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C E P A L  
ECONOMIC COMMISSION FOR LATIN AMERICA  
JOINT UNEP/ECLA CARIBBEAN ENVIRONMENT PROJECT

INTERAGENCY MEETING OF THE CARIBBEAN  
ENVIRONMENT PROJECT  
(Mexico City, 23-25 August 1978)

PROVISIONAL REPORT

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## I. ORGANIZATION OF THE MEETING

### 1. Place and date

1. The Caribbean Environment Project Interagency Meeting, convened by the Economic Commission for Latin America, was held from 23-25 August 1978 at the United Nations offices in Mexico City.

### 2. Attendance

2. The following Specialized Agencies of the United Nations, attended the Meeting: International Labour Office (ILO); Food and Agricultural Organization of the United Nations (FAO); Intergovernmental Oceanographic Commission/United Nations Educational, Scientific and Cultural Organization (IOC/UNESCO); Pan American Health Organization/World Health Organization (PAHO/WHO); World Meteorological Organization (WMO); Intergovernmental Maritime Consultative Organization (IMCO); United Nations Industrial Development Organization (UNIDO); United Nations Development Programme (UNDP); United Nations Fund for Population Activities (UNFPA), and United Nations Department of International, Economic and Social Affairs (UNDIESA).

3. Also attending the Meeting as observers were: Organization of American States (OAS); Inter-American Development Bank (IADB); Caribbean Conservation Association (CCA), and International Institute for Environment and Development (IIED).

4. A complete list of the participants at this Meeting may be found in Annex II of this report.

### 3. Opening of Meeting

5. The opening ceremony of the Meeting took place on the morning of 23 August. Messrs. Daniel Bitrán, Ricardo Arosemena, Trevor L. Boothe and Arsenio Rodríguez represented ECLA. Messrs. Vicente Sánchez, Stjepan Keckes and Dominique Larré represented UNEP.

6. In his opening address Mr. Daniel Bitrán, Technical Coordinator of ECLA who served as Chairman, mentioned, inter alia, the reasons for ECLA's interest in the Joint UNEP/ECLA Project for Environmental Management in the Wider Caribbean Area. Firstly, ECLA is concerned with the integral development of the region, which must not be understood as simple growth, for it implies an improvement in the quality of life of the majority of the population, and this is directly related to the environmental realms. Secondly, because ECLA has two subregional offices covering the area: one in Mexico and the other in Trinidad & Tobago. The latter serving as Secretariat for the Caribbean Development and Cooperation Committee.

7. The Chairman emphasized that what ECLA expected from this Meeting were concrete results concerning the guidelines for overview studies, specifying contents, priorities, costs, etc. He urged the different institutions involved to offer the information at their disposal.

8. The Chairman's statement is attached as Annex I.

9. Mr. Vicente Sánchez, Director and Regional Representative of UNEP's Regional Office for Latin America, pointed out the importance of UNEP's Oceans Programmes and mentioned the success already attained in the Mediterranean. He explained that the Caribbean offered a great difference with the Mediterranean, because it is formed in large part by a group of islands - all of them with developing economies - and containing fragile tropical ecosystems. Mr. Sánchez underlined the participation of ECLA in this project and emphasized the need for the collaboration of the United Nations Agencies and the regional institutions as well as the utilization to the greatest extent possible of local human resources.

10. Mr. Sánchez' statement is attached also in Annex I.

#### 4. Adoption of the Agenda

11. The following agenda was adopted for the Meeting.

1. Opening of Meeting
2. Consideration and approval of Agenda and Timetable
3. Report on development of Joint UNEP/ECLA Project for Sound Environmental Management in the Wider Caribbean Background: Aims and Objectives

4. Discussion

4. Discussion of identified environmental needs; priorities
5. The Draft Action Plan, a preliminary model; the importance of the technical overviews in the formulation of concrete recommendations
6. Discussion and definition of terms of reference for the preparation of overviews
7. Procedural arrangements to initiate assessment work
8. Review and adoption of report
9. Closure of Meeting.

12. Following the adoption of the Agenda, the Project Coordinator Mr. Boothe and Scientific Expert Mr. Rodriguez made statements providing background information on the Project, and introducing the documentation which had been tabled.

13. Mr. Boothe referred to the request of a number of Caribbean States that UNEP undertake an evaluation and analysis of the environmental situation in the Wider Caribbean Area, and the subsequent activities commenced jointly by UNEP and ECLA to develop an Action Plan for sound environmental management in the area. Information was provided on the process of consultation and drafting which had been undertaken so far, by the Project Office, acting as a non-substantive coordinating unit. The statement is attached in Annex I.

14. Mr. Rodriguez introduced the documentation, a list of which is attached as Annex III. In concluding his statement, Mr. Rodriguez drew attention to the areas to be given special attention, namely: sewage, deforestation, soil conservation, housing, natural resources, tourism and development poles, oil pollution and, in general the environmental implications of development.

