 1.4, the workplan adopted by the Fourth Intergovernmental Meeting on the Action Plan and First Meeting of the Contracting Parties[10] (Guadeloupe, 26-28 October 1987) for the period 1988-1989, started to be implemented soon after the meeting, within the 'limits posed by the available financial resources.

1.10. An Advisory Panel of government experts was created to develop comprehensive outlines for the substantive regional programmes adopted by the Guadeloupe meeting. The report of the Panel's two meetings (Kingston, 25-29 June 1990) served as the basis for the workplan and budget for the 1990-1991 biennium adopted by the Fifth Intergovernmental Meeting on the Action Plan and Second Meeting of the Contracting

[7] The Strategy f or the Development of the Caribbean Environment Programme. CEP Technical Report No.5

[8] Report of the Meeting. UNEP(OCA)/CAR IG.4/4

[9] Report of the Meeting. UNEP(OCA)/CAR IG.6/6

[10] Report of the Meeting. UNEP(OCA)/CAR IG.2/4, Annex VI

Parties[11] (Kingston, 17-18 January 1990). The workplan retained the substance of the four regional programmes adopted at the Guadeloupe meeting, with some changes in their titles and activities, to accommodate the developments since 1987, and to match in a more realistic way the financial resources at the disposal of the Caribbean Environment Programme.

1.11. The following five substantive regional programmes emerged as part of the 1990-1991 workplan:

(a) Regional programme on integrated planning and institutional development for the management of marine and coastal resources (IPID);

(b) Regional programme for specially protected areas and wildlife (SPAW);

(c) Regional programme on information systems for the management of marine and coastal resources (CEPNET);

(d) Regional programme for the assessment and control of marine pollution (CEPPOL); and

(e) Regional programme on environmental training, education and public awareness for the management of marine and coastal resources (ETA).

1.12. The main events and results related to the implementation of the activities and projects approved as part of the 1988-1989 and 1990-1991 workplans' substantive programme areas are reviewed in paragraphs 1.13 - 1.19 of the present document. The results of some projects initiated before 1988 but completed after that date, are also included in the review. For the sake of convenience all activities and projects are arranged according the groupings adopted for the 1990-1991 workplan. Additional details on individual projects and activities can be found in the reports and notes of the Executive Director and the secretariat to intergovernmental and expert meetings[12].

1.13. Projects and activities in the framework of the Regional Programme on Integrated Planning and Institutional Development for the Management of Marine and Coastal Resources (IPID)[13] included the following:

(a) Study of ecological and socio-economic impact of global climatic changes on the Wider Caribbean region (1988-89) and Study on global climate changes (1990-91). In line with similar initiatives in other regions covered by the Regional Seas Programme, a Task Team was created to study the possible ecological and socio-economic implications of expected climate changes. The preliminary summary

[11] Report of the Meeting. UNEP(OCA)/CAR IG.6/6, Annex VIII

[12] Reports and notes of the Executive Director and the secretariat on the implementation of the Action Plan. UNEP(OCA)/CAR IG.3/3, IG.6/3, IG.6/2/Corr.1, IG.8/4.

[13] Detailed information on the projects and activities of IPID, in particular those in the period 1990-1991, could be found in the Note of the Secretariat on the Implementation of the Action Plan for the Caribbean Environment Programme, UNEP(OCA)/CAR IG.8/4

report of the Task Team was published[14]. The full report of the Task Team is being prepared for publication by a commercial publisher.

(b) Feasibility study for extension of seismic detection network in the Lesser Antilles (1988-89). A study on the feasibility of extending the seismic detection network in the Lesser Antilles and on reactivation of stations which were partially destroyed by the hurricane Hugo is being prepared[15].

(c) Use of mangroves in stabilization of eroded shorelines in Guyana (1988-89). A report on the management of the mangrove swamps in Guyana was presented at a regional workshop on the ecology and coastal management in the Caribbean (Martinique, 26-29 November 1991).

(d) Coastal dynamics in Guadeloupe, Martinique and French Guiana (1988-89). The impact of coastal dynamics on shoreline evolution and dispersion of pollutants is studied in Guadeloupe, Martinique and French Guiana in order to develop an ecologically sound coastal zone management policy required for coastal development planning.

(e) Management plan for mangroves in Martinique (1988-89). A study on the ecology of the mangroves in Martinique has been undertaken. The results of the study[16] were reviewed at a symposium (Fort-de-France, 26-29 November 1991), and served as the basis for the preparation of the management plan for the bay of Fort-de-France. The publication of the symposium's proceedings and the management plan is under preparation.

(f) Inventory of fisheries resources of French Guyana (1988-1989). As part of a broad coastal zone management plan for the conservation and exploitation of brown shrimp in French Guiana, an inventory of fisheries resources on the continental shelf of French Guiana, with emphasis on the brown shrimp, is being prepared[17].

(g) Rehabilitation of damaged sites and protection of the environment in Haiti (1988-89). This project was not implemented.

(h) Expert consultation meeting on integrated planning (1990-91). Two case studies (Jamaica and Dominican Republic) have been undertaken on methodologies and strategies to incorporate the environmental dimension into the development planning process[18]. The studies have been reviewed during two national workshops on environmental planning (Santo Domingo, 30 October-1 November 1990; Kingston, 4-5 December 1991).

(i) Technical advisory services for institutional development (1990-91). Since 1988, negotiations have been underway with the Inter-American Development Bank for

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[14] Implications of Climatic Changes in the Wider Caribbean Region. CEP Technical Report No.3

[15] Note of the Secretariat. UNEP(OCA)/CAR IG.8/4

[16] Together with the results emanating from activities described in sub-paragraphs 1.12 (d), 1.12 (f), and 15 (b)

[17] Note of the Secretariat. UNEP(OCA)/CAR IG.8/4

[18] Note of the Secretariat. UNEP(OCA)/CAR IG.8/4

launching a project on technical advisory services for institutional development and development of information systems supporting the management of coastal and marine resources.

(j) Workshop on environmental impact assessment (1990-91). The procedures and methodologies used in the preparation of environmental impact assessments, and their application on three specific case studies (Mexico, Cuba, Barbados), were examined and summarized[19] at a seminar (Mexico City, 15-17 November 1988). As a follow-up, the preparation of an additional case study (marina in Tobago), based on the methodological approach recommended to be followed in the context of the UNEP-sponsored Regional Seas Programme, was undertaken. The results of the study were reviewed at a workshop (Port-of-Spain, 14-16 October 1991), which recommended the use of the recommended methodological approach in the Caribbean region.

(k) Analysis of changing land and sea-use practices (1990-91). On the basis of previous activities (see sub-paragraph 1.19 (c)), attempts are being made to formulate specific coastal zone management plans for small islands[20].

(l) Environmental management of bays and coastal areas (1990-91). A document on basic concepts and strategies for the strengthening of the environmental management and planning in the coastal area of Latin America and the Caribbean was prepared. The document, and the results of the study, carried out in Cuba in co-operation with UNDP and UNESCO, were reviewed at a regional workshop (Cienfuegos, 11-14 April 1989), which assisted in the development of a regional network of institutions associated with the project. As a follow-up, two pilot studies were carried out (Kingston Harbour and Cartagena Bay) to examine mechanisms for the protection of coastal environment and control of pollution in harbours. The studies were presented to a regional workshop (Havana, 17-19 April 1991) which advised on the continuation of work on the project.

(m) A report has been prepared and published on the economic impacts of hurricane Gilbert[21].

1.14. The outstanding result of the Regional Programme for Specially Protected Areas and Wildlife (SPAW)- was the development and adoption of the Protocol concerning Specially protected Areas and Wildlife. The draft of the protocol was prepared by the secretariat in co-operation with relevant international organizations (e.g. the World Conservation Union - IUCN), governments and non-governmental organizations of the region. The draft of the Protocol was reviewed by two meetings of experts (St. Croix, 24-26 October 1988, Kingston, 19-23 June 1989). The protocol, as amended by these

[19] Development of Specific Methodologies for the Preparation of Environmental Impact Assessment in the Wider Caribbean. UNEP/CEP SEDUE publication.

