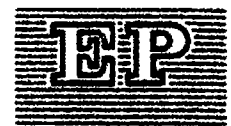




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THE ENVIRONMENT PROGRAMME: PROGRAMME PERFORMANCE  
REPORT JANUARY-APRIL 1981

Report of the Executive Director

INTRODUCTION

1. The material in this addendum deals with important developments that have taken place in the programme between January and April 1981. The text follows the sequence of document UNEP/GC.9/5 and identifies the chapter and section concerned. Accordingly, the headings in this addendum do not necessarily run consecutively, since they reproduce those of the programme performance document, and not all sections require the inclusion of additional material. The omission of a particular section does not, of course, mean that there has been no progress in the area concerned but simply that the basic text of document UNEP/GC.9/5 does not require updating.

2. Annexes I-III contain suggested action by the Governing Council in relation to soils policy, marine mammals and environmental law respectively. The various annexes are referred to in the text as appropriate.

3. It has not been possible to discuss the draft of this addendum with members of the United Nations system and other organizations; the information it gives may not, therefore, be complete in every respect.

## Chapter I

### ENVIRONMENTAL ASSESSMENT

#### A. THE GLOBAL ENVIRONMENTAL MONITORING SYSTEM (GEMS) (budget sub-line 1301)

##### 1. Resource monitoring

4. GEMS data from the UNEP/FAO pilot project on tropical forest cover monitoring are being currently used by the Government of Togo and various aid organizations in West Africa for regional planning of resettlement in onchocercosis-affected areas.

5. The proceedings of an International Workshop on Aerial Surveys organized in late 1979 by the Government of Kenya with support from UNEP and ILCA have been published. Aerial surveys, in particular systematic reconnaissance flights, are a key data collection component in the GEMS renewable resource monitoring programme.

##### 2. Climate-related monitoring

6. The number of countries participating in the Background Air Pollution Monitoring Network (BAPMON, now part of the climate-related monitoring project <sup>1/</sup> stand at 71 and the number of operational (or partly operational) baseline, continental and regional stations at 150 (see Figure 1). A further sixteen countries are considering participation which would bring the total number of stations to 181.

7. A report has been published on the status of the World Glacier Inventory as of December 1980. <sup>2/</sup> The Inventory is now part of the climate-related monitoring programme.

##### 3. Health-related monitoring

###### (a) Global water-quality monitoring

8. The sixth course on water quality monitoring <sup>3/</sup> organized by UNESCO on behalf of UNEP and WHO at Dakar in January 1981, was attended by representatives of 10 West African countries; they discussed the GEMS water quality monitoring methodology and the possibilities of establishing such monitoring in West Africa.

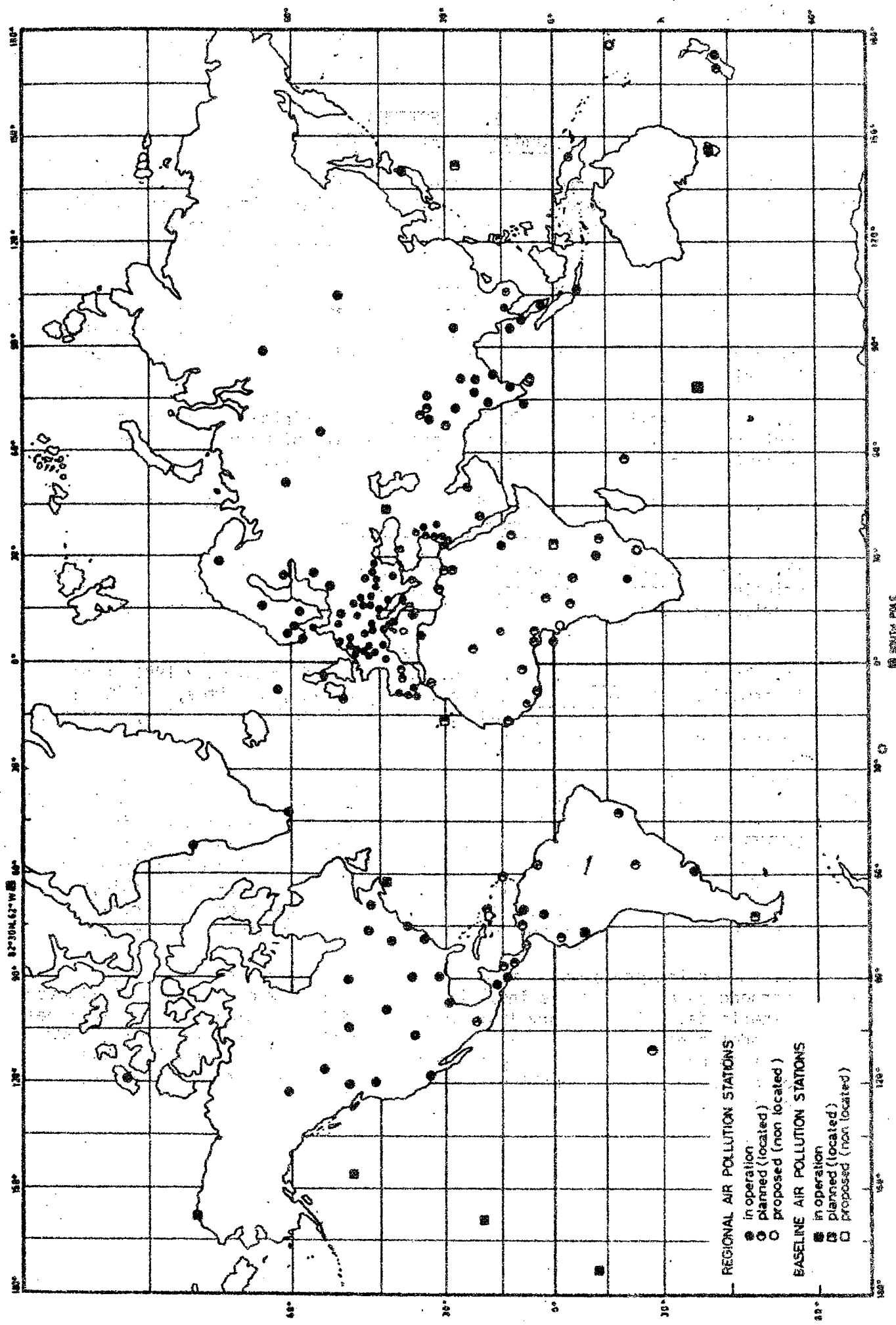
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<sup>1/</sup> FP/1301-80-01.

<sup>2/</sup> Serler, K.E. (1980-Report on World Glacier Inventory. Zurich: ETC.)

<sup>3/</sup> FP/1301-76-05.

GLOBAL ENVIRONMENT MONITORING SYSTEM  
Present Stage of WMO/UNEP Network for Monitoring  
Background Air Pollution



B. INFOTERRA  
(budget sub-line 1302)

9. Some 100 new sources were added to the INFOTERRA Directory and another 600 were updated. The 1981-1982 biennial edition of the INFOTERRA International Directory of sources of environmental information was published in January 1981, listing 8,500 institutions from 77 countries.

10. As part of the network development programme, INFOTERRA staff visited 13 countries and provided consultancy services to national focal points on problems relating to INFOTERRA operations in their respective countries. The national focal point of China was trained for two weeks in Nairobi in April 1981.

11. A presentation on INFOTERRA activities in Africa was given at the Environmental Training Workshop on the Analysis of Heavy Metals and Pesticide Residues (Dar-es-Salaam, 9-20 March 1981).

C. INTERNATIONAL REGISTER OF POTENTIALLY TOXIC CHEMICALS (IRPTC)  
(budget sub-line 1304)

12. Two more European countries have appointed National Correspondents, bringing the total to 98 Correspondents from 90 countries. Eleven more queries were received, requesting information on over 55 chemicals or groups of chemicals.

13. The IRPTC Bulletin, Vol. 4 No. 1, published in January 1981, contains information on, inter alia, benzene, formaldehyde, nitrites, and PCBs; the work of IPCS and IARC; and legislation in Australia, China, Germany, Federal Republic of and Kuwait.

14. The second meeting of the Technical Committee of the International Programme on Chemical Safety (IPCS) (Geneva, 2-4 February 1981) reviewed, inter alia, the plan of work for 1981-1982 and progress reports from lead institutions. Criteria for the designation of participating institutions were developed, as well as guidelines on the preparation of environmental health criteria by lead institutions. IRPTC will be co-responsible, with the Central Unit of IPCS and ILO, for the development of appropriate procedures for dissemination of information in the context of IPCS.

15. A working group on contingency planning for, and response to, emergencies and accidents involving potentially toxic chemicals (Bilthoven, Netherlands, 9-13 February 1981) recommended the development of guidelines on model contingency plans and on rehabilitation of affected areas. WHO was also requested to develop guidelines on "emergency tolerance limits" for assisting decision-making on evacuation in cases of accidents involving chemicals.