II. CONSIDERATION OF AGENDA ITEMS 4 AND 5

15. At the Chairman's invitation Mr. Rodríguez introduced agenda items 4 and 5, the reference documents for which were CEP/5 and CEP Adv. P 1/1 and Adda. 1 and 2.

16. Regarding the Draft Action Plan, Mr. Rodríguez, explained that it is a working document and that all the suggestions to improve it would be welcome. He mentioned that although there are wide differences in the degree of development of the 32 states consulted, they were all in agreement as to the necessity of an integrated approach to their economic development, including the environmental aspects. Among the series of problems to be tackled, he mentioned health hazards, natural disasters, water and land management, oil pollution, urban and beach pollution which is related to industrial activities, chemical toxics in food; local institutions lack public awareness for preventing pollution and educational programmes in the region.

17. Mr. Rodríguez urged the participants to state their points of view in order to improve the Action Plan, bearing in mind that eventually the governments concerned will determine the main priorities from among the recommendations which will be contained in the Action Plan to be presented to them.

18. The Chairman invited the distinguished representatives to comment upon the documentation which had been introduced, bearing in mind the statements made.

19. All participants expressed their readiness of their agencies and organizations in principle, to cooperate in the development of CEP.

20. One participant expressed reservations as to whether or not the time frame and resources were sufficient to permit the accomplishment of such an ambitious project.

21. Several participants emphasized that projects developed under CEP should be specific and detailed rather than general, as governments increasingly want very specific action plan proposals rather than generalized strategies, the latter being unacceptable.

22. One participant

22. One participant requested information on the relationship between workshops and overview studies. This information was provided.
23. Several participants requested information about the three workshops (Marine, Remote Sensing and Education and Media) referred to in the timetable and programme narrative (Document CEP/2).
24. The Coordinator informed the Meeting that the Marine Workshop would be held as a Joint UNEP/IMCO exercise in Cartagena, Colombia in November 1978. With regard to the Remote Sensing and the Media and Education Workshops, UNEP had advised that they could not fund these workshops during the biennium 1978-1980. CEP would therefore seek funding for these workshops from other sources.
25. Several participants stressed the importance of environmental education within the context of an activity such as CEP. The representative of UNEP explained that environmental education represented the second layer-budget line in the fund of UNEP, but that this line was already fully committed. The Coordinator explained that the Advisory Panel had proposed the inclusion in the Action Plan of a recommendation for environmental education to be included in the curriculum of the School Systems in the Wider Caribbean Area.
26. Most participants underlined the importance of adequate financial resources being made available for the preparation of the overview studies, and stressed the need for a clear picture of the financial implications of the overview studies proposed.
27. One participant inquired as to the total resources available for the preparation of the overview studies, and inquired how the Secretariat saw the allocation of resources among the overview studies. The representative of UNEP indicated that some US\$ 50 000 would be available, and suggested a figure of US\$5 000 per overview study. It was emphasized that UNEP's funds are nearly catalytic. Later in the Meeting, UNEP revised the figure of US\$50 000 upwards to US\$80 000.
28. One participant urged that the extent of the AID agencies investment in the Caribbean be determined, and an attempt be made to have such agencies to harmonize their investment with the project aims and objectives.

/29. One participant

29. One participant inquired as to the funding available to the Caribbean as compared to the funding which had been made available to other regions in which UNEP had similar projects, and inquired as to the rationale on which funds were distributed. The representative of UNEP in responding, stated that none of the other regions had received more in their preparatory phase, than the Caribbean. Details were provided on UNEP's activities in the Mediterranean and the Gulf.

30. The Coordinator pointed out that the Caribbean could not be compared to the Mediterranean and cited four points to support this statement:

a) The Caribbean is a poor under-developed area with a paucity of available data;

b) The focus of CEP is much wider than was the focus in the Mediterranean and the Gulf;

c) The geographic coverage of the Caribbean includes some 32 states.

31. Some participants gave information about the actual costs and man month inputs which had been involved in environmental studies which their agencies or organizations had undertaken.

32. Some participants emphasized that the re-statement of generalities in an action plan was not useful for the governments of the region, and that instead concrete recommendations should be formulated to provide guidelines for the preparation of projects susceptible of financing by international lending institutions in the implementation phase. In order to achieve these specific recommendations overview studies cannot be limited to desk studies.

33. The Coordinator responding to the participants concern regarding how substantive the studies should be, observed that if the intention was to provide governments with very generalized studies, then the Draft Action Plan already prepared could with minor modifications be presented to an inter-governmental meeting, in which case any further studies would appear to be unnecessary. If however, as had been his understanding, the intention was to provide the government with a meaningful, scientifically sound and relevant studies, then the overview studies should be undertaken in sufficient depth to enable the formulation of concrete guidelines for action.

34. The Secretariat proposed the creation of working groups to facilitate the redrafting of the terms of reference for the overview studies preliminary outlines of which were contained in document CEP/4.