[20] Note of the Secretariat. UNEP(OCA)CAR IG.8/4

[21] Assessment of the Economic Impacts of Hurricane Gilbert on Coastal and Marine Resources in Jamaica. CEP Technical Report No.4

meetings[22], was further reviewed and revised by the Eight Meeting of the Monitoring Committee and Special Meeting of the Bureau[23] (Kingston, 10-13 January 1990). The revised version was submitted to a Conference of Plenipotentiaries (Kingston, 15-18 January 1990) which adopted the final text of the Protoco1[24].

1.15. An ad hoc Group of Experts was formed to perform on an interim basis the tasks of the Scientific and Technical Advisory Committee (STAC), pending the entry into force of the Protocol. The Group at its meeting in Martinique (5-8 November 1990) prepared the draft of the Protocol's three annexes[25]. The draft annexes were considered by a Conference of Plenipotentiaries (Kingston, 10-11 June 1991) which adopted their final texts[26].

1.16. Additional activities[27] related to the SPAW programme include:

(a) Strengthening of Lesser Antilles parks and protected areas network (1988-89). A study tour and a workshop on project development for national parks and protected areas were planned, in cooperation with the Caribbean Natural Resource Institute (CANARI), to strengthen the Lesser Antilles Parks and Protected Areas Network. Several issues of "Parks and Protected Areas News" have been published by CANARI as a further contribution to the strengthening of the Network.

(b) Management plan for the black coral in Cuba (1988-89). A project on formulation of a management plan for black coral in Cuba has been initiated[28]. It includes studies on the ecological characterization of concentration areas of black corals, on the distribution of black corals along the Cuban insular shelf, and on the possibility for their transplantation.

(c) Conservation of the West Indian manatee (1990-91). The development of a management plan for the West Indian manatee in Jamaica was initiated.

(d) Sea turtle recovery action plans were developed under the co-ordination of the Monitor International/WIDECAST NGO Consortium for a number of Caribbean States and Territories[29].

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[22] Revised draft of the Protocol. UNEP(OCA)/CAR IG.5/3

[23] Report of the Meeting. UNEP(OCA)/CAR IG.4/4

[24] Final Act of the Conference. UNEP(OCA(/CAR IG.5/5

[25] Report of the Meeting. UNEP(OCA)/CAR WG.4/4

[26] Final Act of the Conference. UNEP(OCA)/CAR IG.7/3

[27] Detailed information on the projects and activities of the SPAW programme, in particular those in the period 1990-1991, could be found in the Report of the First meeting of the Interim Scientific and Technical Advisory Committee (ISTAC) to the Protocol concerning specially protected areas and wildlife in the Wider Caribbean region (Kingston, 4-8 May 1992), UNEP(OCA)/CAR WG.5/1

[28] Note of the Secretariat. UNEP(OCA)/CAR IG.8/4

[29] Note of the Secretariat. UNEP(OCA)/CAR IG.8/4

1.17. In the framework of the Regional Programme on Information Systems for the Management of Marine and Coastal Resources (CEPNET) general information system support is provided to all other components of the Caribbean Environment Programme, including those related to the co-ordination and management of the Programme. Activities and projects of special importance include:

(a) Establishment of the network for exchange and transfer of environmental information (1988-89). Due to lack of funds no substantive progress was made on the establishment of the network.

(b) Expert consultation on information systems for the management of marine and coastal resources (1990-91). The consultation was planned as a joint activity with the Inter-American Development Bank (IDB), but due to the failure of the Bank to provide financial support, the consultation was combined with the meetings of the Advisory Panel (see paragraph 1.10) .

(c) Strengthening of information management capabilities of national agencies (pilot experiences) (1990-91). Plans have been developed for six pilot projects on strengthening of information management capabilities of national agencies responsible for marine and coastal resources management. Due to lack of funds only two pilot projects (in Cuba and Jamaica) have been initiated.

(d) Development of regional mapping of marine and coastal resources (1990-91). In co-operation with US Environment Protection Agency and a consulting firm a series of spatial digitized datalayers on a range of resource management issues was prepared.

(e) A number of databases have been established and are periodically updated by the secretariat on subjects relevant to the Caribbean Environment Programme (institutions, experts, projects, technical documentation, species envisaged to be protected under the SPAW protocol, etc.).

(f) The preparation of several ad hoc directories, the quarterly publication of a trilingual newsletter (CEPNEWS) distributed to about 5,000 persons and institutions, the production of CEP Technical Reports series (10 issues), and the dissemination of information on the results of projects carried out under the Caribbean Environment Programme as well as on environmental issues relevant to the Programme, are carried out routinely in the framework of CEPNET.

1.18. The Regional Programme for the Assessment and Control of Marine Pollution (CEPPOL)[30] during the 1988-1989 biennium essentially carried out activities initiated in previous years. The secretariat in co-operation with the Intergovernmental Oceanographic Commission (IOC) and with involvement of the IOC Sub-commission for the Caribbean and Adjacent Regions (IOCARIBE) formulated a well co-ordinated regional programme. An IOC/UNEP regional workshop was organized (San Jose, 24-30 August 1989) to review the problems related to marine pollution and discuss the possible

[30] Detailed information on the projects and activities of CEPPOL, in particular those in the period 1990-1991, could be found in the Report of the Meeting of CEPPOL Group of Experts (Kingston, 12-14 May 1992), UNEP(OCA)/CAR WG.6/1

elements of a regional programme for the assessment and control of marine pollution[31]. Based on the outcome of the workshop, the secretariats of UNEP and IOC proposed a detailed programme for CEPPOL which was endorsed for implementation by the Fifth Intergovernmental Meeting on the Action Plan and Second Meeting of the Contracting Parties[32] (Kingston, 17-18 January 1990). The specific activities envisaged according to the programme have started towards the end of 1990 under the joint co-ordination of IOC and UNEP.

(a) Training course for the analysis of chlorinated hydrocarbons in marine sediments and organisms (1988-89). The project was planned as a follow up of activities in the previous years, but was closed at the end of 1988 without substantive outputs during the biennium 1988-1989. The project was followed up through the activity described under (f) below.

(b) Monitoring of pollution of the marine and coastal environment of the Caribbean islands (1988-89). This project was a carry-over from previous years. Considerable support was provided for the project to the Caribbean Environmental Health Institute CEHI (St. Lucia), close to US$ 900, 000 from UNEP Environment Fund and over US$100,000 from the Caribbean Trust Fund in the period 1981-1990. The project was terminated at the end of 1990 in light of the development of the CEPPOL Regional Programme. It is hoped that CEHI can in the future be considered as a regional activity centre of the Caribbean Environment Programme for the assessment and control of marine pollution in the CARICOM subregion.

(c) Characterization of contamination by hydrocarbons at the Caribbean terminal of the Panama Canal (1988-89). Due to lack of funds this project was not implemented.

(d) Development of environmental water quality standards for bathing waters (1988-89) and Development of environmental quality criteria (1990-91). An early attempt failed to, develop, in co-operation between a number of regional institutions under the co-ordination of INDERENA (Colombia), a bioassay methodology for the assessment of the coastal water quality in the Wider Caribbean region. A compilation of environmental quality criteria of coastal areas in the Wider Caribbean region was prepared by the secretariat[33], and was used for the formulation of regionally-relevant interim, coastal water quality criteria and effluent guidelines by a regional workshop[34] (San Juan, Puerto Rico, 5-15 November 1990). Regional criteria and guidelines for the sanitary quality of bathing and Shellfish-growing waters were recommended by a seminar of experts (Kingston, 8-12 April 1991). A research, programme related to the development of water quality criteria was also suggested by the San Juan meeting. Four country proposals for research have been received by secretariat: three related to

[31] Report of the Workshop. IOC Workshop Report No.59

[32] Report of the Meeting. UNEP(OCA)/CAR IG.6/6

[33] IOC/UNEP-WQC-I/6

[34] Report of the Workshop. CEP Technical Report No.8

pilot studies on guidelines for industrial effluent and one for a study of alternative indicators of faecal pollution. The latter proposal has been accepted and funded.

(e) Control of domestic, industrial and agricultural land-based sources of pollution (1990-91). Guidelines have been prepared and distributed to national focal points for the preparation of national reports on the sources and amounts of pollutants from land based sources in their countries. Only 14 countries indicated their interest in participating in the project, and eleven countries have already submitted their reports[35]. The data expected from national reports are intended to be used for the preparation of a regional survey on land-based sources of pollution, required for a meaningful negotiation of a protocol on the control of pollution from these sources (see paragraphs 1.21 and 1.22).

