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MEDITERRANEAN ACTION PLAN

Fifth Ordinary Meeting of the Contracting
Parties to the Convention for the Protection
of the Mediterranean Sea against pollution
and its related protocols

Athens, 7-11 September 1987

REPORT OF THE EXECUTIVE DIRECTOR ON THE IMPLEMENTATION
OF THE ACTION PLAN AND OF THE GENOA DECLARATION IN 1986-1987
AND RECOMMENDATIONS FOR ACTIVITIES TO BE UNDERTAKEN IN THE
1988-1989 BIENNIUM WITH RELATED BUDGET PROPOSALS

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EXECUTIVE SUMMARY

During 1986-1987 the implementation of the Action Plan progressed steadily in all its components under the guidance of the Bureau elected by the Fourth Ordinary Meeting of Contracting Parties.

Genoa Declaration

The Genoa Declaration was widely distributed and certain progress was recorded towards its ten targets (paras. 1-40).

Legal instruments

The Protocol concerning Mediterranean Specially Protected areas entered into force on 23 March 1986. The draft Protocol on the protection of the Mediterranean Sea against pollution resulting from the exploration and the exploitation of the continental shelf, and the sea-bed and its subsoil has been prepared (paras. 44-45). The Meeting is invited to authorize the convening of a Conference of Plenipotentiaries to consider the draft Protocol (para. 46).

Environmental Management

The Blue Plan exercise has completed its report for review by the Meeting, with recommendations on its use by the coastal States during 1988-1989 (paras. 87-105).

The Priority Actions Programme has developed further its networks of projects and institutions in several areas. A regional programme on seismic zones has attracted the necessary outside financing, and two more programmes (on aquaculture and soil erosion) have been developed (paras. 106-129).

The Specially Protected Areas Regional Activity Centre was officially inaugurated in Tunis. A draft "Directory of marine and coastal protected areas of the Mediterranean region" as well as draft "Guidelines for the selection, establishment, management and notification of information on marine and coastal protected areas of the Mediterranean" were produced in co-operation with IUCN. These were endorsed by the National Focal Points and are submitted to the Meeting for adoption (paras. 130-137).

Environmental assessment

The MED POL national monitoring programmes, either signed or for which data are being submitted, now cover thirteen countries, compared with seven in 1985. For 1986/1987 biennium, direct assistance amounted to US\$ 771,300 for monitoring and to US\$ 557,800 for research (paras. 138-158).

A calendar for the implementation of the Land-based sources Protocol (1986-1987) and an indicative calendar (1988-1995), approved by the relevant Working group, are submitted to the Meeting for approval (paras. 192-193).

A recommendation for the deletion of organosilicon compounds from the LBS and Dumping Protocols, endorsed by the Working Group for Scientific and Technical Co-operation, is submitted to the Meeting for approval (para. 196).

Assessments were prepared on the State of Pollution of the Mediterranean by used lubricating oils, mercury and mercury compounds, cadmium and cadmium compounds, microbial pollution of shellfish and shellfish-growing waters and by petroleum hydrocarbons (paras. 197-203).

Environmental quality criteria

Interim Environmental Quality Criteria for mercury and Environmental Quality Criteria for shellfish waters, endorsed by the Working Group for Scientific and Technical Co-operation are submitted to the Meeting for adoption (paras. 207-208).

Institutional aspects

A proposal is submitted on a programme re-orientation, by focussing all MAP activities around the development of an environmentally sound, integrated coastal management plan for the Mediterranean. On the institutional side it is proposed to set up a committee on Environment and Development as a subsidiary body of the Contracting Parties and to carry out a review of the programme management in order to reduce costs. These proposals are submitted to the Meeting for approval (paras. 222-256).

ROCC

A proposal for a gradual expansion of the Centre's role to include harmful substances other than oil, in cases of emergencies endorsed by the National Focal Points, is submitted to the Meeting for approval (paras. 263-273).

Financial aspects

Contributions paid to the Mediterranean Trust Fund from 1.1.1986 to 31.5.1987 amounted to US\$ 2,496,187 leaving an important unpaid balance (paras. 281-282) (annex II).

The proposed budget of US\$ 10,326,888 for 1988-1989 reflects a 15 percent annual increase over 1987, (annex IV). Chapters 3, 4 and 5 of Section I and chapters 2 and 3 of Section II have been endorsed by the corresponding meetings of National Co-ordinators or Focal Points. Chapter 1 of Section II will be presented in an Addendum to the present report if amended by the BP National Focal Points.

The programme and budget are submitted to the Meeting for approval (annex IV).

The proposed contributions are similarly increased by 15 percent per year over 1987 and total US\$ 9,224,353 (including the EEC and the Host country contribution) (annex VI).