35. The following Working Groups were established, and functioned with the support of the Secretariat.

	<u>Participating agencies</u>
<u>Working group I</u>	
a) Oil pollution in the Caribbean	WMO, IOCARIBE,
b) State of pollution in the Caribbean	UNIDESA, PAHO/WHO
c) Coastal ecosystems	UNIDO, IMCO
<u>Working group II</u>	
a) Environmental health	CCA, PAHO/WHO,
b) Human settlements and the environment	OAS, IIED, ILO
<u>Working group III</u>	
a) Tourism environment	UNIDESA, UNIDO
b) Coastal areas, environmental and development	
<u>Working group IV</u>	
a) Prospects for fisheries	FAO, OAS
b) Agriculture and the environment	
<u>Working group V</u>	
a) Energy implications of development	UNIDO, IIED
36. The Secretariat proposed that the Working Groups should focus on:	
a) Identification of the precise contents of each overview study;	
b) Determinations of different possible levels of analysis;	
c) Financial implications of studies to be undertaken at the different levels;	
d) Identification of likely participation by each agency.	

### III. CONSIDERATION OF AGENDA ITEMS 6 AND 7

37. After the terms of reference prepared by the five Working Groups were distributed among the participants, the Chairman invited comments on the floor. Several of the participants provided additional input to the overviews terms of reference. The Chairman then requested the consent for carrying out editorial adjustments in order to obtain a uniform format in the presentation of the final version of the overview outlines.

38. The Chairman indicated that the finalized terms of reference would be submitted by ECLA's Executive Secretary, Mr. Enrique Iglesias, to the different participating agencies with a request for confirmation within three weeks of their respective commitments.

39. One participant referred to his previous statement in which he had stated the need for an Action Plan containing definitive and concrete recommendations, a view which had been echoed by the project staff and several other participants.

40. He pointed out that because of the apparent limitation of funding available a decision had been taken not to proceed with the preparation of detailed studies but rather to concentrate on the preparation of desk studies which would slightly embellish the work already presented in the documentation tabled by the project staff. It was therefore his view that the generalized document which could now be expected would not require one year for its preparation.

41. He suggested that accordingly there should be an acceleration of the Timetable, particularly with regard to the meeting of government nominated experts who would be presented with the generalized documentation and requested to make their input to it. Should the government nominated experts require the preparation of a more detailed Action Plan, the request for the preparation of such a document and the related necessity for additional funding could be dealt with at that meeting.

REPORT OF WORKING GROUP I<sup>1/</sup>

Working Group I recommended the combination in a single overview study of the overviews for oil pollution and the state of pollution in the Caribbean. An outline of the contents of such overview with an identification of the participation of the agencies on each element was prepared as Annex.

1. General Description of the Caribbean and Adjacent Waters

General description of the Caribbean and adjacent waters:

- a) Dynamics (IOCARIBE)
- b) Ecosystem distribution (IUCN)

2. Sources, Kinds and Levels of Pollutants

- a) Oil
- b) Industrial waste (UNIDO)
- c) Sewage (PAHO)
- d) Agricultural run-off (FAO)
- e) Rivers (UNESCO)

3. Effects

- a) On human health (PAHO)
- b) On the ecosystems (IUCN, UNESCO, FAO)
- c) On socio-economic activities (PAHO, FAO, UN/DIESA)

4. Management of Pollution Problems

- a) Existing policies and managements practices (CEP/ROLA)
- b) Information needs (CEP/ROLA)

5. Recommendations

- a) Information
- b) Management
- c) Institutional development
- d) Feasibility of implementation

1/ WMO, IOCARIBE, UN/DIESA, PAHO/WHO, UNIDO and IMCO.

Annex

STATE OF POLLUTION IN THE CARIBBEAN; OIL POLLUTION, A CASE STUDY

1. Identification of Main Sources of Oil Pollution  
in the Wider Caribbean

- a) Distribution of offshore production areas (UNDIESA)
- b) Distribution of refinery centres (UNDIESA)
- c) Sources of chronic oil pollution (IMCO)
- d) Frequency of accidental spills (IMCO)
- e) Total estimated input (IMCO)

2. Oil Transportation

- a) Surface currents and winds in the Caribbean (WMO, IOCARIBE)
- b) Major sea lanes used by tankers (IMCO)
- c) Areas more likely to be impacted by oil spills (CEP/ECLA/UNEP)

3. Environmental and Economic Impact

- a) Most likely systems (CEP/ECLA/UNEP)
- b) Most vulnerable systems (CEP/ECLA/UNEP)
- c) Short and long range effects (FAO, IMCO)
- d) Effects to human health (PAHO)

4. Existing Legislation and Institutional Framework to Cope with Oil  
Pollution of Both National and Regional Levels (IMCO)

5. Recommendations for Action

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REPORT OF WORKING GROUP II-1/

I. ENVIRONMENTAL HEALTH

Revised Terms of Reference

1. Statement of the problem as it affects the region:

a) Review the main climatic and geographical considerations affecting environmental health conditions in the region, (WHO);

b) Review main environmental health factors, giving as available statistical information:

- i) Water supply
- ii) Sanitation
- iii) Solid waste management
- iv) Chemical pollution
- v) Undernourishment, malnutrition and food contamination
- vi) Working environment (ILO)

c) Review principal relevant health statistics, including mortality and morbidity patterns attributable to environment related diseases, with special reference to the following:

- i) Enteric diseases
- ii) Parasitic diseases (malaria, schistosomiasis, etc.)
- iii) Mortality under 5 years
- iv) Diseases prevalent in special groups

2. Recall goals and strategies in the environmental health area, as agreed in international or regional fora (United Nations General Assembly, UNCHE, HABITAT Conference, United Nations Water Conference, WHA, ILO, UNEP Government Council, OAS, CARICOM, etc.)