16. At its fifth meeting (Geneva, 16-20 February 1981) the Scientific Advisory Committee of IRPTC reviewed progress in: data profile developments; the query-response service; contacts with national correspondents; IRPTC's involvement with the International Programme on Chemical Safety (IPCS); and IRPTC's assistance in establishing national registers. For more information, see Report to Governments No. 30.

17. In response to Governing Council decision 8/8, on transboundary transport and disposal of hazardous chemical wastes, a joint UNEP/WHO working group of experts on guidelines for the control of toxic and other hazardous chemical waste was held in the Federal Republic of Germany from 17 to 20 March 1981. Draft guidelines currently being prepared on the basis of the results will be sent to experts for review by the last quarter of 1981. The comments thus obtained will be incorporated in the final draft, which is expected to be available to the tenth session of the Governing Council at its tenth session.

D. OUTER LIMITS  
(budget sub-line 1303)

1. Climatic changes

18. The first meeting of the Scientific Advisory Committee 4/ to advise on the development of the plan of action for the World Climate Impact Studies Programme (Nairobi, 23-27 February 1981) made recommendations to the Executive Director regarding the implementation of the Programme and the operation of the WCIP secretariat (see Report to Governments No. 30), and estimated the cost of UNEP support to the updated Plan of Action for phase I of the Programme as \$3,110,000.

2. Risks to the ozone layer

19. The sixth edition of the UNEP Ozone Layer Bulletin, published in April 1981, contains an environmental assessment of ozone layer depletion and its impacts which was formulated at the fourth session of the co-ordinating Committee on the Ozone Layer 5/ in November 1980. The Bulletin also reports on recent research results and ongoing and planned research programmes relevant to the World Plan of Action on the Ozone Layer, and gives details of the world production and release of chlorofluorocarbons F-11 and F-12 through 1979.

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4/ FP/1303-79-02.

5/ FP/1303-77-03.

E. ENVIRONMENTAL DATA  
(budget line 1600)

20. The fourth and last of a series of regional workshops on environmental statistics 6/ (Patteayan, Thailand, 10-16 February 1981) brought together users and producers of environment statistics to discuss needs, priorities, concepts and methods for such statistics; it recommended, inter alia, that the high importance of developing such statistics should be discussed by individual countries at the forthcoming session of the Governing Council.

21. Under the auspices of the Conference of European Statistics, an ECE meeting on framework for environment statistics (Geneva, 12-16 March 1981) discussed national and international experience in the field and stressed the need for further work on methodological questions of environment statistics.

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6/ FP/1600-77-02.

Chapter II

SUBJECT AREAS

B. HEALTH OF PEOPLE AND OF THE ENVIRONMENT  
(budget sub-line 0107-0108)

22. The tenth session of the FAO/UNEP Panel of Experts on Integrated Pest Control (Rome, 23-27 March 1981), recommended the continuation of the joint FAO/UNEP co-operative global programme for the development and implementation of integrated pest management in agriculture. The next panel session will be held in Kuala Lumpur, Malaysia in 1982.

23. Following the signature of the memorandum of understanding governing WHO/FAO/UNEP collaboration in the prevention and control of vector-borne and associated diseases in agricultural water development activities, 7/ the planning meeting for the first joint WHO/FAO/UNEP panel of experts on environmental management for vector-borne disease control (to be held at Geneva from 22 to 29 September 1981) was held at Geneva from 13 to 16 April 1981.

C. ARID AND SEMI-ARID LANDS ECOSYSTEMS INCLUDING DESERTIFICATION  
(budget line 1700)

24. The activities conducted in implementation of the Plan of Action to Combat Desertification during the first four months of 1981 will be reported on orally during the session when agenda item 7 is introduced.

D. TROPICAL WOODLANDS AND FOREST ECOSYSTEMS  
(budget sub-line 1102)

25. Since 1 January 1981, the following Governments have replied to the letter sent as a follow-up to Governing Council decision 8/9 of 29 April 1980: Central African Republic, Denmark, Ethiopia, Guatemala, Hungary, Ireland, Madagascar, Mali, Netherlands, New Zealand, Norway, Portugal, Republic of Korea, Somalia, Sweden, Switzerland, United Kingdom of Great Britain and Northern Ireland and United States of America supported the recommendations. The following: Israel, Malta, Nauru, Japan and Poland have acknowledged receipt, but have not yet sent comments. Burma and Liberia requested copies of the recommendations. The following international organizations and bodies responded in support of the recommendations: ECA, ESCAP, World Food Programme, IDRC, IUCN, Tropical Products Institute, World Wildlife Fund, ICRAF and the Australian Conservation Foundation. ILO, IAEA, WHO, IMCO and OECD acknowledged without comment, while the Inter-American Development Bank requested a copy of the recommendations.

F. SOILS  
(budget sub-line 1106)

26. By decision 8/10 of 29 April 1980, the Governing Council requested the Executive Director to work actively, in collaboration with FAO, UNESCO and other relevant international organizations, to ensure the speedy preparation and adoption of a world soils policy; to develop a world plan of action for implementing the policy; and to encourage and support research and studies to define the legal scientific, technical, cultural and institutional elements of a soils policy at the national level. For these purposes, the Executive Director was authorized to convene in 1981 a meeting of high-level experts to consider developments in the preparation of the soils policy and the plan of action for its implementation, and was requested to report to the Governing Council at its ninth session on progress in that respect.

27. The high-level group of experts, convened in co-operation with FAO and UNESCO (Rome, 23-27 February 1981) was attended by 28 invited participants from 17 countries and 8 international organizations, as well as representatives of the three sponsoring organizations. It reviewed international activities in the field of soils by various international organizations subsequent to the first 1980 meeting on a soils policy. On the basis of three background papers, the meeting adopted a statement of guidelines to be followed in finalizing a world soils policy and a suggested framework for a plan of action for its implementation. This statement is included in annex I to the present report. The experts considered that, with suitable additions and revisions, the paper prepared by three consultants contained the essential elements for the definition of elements of a soils policy at the national level. They also recommended several actions which they thought should be taken immediately by UNEP, FAO and UNESCO in further developing of a World Soils Policy.

28. On the basis of this advice, the Executive Director intends to prepare and issue widely a publication entitled "Guidelines for the formulation of national soil policies" which will consider the various legal, scientific, technical and institutional aspects, and hence assist Governments in the preparation of their national soils policies. He also intends to continue the further development of a world soils policy and a plan of action for its implementation, and to co-operate actively with FAO in the elaboration for a world soils charter.

I. WILDLIFE AND PROTECTED AREAS  
(budget sub-line 1110)

29. The third meeting of the Parties to the International Convention on Trade in Endangered Species of Wild Fauna and Flora (25 February - 8 March 1981, New Delhi), attended by 66 Governments and more than 80 national and international organizations, decided on: a world-wide trade ban on fin whales, sei whales and sperm whales and their products; new trade controls for more than 300 species of parrots; and a number of measures to improve



national enforcement of the Convention. The Conference also confirmed financial arrangements for the biennium 1982-1983 under which member States will contribute to a special UNEP Trust Fund for the Convention, while direct UNEP Fund contributions will be phased out entirely.

30. The new integrated Conservation Monitoring Unit in Cambridge 8/ is now operational, and has entered 140 mammals, 18 invertebrates and 6 reptile Red Data Book sheets in a new data storage programme. In respect of plants, the IUCN Threatened Plants Committee's 8/ Botanic Gardens Conservation Co-ordinating Body issued lists of rare and threatened plants of Macronesia, Madagascar succulents, and cycads. One hundred and thirty new and revised inventory sheets were prepared for the World Directory for the Afrotropical Realm and 83 new areas were added to the list of protected areas and are included in the proceedings (published in March 1981) of the meeting of the IUCN Commission on National Parks and Protected Areas (Garoua, United Republic of Cameroon, 17-23 November 1980). 8/

31. The following materials have been published: nature conservation in Northern and Western Europe; 8/ guidelines for protected area legislation; 8/ trade statistics for the year 1978; 9/ one more issue each of Parks Magazine 10/ and Tiger Paper. 11/

J. INTEGRATED APPROACH TO ENVIRONMENT AND DEVELOPMENT  
INCLUDING ECODEVELOPMENT  
(budget sub-line 0404)

32. Pursuant to Governing Council decision 8/1 of 29 April 1980, section II, paragraph 2, a second meeting of high-level experts on the interrelationships between people, resources, environment and development 12/ was held (Nairobi, 5-9 January 1981). For a report on the meeting and the Executive Director's recommendations, see document UNEP/GC.9/2/Add.4.

K. ENVIRONMENTALLY SOUND AND APPROPRIATE TECHNOLOGY  
(budget sub-line 0402)

33. The following achievements have taken place under the UNEP/CSC project 13/ on management of water hyacinth: isolation of commercially important compounds from water hyacinth; construction of a fixed roof water hyacinth biogas plant at the Jawaharlal Behru Technological University.