(f) Baseline studies on pesticides contamination and formulation of control measures (1990-91). During 1991 proposals for studies have been received from six countries and one regional institution. A training course for the potential participants in the project was organized (San Jose, Costa Rica, 6-18 May 1991), followed by meetings to clarify the methodological approach to pesticide studies (San Jose, 20-22 May 1991) and the linkage of the project with the International Mussel Watch Programme (San Jose, 23-24 May 1991). Subsequently, seven pilot studies were initiated towards the end of 1991.

(g) Monitoring and control of the sanitary quality of bathing and shellfish growing waters (1990-91). The programme for monitoring and control of marine pollution caused by sewage was considered and agreed by a seminar[36] held in Kingston (8-12 April 1991). The secretariat is in the process of analyzing the proposals received from national institutions for participation in the project.

(h) Monitoring and control of pollution by oil and marine debris (1990-91). Under IOCARIBE's coordination pilot studies on debris were undertaken in five countries, and by CEHI for the CARICOM region. A regional overview was prepared by IOCARIBE on the present state of pollution by oil and marine debris. A regional workshop[37] (Cartagena, 22-24 July 1991) considered the results of the overview and was followed by initiation of specific studies on oil and marine debris by research institutions in seven countries of the region.

(i) Site-specific studies of damaged ecosystems and development of proposals for remedial action.(199091). Taking advantage of the activities carried out by the UNESCO-sponsored Caribbean Coastal Marine Productivity (CARICOMP) Network, a study on pollution within the skeletons of corals is being prepared.

(j) Research on the significance of organotin as a pollutant of the region (1990-91). A study involving US Virgin Islands and the British Virgin Islands was launched in mid-May 1991.

[35] Twelve (12) countries as at 1 July 1992.

[36] Report of the Seminar. CEP Technical Report No.9

[37] The report of the workshop, including the overview, is being published by IOC.

(k) An assessment of contamination by hydrocarbons and other pollutants in the south-eastern Caribbean has been undertaken, in co-operation with Venezuela. The results of the assessment have been published by the Ministry of Environment and Natural Resources (MARNR) of Venezuela.

1.19. Most of the programme activities reviewed in paragraphs 1-13 - 1-18 contains elements relevant to the Regional Programme on Environmental Training, Education and Public Awareness for the Management of Marine and Coastal Resources (ETA)[38]. The ETA-related activities not mentioned before include:

(a) Development of a Consortium of Caribbean Universities for natural resources management (1988-89), and Strengthening of the Consortium of Universities for training in the management of marine and coastal resources (1990-91). The Consortium involving 15 institutions was established in 1989, as a programme of the Association of Caribbean Universities (UNICA). Consortium-wide educational standards were developed at the bachelor, diploma and master degree levels for education in resource management with specific reference to marine and coastal areas. Outlines for undergraduate courses and for a regional one-year diploma course in resource management were formulated by several Consortium members, and 16 faculty members were trained on curricula development. The development of a resource management library collection and a travelling resource management course are underway.

(b) Training in management of development projects (1988-89). The project was expected to be developed by UCORED, in co-operation with the University of Paris, but the Caribbean Environment Programme did not get involved in it, as originally planned.

(c) Training in land-use planning for coastal areas (1988-89). A case study from Venezuela (Margarita Island) was used to consider, at a workshop on land and coastal use planning (Porlamar, Margarita Island, 28 January/1 February 1991), the possible regional application of coastal use planning methodologies (see also sub-paragraph 1.13 (j)).

(d) Training in industrial pollution control (1988-89). The project was expected to be developed by UCORED, in co-operation with the University of West Indies and the United Nations Industrial and Developmental Organization (UNIDO), but the Caribbean Environment Programme did not get involved in it, -as originally planned.

(e) Workshop on environmental impact assessment (19881989). The results of this project are reviewed under sub-paragraph 1.13 (j).

(f) Expansion of environmental education (1988-89). A survey of the extent, quality and need for environmental education at primary and secondary levels is being

[38] Detailed information on the projects and activities of the ETA regional programme , in particular those in the period 1990-1991, could be found in the Note of the Secretariat on the Implementation of the Action Plan for the Caribbean Environment Programme, UNEP(OCA)/CAR IG.8/4

planned. The other activities supported through this project are reviewed in subparagraph (a) above.

(g) Development of public awareness on sustainable development (1988-89). A media seminar on environmental issues in the region and media policies for responsible reporting was convened in co-operation with the Caribbean Conservation Association (CCA) and the Caribbean Institute of Mass Communication (CARIMAC) in Kingston (13-14 January 1990). A booklet[39], based on the presentations at the seminar, was issued and distributed. In co-operation with the Caribbean Conservation Association (CCA) and the PANOS Institute, another booklet[40] was also prepared, on mangroves of the region, and distributed in three languages in 1991. Both booklets are widely used by the media in the region.

(h) Expert consultation on education for the management of marine and coastal erosion (1990-91). The planned expert consultation was replaced by the work of the Advisory Panel (see paragraph 1.10).

Extension of the Protocol concerning Co-operation in Combating Oil Spills

1.20. Proposals have been prepared by the secretariat, in co-operation with the Intergovernmental Maritime Organization (IMO), for the extension of the Protocol to also cover harmful substances other than oil[41]. The two options presented in the proposals (extension of the Protocol by an amendment or by an annex) were considered by a Conference of Plenipotentiaries (Kingston, 15-18 January 1990) which decided to defer the extension of the Protocol, but agreed that the existing Protocol should continue to apply provisionally to hazardous substances[42].

Development of a protocol on pollution from land-based sources

1.21. A background document[43], including elements which could be included in the protocol, was prepared by the secretariat for use by a future meeting of experts on this subject.

1.22. The survey of land-based sources of pollution being carried out through CEPPOL (see paragraph 1.18(e)) will serve as additional background material for the meeting of experts.

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[39] Environment: The Message and the Media. A Caribbean Perspective.

[40] Mangroves of the Wider Caribbean: Toward Sustainable Management.

[41] Proposals for the extension of the Protocol. UNEP(OCA)/CAR IG.5/4 and 5/4/Add.1

[42] Final Act of the conference. UNEP(OCA)/CAR IG.5/5

[43] UNEP(OCA)/CAR IG.8/INF.5

Joint meeting of ministers of finance and planning with ministers of environment

1.23. The Seventh Meeting of the Monitoring Committee and Special Meeting of the Bureau (Mexico City, 12-14 September 1988) requested the secretariat to examine the feasibility of organizing a joint meeting of ministers of finance and planning with ministers of environment in order to discuss a long term-strategy for sustainable development of the region, with particular emphasis on the need to develop national accounts of natural resources for sustainable development[44]. The request was reiterated by the Fifth Intergovernmental Meeting on the Action Plan and Second Meeting of the Contracting Parties[45] (Kingston, 17-18 January 1990). The secretariat discussed the idea with various international and regional organizations, but in view of the impending convening of the United Nations Conference on Environment and Development (Rio de Janeiro, June 1992) it was felt that the meeting, if held at all, should be postponed for after the Conference.

Financial mechanisms for the management of the Caribbean Environment Programme

1.24. The financial mechanisms for the management of the Caribbean Environment Programme for the period 1990-1993, including the Terms of Reference for the management of the Caribbean Trust Fund have been considered and adopted by the Fifth Intergovernmental Meeting on the Action Plan and Second Meeting of the Contracting Parties[46] (Kingston, 17-18 January 1990).

Application of the principle of precautionary action

1.25. The possible application of the principle of precautionary action was examined by the Fifth Intergovernmental Meeting on the Action Plan and Second Meeting of the Contracting Parties (Kingston, 17-18 January 1990), which invited the secretariat to prepare a study on the mechanism of its application[47]. The study is being prepared for submission to the next intergovernmental meeting (November 1992).

Movements of hazardous wastes

1.26. Concern was expressed over the movement of hazardous wastes in the Wider Caribbean region at the Fifth Intergovernmental Meeting on the Action Plan and Second Meeting of the Contracting Parties (Kingston, 17-18 January 1990) which requested the secretariat to prepare an assessment of the nature of such movements[48]. The request was renewed by the Ninth Meeting of the Monitoring Committee and Special Meeting of the Bureau[49]

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[44] Report of the Meeting. Annex V. UNEP(OCA)/CAR IG.3/5

[45] Report of the Meeting. UNEP(OCA)/CAR IG.6/6

[46] Report of the Meeting. Annex V. UNEP(OCA)/CAR IG.6/6

[47] Report of the Meeting. UNEP(OCA)/CAR IG.6/6.