3. Review existing major national or international environmental health programmes and projects in the region.

1/ CCA, PAHO/WHO, OAS, IIED, and ILO.

/4. Identify

4. Identify gaps and shortcomings in knowledge and action.
5. Recommendations for action:
  - a) Detailed assessment of selected problems
  - b) Strengthening the ability of identified public and private institutions to deal with environmental health problems through:
    - i) Improved management practices
    - ii) Setting and enforcement of standards
    - iii) Education, training, information and community participation
6. Identify areas for international cooperation.

## II. HUMAN SETTLEMENTS

### Summary terms of reference

As per Draft Action Plan (Doc. CEP Adv. P.1/1, Ad.1 and Ad.2), paragraph 25 (b) and (c):

- (a) Assessment and evaluation of the present characteristics and future population trends with particular attention to elements of growth, distribution, density migration and taking into account cultural problems.
- (b) Assessment of existing coastal urbanization policies, and human settlements technology applied in the region, including building technology appropriate to the environment.
- (c) Assessment of the impact of tourism on the physical and cultural environment.
- (d) Recall goals and strategies in the human settlements area, as agreed in international or regional fora.
- (e) Implication for the region in terms of the lending policies of financial institutions.

#### Plus:

- A review of land use and land tenure policies.

Coordinator: PAHO, Washington

Financial implications: US\$10 000

Timeframe: two man-months

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REPORT OF WORKING GROUP III<sup>1/</sup>

COASTAL AREAS OF THE CARIBBEAN, ENVIRONMENT AND DEVELOPMENT,  
INCLUDING TOURISM

Problem as it exists in the Caribbean

1. Concentration of economic activity in a limited zone.  
Environmental impacts resulting from:
  - a) Interaction between sectors
  - b) Interaction with the environmentEconomic losses resulting from these interactions
2. Summary of major coastal development activities in the region
  - a) Tourism
  - b) Minerals
  - c) Water resources management (WMO)
  - d) Port and harbour development
  - e) Shoreline protection
  - f) Industrial activity
  - g) Conservation
  - h) Scientific research
3. Existing mechanisms within countries for regulating coastal economic development
  - a) National planning agencies
  - b) Departments of environment or of natural resources
  - c) Co-ordinating agency
  - d) Coastal management programme

1/ UN/DIESA and UNIDO.

4. Obstacles to comprehensive management of coastal development.
  - a) Insufficient and static data base
  - b) Inadequate institutional and legal arrangements
  - c) Lack of a methodology for incorporation of environmental valuation into the assessment of development projects
5. Recommendations for implementation phase:
  - a) Field survey of coastal area economic development activities within the region. This survey would project growth rates of different economic sectors and flag potential adverse environmental impacts.
  - b) Mapping of regional distribution of coastal environments (mangroves, seagrasses, etc.) and resources using remote sensing and aerial survey.
  - c) Workshop to develop a uniformly applicable methodology for incorporation environmental parameters into evaluation of economic development projects.
  - d) Development of a multi-disciplinary curriculum in coastal environmental management to be taught in universities in the region.
6. Resources required for preparatory phase:

US\$ 12,000.00

REPORT OF WORKING GROUP IV<sup>1/</sup>

AGRICULTURE AND FISHERIES IN THE ENVIRONMENT IN THE WIDER CARIBBEAN AREA

Introduction

Environment includes all the activity sectors of the rural area, although agriculture cannot be considered isolated, therefore the approach must be one of integrated rural development encompassing agriculture, cattle, fishery, forestry and their relations with the other social, economic and institutional sectors.

Many of the concepts considered in this study are valid for agriculture and also for fishery, having discussed both simultaneously.

An important point for the sector's study is to consider that many projects being done already exist, as well as local, regional and international institutions who dwell on this matter directly or tangentially, so that it is important to avoid duplications of efforts, for which a close coordination has to be made between all of them.

I. AGRICULTURE

1. Agriculture, fishery and food production
  - a) Production relation with food necessities<sup>2/</sup>
    - i) Inventory of actual production
    - ii) Production potential
    - iii) Food requirements
    - iv) Population and its growth; and
    - v) Forms of utilization of food products
2. Use of natural resources
  - a) Water
    - i) Location of sources
    - ii) Utilization and distribution techniques

1/ FAO and OAS.

2/ Points of higher priority for specific projects.