8/ FP/1110-79-01.

9/ FP/1104-76-01.

10/ FP/1110-80-03.

11/ FP/1104-75-02.

12/ RA/0404-80-01.

13/ FP/0402-79-01.

L. INDUSTRY AND THE ENVIRONMENT  
(budget sub-line 0408)

34. A UNEP/UNIDO workshop on Industrial Environmental Impact Assessment (EIA) and Environmental Criteria for the Siting of Industry, held in collaboration with WHO (Kuala Lumpur, Malaysia, 26-30 January 1981) reviewed existing practices in the region and defined relationships, as well as procedures for carrying out EIA.

35. A UNEP workshop on the environmental aspects of the selected non-ferrous metals industries of lead, zinc and cadmium and copper and nickel (Geneva, 13-16 April 1981) reviewed current experience of environmental management in relation to ore mining and processing, as well as environmental aspects of product fabrication, uses of the metals, recycling and ultimate disposal (see report UNEP/WS/WFMMO KREV.1).

36. Two regular issues of the quarterly Industry and Environment Newsletter were published focussing on agro-industry and post-harvest food loss reduction and on impacts of motor vehicle manufacturing and use trends, as well as a special issue on industrial cost benefit analysis, bringing the total of issues published in English and French to 13.

37. UNIDO Guides to Information Sources (Number 35) was published listing information sources on utilization of agricultural residues for production of panels, pulp and paper.

N. LIVING MARINE RESOURCES  
(budget sub-line 1106)

38. By decision 83 (V) of 25 May 1977, section III, paragraph 4, the Governing Council approved the Executive Director's proposals on how to elaborate a plan of action for marine mammals (UNEP/GC/90, paras. 475-476, 486-487). In co-operation with UNEP, FAO has now completed a draft document entitled "Global Plan of Action for the Conservation, Management and Utilization of Marine Mammals". 14/ The document, which contains proposals for action during the Medium Term Plan period and the steps to be taken towards a final Plan of Action to commence from 1984 onwards, will be available in published form, in English only, by June 1981. A summary of these proposals is before the Governing Council in annex II to the present report, and those actions to be taken in the medium term are anticipated in document UNEP/GC.9/6.

O. REGIONAL SEAS PROGRAMME  
(budget sub-line 0503)

I. The Mediterranean

39. A meeting of experts to evaluate the pilot phase of the series of MEDPOL projects and to develop a long-term monitoring and research programme for the Mediterranean Action Plan (Geneva, 12-16 January 1981) recommended a 10-year programme based on the findings of the pilot phase.

40. A meeting of financial and programming experts of the Mediterranean coastal States (Geneva, 26-30 January 1981) examined the preliminary programme and financial proposals for 1981-1983. The meeting expressed support for the programme, while noting that Government contributions should not be expected to grow by more than 15 per cent in 1982 and 1983.

41. The Blue Plan national focal points met at Sophia Antipolis (3-4 April 1981) to review progress made in the present phase of the Blue Plan. The meeting endorsed the programme proposed and recommended that the focal points be more closely associated with it. 15/

42. The second meeting of Contracting Parties to the Barcelona Convention and intergovernmental review meeting of Mediterranean coastal States (Cannes, 2-7 March 1981) 15/ adopted the work programme for 1981-1982, with a \$US7.3 million budget (as compared with \$US4.7 million for 1979-1980). It decided to convene an extraordinary meeting in March 1982 to consider alternative trust fund arrangements for 1983, and a conference of plenipotentiaries to adopt the protocol on specially protected areas. The meeting unanimously chose Athens as the seat of the co-ordinating unit of the Mediterranean Action Plan.

## 2. Kuwait Action Plan

43. The first review meeting of Government Experts on co-operative projects under the Kuwait Action Plan (Kuwait, 11-15 April 1981) reviewed the progress achieved in the implementation of the Action Plan, agreed on a work programme and budget for environmental assessment projects, and recommended convening within the next two months an intergovernmental meeting to develop a regional programme for public environmental awareness.

44. The first meeting of the Council of the Regional Organization for the Protection of the Marine Environment (ROPME) (Kuwait, 21-23 April 1981) marked the end of the interim arrangements and adopted twelve major decisions concerning the future development of the Kuwait Action Plan, including the work programme, financial and institutional arrangements of ROPME and the Marine Emergencies Mutual Aid Centre (MEMAC). It adopted a budget for the period 1 July 1981 to 31 December 1982 based on a trust fund (Kuwait dinars 2,937,000, equivalent to approximately \$US8.81 million) contributed entirely by Governments of the region. During the same period KD 1,287,000 are allocated for programme costs and KD 327,270 for the operation of MEMAC. Recognizing the role played by UNEP in the implementation of the first phase of the Action Plan (April 1978 - June 1981), the Council decided to maintain full co-operation with UNEP and requested the Executive Director to provide further assistance to ROPME.

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15/ Reports available upon request.

### 3. The Caribbean

45. At the second meeting of Government experts to review the regional action plan (Managua, Nicaragua, 23-27 February 1981), experts from 23 Caribbean countries recommended a two phased priority programme consisting of 21 projects, 8 of them for immediate implementation, a trust fund of US\$1.5 million to support the implementation of the action plan, the establishment of a regional co-ordinating unit and the development and adoption of a regional legal agreement.

46. The Intergovernmental Meeting on the Action Plan for the Caribbean Environment Programme (Montego Bay, Jamaica, 6-8 April 1981), which was opened by the Executive Secretary of ECLA on behalf of ECLA and UNEP, examined the recommendations of the Managua meeting referred to above, adopted the Action Plan and determined priorities for its implementation, designated UNEP as responsible for its co-ordination, established a Monitoring Committee to provide policy guidance, decided to establish a Regional Co-ordinating Unit in Jamaica, called for the preparation of legal agreements in 1981, decided to establish a Caribbean Trust Fund with a target of US\$1.5 million for 1982-1983 while noting possible support from UNEP and other sources, and determined certain additional institutional arrangements. The meeting was closed by the Prime Minister of Jamaica.

### 4. The West African region

47. The second meeting of legal experts on a draft regional convention (Abidjan, 13-14 March 1981) finalized the texts of the convention and the protocol concerning co-operation in combating pollution in cases of emergency.

48. The Conference of Plenipotentiaries on Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region (Abidjan, 16-23 March 1981) adopted the Action Plan for the Protection and Development of the Marine Environment and Coastal Areas of the West and Central African Region and approved a budget of \$US3.9 million for the triennium 1981-1983 to which Governments will contribute \$US2.5 million in 1982-1983. Ten countries signed the Convention and the Protocol.

### 5. East Asian Seas

49. The Intergovernmental Meeting on the Protection and Development of the Marine Environment and Coastal Areas of the East Asian Region (Manila, 27-29 April 1981), attended by representatives of Indonesia, Malaysia, Philippines, Singapore and Thailand, adopted the Action Plan for the Protection and Development of the Marine Environment of the region. Where the implementation of the Action Plan was concerned, the meeting emphasized environmental assessment and environmental management but deferred the legal component. The meeting invited UNEP to prepare a

detailed programme document describing action plan projects, including a technical workshop to be held later in 1981. UNEP was also requested to complete the preparatory phase of the Action Plan by the end of 1981. Thereafter the participating States will take steps for progressive implementation of the Plan, explore funding alternatives such as trust funds, and review co-ordinating measures within two years.

#### 6. South-West Pacific

50. At its third meeting (March 1981), the joint co-ordinating group agreed to convene a technical meeting in June 1981 and the Regional Conference on the Human Environment in the South West Pacific in February - March 1982.

#### 8. South-East Pacific

51. A UNEP/CPPS/IMCO workshop on combating oil spills was held at Santiago, Chile, from 6 to 15 April 1981 in co-operation with the Chilean national project on oil pollution control.

52. A UNEP/CPPS Seminar on International Legal Conventions Related to the Environment was held at Bogotá from 4 to 8 May 1981.

### Chapter III

#### SUPPORTING MEASURES

##### B. ENVIRONMENTAL TRAINING (budget sub-line 0306)

53. In implementation of Governing Council decision 8/14 of 29 April 1980, the project document establishing the Council of CIFCA and providing for the conduct of a survey permit the establishment of a network of high-level institutions was signed by the Government of Spain and UNEP. <sup>16/</sup> The Council held its first meeting in Madrid (23-26 March 1981), elected its executive committee, appointed the Director of CIFCA, adopted the rules of procedures of the Council and approved its programme and budget for 1981 and 1982.

##### C. INFORMATION (budget sub-line 0303)

54. The first survey and planning meeting for a proposed African information network, held at Nairobi (15-17 January 1981) in collaboration with UNICEF, UNFPA, UNDP and IPS, was attended by delegates representing over 20 African states. This network will provide an important new source of information written for Africa by African journalists.