[48] Report of the Meeting. UNEP(OCA)/CAR IG.6/6

[49] Report of the Meeting. UNEP(OCA)/CAR IG.8/5

(Kingston, 12-14 June 1991). As a contribution to the clarification of the problems associated with the movement of hazardous wastes in the Caribbean region a document prepared by Greenpeace was published in 1991 by the secretariat[50].

Designation of the Wider Caribbean as a "special area" under Annex V of MARPOL 73/78

1.27. The possibility and financial implications of designating the region as a "special area" were considered by the Fifth Intergovernmental Meeting on the Action Plan and Second Meeting of the Contracting Parties (Kingston, 17-18 January 1990) and by the Ninth Meeting of the Monitoring Committee and Special Meeting of the Bureau (Kingston, 12-14 June 1991)[51]. A regional workshop organized in co-operation with the International Maritime Organization (IMO) (Caracas, 22-27 October 1990) considered the matter and recommended the designation of the Wider Caribbean as a "special area"[52] which was formalized at the 31st Session of the Marine Environment Protection Committee (MEPC) of IMO (London, 12-16 November 1990). Funds are currently being sought from the Global Environment Facility (GEF) to, assist the States of the region in complying with the requirements of the special area" designation[53].

II. ACHIEVEMENTS OF THE CARIBBEAN ENVIRONMENT PROGRAMME

2.1. Since the Fourth intergovernmental Meeting on the Action Plan and First Meeting of the Contracting Parties (Guadeloupe, 26-28 October 1987) the Caribbean Environment Programme has developed vigorously and today it represents a broadly supported mechanism for regional co-operation on matters related to the protection and development of the marine and coastal environment of the States and Territories in the Wider Caribbean region. Although it is difficult to assess the direct impact of the Programme on the environmental situation of the region, the available information indicates that the Programme has a significant influence on the environmental policies and practices of most countries in the region.

2.2. The adoption of a long-term strategy for the future development of the Caribbean Environment Programme (see paragraphs 1.7-1.8) refocused the Action Plan on goals, principles and objectives which, in the light of the analysis of the present most urgent environmental problems and priorities affecting the coastal and marine, resources of the Wider Caribbean, and the experience gained in the implementation of the action plan during its first decade, seem most appropriate.

2.3. The strategy reconfirmed the need for concentration of the action plan on five substantive programme areas, i.e.:

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[50] The Transboundary Movement of Hazardous and Nuclear Wastes in the Wider Caribbean Region. A call for a Legal Instrument within the Cartagena Convention. CEP Technical Report No.7

[51] Reports of the meetings. UNEP(OCA)/CAR IG.6/6 and IG.8/5

[52] Report of the Regional Workshop for the Wider Caribbean on Oil Spill Preparedness and Response and "Special Area" Status under Annex V of MARPOL 73/78. IMO

[53] Note of the Secretariat. UNEP(OCA)/CAR IG.8/4

(a) integrated planning and institutional development for the management of marine and coastal resources;

(b) specially protected areas and wildlife;

(c) information systems for the management of marine and coastal resources;

(d) assessment and control of marine pollution; and

(e) education, training and public awareness for the appropriate management of marine and coastal resources; and specified the short-term (1990-1995) goals and objectives for each of these programme areas.

2.4. In a remarkably short period the Caribbean Environment Programme succeeded in concentrating its activities on the five substantive areas envisaged by the strategy, and judging from the achievements of the two first years of the five year period in which the short-term goals and objectives were expected to be reached, the Programme seems to be on the right track to achieving most of these goals and objectives.

2.5. The new strategy, combined with the transfer of the day to, day co-ordination of the Programme to the newly established Regional Co-ordinating Unit in Kingston, stimulated the broadening of the political commitment to the Programme, which was signified by:

(a) accession of six additional States[54] to the Cartagena Convention and its Protocol concerning Co-operation in Combating Oil Spills, raising the number of Parties to the Convention and this Protocol to nineteen (the present status of the Convention and the Protocol is shown in Table 1);

(b) successful negotiation and signing of the Protocol concerning Specially Protected Areas and Wildlife by fourteen States;

(c) the continuation of the provisional application of the Protocol concerning Co-operation in Combating Oil Spills to hazardous substances other than oil; and

(d) advanced preparations for the development of a protocol concerning control of pollution from land-based sources.

2.6. The growing pledges to, the Trust Fund in the period 1988-1991, from US$503,729 in 1988 to US$967,165 in 1991 (see Table 2) is a further sign of firm political commitment to, the programme carried out through the Action Plan.

2.7. Projects initiated before 1988 were, in most cases, successfully completed, and a number of projects approved for implementation in the framework of the concentration areas, were initiated (see Table 3). Although, in a short period since the five programme areas have been approved, it is premature to expect their simultaneous full scale development and major results, the initial results of the new projects are encouraging and augur well for the agreed programme. Aside from the remarkable substantive achievements mentioned in paragraph 2.5, the formulation of:

[54] Colombia, Costa Rica, Cuba, Dominica, Guatemala, Saint Vincent and the Grenadines.

(a) interim environmental quality criteria for coastal waters and effluent guidelines for the coastal environment of the region; and

(b) recommendations for criteria or guidelines for sanitary quality of bathing and shellfish-growing waters; merit being mentioned in view of their significance for a potential concerted regional action.

2.8. The institutional framework in which the Caribbean Environment Programme is being implemented is broadening. The number of national institutions participating in the projects of the Action Plan is rapidly growing and today there is practically no country in the region which in one way or another does not participate actively in the programme of work.

2.9. The decision-making mechanism of the Caribbean Environment Programme is today well established and consolidated through the regular meetings of the Monitoring Committee, intergovernmental meetings on the Action Plan, and meetings of the Contracting Parties to the Convention. Such meetings are preceded by meetings of government experts which review the technical aspects of the programme and prepare proposals for the consideration of the decision-making meetings.

2.10. Considerable financial resources, additional to those of the Trust Fund or the Environment Fund of UNEP, have been acquired for the implementation of the Action Plan (Table 4). National counterpart contributions to projects implemented on national levels, and voluntary contributions additional to those pledged for the Trust Fund by the countries participating in the Action Plan, are only part of such resources.

2.11. The support of the international community to the Caribbean Environment Programme is growing. Aside from the traditional substantive and technical support enjoyed in the past and at present from the specialized organizations of the United Nations system[55], the interest in supporting the Programme shown by some financial institutions[56], the European Economic Community and some non-Caribbean States[57], is an indisputable sign of the Programme's attractiveness and success.

2.12. With maturing and expansion of the Caribbean Environment Programme, the nature of co-operation between the Programme and other programme elements of UNEP is changing. The Action Plan has today joint activities with several units and programmes of UNEP[58], and some of the projects, carried out in the framework of the Action Plan serve as pilot projects for other regions covered by the UNEP-sponsored Regional Seas Programme.

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[55] IOC, IMO, WHO/PAHO, ECLAC and FAO, in particular.

[56] For instance, the World Bank and the Inter-American Development Bank.

[57] Sweden, Italy, Japan, Canada and others.

[58] Regional Office for Latin America and the Caribbean (ROLAC); Global Resource Inventory Database (GRID); World Conservation Monitoring Centre (WCMC); Oceans and Coastal Areas Programme Activity Centre (OCA/PAC); and others.

2.13. In spite of some doubts at the outset, the Regional Co-ordinating Unit for the Caribbean Environment Programme succeeded, in the relatively short period since it was established in Kingston (May 1987), to consolidate its structure and activities and developed into a semi-autonomous unit performing the secretariat functions, of the Programme.

III. CONSTRAINTS AFFECTING THE IMPLEMENTATION OF THE CARIBBEAN ENVIRONMENT PROGRAMME

3.1. The external and internal constraints, hampering a more vigorous progress in the implementation of the Caribbean Environment Programme are numerous and varied in nature. The main constraints can be broadly identified as:

(a) insufficient political commitment of the countries participating in the Programme;

(b) lack of adequate financial support;

(c) organizational weaknesses in the implementation of the agreed programme and in its co-ordination; and

(d) inadequate awareness, expertise and experience at the national level.