- b) Woods
    - i) Location
    - ii) Vegetation strata
    - iii) Exploitation techniques (felling and reforestation)
  - c) Natural pastures
  - d) Sun, wind (see technologies)
  - e) Land<sup>3/</sup>
    - i) Actual use
    - ii) Potential use
    - iii) Uncultivated usable land
    - iv) Improper use of land
  - f) Climate
3. Technologies<sup>4/</sup>
- a) Production techniques which affect environment
    - Burning of woods and brushes (in woods and cultivating lands).
    - Burning of sugar cane.
  - b) Related to production increase
    - i) Pesticides and herbicides
    - ii) Fertilizers
    - iii) Post-harvest alimentary losses
    - iv) Mechanization and use of adequate technologies
    - v) Land use: rotation and distribution of crops
  - c) Erosion
  - d) Equilibrium between cattle and agricultural use
  - e) Utilization of waste, as fertilizers and as raw materials for other products
  - f) Utilization of energy resources: sun, wind; waste of energy study

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3/ Points of higher priority for specific projects.

4/ Ibid.

4. Equilibrium between man and the environment
  - a) Relation between the sector and human settlements (see subject on human settlements)
  - b) Equilibrium between agriculture and handicraft
  - c) Equilibrium between agriculture and industry (we feel that a general study about the industrial sector and the environment should also be considered)
  - d) Institutionalization and management of agricultural policy
  - e) The role of the organizations in rural development and in the diffusion of the environmental programme
  - f) Education and training requirements
5. Necessary resources
  - a) Utilization of existing projects
    - i) Inventory
    - ii) Coordination
  - b) Relation of institutions operating in the sector: (FAO, SADB, OAS, UNICEF, ILO, UNDP, IBRD), bilateral projects and non-governmental organizations
  - c) Human resources required
    - i) Agronomist
    - ii) Sociopedagogue
    - iii) Economist
    - iv) Extensionist
    - v) Specialists (consultants)
      - Nutritionists
      - Environmentalists
      - Ecologists
      - Aquaculturists
      - Forest specialists
      - Specialist in natural resources
      - Specialist in soft technologies
      - Specialist in administration and managing

## II. FISHERIES<sup>5/</sup>

1. General characteristics of Caribbean fisheries:
  - a) Production and consumption figures
    - i) Research on high yield species and their production process
    - ii) Inventory
  - b) Geographical distribution of resources (analysis of the abundant material existent on this subject)
  - c) Social and economic importance
  - d) Selective fishing is generalized
    - i) Utilization of "accompanying fishing". Its negative and positive consequences related to environment.
2. The resource potential  
Present state of stocks (resources exploited at present and potentials)
  - i) Coast lines. Artesanal fishing is appropriate for the Caribbean coasts, but there is a severe environmental impact in utilizing only partially the production of this fishing.
  - ii) Aquaculture<sup>6/</sup>
    - Field of great potential
    - It requires specific studies in order not to affect the environment
    - Pelagic fisheries. It is practised in relation to fish flour of high polluting degree. However, the existing amount in the area does not justify the settlement of these industries.
3. The need for environmental management
  - a) Effects in the environment due to the semi-industrialization of the increase of production
  - b) Effects of human activities and pollution on living resources and on fishery, with particular reference to coastal zones. (This item to be related with sea and ports pollution).

<sup>5/</sup> The introduction and the first point are applicable both to the agriculture and fishery sectors.

<sup>6/</sup> Items of highest priority for specific projects.

- c) Assessment and evaluation of presently applied technologies
    - The present technology is very primitive and more than 40% of the collection of fishing products is wasted; because of its inadequacy it is highly polluting as well.
  - d) Overview of existing institutions and programmes for fisheries management and development in the Caribbean
  - e) Elaborate a study of equilibrium between the artesanal process sacrificing quality and nutritional value versus a semi-industrialized process with the consequent problems of pollution
4. Recommendation for action
- a) Management and development schemes of urgent need<sup>7/</sup>
  - b) Organizations
  - c) Appropriate technologies
5. Neither the timeframe nor the responsible agency nor the financial implications have been specified.

7/ Items of highest priority for specific projects.

Note: For aquaculture aspects there must be a coordination with the projects of FAO: 1) WECAP (Regional Organization with Headquarters in Panama) and 2) World Aquaculture Project (Rome).

/REPORT

REPORT OF WORKING GROUP V<sup>1/</sup>

ENERGY AND THE ENVIRONMENT<sup>2/</sup>

1. Statement of the Problem as It Affects the  
Wider Caribbean Area

a) Energy resources are unevenly distributed - Heavy reliance on imported sources.

What is the breakdown of renewable and non-renewable sources presently used as well as potential sources?

b) How will demand be met in the future (up to year 2000?) as oil gets scarcer and more expensive and energy is needed for development?

c) Indigenous resources of countries are not known.

d) Consideration of environmental effects of current patterns (e.g. use of fire wood and effects on erosion).