55. The following materials were prepared: the Czech multi-media presentation "Homo Sapiens", completed for the international Ostrava environmental film festival; a slide show presentation developed in support of a joint Commonwealth and UNEP project on water hyacinth; a major film documentary on the Caribbean Action Plan, completed with BBC television (United Kingdom); and WNET (United States of America); the brochure "UNEP: What it is; what it does" produced and circulated in English, French, Spanish, Arabic, Chinese, Russian and Bulgarian; the bibliography of UNEP publications 1972-1980; the 1980 annual review; "The child in the African environment"; and the Desertification Bulletin.

56. The following two books were published in English under the Executive series: "In Defence of the Earth" (the basic texts on environment Founex, Stockholm, Cocoyoc) and "Choosing the options". French, Russian and Spanish language versions of these two publications are currently in production.

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<sup>16/</sup> FP/0301-77-04/Rev.6.

Chapter IV

## ENVIRONMENTAL MANAGEMENT INCLUDING ENVIRONMENT LAW

A. ENVIRONMENTAL LAW  
(budget sub-line 1002)

57. At its eighth session (Geneva, 2-13 February 1981), the Working Group on Environmental Law completed its study on the legal aspects concerning the environment related to offshore mining and drilling within the limits of national jurisdiction. The Working Group adopted by consensus 42 conclusions, agreed that they had the character of guidelines, and expressed the wish that the Governing Council adopt them as such. The conclusions and the relevant part of the report of the Working Group, together with the suggested action by the Governing Council, are contained in annex III to the present report. The full report of the Working Group 17/ will be made available at the ninth session of the Governing Council.

58. After the Ottawa meeting, UNEP continued its preparations for the Ad Hoc Meeting of Senior Level Government Officials Expert on Environmental Law, in accordance with Governing Council decision 8/15 of 29 April 1980, by consulting Governments or regional commissions through the meeting of designated officials for environmental matters (Geneva, 9-13 March), the Executive Director's meeting with permanent representatives (Nairobi, 9-11 March), and the meeting with some Government representatives (Geneva, 21-22 April 1981). The secretariat also consulted a number of Governments on the matter at the time of the eighth session of the Working Group of Experts on Environmental Law. To assist in the preparations for the Ad Hoc Meeting, UNEP has engaged a number of experts to prepare reports on global and regional environmental law topics.

59. An information paper containing the views of UNEP on the formulation and implementation of the provisions of the Draft Convention on the Law of the Sea which was circulated informally at the resumed ninth session of the Third United Nations Conference on the Law of the Sea was formally distributed at the tenth session of the Conference as document A/CONF.62/112. At the same session the secretariat informally circulated an additional information paper on UNEP environmental law activities since the resumed ninth session of the conference and sought the views of delegations on main current and planned endeavours of UNEP.

Annex I

PROGRESS REPORT ON THE DEVELOPMENT OF A  
WORLD SOILS POLICY

A. INTRODUCTION

1. The February 1981 meeting of high-level experts on a world soils policy adopted a statement which contains recommendations and suggestions on critical points to be elaborated in such a policy and on a framework within which a plan of action for its implementation could be developed. The statement, which is summarized below, addresses the following topics:

- (a) Origin of the world soils policy;
- (b) Problems addressed by the policy;
- (c) The policy and its objectives;
- (d) Accomplishments so far;
- (e) Conformity with other actions;
- (f) A framework for a plan of action:
  - (i) International actions;
  - (ii) National actions;
- (g) Organizational structure needed for implementation;
- (h) Recommendations to UNEP, FAO and UNESCO for further action.

B. A PROPOSED WORLD SOILS POLICY AND FRAMEWORK OF A PLAN OF  
ACTION FOR ITS IMPLEMENTATION

1. Origin of the world soils policy

2. An Expert Meeting on World Soils Policy convened by UNEP in collaboration with FAO, UNESCO and the International Soil Science Society (Rome, 4-6 March 1980) recommended: (a) the drawing up, for discussion at a meeting of experts, of papers on elements of a world soils policy and a plan of action for its implementation; (b) greater harmonization of soil related programmes at all levels to avoid duplication and make more effective use of available resources; and (c) the convening of a second meeting on a world soils policy in early 1981. By decision 8/10 of 29 April 1980, the Governing Council authorized the Executive Director to convene such a meeting.



3. The elements of a policy and plan of action resulting from the second expert meeting (Rome, 23-27 February 1981) are addressed to: (a) international and regional organizations, including UNEP, FAO and UNESCO, which will share in promoting and supporting the international and regional activities suggested; (b) national Governments and non-governmental organizations, without whose support the recommendations cannot be carried out; and (c) individuals who, conscious of their individual and collective responsibilities for safeguarding soil, water and related resources, are willing to lend support to the principles of a world soils policy.

## 2. Problems addressed by the policy

4. Each year the world's finite capacity to grow food and fibre is being reduced by the loss and degradation of its soil. Many of the world's soils are losing fertility and productivity; some soils are being degraded by salinization, alkalization, desertification, loss of structure, waterlogging, or through indiscriminate additions of chemicals; soil is being lost physically through accelerated erosion; and millions of hectares of good farmland are being lost each year to non-farm purposes.

5. There is no single cause for the growing worldwide loss of soil productivity and the increasing rate of soils degradation and loss of farmland. Although growth in size and expectations of world population is one underlying cause, its influence is exacerbated by unfavourable socio-economic conditions in many areas.

## 3. The policy and its objectives

6. In recognition of the fact that soil is a finite resource, and that continuously increasing demands are being placed on this resource to feed, clothe, house and provide energy for a growing world population and to provide worldwide ecological balance, Governments should agree to use their soils on the basis of sound principles of resource management to enhance soil productivity, to prevent soil erosion and degradation, and to reduce the loss of good farmland to non-farm purposes.

7. The policy seeks to:

(a) Increase and apply scientific knowledge of the soils of the world, their potential for production, and their sound management;

(b) Encourage and assist countries in improving the productivity and management of their soils and in reducing soil degradation;

(c) Develop and promote agricultural production systems that assure the use of the soil on a sustained basis;

(d) Encourage the management and conservation of soil, reduce pollution and improve the quality of water and air;

(e) Enlarge and improve the world's supply of arable agricultural land through irrigation, flood control, and reclamation;

(f) Slow the loss of productive agricultural and forest land to other purposes;

(g) Monitor changes in soil quantity and quality and in land use;

(h) Bring to the attention of the people of the world, and particularly their political leaders, the extent of world soil degradation and its seriousness, its causes and its remedies.

8. Countries need appropriate systems of farming, including cropping, grazing, and forestry, that provide people with adequate production on a sustained basis. Each system needs to be based on a knowledge and understanding of each particular soil - its limitations, its potentials, and its response to various forms of agricultural management. More soil surveys and related agricultural research are needed, particularly in the developing countries. There is also a need to create or improve institutions to provide farmers with the cash, credit, technical information and incentives to adopt improved farming systems that permit better resource management and conservation.

#### 4. Accomplishments so far

9. Many effective programmes and actions have already been undertaken by individual countries and by agencies of the United Nations to improve and protect soils. Among them:

(a) National soil surveys and the FAO/UNESCO Soil Map of the World form the basis for the assessment of potential land use. Together with a study of potential for irrigation development, the data will assist in the selection of priority areas at the country level for investment in agricultural development;

(b) The FAO/UNFPA project on land resources for populations of the future provides an estimate of the population-supporting capacity of the developing world by agro-ecological zones;

(c) The UNEP/FAO/UNESCO project on world assessment of soil degradation, including desertification, based on the Soil Map of the World, has produced a methodology for assessing soil degradation that is now being tested in several countries;

(d) Assistance to developing countries on a wide range of soil and water management projects is being provided by agencies of the United Nations, especially FAO, and bilaterally by donor countries.

## 5. Conformity with other actions

10. The world soils policy would be an important part of the World Conservation Strategy, whose main theme is the conservation of living resources for sustainable development. Priority issues identified by the Strategy include the reduction in quality and quantity of agricultural land, and soil erosion and the degradation of catchment areas and watersheds, both of them major concerns of the world soils policy.

11. Obstacles to achieving conservation, to which the Strategy drew attention, include a lack of capacity to conserve and protect the environment due to inadequate legislation and to inadequate enforcement of such legislation as exists, poor organization, lack of trained personnel, information and know-how, and lack of financial and moral support for conservation due to ignorance both of the need for conservation and of the benefits which conservation brings. The present suggestions for a Plan of Action for the Implementation of a World Soils Policy attempt to take these obstacles into account and to show how they may be overcome.

12. The implementation of a world soils policy is also closely linked in many respects with the Plan of Action to Combat Desertification. Obviously, many of the activities included in that Plan of Action are similar to, or overlap, those outlined in the elements of a world soils policy and in the proposed plan of action for its implementation. A common theme in both plans is that the need for conservation should underlie all national development plans.