Political commitment

3.2. A strong political commitment, expressed at the highest possible national level, is one of the basic prerequisites for the successful implementation of a complex multidisciplinary programme requiring international co-operation. Adherence to international legally binding agreements signify such political commitments.

3.3. The Convention, adopted in March 1983, in force since October 1986, and confirmed by the First Meeting of the Contracting Parties (Guadeloupe, 26-28 October 1987) as the legal framework of the Caribbean Environment Programme has yet to be formally acceded to by nine eligible States and the European Economic Community (see Table 1). In view of the present status of the Convention it is not quite correct to argue that the Convention is in fact the universally recognized legal framework of the Action Plan and that it enjoys the support of all States of the Wider Caribbean region.

3.4. Participation of the countries in the intergovernmental meetings supervising and guiding the development of the Caribbean Environment Programme is another expression of their commitment to the Programme. Out of the 36 invited countries only 11 participated in both of the last two intergovernmental meetings (Guadeloupe, 26-28 October 1987; Kingston, 17-18 January 1990), while 11[59] countries were absent from both of them. Most countries are represented at the intergovernmental meetings at a fairly high-level but modest-sized, 1-3 member delegations.

3.5. A further sign of less than universal political commitment to the Programme is the fact that thirteen States and Territories did not contribute during the last two biennia (1988-89

[59] Bahamas, Belize, Dominica, Dominican Republic, Grenada, Haiti, Honduras, Nicaragua, St. Kitts and Nevis, St. Vincent and Grenadines, and Suriname.

and 1990-91) to the Trust Fund at all, and three discontinued contributing after 1988 (see Table 2).

Financial support

3.6. The implementation of the Action Plan is seriously affected by the chronic lack of funds.

3.7. Although it is recognized that the Trust Fund of the Caribbean Environment Programme is the main financial instrument needed to ensure a stable and predictable source of monies required to cover the costs of the core projects approved by the intergovernmental meetings and the basic needs of the Programmels secretariat, the size of the Trust Fund was not growing to keep pace with the development of the Programme. When establishing the Trust Fund at their First Intergovernmental Meeting on the Action Plan[60] (Montego Bay, 6-8 April 1981), the countries participating in the Programme pledged to contribute to it voluntarily US$1.5 million for the biennium 1982-1983. The pledges to the subsequent biennia have been revised downwards, and those for the biennia 1988-1989 and 1990-1991 (see Table 2) do not match the purchasing power of the amount pledged almost ten years ago.

3.8. There is still no unanimous agreement about the scale according to which the contributions to the Trust Fund should be paid, although the vast majority of the countries participating in the Action Plan agree that the voluntary contributions to the Trust Fund be paid according to, a scale based on the scale of assessed contributions to the UN budget. The major anomalies are: the lack of any contribution from three States, two Territories and the European Economic Community since the establishment of the Trust Fund in 1982; the lack of contributions from 13 States and Territories in the period 1988-1991; the relatively low although regular contribution from Mexico; and the low contribution of the USA, which started to contribute only in 1990 (see Table 2).

3.9. When adopting the extension of the Trust Fund through 1993, the Fifth Intergovernmental Meeting on the Action Plan and Second Meeting of the Contracting Parties (Kingston, 17-18 January 1990) recognized that, despite the voluntary nature of the contributions, once the proposal for assessed levels was accepted by intergovernmental meetings, the acceptance implied a commitment on the part of the country participating in the Action Plan[61]. In reality, however, the agreed contributions to the Trust Fund are frequently not paid (only about 2/3 of the agreed contributions have been actually paid in the period 1988-1991) or, are paid with considerable delays (see Table 2), creating serious problems in the implementation of the Action Plan according to the agreed schedule.

3.10. The 13 per cent levied by UNEP as "programme support cost" on the amounts collected by the Trust Fund, remains a controversial issue, although UNEP's contribution to the co-ordination and management of the Action Plan seems to surpass the amount levied in this way.

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[60] Report of the Meeting. UNEP/CEPAL/IG.27/3

[61] Report of the Meeting. UNEP(OCA)/CAR IG.6/6

3.11. The use of the Trust Fund in supporting the projects which were "active" during the period analyzed in this document is shown in Table 3. Table 4 indicates that in the period 1988-1991 the average annual expenditures and commitments of the Trust Fund were about US$850,000, a figure considerably higher than the actual average annual contributions to the Trust Fund (about US$500,000) in the same period (see Table 2). The deficit between the income and expenditures was covered by contributions accumulated in the Trust Fund in the period 1985-1988, i.e. during the years of low activity. By the end of 1991 this reserve was practically exhausted.

3.12. The counterpart contributions towards the co-ordination and common costs, and implementation of individual projects is significant (see Table 3 and Table 4), but do not represent a steady and predictable financial contribution which would allow for long-term planning of activities (for example see sub-paragraph 1.13 (i), and concentration on priorities defined by the agreed workplan. It should be noted that the counterpart contributions to specific projects implemented by national institutions are frequently declared unrealistically, and are in most cases in the form of contributions in kind or in local currency.

3.13. Fund-raising for projects requiring cash beyond the financial capabilities of the Trust Fund and the Environment Fund, did not yield the expected results, at least not within the expected time-frame and in expected amounts. A further potential danger experienced with counterpart contributions was that in some instances they reflected the interest of donors rather than the priorities of the Caribbean Environment Programme. Therefore, uncritical acceptance of such contributions, either in the form of staff or cash earmarked for specific activities, may lead (and actually led) to unpredictable complications in the co-ordination of the Programme or distortion of priorities decided by the countries participating in the Programme.

3.14. In line with UNEP's policy, the support from the Environment Fund is channelled towards activities relevant as components of UNEP's global programmes which are not necessarily identical with regional priorities in each case.

Organizational problems

3.15. Due to the lack of universal adherence to the Convention by all States participating in the Caribbean Environment Programme, parallel arrangements had to be made to satisfy the specific interests and rights of the Contracting Parties without curtailing the full substantive participation of non-Contracting Parties in the Programme. These arrangements require extra efforts from the States participating in the Programme and from the secretariat in co-ordinating the Action Plan. Moreover, they frequently lead to ambiguous situations about the rights and "duties" of non-Contracting Parties in subjects such as negotiation of matters relevant to the legal framework of the Programme, contributions to the Trust Fund, and eligibility for membership in various subsidiary bodies created under the Convention and the Action Plan. These problems, as well as those related to the voting rights of States and Territories have prevented the adoption of the rules of procedure for the meetings and conferences convened in the framework of the

Programme, although they have been considered by several intergovernmental meetings[62].

3.16. The intergovernmental meetings, held to review the progress of the Action Plan and to decide on its future activities, do not devote sufficient time to the critical analysis of the achieved results, to the substantive evaluation of the completed and ongoing projects, and to the identification of weaknesses encountered in the implementation of the programme. Some of the key documents prepared by the secretariat on specific request of intergovernmental meetings[63] were barely noted without any comments from, intergovernmental meetings[64]. This situation is, at least partly due, to the late distribution of documents for the meetings, which does not allow sufficient time for their analysis before the meetings.

3.17. The workplans adopted by intergovernmental meetings are to a large extent overly ambitious. The timetable for their implementation is in most cases too optimistic, and the budgetary allocations do not match the funds available for their implementation. Consequently, the adopted workplans require frequent modifications or adjustments in order to meet time and funding realities. Projects, activities and programme areas (e.g. CEPNET) which heavily depended on (unrealistically) expected counterpart contributions in cash, suffered in particular.

3.18. In spite of the clear decision of the Fourth Intergovernmental Meeting on the Action Plan and First Meeting of Contracting Parties[65] (Guadeloupe, 26-28 October 1987) to concentrate the implementation of the Action Plan on activities of regional relevance addressing the common problems of the Caribbean region, reconfirmed by the next meeting of similar nature[66] (Kingston, 17-18 January 1990), there are recurring attempts from individual countries, to approve projects which have a narrow scope and doubtful regional relevance.

3.19. Some of the meetings convened under the Action Plan and Convention are organized according to an unrealistic time schedule which does not allow for timely preparation and distribution of the meetings' documents in all required languages, nor is sufficient time provided during the meetings to deal meaningfully with all agenda items. The negative financial implications of such meetings are considerable.