2. The Use of Existing Resources

a) What is energy consumption in the region by country and type? (data exist). Amounts spent on energy for the formal sector.

b) What are existing typical alternative strategies?

i) Favoring development of energy for industrial sector;

ii) Use of energy to meet basic needs.

3. Standards and Criteria

a) Government policies regarding exploration and exploitation of non-renewable and renewable resources.

b) Do policies exist that would assess energy availability prior to selection of development objectives which will require new energy resources?

1/ UNIDO and IIED.

2/ The outline is premised on the realization that in the overview only a sketch of the present and future energy problems and how to best meet them can be expected, given the financial resources and limited data available.

#### 4. Gaps

a) Survey of future energy needs demand for the region, including domestic, industrial, agricultural and commercial sectors.

b) Strategies of how to meet needs.

Recognition of possible special technical solutions for island states.

c) Need for information of energy alternatives and how to develop indigenous sources.

d) Need for institutional capability at national and regional levels for research, training, and new technology development.

e) Understanding of energy use in relation to social structures in the area.

f) How to restore forest and eroded areas.

#### 5. Recommendations

The overviews should state concrete recommendations which although in preliminary form, can be more fully evaluated during the implementation phase. They should address ways of filling the gaps (4: a) - f)) and quantify the resources (human and financial) needed.

#### 6. Proposed participating agencies

a) Who can do the study? UNIDO, IIED (as part of a possible energy study). ILO can assist in the uses of appropriate technology and training techniques. CNERET will review paper. OAS is interested in use of non-conventional sources.

b) Time frame: completed March 31, 1979

c) Cost: US\$ 5 000 - 8 000 for a desk study with no travel.



Annex I

STATEMENTS PRESENTED AT THE MEETING



STATEMENT PRESENTED BY MR. DANIEL BITRAN, TECHNICAL  
COORDINATOR, MEXICO OFFICE

Distinguished representatives of the agencies of the United Nations family, distinguished delegates of other agencies working in the Caribbean Area, Mr. Trevor Boothe, Project Coordinator, Mr. Arsenio Rodríguez, Scientific Expert, colleagues.

It is my pleasure to welcome you on behalf of Mr. Enrique Iglesias, Assistant Secretary General and Executive Secretary of the United Nations Economic Commission for Latin America. The celebration of this meeting and your presence here marks another step forward in the evolution of the Joint UNEP/ECLA Programme towards the objective of achieving an action plan that will apply in the Wider Caribbean Area.

ECLA's desire in sponsoring, jointly with UNEP, the project for Sound Environmental Management in the Wider Caribbean Area derives from two main reasons. In the first place, there exists a growing concern within ECLA Programme of Work for promoting the concept of integral development within the region, conceived as a completely different process from that of a mere process of growth. In other words, development cannot exist if it does not ultimately improve the level of income and the quality of life of the majority groups of the population. Also, a growth which dynamism is based on the indiscriminate utilization of the natural resources and on the deterioration of the habitat risking thus the welfare of future generations, cannot be considered a successful one.

On the other hand, the interest, which prevails today, in tackling this project for the Wider Caribbean Area, lies in the fact that it is a geographic region where the Commission has two subregional offices; one in Mexico with jurisdiction over Mexico and Central America and the other in Trinidad and Tobago which covers the greater part of the Caribbean countries. The latter serves as Secretariat for the Caribbean Development and Cooperation Committee.

/The studies

The studies and analysis arising from this project as well as the collaboration to be offered by the agencies concerned, will be a very useful source of background material for the work ECLA carries out through these two regional offices. Our Commission has been assisting in the Central American integration process for quite a few years and has provided technical assistance to Panama in which development the environmental variable is of fundamental importance.

The agencies' representatives, here today, have before them a set of documents - previously delivered to their corresponding agencies - which are a result of the project-team work and reflect a series of consultations to the governments and agencies operating the region. In this set you will find the preliminary programme of action, duly revised by a high-level advisory panel of regional experts. However, the most important issue at this meeting is the set of proposals we are submitting and which deal with a number of studies and actions forming an integral part of this programme. These suggestions are considered by the governments to be of absolute priority if we are to reach the fundamental objectives of the programme, that is, an "environmentally-sound development process". These series of proposals were sent to the agencies represented here today, and have received from many of them very valuable suggestions which are being introduced. The primary objective of this meeting is thus, on the basis of the overview activities suggested in the respective documents, that the representatives from the different agencies, the United Nations system and other international bodies who are honoring us with their presence here today, must contribute with the drawing up of specific guidelines for the execution of these overview studies, which should include inter alia: contents; priorities, its real participation, estimated costs - its financing - and, if deemed appropriate, the possibility of integrating one or more sectoral studies.

Within this context it would also be extremely useful for the meeting to become familiar with the nature and magnitude of the projects, especially the regional ones, which the respective agencies are either carrying out or are planning to tackle in the geographical area of our programme.

/I urge

I urge you thus, at this meeting, to provide us with this information, under the understanding that you so will, by concentrating on those particularly relevant actions or those leading to the priorities of the overview studies contemplated in the Plan of Action. At the same time, it would be extremely useful if the Coordinator of this Project, could count, as of now, on the text of such studies so far completed.