## 6. Framework for the plan of action

### (a) International actions

13. The appropriate international organizations should:

(a) Promote the sound use of land and water resources;

(b) Continue and intensify efforts to create awareness of the necessity for rational resource use among all sections of the world community, including Governments and non-governmental organizations, and assist where required by providing training, organizing publicity campaigns, seminars, conferences, and producing publications;

(c) Intensify efforts to promote optimum land use for sustained production on a worldwide basis and interregional and international co-operation in the use and development of land and water resources;

(d) Promote co-operation between Governments in adopting sound land-use practices, particularly in international watersheds;

(e) Encourage international development financing agencies to pay particular attention to the needs of agricultural development projects which include the conservation and improvement of soil and water resources, the provision of inputs and incentives at the farm level, and establishment of the necessary institutional structures as major components;

(f) Assist Governments, on request, in establishing appropriate legislation, institutions and procedures to enable them to mount, implement and monitor appropriate land-use and soil and water management programmes;

(g) Encourage the expansion of bilateral assistance to developing countries in resource management from the developed countries, foundations, and other institutions;

(h) Help countries to improve their capabilities to assess the agricultural potential of their soils, to expand the wise use of fertilizers and to apply improved soil management;

(i) Select critical areas of resource degradation for application of experimental pilot programmes of resources improvement;

(j) Harmonize the collection and exchange of information and practical applications of soil research among international organizations and institutions, in particular:

(i) Promote the adoption of an international reference system of soil classification with a view to facilitating transfer of experience and technology;

(ii) Develop simple soil capability classifications and land evaluation methods;

(iii) Develop common methodologies for monitoring soil degradation and changes in land use;

(k) As a final objective, incorporate the principles of rational land use and the conservation and development of soil and water resources into a comprehensive international resource law, in the form of a world soil charter;

(l) Hold recommended regional meetings to consider world soil problems, and finally suggest that the General Assembly of the United Nations convene a world conference on soils policy.

(b) National actions

14. All Governments should:

(a) Commit themselves to the sound use of land and water resources;

(b) Develop a land use policy and the necessary legislative framework to implement it;

(c) Increase awareness among all sections of the community of the problems caused by the loss of productive soil and of the need for prompt action;

(d) Identify, map and assess the potentials and constraints of soil resources; map current land use, assess the present extent of soil degradation, predict foreseeable hazards and develop methods for their prevention;

(e) Adapt simple soil capability classifications and methods of land evaluation to local conditions;

(f) Develop programmes to ensure the availability and wise application of fertilizers and other actions appropriate to the improvement and sustained use of the soil;

(g) Establish an adequate legislative and institutional framework for monitoring and supervising soil conservation development and management;

(h) Impose obligations on users, with the aim of ensuring the most rational use of land, through the use of tax exemptions, subsidies, credit facilities and other types of financial devices;

(i) Train an adequately paid professional cadre of extension workers to assist farmers in managing soil and water resources effectively;

(j) Establish and fund programmes, where needed, of reforestation, irrigation, and reclamation of saline, flooded or other land not presently productive;

(k) Actively pursue research needed to develop systems of farming that combine adequate production with resource protection and are compatible with socio-economic and cultural conditions;

(l) Help develop local institutions to secure the leadership, assistance and co-operation of farmers in applying soil and water improvement and conservation practices;

(m) Provide an adequate programme of environmental education in support of resource management activities.

## 7. Organizational structure needed for implementation

15. The extent to which the implementation of a world soils policy is effective must be examined at intervals. Important in this respect is the extent to which the policy is adopted and supported by individual countries and by international organizations. No new international organization is necessary for the implementation of the world soils policy; manpower could be attached to existing agencies as and when needed.

16. Technical meetings like the two already held at Rome should be followed by meetings of senior government officials. Between meetings, the interest and support of individual countries should be encouraged and stimulated by international organizations and agencies.

C. RECOMMENDATIONS TO UNEP, FAO AND UNESCO FOR FUTURE ACTION

17. These three sponsoring organizations should:

(a) Continue to develop a world soils policy and thereafter a plan of action for its implementation;

(b) Promote the principles of a world soils policy and eventually their adoption by countries;

(c) Strengthen the current efforts of the United Nations system to assist the developing countries in setting up national institutions for soil inventories and land evaluation, and in training scientists in fields related to soil management and conservation;

(d) Perform a clearing house function for the collection and exchange of information on the practical applications of soil research among international organizations and institutions;

(e) Support the establishment of the proposed International Board of Soil Resources Management;

(f) Support the development of an international reference base for soil classification;

(g) Support the preparation of guidelines and methodologies for practical land capability evaluation systems at the national level, on the basis of a global framework for land evaluation;

(h) Support the development of methods for land resources monitoring at both global and pilot levels.

D. SUGGESTED ACTION BY THE GOVERNING COUNCIL

18. The Governing Council may wish to take note of the progress achieved.

Annex II

## ACTION PLAN FOR MARINE MAMMALS

## A. BACKGROUND

1. The first practical step by UNEP in support of efforts for the better protection, management and utilization of marine living resources was to initiate, in co-operation with FAO, the elaboration of guidelines and recommendation for research, monitoring, management and conservation of marine mammals (project FP/0502-74-01). These draft guidelines and recommendations were submitted to a scientific consultation (Bergen, Norway, 1976) which recommended that they should be revised and incorporated into a plan of action for marine mammals. At its fifth session, the Governing Council approved the Executive Director's proposal on how to elaborate this plan of action (UNEP/GC/90, paras. 475-476; 486-487). The first draft of the proposed action plan was submitted for review by specialists in 1979 and subsequently circulated to Governments and international organizations, whose views have been taken into account in elaborating the details of the proposed plan. More details can be found in the full report on project FP/0502-78-02 which will be available in printed form in June in English only.

2. During the period 1981-1983, action will be undertaken by UNEP and FAO to develop a final, well-costed plan of action whose implementation could begin from 1984 onwards.

## B. PRINCIPLES AND OBJECTIVES OF THE ACTION PLAN

3. The plan of action is seen as a means of stimulating and co-ordinating the substantial improvement in the conservation of marine mammals which is called for by the Stockholm Conference, the Bergen Consultation and the governing bodies of FAO and UNEP. The need for better conservation measures and for an expansion of research rests on several premises: the depleted or threatened state of many marine mammal populations; deficiencies in the machinery and available measures for conservation, the inadequacy of the scientific knowledge required as a basis for these measures; the special relations which some communities have with some marine mammals; and the need to gain further understanding of the mental characteristics of, at least, the odontocetes, and of their special relation to man.

4. A number of other plans of action are also relevant to the objectives of the present plan, including the Mediterranean Action Plan and those for other regional seas with respect to particular species of marine mammals, for example, the Mediterranean monk seal. A system of cetacean sanctuaries should also be considered an integral part of the global plan.

5. By far the most important threat to the survival of marine mammals is hunting with the object of obtaining valuable products. The effects of over-exploitation are well known, and the low reproductive rate of many marine mammals means that recovery is often slow even when hunting stops. Other primary threats are posed by killing for reasons other than utilization of the carcasses (e.g. to prevent adverse effects on fishing operations); accidental or incidental killing in the process of fishing for other species or in other ways; disturbance or harassment which may, for example, disturb reproductive activities; and occurrence of adverse environmental changes such as despoilment of breeding areas, reduction of food supplies and noxious chemicals pollution.

6. Notwithstanding, and indeed partly on account of, the benefits which marine mammals offer to mankind, their well-being - and sometimes even their survival - are threatened by a variety of human actions. Most of the human actions which constitute threats to marine mammals arise because there are inadequacies in, or a complete absence of, human arrangements to deal with them. The inadequacies concerned are found essentially in human institutions and include inadequacies in policy, failure of management arrangements, inappropriate or inadequately enforced law, uncertainties and gaps in scientific knowledge, and failures in the diffusion to those concerned of what is known to specialists. Those concerned are particularly administrators but also include other groups such as the fishing industry as well as the public at large. Failure to appreciate these inadequacies may engender a feeling of unwarranted complacency on the part of administrators and legislators, special interested groups and the public at large, and thus slow down the taking of necessary action. This can be regarded as a kind of secondary threat to the achievement of the measures needed to remedy primary threats.