3.20. The volume of work expected to be carried out by the Regional Co-ordinating Unit is not in proportion with the staffing complement of the Unit. The core staff of the Unit is too small for the level of co-ordination required in light of the rapidly growing complexity of

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[62] Reports of meetings. UNEP(OCA)/CAR IG.4/4, IG.6/6, and IG.8/5

[63] Regional Overview of Environmental Problems and Priorities Affecting the Coastal and Marine Resources of the Wider Caribbean. CEP Technical Report No.2; The Action Plan for the Caribbean Environment Programme: Evaluation of its Development and Achievements. CEP Technical Report No.1

[64] Reports of the meetings. UNEP(OCA)/CAR IG.4/4 and UNEP(OCA)/CAR IG.6/6

[65] Report of the Meeting. UNEP(OCA)/CAR IG.2/4

[66] Report of the Meeting. UNEP(OCA)/CAR IG.4/4

the Programme. Solutions sought through secondment of staff from various States or organizations, or through hiring temporary professional staff to deal with specific projects, frequently did not yield satisfactory results. The attempt (unsuccessful for the time being) to ensure the co-ordination of a large regional programme (CEPPOL) through a long-term outposting of an IOC staff member to the Unit, has hampered the progress in this programme area.

3.21. The inadequacy of communication between various partners involved with the Caribbean Environment Programme is a serious issue which affects the Programme by delaying the approval of project documents, implementation of the agreed activities, and flow of information on the obtained results. This inadequacy is felt on all levels: within the Co-ordinating Unit., and in the relationship of the Unit with the Headquarters of UNEP, with UNEP's Regional Office for Latin America and the Caribbean, with the national focal points in various countries, as well aswith the counterparts in the international, intergovernmental and non-governmental organizations. The inadequate or ill-functioning communication systems and infrastructures are only part of the problem, which could be solved by the use of cost-effective public data networks to create continuous communication links between interested parties. However, no technical solutions alone can improve the present situation and replace the lack of imaginative and efficient use of existing systems, and the lack of interest in sharing information, or in co-ordinating mutually beneficial activities through consultations with potential partners.

Inadequate avareness, expertise and experience

3.22. Among the major factors constraining a more vigorous development of the Caribbean Environment Programme are:

- the lack of broader public awareness that environmental protection is the basic prerequisite for sustainable development;
- the inadequate awareness at the level of national administrations about the opportunities for, and advantages from, multilateral co-operation through regional programmes such as the Caribbean Environment Programme; and
- the shortage of adequate expertise and experience needed for the development and application of meaningful environmental protection policies at the national levels;

IV. TRAINING AND TECHNICAL ASSISTANCE PROVIDED THROUGH THE CARIBBEAN ENVIRONMENT PROGRAMME

4.1. Training on all levels, including training of educators, technicians, scientists, managers, and policy-makers, was clearly recognized in the long-term strategy of the Caribbean Environment Programme as a key element contributing to the overall goals of the Programme. Consequently, during the last four years training, education and public awareness was maintained as one of the five substantive regional programmes of the Action Plan (see paragraph 1.19), and is, for all practical purposes carried out through almost all projects and activities undertaken in the framework of the Action Plan.

4.2. The forms of training vary, depending on the type of training needed to achieve the specific goal, from individual training to group training provided through workshops, seminars and other type of meetings. It is estimated that about 700 individuals were trained in such way during the period 1988-1991, and that the total training period amounted to about 120 person/months.

4.3. Although training can also be considered as a specific form of technical assistance, the latter in the context of this document refers to assistance provided in the form of information, expert advice, or equipment. Aside from the routine distribution of information from, the Co-ordinating Unit, through the CEPNET programme in particular (see paragraph 1.17), in the period 1988-1991 twelve[67] person/weeks of experts, and equipment worth about US$57,000 were made available to the countries participating in the Caribbean Environment Programme.

V. FUTURE TRENDS

5.1. The achievements of the Caribbean Environment Programme in the period 1988-1991 were remarkable and far outweigh its shortcomings. Assuming that the positive trends will continue, a projection of the possible future development of the Programme is given in the ensuing paragraphs.

5.2. It is hoped that all eligible States, which have not yet done so, and the European Economic Community, will soon confirm their formal political commitment to the Action Plan by acceding to, the Convention, and the Protocol concerning Co-operation in Combating Oil Spills, and thus ensure that the Convention becomes a universally accepted legal framework for the Caribbean Environment Programme.

5.3. Likewise, it is hoped that the Protocol concerning Specially Protected Areas and Wildlife (SPAW) will be ratified, or acceded to, by a sufficient number of States to, ensure its entering into force by 1994. An intensified work in the framework of the agreed regional programme on SPAW would certainly contribute to an early implementation of the Protocol's provisions, regardless of the date of its formal entry into force.

5.4. The negotiation of a protocol on control of pollutants from land-based sources may take some time, because the formulation of the protocol's technical annexes will have to take into account, among other things, the results of CEPPOL yet to be obtained. Nevertheless, in view of the urgency of the problem and following the example of the SPAW Protocol, the States may adopt the protocol without some of its technical annexes, leaving the adoption of these annexes for a later date. In the meantime:

(a) the proposed interim environmental quality criteria for coastal waters, effluent guidelines, and standards/guidelines for the sanitary quality of bathing and shellfish-growing waters (see sub-paragraph 1.18 (d) and paragraph 2.7) could be considered by the Contracting Parties and adopted if found suitable; and

[67] This figure does not include the expert assistance provided by the staff of the Co-ordinating Unit.

(b) the technical work on the formulation of measures needed for the application of the protocol could proceed at the level of meetings of experts.

5.5 Further and stronger concentration of the Action Plan on the balanced implementation of five substantive programmes areas (see paragraph 2.2) approved as the backbone of the Caribbean Environment Programme, and their full development into a complex web of regional activities carried out through networks of co-operative institutions, could be expected. The Programme would gain in strength if suitable national or regional institutions could be identified, designated and used as regional activity centres for the co-ordination of specific activities. It is hoped that the awareness of the countries participating in the Programme about their priorities will prevent a biased development of the Programme resulting from uncritical adoption of priorities not shared by the majority of the countries from the region, or policies, measures, guidelines and criteria not suitable for them.

5.6 The present level of co-operation between the Programme and other regional or global programmes with similar or complementary objectives, should be expected to broaden, as it would contribute to the integration of the Action Plan into the global trends in environmental protection. The benefits from such co-operation would be mutual. The improved communication, on technical and human levels, between all relevant parties would be a basic prerequisite to achieving this goal.

5.7 With the intensification of the Programme, and assuming that it will deal successfully with the problems requiring regional co-operation among the States and Territories of the Wider Caribbean, the financial support to, the Action Plan, through the Trust Fund and various counterpart contributions, will be certainly forthcoming.

5.8 The Regional Co-ordinating Unit of the Caribbean Environment Programme, which against all odds managed to develop during its relatively short existence into a viable, semiautonomous mechanism for the day-to-day co-ordination of the Caribbean Environment Programme, will probably remain a unit with a small professional core staff, assisted by staff temporarily seconded from various Government structures or international organizations. Bureaucratic hypertrophy of the Unit (as well as the co-ordination and common costs) could be easily avoided by maintaining a high professional standard of the staff and by restricting the work of the Unit to activities which can not be assigned to, or performed by regional activity centres (see paragraph 5.5), national and regional organizations, or specialized agencies of the United Nations system.