Responsive actions must be identified both for the immediate future and for the longer term. Appropriate implementation or selection of these actions must be based not only on the importance of the environmental problems being addressed, but also on the likelihood of success in the responses; therefore, consideration should be given to the capability of the countries of the region to implement the actions proposed.

The taking up of the complete set of studies and actions leading to the ultimate objective of this programme, is a very big task and requires of financial and human resources which, naturally, go much beyond those contemplated in the Joint UNEP/ECLA Caribbean Environmental Project. It is important to emphasize this fact. We have embarked on an initial phase in which the resources are limited and the deadlines already set. This forces us to be very selective in the solution of the existing problems which are of very high priority and which may result in the culmination of a clearer understanding of the roots and magnitude of the environmental problems of the Wider Caribbean Region. But this work is necessarily circumscribed. The ultimate objective which is to obtain a real sound managing of the environmental situation, is long-term one and the participation of the agencies operating in the area is of fundamental importance.

It is thus hoped that during this event, in addition to meeting with the objectives set in the agenda, the debate at the meeting will provide valuable outlines, for the agencies to include in their long-term programmes, on those actions and technical assistance tending toward a style of development in which the environmental variable is adequately incorporated.

Finally, I wish to express my deepest feeling that this meeting will result in a very effective contribution for the future stages of this project in which success all of us here today are involved.

**SUMMARY OF THE STATEMENT PRESENTED BY MR. VICENTE SANCHEZ, DIRECTOR AND REGIONAL REPRESENTATIVE UNEP REGIONAL OFFICE FOR LATIN AMERICA**

I would first like to welcome you on behalf of the United Nations Environment Programme to this Interagency Meeting to prepare for the Caribbean Environment Plan of Action.

I imagine that all of you are aware that UNEP has a Regional Seas Programme. This Programme started really with work at the Mediterranean and we can now count the Mediterranean Programme as a success story for UNEP. A success achieved with the help of the sister organizations of the United Nations.

Following up on the example of the Mediterranean programme and of the specific and reiterated requests of governments from the subregions of the Caribbean in their Governing Council of UNEP, a decision was taken to start the Caribbean Environment Programme.

Nevertheless and although I have mentioned that this Caribbean Programme started as the follow-up to the Mediterranean Programme of UNEP, we have to stress that there are very different characteristics between the two regions. On the one hand, the Caribbean is a developing region which has the only country of the Latin American Group that belongs to the corps less developed countries. And from an ecological point of view, it has dominantly tropical ecosystems and island territories, in other words, we face here very fragile ecosystems.

In order to face the realities of the Caribbean, the central focus of this Programme as compared with the Mediterranean, is basically on development and the needs for environmental management for sound development. We cannot as yet see if there is environmental crisis in the Caribbean area and therefore we are still in time to prevent through environmentally sound development of possible future crisis of this type.

In fact that this focus, then, of the project is environment and development explains why UNEP decided to select as the cooperating agency ECLA, which has the long standing prestige for the work done for development in the region.

/I would

I would also like to mention that governments have requested that this Project or Programme be carried out as much as possible, with human and institutional resources from the regions. This makes a lot of sense if we remember, what I mentioned of the special characteristics from an ecological point of view. It is clear that the highly developed countries have little or no experience in dealing with tropical existence and therefore TCDC gained in importance when considering the Caribbean region. Experiences in countries of the region may be extremely useful for other countries in the same region.

Finally and in keeping with the UNEP's philosophy and mandates, I would like to emphasize how important we think that the cooperation of the United Nations System Organizations and of other international organizations acting in the region is, in our view for the success of the Caribbean Programme. We welcome your participation in this Meeting and your collaboration.

With these ideas in mind and, let me add, with a very good documentation for which I congratulate Mr. Boothe and Mr. Rodriguez, I would like to wish you all the greatest possible success in the work you start today. I hope that by the end of this Meeting the role of each of the agencies and organizations represented here and the contribution that each one can make to what the Plan of Action and sound environmental management of the Wider Caribbean Area, will be cleared.

Thank you very much.

STATEMENT PRESENTED BY MR. TREVOR L. BOOTHE, COORDINATOR  
UNEP/ECLA CARIBBEAN ENVIRONMENTAL PROJECT

In 1976 several states of the Wider Caribbean Area, members of the Governing Council of UNEP, requested UNEP to undertake an evaluation and analysis of the environmental situation in the Wider Caribbean Area.

To determine specific requirements, a series of consultations were undertaken with the approximately 32 Governments of the Wider Caribbean Area and you the Agencies. We also consulted the expertise available in many institutions and certain NGO's in the area.

Those consultations which were extensive, resulted in the formulation in February 1977, by UNEP in cooperation with ECLA acting as the principals, of the present Project under which we are operating, Project FP 1000-77-01.