7. International co-operation, on bilateral, regional and global scales, is necessary because:

(a) Current problems regarding conservation, the conduct of scientific research, the development of law, the determination of policy and ethical considerations are all of very broad concern. Therefore, extensive exchange of information, consultation and debate are desirable for the harmonization of viewpoints and of actions;

(b) Most marine mammals spend all or part of their lives in sea areas or in coastal zones under the jurisdiction of two or more States;



(c) Many marine mammals spend much of their lives in sea areas beyond national jurisdiction and they are then subject only to the consequences of national jurisdictions over persons and vessels and of such agreements as nations may freely enter;

(d) The levels of economic, social, scientific and technical development of some States with potential direct interest in marine mammals are such that they may need assistance from other nations with facilities, relevant skills and experience in the practice of management and conservation of marine mammals and their ecosystems, and in the conduct of scientific research, educational programmes, etc., with respect to them. Effective conservation often depends on the understanding and involvement of people in small communities; international exchanges at that level would be useful;

(e) Trade in products from marine mammals is largely international in character. The main non-consumptive utilization is probably by such activities as whale-watching and this involves a significant proportion of international tourism.

8. International action towards the conservation of marine mammals takes place both inside and outside the United Nations system. The greatest activity within the United Nations system takes place through FAO and UNEP. UNESCO also has some involvement in its specialized areas including education and the marine environment, the latter through IOC. Intergovernmental actions outside the United Nations system have their origin in a great range of international conventions. Some establish executive bodies; others exist mainly to co-ordinate and stimulate national activities. Some are concerned primarily with the conservation of particular marine mammals, and of these the International Convention for the Regulation of Whaling and the Interim Convention on Conservation of North Pacific Fur Seals are the outstanding examples; others are concerned with marine mammals because of their more general concern with ocean affairs; and others again because of other characteristics of marine mammals than their marine habitat. Some bodies are concerned exclusively with the conduct of scientific research, some include this with other functions and some take different types of actions and rely on others for scientific "advice". Some national legislation, other than that enacted as a result of international agreements, has international consequences; for example laws regarding restrictions on imports/exports and registration and operation of vessels, and national laws intended to apply to persons subject to national jurisdiction whether or not they are within that country or its waters.

9. The basic objective of the plan should be to promote the effective implementation of a conservation and management policy for marine mammals which is as widely acceptable as possible among the Governments and peoples of the world. Formulation of policy should therefore go hand in hand with the development and implementation of the plan, and should indeed be one of its components.

10. The long-term objectives of a plan directed toward conservation should include:

(a) Prevention of further extinctions resulting from human activities;

(b) Maintenance in optimal states of those populations of marine mammals which are regarded as resources for the uses and enjoyment of mankind, and to restore to such states those which have been depleted by exploitation or otherwise severely reduced by human activities;

(c) Ensuring that any exploitative use of marine mammal populations is conducted in such a way that wide options for alternative future uses are retained; and that it is conducted in a humane manner and with the minimum disruptive effect on the populations, particularly on the efficiency of reproduction;

(d) Ensuring that sympathetic consideration is given to sectors of human communities which are culturally and/or economically dependent on marine mammals, so as not suddenly to disrupt cultures or cause undue economic hardship to them.

11. To provide the necessary conditions for the achievement of these primary objectives, the following secondary long-term objectives should also be pursued:

(a) Ensuring research, of adequate scale and scope, on the nature of marine mammals and the ecosystems they inhabit in order to provide a better basis for future actions with respect to them, taking due account of economic, social, ecological and broadly cultural factors;

(b) Ensuring a broad understanding by the general public of the nature of marine mammals, especially as revealed by scientific research, and of their past, present and future roles in marine ecosystems and in human affairs, to the end that such understanding may be reflected in the policies and practices of Governments, both national and local, and in the international sphere. In particular, to ensure that this understanding exists among sectors of the human community whose daily activities may directly affect marine mammals and their environment, and that persons in such sectors may themselves contribute to understanding.

## C. THE ACTION PLAN

12. Consideration of the values of marine mammals and the nature of continuing and emerging threats to them and their environment leads to a plan which concentrates on formulation of objectives; regulatory and protective measures, including the improvement of law and its application; improvement of scientific knowledge; and the enhancement of public understanding. Activities regarding education and training would be included as elements of the plan in several of the areas of concentration. The question of priorities in these actions has to be reviewed from time to time, and within the context of available resources.

13. The size and scope of the plan are such that it will be necessary to ensure effective administrative, supervisory and advisory mechanisms for its implementation. It is planned that there should be an ad hoc planning and co-ordinating committee, a scientific advisory committee and a small staff of full-time professionals. These arrangements, which should be established by FAO and UNEP jointly, in consultation with other bodies as appropriate, might be within the headquarters of one of the participating bodies or be subcontracted to an independent body on an appropriate site where full interaction with an institution with important responsibilities relating to marine mammals can be assured.

14. All steps needed to achieve effective conservation, management and utilization of marine mammals are numerous and complex and cannot be fully identified on the basis of the present state of knowledge. Some first actions should be devoted to deal with the already identified urgent situations and others to planning the longer term initiatives. A useful planning device is to classify these actions into three groups as follows:

(a) Urgent action to alleviate the most serious threats to species or populations which are known to be in a critical state;

(b) Information gathering to determine the extent and nature of situations believed to be causing threats to marine mammal populations but about which little is known;

(c) Actions to improve conditions for the conservation of marine mammals by increasing scientific capability, legal and administrative machinery, and public understanding.

15. In addition to administrative and co-ordinating mechanisms, the proposed activities deal with the following general areas:

(a) A series of studies to obtain information needed to identify conservation and management objectives with more precision;

(b) Actions to meet present critical situations;

(c) Actions to increase present knowledge so as to provide a basis for further stages of the plan;

(d) Actions to improve the over-all machinery of conservation and management including:

- (i) Improvement in the availability of information;
- (ii) Increase in the number of scientists working on marine mammals;
- (iii) Increase of concepts and mechanisms for the establishment of protected areas for marine mammals;
- (iv) Improvement in public understanding of marine mammals and their conservation.

16. The needs for improving law and administration relate in general terms to the development of better mechanisms for the effective conservation and management of marine mammals, both nationally and internationally. In particular, there is need to:

(a) Assist individual nations in the improvement of their legal and administrative machinery in this field;

(b) Promote a global convention for the conservation of marine mammals;

(c) Ensure that adequate provisions for the conservation of marine mammals are included in the instruments resulting from the adoption of a new treaty on the law of the sea;

(d) Give special attention to the management of the Southern Ocean;

(e) Establish arrangements for improved co-operation in the management of shared resources as they relate to marine mammals;

(f) Encourage signatories to the Convention on the Conservation of Migratory Species of Wild Animals and arrange for the preparation of guidelines for its application to marine mammals;

(g) Include several breeding areas for marine mammals in the World Heritage List.

17. The need for increased public understanding of marine mammals and their conservation varies greatly among human communities. Consideration is given to this problem and how to identify the most important needs for promoting public understanding under various conditions. Increasing the availability of existing information and materials is one important means of increasing understanding and awareness.

18. The proposed actions are summarized and classified in Table I below.

19. The immediate responsibilities of FAO and UNEP (a small full-time staff, the ad hoc Planning and Co-ordinating Committee and Scientific Advisory Committee) could probably be part of their regular activities and might require no funding. Many other actions which would fall under Category A are continuously being undertaken by Governments, but a few more require the immediate attention of the Ecosystems Conservation Group and might involve additional expenditures (e.g. in the publication of statistical tables or information booklets). Some parts of the suggested study activities could well be done "in-house", but others would be likely to require the services of consultants, and others might require small workshops and expert meetings, of which three major ones are called for in the period 1981-1983. Some support for these workshops might also be obtained from interested non-governmental organizations.

20. It should be recognized at this stage in the preparation of the plan, it is not possible to put forward a budget for all the costs which would be required for the implementation of the full plan of action. The task should, however, be completed and refined during the period 1981-1983 and the detailed costing should accompany the final proposals to be submitted to the Governing Council at its eleventh session in 1983.

#### D. SUGGESTED ACTION BY THE GOVERNING COUNCIL

21. The Governing Council may wish to note the preparation of a plan of action on marine mammals, which as reported above is now entering the final phase, and, in the light of its review on the financing of action plans, advise the Executive Director on the finalization of this action plan for submission to the Governing Council at its eleventh session.











Annex III

## WORKING GROUP OF EXPERTS ON ENVIRONMENTAL LAW

The present annex contains the text of the conclusions of the study on the legal aspects concerning the environment related to offshore mining and drilling within the limits of national jurisdiction undertaken by the Working Group of Experts on Environmental Law (Geneva 2-13 February 1981) (UNEP/WG.54/4), <sup>1/</sup> as well as the recommendations of the Executive Director on the suggested action by the Governing Council at its ninth session.

After discussing at length the legal character of its study and the possible forms it might take, the Group agreed that in drafting the annexed conclusions it had in mind that they would have the character of guidelines and expressed the wish that the Governing Council adopt them as such.