TABLE I

Status of the Convention for the Development of the Marine Environment of the Wider Caribbean Region; the Protocol Concerning co-operation in Combating Oil Spills in the Wider Caribbean Region and the Protocol Concerning Specially Protected Areas and Wildlife in the Wider Caribbena Region
(as of 1st June 1992)

ELIGIBLE PARTIES	CONVENTION[1]	OIL SPILL PROTOCOL[2]	SPAW PROTOCOL[3]
Antigua and Barbuda	A	A	S
Bahamas	-	-	-
Barbados	S and R	S and R	-
Belize	-	-	-
Colombia	S and R	S and R	S
Costa Rica	A	A	-
Cuba	A	A	S
Dominica	A	A	-
Dominican Republic	-	-	-
European Economic Community	S	-	-

[1] *Adopted by the Conference of Plenipotentiaries on the Protection and Development of the Marine Environment of the Wider Caribbean Region in Cartagena de Indias on 24 March 1983. Entered into force on 11 October 1986; depositary of the Government of the Republic of Colombia*

[2] *Adopted by the Conference of Plenipotentiaries on the Protection and Development of the Marine Environment of the Wider Caribbean Region in Cartagena de Indias on 24 March 1983. Entered into force on 11 October 1986; depositary the Government of the Republic of Colombia*

[3] *Adopted by the Conference of Plenipotentiaries concerning Specially Protected Areas and Wildlife in the Wider Caribbean Region in Kingston on 18 January 1990; annexed adopted by the Conference of Plenipotentiaries for the Adoption of the Annexes to the Protocol concerning Specially Protected Areas and Wildlife in the Wider Caribbean Region in Kingston on 11 June 1991; not in force; depositary the Government of the Republic of Colombia.*

TABLE I (CONT'D)

ELIGIBLE PARTIES	CONVENTION[1]	OIL SPILL PROTOCOL[2]	SPAW PROTOCOL[3]
France	S and R	S and R	S
Grenada	S and R	S and R	-
Guatemala	S and R	S and R	S
Guyana	-	-	-
Haiti	-	-	-
Honduras	S	S	S
Jamaica	S and R	S and R	-
Mexico	S and R	S and R	-
Netherlands	S and R	S and R	-
Nicaragua	S	S	S
Panama	S and R	S and R	-
St. Kitts and Nevis	-	-	-
St. Lucia	S and R	S and R	-
St. Vincent and the Grenadines	A	A	S
Suriname	-	-	-
Trinidad and Tobago	A	A	A
United Kingdom	S and R	S and R	-
United States of America	S and R	S and R	-
Venezuela	S and R	S and R	-

S = SIGNATURE; R = RATIFICATION; A ACCESSION OR ACCEPTANCE

TABLE II

Agreed[1] and paid contributions (in US$) to the Trust Fund in the period 1988-1992
(as at 31 December 1992)

States and Territories	1988		1989		1990		1991		1992		1982[2] – 1992	
	agreed	paid	agreed	paid	agreed	paid	agreed	paid	agreed	paid	agreed	paid
Antigua and Barbuda	7,128	0	9,322	0	7,128	0	9,322	0	7,128	0	56,478	0
Bahamas	7,128	7,128	9,322	9,322	7,128	7,128	9,322	9,322	7,128	1,735	89,378	83,985
Barbados	7,128	7,128	9,322	9,322	7,128	7,128	9,322	9,322	7,128	7,128	89,378	89,378
Belize	6,500	6,500	8,500	8,500	6,500	6,500	8,500	8,500	6,500	6,500	81,500	81,500
Colombia	13,406	13,406	17,534	17,534	13,406	13,406	17,534	17,534	13,406	13,406	215,608	215,608
Costa Rica	7,755	0	10,143	0	7,755	0	10,143	0	7,755	0	97,245	24,774
Cuba	13,406	13,406	17,534	17,534	13,406	13,406	17,534	5,729	13,406	0	168,106	142,895
Dominica	7,128	7,128	9,322	9,322	7,128	7,128	9,320	9,320	7,128	0	89,376	82,248
Dominican Republic	8,383	0	10,964	0	8,383	0	10,964	0	8,383	0	105,118	0
France	162,487	162,487	212,513	212,513	162,487	162,487	212,513	212,513	162,487	162,487	2,037,487	2,037,487
Grenada	7,128	0	9,322	0	7,128	0	9,322	0	7,128	0	89,378	6,001
Guatemala	7,755	0	10,143	0	7,755	0	10,143	0	7,755	0	97,245	0
Guyana	7,128	7,128	9,322	9,322	7,128	7,128	9,322	9,322	7,128	2,198	89,378	84,444
Haiti	7,128	0	9,322	0	7,128	0	9,322	0	7,128	0	89,378	16,575
Honduras	7,128	7,128	9,322	9,322	7,128	7,128	9,322	8,647	7,128	0	8,378	81,575
Jamaica	10,832	10,832	14,168	14,168	10,832	10,832	14,168	14,168	10,832	0	135,832	125,000
Mexico	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	72,003	530,000	562,003

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[1] The agreement amounts listed in this table include amendments made by individual countries after the adoption of the scale of payment by the relevant intergoverrunental meetings.

[2] This column reflects the total contribution to the Caribbean Trust Fund over the life of the Trust Fund (1982-1992)

TABLE II (CONT'D)

States and Territories	1988		1989		1990		1991		1992		1982[2] – 1992	
	agreed	paid	agreed	paid	agreed	paid	agreed	paid	agreed	paid	agreed	paid
Netherlands												
- Aruba	6,500	6,500	8,500	8,500	6,500	6,500	8,500	8,500	6,500	0	36,500	30,000
- Neth. Ant.	7,128	0	9,322	0	7,128	0	9,322	0	7,128	0	130,08	61,450
Nicaragua	7,128	7,128	9,322	0	7,128	0	9,322	0	7,128	0	89,378	56,478
Panama	7,755	7,755	10,143	10,143	7,755	2,562	10,143	0	7,755	0	72,785	49,694
St. Kitts/Nevis	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	0	27,500	25,000
St. Lucia	6,500	6,500	8,500	8,500	6,500	6,500	8,500	8,500	6,500	6,500	81,500	81,500
St. Vinc./Gren.	6,500	0	8,500	0	6,500	0	8,500	0	6,500	0	81,500	45,000
Suriname	7,128	0	9,322	0	7,128	0	9,322	0	7,128	0	89,378	24,678
Trinidad & Tobago	8,383	8,383	10,964	10,964	8,383	8,383	10,964	10,964	8,383	4,433	105,118	101,168
United Kingdom												
- Anguilla	0	0	0	0	2,500	2,500	2,500	2,500	2,500	2,500	7,500	7,500
- British V.I.	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	60,500	60,500
- Cayman Islands	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	22,500	22,500
- Montserrat	2,500	0	2,500	0	2,500	2,500	2,500	0	2,500	0	27,500	0
- Turks & Caicos	4,500	4,500	4,500	0	4,500	4,500	4,500	0	4,500	0	29,232	11,323
U.S.A.	0	0	0	0	108,450	108,450	124,178	124,178	180,950	180,950	413,578	413,578
Venezuela	99,659	99,659	130,341	131,341	99,659	99,659	130,341	130,341	99,659	2,649	1,249,659	1,152,649
EEC	0	0	0	0	0	0	0	0	0	0	0	0
Sweden	0	0	0	0	0	0	0	0	212,585	212,585	212,585	212,585
Total	**503,729**	**435,196**	**640,489**	**537,807**	**614,679**	**529,325**	**767,165**	**641,860**	**899,764**	**685,070**	**6,887,004**	**5,988,860**

TABLE III

Project documents which served as the formal and financial basis for the implementation of the Action Plan in the period 1988-1991 (as at 31 December 1991) (The amounts indicated under the cost of the projects are in cash unless other-vise indicated)

Project number: CR/5102-86-04:

Title of Project: Promotion of the survival and recovery of endangered, threatened and vulnerable seas turtles in the Wider Caribbean region

Implementation: Monitor International/WIDECAST in collaboration with WIDECAST NGO Consortium

Duration: January 1987 - December 1990

Cost of the project (in US$):

to the Caribbean Trust Fund …….	27,000
to Monitor International /WIDECAST (in kind) ……..	318,000
TOTAL ……	**345,000**

Project Number: PP/CRI5102 87-02:

Title of Project: Development of environmental education and public awareness on marine and coastal resources management in the Wider Caribbean region

Implementation: The Caribbean Conservation Association (CCA)

Duration: August 1987 - January 1989

Cost of the project (in US$):

to the Environment Fund of UNEP ……...	20,064
to the Caribbean Trust Fund ……..	70,708
to CCA (in kind) ……	14,000
TOTAL ……	**104,772**

TABLE III (CONT'D)

Project-Number: FP/CR/JA/CP/5102-86-05:

Project Title: Support for the Regional Co-ordinating Unit for the Action Plan of the Caribbean Environment Programme

Implementation: Regional Co-ordinating Unit of the Caribbean Environment Programme in collaboration with: the Governments of Jamaica, USA and France; the Economic Commission for Latin America and the Caribbean (ECLAC) ; and the International Maritime Organization (IMO)