This provided the basis for the development late last year of preliminary designs for the Project. That activity was undertaken during 1977 on the basis of further consultations with the Governments and you the engineering experts, as to specific priorities.

Those consultations and the priorities which emerged, facilitated the preparation of a preliminary blue print for the development of the Caribbean Project. The blue print has since then been reviewed by two boards, both of which approved it with minor modifications. The first board comprising the principals, UNEP and ECLA, reviewed the blue print at a joint programming session in February of this year and approved it. The second review board consisting of high level experts from the region - the Advisory Panel - was familiar with the Government's requirements and particulars, they reviewed and endorsed the blue print in April of this year.

Since that time we have undertaken further consultations with the Governments as to the suitability of the Project design for their purposes and I am now able to inform you that the response has been overwhelmingly positive.

/In addition

In addition, the process of consultation with you the Agencies - the engineering experts if you will - has been continued as we consulted with you on whether or not you considered the design approved by the principals, the review board of regional experts, and the Governments, to be feasible of development. We have benefitted much from your perspectives which have reflected your expertise in the various component parts of the Project which we hope to develop working in cooperation with you.

I believe it will be clear from the sequence of events which I have recounted, as well as from the documentation for this meeting, which has been in your hands for some months now, that we at the Project Office, which is merely a coordinating and not a substantively operational unit, have endeavoured by means of a methodical, and at times slow, process of consultation and drafting, to find an acceptable design. The documentation before you, contains that design, and I shall shortly request my colleague Arsenio Rodríguez, who as the Project Scientific Expert, has played a very major role in developing the design, to introduce the documentation to you.

This meeting is the next step, towards the development and presentation of the finalized model. It is hoped that by meeting here with you in these next three days, we will be able to determine in consultation with you, how best we can cooperate together and arrange for the substantive work which is now necessary, so as to enable us to present the finalized model to the Governments, without undue delay. In order to achieve this objective, we should use the time now at our disposal to arrive at an agreement as to who can do what, under which terms and conditions, and when. I believe that in addressing these issues, there must be a careful and realistic examination of development time, cost and benefit, for all the parties concerned.

I would also wish to urge that in our discussions, we maintain in a paramount position, the necessity for this project, which was requested in the first place by the Caribbean Governments Members of UNEP's Governing Council, to respond to the perceived and clearly stated needs of the Governments, in this important region containing as it does some 32 states, 98% of which must by any criterion be classified as developing countries.

/In concluding

In concluding may I remind the Meeting, that it is the wish of the Governments, that this Project focus on the twin issues of environment and development, in the preparation of a multisectoral integrated Plan of Action for environmental management in the region. It is their wish that we present them with an Action Plan to assist them in integrating environmental considerations into the process of planning and development both at national, bilateral, and multinational levels. This requires an interdisciplinary approach, let us therefore remember that this is not a unisectoral project and that in meeting wishes of the Governments of the wider Caribbean Area, we will inevitably be required to adopt some new approaches, to meet the Projects somewhere different conceptualization.

Given the new approaches even now being implemented within the United Nations System as a whole, as a result of the reorganization process now underway, and given the new and important emphasis being placed on technical cooperation among developing countries with the TDCD Conference to be convened in Buenos Aires next week, I am confident that we the agencies and organizations of the United Nations System, can meet the challenge which the request of the Governments of the Wider Caribbean Area implies, for the preparation of a multisectoral integrated Plan of Action for Environmental Management in the Wider Caribbean Area.

We in the Project Office, as the coordinating unit for this exercise are ready to continue working with you for the attainment of that goal.

With your permission Mr. Chairman, I will now request Mr. Rodríguez to introduce the documentation tabled for this meeting, documentation which has taken account of many of the points I have touched on in my presentation.

Thank you.

Annex II

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Annex III

LIST OF DOCUMENTS

1. Timetable and Programme Narrative (CEP/2)
2. Flow Chart (CEP/3)
3. Documentation List
4. Draft Agenda
5. Draft Action Plan as revised by Advisory Panel Members with Addendums 1 and 2 (Preface and Forward to the Draft Action Plan - Jack Noble) (CEP/Add.P/1/Ad.1 and Ad.2)
6. List of Officials and Organizations contacted during CEP Consultations (Partial List) (CEP/Info 2)
7. Preliminary List of Institutions and Organizations in the Caribbean relevant to the CEP/Info 3
8. Background Information on the Wider Caribbean Area - Dr. Mel Gajraj (CEP/Info 1)
9. Overview Studies (CEP/4)
10. United Nations Activities Relevant to the Caribbean Environmental Project (CEP/Info 4)
11. Geological Hazards and Risk Mitigation (CEP/Info 6)
12. Institutional Structure (CEP/Info 7)
13. Advisory Panel Report (CEP/Adv. P 1/2)
14. Working Document for Interagency Meeting on Caribbean Environment Project (CEP/5)
15. Provisional Agenda (CEPAL/MEX/CEP/I/1)
16. Report of Working Group I
17. Report of Working Group II
18. Report of Working Group III
19. Report of Working Group IV
20. Report of Working Group V