Conclusions of the study on the legal aspects concerning the  
Environment related to offshore mining and drilling within  
the limits of national jurisdiction

## A. GENERAL PROVISIONS

1. States should, either individually or jointly, by all appropriate means, take preventive measures against, limit, and in so far as possible reduce pollution and other adverse effects on the environment resulting from offshore exploration for and exploitation of hydrocarbons and other minerals, and related activities, within the limits of national jurisdiction (hereinafter referred to as "operations"). To this end, States should, in particular, adopt legislative and regulatory measures and provide appropriate machinery.
2. (1) States should ensure that their laws, regulations and other measures relating to operations are no less effective than international rules, standards and recommended practices and procedures. They should, acting either directly or through the competent international organizations, facilitate and encourage the exchange of legal, scientific and technical information relating to activities intended to prevent, combat and reduce pollution and other adverse effects on the environment resulting from operations.  
(2) These laws, regulations and other measures adopted by States should, in so far as possible, be harmonized, in particular at the regional level, taking into account the best available standards and technology. Global or regional rules, standards and recommended practices and procedures should be established.

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<sup>1/</sup> The full report of the Working Group on the work of its eighth session (UNEP/WG.54/4), of which, the conclusions form annex I, is available on request.

3. States, acting directly or through the competent international organizations, should co-operate in protecting the environment from pollution and other adverse effects resulting from operations.

(a) In formulating, in particular at the regional level, concerted policies, taking into account characteristic regional features;

(b) By promoting the development of science and the transfer of technology.

4. Co-operation between States with regard to protection of the environment from pollution and other adverse effects resulting from operations should be carried out on the basis of good faith and in the spirit of good neighbourliness. Such co-operation should, inter alia, not cause any unreasonable delays in the carrying out of the operations.

5. States should designate, either individually in areas under their jurisdiction or, where appropriate, jointly, protected areas in order to safeguard from pollution and other adverse effects of operations important ecosystems or representative samples thereof, as well as special habitats critical for the survival of endangered species of fauna and flora.

#### B. AUTHORIZATION SYSTEM

6. (1) The important features of operations, including construction, erection on site and major alteration of installations, should be made subject to a prior written authorization from the competent authority of the State which, before granting such authorization, should be satisfied that the applicant has the technical knowledge, ability and economic capacity deemed to be necessary by the authority to carry out the operations, as well as to apply the necessary safety measures and, whenever necessary, to take contingency action. Such authorization should be given in accordance with an appropriate procedure. For the purposes of these conclusions, "installation" means any offshore structure or facility, whether fixed or mobile, which is used for exploring for, exploiting, storing, loading or transporting hydrocarbons or other minerals from the seabed or its subsoil, but is not considered to include a ship used for transportation of hydrocarbons or other minerals.

(2) The granting of an authorization should be preceded by an assessment of the effects of the proposed operations on the environment, unless the competent authority is satisfied that in the light of the scope, duration and technical methods employed in the operations, significant adverse effects on the environment cannot be expected.

(3) Authorization should be refused if there are clear indications that the operations are likely to cause significant adverse effects on the environment which could not be avoided by compliance with the conditions in the authorization.

7. The authorization should provide for concrete requirements on environmental protection. Such authorization should, in particular, require the operator:

(a) To take all necessary measures to ensure that spillage, leakage or wastes resulting from the operations do not endanger public health, fauna and flora and coastal regions;

(b) To have an adequate contingency plan;

(c) To remove the installation upon completion of the operations in so far as this is justifiable from an economic and technical point of view;

(d) To rehabilitate, where appropriate, the environment.

#### C. ENVIRONMENTAL ASSESSMENT

8. The assessment referred to in conclusion 6(2) should cover the effects of operations on the environment, wherever such effects may occur. It should when deemed appropriate contain the following:

(a) A description of the geographical boundaries of the area within which the operations are to be carried out;

(b) A description of the initial ecological state of the area;

(c) An indication of the nature, aims and scope of the proposed operations;

(d) A description of the methods, installations and other means to be used;

(e) A description of the foreseeable direct and indirect long-term and short-term effects of the operations on the environment, including fauna, flora and the ecological balance;

(f) A statement setting out the measures proposed to reduce to the minimum the risk of damage to the environment from carrying out the operations and, in addition, possible alternatives to such measures;

(g) An indication of the measures to be taken for the protection of the environment from pollution and other adverse effects during and at the end of the proposed operations;

(h) A brief summary of the assessment that may be easily understood by a layman.

9. Before taking its decision, the competent authority may request additional information from the applicant and may consult other public authorities concerned.

10. Where compatible with the legal system, the assessment and/or its brief summary may be made available to persons concerned to enable them to gather information well enough in advance to make observations in an appropriate form. The applicant should be entitled to reply to any observations thus made.

#### D. APPROPRIATE ENVIRONMENTAL MONITORING SYSTEMS

11. The operator should be required to measure the effects of his operations on the environment and to report on them, periodically or upon request to the competent authority, according to an established procedure.

12. The competent authority should be in a position to survey the installations regularly in order to ensure that the conditions under which the authorization was issued are being met. It should be in a position to enforce the provisions of the authorization and, if necessary, to suspend or revoke it.

13. States should keep registers and other records of authorizations granted for operations. Where appropriate, States and persons concerned, as well as competent international organizations may, upon request, be provided with information concerning such registers or records the transmission of which is not prevented by national laws or regulations.

14. States should establish appropriate national monitoring systems including monitoring agencies equipped with the requisite instruments and trained personnel for monitoring the effects of operations and processing and evaluating data.

15. States should, where appropriate, enter into bilateral and multilateral, in particular, regional, agreements providing for co-ordination of monitoring of the effects of operations on the environment.

#### E. CONSIDERATION OF TRANSFRONTIER ENVIRONMENTAL IMPACT WHEN AUTHORIZING OPERATIONS; PROCEDURES FOR INFORMATION AND CONSULTATION

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

(2) Accordingly, States within whose jurisdiction operations are carried out should take measures to avoid to the maximum extent possible and reduce to the minimum level possible pollution and other adverse effects on the environment beyond the limits of their jurisdiction.

17. (1) Whenever a State has reason to believe that operations could have significant adverse effects on the environment of other States or of areas beyond the limits of national jurisdiction, it should provide such other States, as well as competent international organizations, with timely information that would enable them, where necessary, to take appropriate measures.

(2) Such information should provide relevant data the transmission of which is not prevented by national laws or regulations.

18. States involved should be willing to hold consultations about the measures needed to prevent, combat and reduce significant adverse effects on the environment, which operations may produce outside the limits of the jurisdiction of the authorizing State.

19. (1) A State within whose jurisdiction operations are being considered or carried out should take into account any adverse environmental effects without discrimination as to whether such effects are likely to occur within the limits of its jurisdiction or beyond such limits; inter alia, such non-discrimination should be observed in national preventive laws and regulations.

(2) States should endeavour, in accordance with their legal systems and, where appropriate, on a basis agreed with other States, to grant equal access to and treatment in administrative proceedings to persons in other States who may be affected by pollution or other adverse effects resulting from proposed or existing operations.

#### F. SAFETY MEASURES

20. States within whose jurisdiction operations are being considered or are being carried out should ensure that such safety measures are undertaken with regard to the design, construction, placement, equipment, marking, operation and maintenance of installations that the provisions set out in conclusion I are observed.

21. States should accordingly ensure, inter alia, that:

(a) The materials used in the construction of installations are chosen in the light of the load they will have to bear and the conditions governing the service expected of the installations;

(b) Installations are designed and constructed so that, except in those circumstances that are both unforeseeable and irresistible, they will withstand any natural conditions to which they may be subjected;

(c) Every installation which may pose a danger to navigation is externally marked so as to give adequate warning of its presence and sufficient details for its identification, using appropriate internationally recognized warning signals;

(d) Installations are, when appropriate, indicated on charts and notified to those concerned.

22. States should also ensure, inter alia, that:

(a) All phases of operations, whether at the stage of exploration or exploitation are properly prepared;

(b) In the case of offshore exploration and exploitation of hydrocarbons, adequate controls are exercised, in particular, over:

(i) Well-head equipment and protective devices including blowout prevention equipment;

(ii) Devices for controlling seabed equipment from the surface;

(iii) Mud programmes and procedures for well casing and cementing;

(iv) Operating procedures applicable to installations and their implementation;

(c) The operator monitors all his operations;

(d) Storage offshore of hydrocarbons and other minerals is effected in a safe manner;

(e) Hydrocarbons and other minerals from the seabed are transported to shore in a safe manner.

23. Furthermore, States should ensure that:

(a) The use of any installation is conditional upon obtaining a certificate of approval issued by a competent body;

(b) Continuing supervision of installations is maintained and proper inspections are conducted.

24. States should ensure:

(a) Sufficient manning levels on installations;

(b) Suitable qualifications and experience of persons working on installations, taking into account the best available standards and technology;

(c) Appropriate training programmes, including training on a continuing basis, particularly as regards safety and environmental matters.

25. States should, as far as possible:

(a) Ensure that, during operations, international rules, standards and recommended practices and procedures as regards occupational safety, health and conditions of work, are effectively followed;

(b) Encourage co-operation among workers, employers and government on matters relating to safety, health and conditions of work in operations.