Duration: January 1987 - May 1991

Cost of the project (in US$):

to the Environment Fund of UNEP ……..	523,757
to the Caribbean Trust Fund …….	1,089,487
to the Government of Jamaica ……..	169,735
to the Government of Jamaica (in kind) ……..	67,800
to the Government of USA ……..	250,645
to the Government of France ……...	86,309
to the Government of France (in kind) …….	69,534
to ECLAC (in kind) …….	25,000
to IMO-(in kind) ……..	25,000
TOTA.L ……	**2,307,267**

Project Number: CR/5102-87-06:

Title of Project: Sub-regional oil spill contingency planning in the Wider Caribbean (Phase II)

Implementation: International Maritime organization (IMO)

Duration: September 1987 - October 1991

Cost of the project (in US$):

to the Caribbean Trust Fund …….	104,500
to IMO (including support from SIDA and the Government of USA)(in kind and cash) …….	121,661
**TOTAL …….. **	**226,161**

TABLE III (CONT'D)

Project Number: CR/5102-87-07:

Title of Project: Environmental management of bays and coastal zone in the Wider Caribbean

Implementation: UNESCO in co-operation with the Government of Cuba through the Cuban Institute of Transportation Research

Duration: September 1987 - December 1990

Cost of the project (in US$):

to the Caribbean Trust Fund …….	74,413
to UNESCO (in kind) ……	15,000
to the Government of Cuba (in kind) ……	236,000
TOTAL ……	**325,413**

Project Number: FP/CR/5102-87-08:

Project Title: Assessment of contamination by hydrocarbons and other pollutants in the south-eastern waters of the Caribbean Sea

Implementation: Government of Venezuela through the Ministry of the Environment and Renewable Resources (MARNR) in co-operation with the Division of Hydrology and Navigation of the Ministry of Defence

Duration: September 1987 - ongoing

Cost of the project (in US$):

to the Caribbean Trust Fund ……	190,000
to the Government of Venezuela (in kind) ……..	385,000
TOTAL……	**575,000**

TABLE III (CONT'D)

Project Number: FP/CR/5102-88-01:

Project Title: Assessment and control of marine pollution in the Wider Caribbean

Implementation: The Intergovernmental Oceanographic commission (IOC) of UNESCO in association with the Caribbean Environmental Health Institute (CEHI/CARICOM) , Government of St. Lucia, and the Pan-American Health Organization

Duration: April 1988 - December 1990

Cost of the project (in US$):

to the Environment Fund of UNEP ……..	134,767
to the Caribbean Trust Fund …….	132,532
to IOC (in cash and kind) …….	105,000
to CARICOM (in kind) …….	77,300
to Government of St. Lucia (in kind) ……	100,000
to PAHO (in kind) ……	50,000
TOTAL ……	**599,599**

Project Number: FP/CR/5102-88-02:

Project Title: Environmental management of coastal areas and terrestrial ecosystems influencing the marine environment of the Wider Caribbean

Implementation: Regional Co-ordinating Unit of the Caribbean Environment Programme, in co-operation with the Economic Commission of Latin America and the Caribbean (ECLAC), the Caribbean Conservation Association (CCA),and the Governments of France, Cuba, Jamaica and Guyana

Duration: January 1988 - ongoing

Cost of the project (in us$):

to the Environment Fund of UNEP …….	56,562
to the Caribbean Trust Fund ……	504,594
to ECLAC (in kind) …….	45,000
to CCA (in kind) ……..	37,300
to the Government of France (in kind) ……	689,665
to the Government of Cuba (in kind) ……..	131,500
to the Government of Jamaica (in kind) ……..	15,000
to the Government of Guyana (in kind) ……..	55,200
TOTAL ……	**1,534,821**

TABLE III CONT'D

Project Number: FP/CR/5102-88-04:

Project Title: Development and implementation of a common methodology for the assessment of the coastal water quality for the Wider Caribbean Region

Implementation: Instituto Nacional de los Recursos Naturales Renovables (INDERENA) of the Government of Colombia, in association with the Food and Agriculture Organization of the United Nations (FAO) and the Intergovernmental Oceanographic Commission (IOC) of UNESCO.

Duration: July 1988 - ongoing

Cost of the project (in US$):

to the Environment Fund of UNEP ……	14,871
to the Caribbean Trust Fund ……..	34,474
to FAO (in kind) …….	4,000
to IOC (in kind) ……..	24,000
to, INDERENA (in kind) ……	180,500
to 13 national institutions (in kind) ……	260,000
TOTAL …….	**517,845**

Project Number: CR/5102-89-01:

Project Title: Environmental training, education and public awareness for the advancement of appropriate management of marine and coastal resources in the Wider Caribbean

Implementation: Regional Co-ordinating Unit for the Caribbean Environment Programme in association with the Association of Caribbean Universities (UNICA), Ministerio del Ambiente y de los Recursos Naturales Renovables (MARNR, Venezuela) and the Caribbean Conservation Association (CCA)

Duration: January 1989 - ongoing

Cost of the project (in US$):

to the Caribbean Trust Fund ……	149,127
to UNICA (in kind) …….	63,000
to MARNR (in kind) ……	47,000
TOTAL …….	**259,127**

TABLE III CONT'D

Project number: FP/CR/JA/CP/5101-90-02:

Title of Project: Marine Pollution Assessment and Control Programme for the Wider Caribbean Region (CEPPOL): A joint IOC/UNEP Regional Programme

Implementation: Regional Coordinating Unit of the Caribbean Environment Programme and Intergovernmental Oceanographic commission of UNESCO in association with the national institutions of the region and with the support of IOCARIBE, USA/EPA, IAEA, IMO, WHO/PAHO and FAO

Duration: July 1990 - Ongoing

Cost of the project (in US$):

to the Caribbean Trust Fund ……	300,000
to the Environment Fund of UNEP …….	288,000
to the Government of USA ……..	80,000
to the International Oceanographic Commission of UNESCO ……	100,000
to national institutions …….	700,000
to IOC/IOCARIBE ……..	80,000
to the International Atomic Energy Agency ……	20,000
to the International Maritime Organization …….	15,000
to the Food and Agricultural Organization ……..	5,000
to the World Health Organization/Pan American Health Organization ……	5,000
**TOTAL …… **	**1,593,000**

TABLE III CONT'D

Project Number: FP/CR/JA/CP/5101-90-05:

Project Title: The Action Plan for the Caribbean Environment Programme: 1990-1995

Implementation: Regional Co-ordinating Unit of the Caribbean Environment Programme, in association with the Association of Caribbean Universities (UNICA); the Rosenstiel School for Marine and Atmospheric Studies, University of Miami; the Institute of Marine Affairs, Government of Trinidad and Tobago; and the Natural Resources Conservation Department of the Ministry of Development, Planning and Production, Government of Jamaica

Duration: October 1990 - ongoing

Cost of the project (in US$):

to the Caribbean Trust Fund ……	1,211,345
to the Environment Fund of UNEP …….	105,000
to the Government of Jamaica …….	102,222
to the Government of Jamaica (in kind) ……..	11,000
to the Government of France ……	54,000
to the Government of Netherlands ……...	61,273
to the Government of Sweden ……..	135,000
to the Government of USA ……	26,283
to the Conservation Treaty Support Fund …….	4,000
**TOTAL …….. **	**1,710,123**

TABLE IV

Expenditures and commitments (in US$) related to the implementation of the Action Plan in the period 1988-1991 (as at 31 December 1991)

(Expenditures represent the actual level of disbursement in a given calendar year; commitments represent budgetary allocation against which disbursements are authorized; counterpart contributions are in cash or kind.)

KIND	1988	1989	1990	1991	TOTAL
Trust Fund	771,474	817,043	708,701	1,116,098	3,413,316
Environment Fund	167,661	183,061	6,933	418,870	776,585
Counterpart contribution	941,038	2,182,600	312,880	301,282	3,737,000
TOTAL	**1,880,173**	**3,182,704**	**1,028,574**	**1,836,250**	**7,927,701**

TABLE V

Counterpart contributions in cash and kind (exressed in US$) to the implementation of the Action Plan in the period 198-1991 (as at 31 December 1991)

KIND	**1988**	**1989**	**1990**	**1991**	**TOTAL**
Coordination and common costs	116,877	241,524	135,218	201,944	695,563
Project cost	824,161	1,941,076	177,662	99,338	3,042,237
TOTAL	**941,038**	**2,182,600**	**312,880**	**301,282**	**3,737,800**