#### G. CONTINGENCY PLANNING AND IMPLEMENTATION MEASURES

26. (1) States within whose jurisdiction operations are being considered or are being carried out should ensure the development and, whenever necessary, application of plans to deal with accidents and other unforeseen events resulting in pollution and other adverse effects on the environment, or the threat thereof (hereinafter referred to as "contingencies").

(2) Contingency plans should, in particular, establish special procedures for dealing with contingencies which could create pollution of such significance or magnitude, that widespread or lasting damage, or the risk thereof, could ensue.

27. States should ensure that action is taken to deal effectively with contingencies. To this end, they should:

(a) Ensure that operators take the actions necessary under their contingency plans;

(b) As appropriate, take action in accordance with their national contingency plans; and

(c) Take such other actions as may be necessary.

28. States should not allow the commencement or continuation of operations unless satisfied as to the availability of the technical knowledge, trained personnel and financial and other resources necessary to carry out the contingency plan referred to in conclusion 7 (b) and that satisfactory arrangements for their use in case of a contingency have been made.

29. The operator's contingency plan should establish appropriate measures for dealing effectively with contingencies and, in particular, should include arrangements for:



- (a) The immediate raising of an alarm in the area of the operations;
- (b) Rapid warning of an authority or authorities designated for the purpose;
- (c) The warning, as may be necessary, of shipping which might be about to enter the immediate vicinity;
- (d) An up-to-date list of the persons to be alerted and informed, together with the speediest means available of, and necessary information for, making contact with them;
- (e) A continuing flow to an authority or authorities designated for the purpose of full information relating to particulars of the contingency, measures already taken and further action required;
- (f) Immediate action to deal with a contingency under the direction of a designated person, in particular to protect human life and also to protect living resources;
- (g) The stemming of the flow of toxic or other harmful substances and the extinguishment of fires, as well as the means necessary to achieve these ends;
- (h) The removal, as appropriate, of polluting substances;
- (i) The reduction and, in so far as possible, prevention of adverse effects on the environment, as well as mitigation of such effects;
- (j) As appropriate, joint action by mutual assistance among operators to respond to a contingency; and
- (k) Periodic emergency exercises.

30. States should prepare national contingency plans which set forth measures for undertaking or taking control of the conduct of actions in response to contingencies. To this end, the plans should, inter alia, include provisions for:

- (a) Supervision of the activities of the operator at all times during a contingency;

(b) A procedure under which the appropriate authorities may intervene whenever they consider it necessary or desirable. Such intervention may involve either giving directions to the operators or a State authority itself undertaking action to deal with a contingency;

(c) Establishing arrangements for:

- (i) The designation of a single authority to take command of the actions referred to in subparagraphs (a) and (b) above;
- (ii) The receipt and, as necessary, the obtaining and dissemination of information concerning contingencies;
- (iii) Ensuring the ready availability, at strategically placed centres, of the necessary personnel, equipment and materials;
- (iv) Ensuring the communication of notice of contingencies to the appropriate national authorities and competent international organizations with a view to avoiding danger to shipping or other interests;
- (v) Complementing the capability of operators to take the actions envisaged under, inter alia, conclusion 29 (d) and (f) to (i); and

(d) Establishing, as necessary, other administrative arrangements for implementing national contingency plans.

31. A State within whose national jurisdiction actions are being considered or are being taken to deal with contingencies, should take into account any potential adverse environmental effects without discrimination as to where, in particular in areas of equivalent ecological importance, such effects are likely to occur.

32. (1) Whenever a State has reason to believe that any contingency within the limits of its national jurisdiction is likely to have significant adverse effects on the environment of other States, it should as soon as practicable provide such other States, as well as any competent international organizations, with information that would enable them, where necessary, to take appropriate measures.

(2) Such information should provide relevant data, the transmission of which is not prevented by national laws or regulations.

33. A State should:

(a) When considered necessary, inform other States within its region of the technical expertise, trained personnel, equipment and materials kept available pursuant to conclusion 30 (c) (iii);

(b) Provide such assistance as it can reasonably make available, including technical expertise, trained personnel, equipment and materials. To this end it should:

(i) Consider making on a bilateral and multilateral basis standing arrangements for mutual assistance and co-operation; and

(ii) In the absence of a standing arrangement, provide such assistance at the request of another State requiring assistance under an ad hoc arrangement relating to the specific contingency, which may include appropriate financial provisions.

#### H. LIABILITY AND COMPENSATION

34. States should adopt appropriate measures for the determination of damage suffered as a result of operations and liability therefor, as well as for the payment of prompt and adequate compensation for such damage. There should be appropriate arrangements for the award and payment of compensation when damage is suffered outside their respective jurisdictions.

35. (1) States should, by appropriate measures, provide for the determination of a person or persons, physical or juridical, to be liable for damage which may result from operations. The operator should be liable unless otherwise provided. Where more than one person is liable, their liability should be joint and several.

(2) The person or persons liable should retain any right of recourse he or they may have against others.

(3) The person or persons referred to in paragraph (1) above should be strictly liable for any damage resulting from operations. This provision need not be applied when no risk of significant adverse effect on the environment is involved or when considered inappropriate.

(4) Exceptions to or modifications of liability may be made, inter alia, when damage results from circumstances of an exceptional, inevitable and irresistible character.

36. (1) A State should assure to any person who has suffered damage as a result of operations an enforceable right to prompt and adequate compensation from the person or persons referred to in conclusion 35 (1), bearing in mind, inter alia, the degree to which such person may have contributed to the damage. This paragraph is subject to paragraph (2) below.

(2) The maximum liability of the person or persons referred to in conclusion 35 (1) may be limited, taking fully into account the foreseeable damage and the objective of providing full compensation to the person suffering the damage.

37. (1) States should make provision for the joint and several liability of persons referred to in conclusion 35 (1) in cases where damage results from the operations of two or more of those persons and where that damage is not reasonably separable.

(2) In case where the cause of damage emanates from a defined area, but where the particular operation or operations from which the damage emanates cannot be ascertained, States should consider making provision or arrangements to provide compensation.

38. (1) The person or persons referred to in conclusion 35 (1) should be required to make appropriate arrangements to meet awards of compensation made against them.

(2) Such arrangements could consist, inter alia, of insurance, compensation funds or other financial securities.

39. A State should give consideration to providing that public authorities or other appropriate persons who take reasonable action designed to prevent the spread of pollution, minimize damage and cleanse and restore the areas affected are entitled to recover all expenses incurred, including reimbursement of any payments for any damage caused by such action.

40. When it is in accordance with its legal system, a State should consider adopting special provisions by means of which a specific person or authority is entitled to sue for compensation for damage to the environment resulting from operations, in cases where otherwise no person or authority would have standing to sue.

41. In order to facilitate the payment of compensation to persons who have suffered damage as a result of operations, States should consider, inter alia, encouraging the establishment of compensation funds. In particular, such funds might be established to deal with cases in which such a person or persons remain wholly or partially uncompensated.

42. (1) In any one region of operations, States should endeavour to conclude an agreement on liability and compensation. Such an agreement should, where feasible, seek to eliminate or reduce any differences in the nature and extent of liability, the principles for determining damage, the measure of compensation available under the respective national level régimes and the procedures for obtaining compensation.

(2) In endeavouring to reach such agreement, States should, with particular regard to the case of persons who suffer damage within the jurisdiction of one State as the result of operations carried out within the jurisdiction of another State, give consideration to the following:

(a) Determination of the applicable law and the competence of courts, as well as facilitation of access to courts;

(b) Enforcement of awards and judgements.

(3) When appropriate, States should give consideration to the establishment of intergovernmental commissions.

#### SUGGESTED ACTION BY THE GOVERNING COUNCIL

The Council may wish to adopt a decision along the following lines:

"The Governing Council,

"Noting with satisfaction the report of the Working Group of Experts on Environmental Law at its eighth session, 2/

"Wishing to assist Governments in promoting legal protection of the environment from marine pollution caused by offshore mining and drilling within the limits of national jurisdiction,

"Bearing in mind its responsibility to promote international co-operation in the field of the environment and to recommend, as appropriate, policies to this end,

"1. Adopts the conclusions of the study on the legal aspects concerning the environment related to offshore mining and drilling within the limits of national jurisdiction annexed to the above-mentioned report of the Working Group of Experts on Environmental Law, as guidelines for use by States;

"2. Recommends that States take these guidelines into account when formulating national legislation;

"3. Further recommends that these guidelines be used by States when undertaking negotiations for the conclusion of international agreements for the prevention of pollution of the marine environment caused by offshore mining and drilling within the limits of national jurisdiction;

"4. Requests the Executive Director to circulate the texts of the conclusions to all States and to report to the Governing Council at its tenth session on the implementation of this decision."