The level on contributions and the new scale of assessment, agreed by consensus by the Meeting of Experts on Alternative Methods of Calculating Contributions to the Mediterranean Trust Fund (Madrid, 19-22 June 1987) and endorsed by the Bureau, are submitted to the Meeting for approval (annex VI).

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I IMPLEMENTATION OF THE GENOA DECLARATION

PROGRESS REPORT

1. Since the adoption of the Genoa Declaration, the following was achieved in the implementation of the particular items of the Declaration:

Item 8 - Increase investment to combat pollution

2. Available information is scarce and fragmented. National reports do not differentiate coastal expenditures and seldom include regional and municipal investment.

Item 9 - MAP Budget to be used in a catalytic way

3. The main example remains MED POL, where MAP mobilizes a large programme in staff, laboratory and ship time on the Government's side.

4. Other examples include:

Medrap (Regional Aquaculture Project) Tunis

MAP development efforts led to a UNDP financed FAO project of US\$ 1.2 million (1984-1986), and Italian bilateral training component (US\$ 3 million).

Floating Reception Facilities

MAP development costs: nominal. EEC/Country projects 1986-87 = US\$ 2 million in Yugoslavia and Greece.

Negotiations are being carried out with Egypt and Tunisia to provide floating reception facilities in their ports.

Co-financing of seminars/training courses

- Symposium on Marine Co-operation in Tunisia, 26-28 November 1986
- Solar energy training course in Almeria, Spain, 17-28 November 1986
- Workshop on youth programmes for Mediterranean Protection in Athens 21-24 November 1986.

5. In future, the catalytic role must include a financial presence in regional projects developed in MAP. MAP financial presence could protect the investment made in the development phase and act as an incentive to complementary third party financing.

Item 10 - To publicize the aims and achievements of the Mediterranean Action Plan

6. Significant examples of this approach in 1986 were:

Spain - The Ministry of Public Works and Housing has produced the Exhibition "El Mediterráneo Vive" (the Mediterranean is Alive). It is composed of a movable tent, panels describing Mediterranean problems, all Action Plan components and the Spanish activities related to it, a

photographic exhibition showing the variety of Mediterranean cultures, a large-scale model of the Mediterranean basin and a specially produced videocassette. The exhibition has been shown in Barcelona, Madrid, Palma de Mallorca, Alicante, Valencia and Málaga between June and October 1986.

National brochures on MAP and the national participation in it were issued by Egypt, Israel and Yugoslavia with limited assistance from the secretariat.

France - The French Cultural Centre in Nairobi organized a Mediterranean Week by hosting the MAP Exhibition concurrently with the French exhibition on the Mediterranean commemorating F. Braudel (2-6 March 1987).

Item 11 - MAP as an important framework for national development activities

7. Algeria: The Genoa Declaration was included in the National Environmental Programme approved by the Algerian Government.
8. Spain: Specific reference to the objectives of MAP as an element of Spanish policy was made in public statements by the Minister of Public Works and Housing.
9. EEC: The Community Programme 1987-1992 includes implementation of the Barcelona Convention, its four Protocols, and of the Genoa Declaration as objectives of the EEC environmental policy for the sea.
10. In all countries ratification of the Convention, and especially of the LBS Protocol, necessarily affects national policy on marine protection and coastal development.

Item 12 - Essential support of international, regional and non-governmental organizations

11. In addition to close co-operation with UN Agencies, contacts with non-UN bodies have been strengthened (Council of Europe; London/Paris Convention; Baltic Commission; ALECSO). Support and encouragement was both given to NGOs active in related fields (e.g. Tunisian Association for International Studies; European Environment Bureau; Youth and Environment Service (YES); Lega Navale Italiana), and received from NGOs (Greenpeace).
12. The 1986-1995 Programme Calendar proposes the convening of a Forum of non-governmental organizations on the Mediterranean by 1988 (item 126).
13. Within the framework of strengthening co-operation and co-ordination between UNEP/MEDU and Arab States, an intersecretariat meeting was convened in Athens, 16-17 February 1985. The meeting recommended several steps in this direction.
14. The first meeting of Arab Environment Ministers (Tunis, 13-14 October 1986) adopted several recommendations on human environment and development and Arab co-operation with international organizations, which are pertinent to the Mediterranean Action Plan.

15. The Memorandum of Understanding signed by UNEP and the Arab League on 15 October 1986 is another important step in this direction.

16. Work continued to involve more Arab specialized organizations in the activities of PAP/RAC.

17. The Committee on Seas of the African Environment Ministers, met in Algiers (22-25 May 1987) with support from the Co-ordinating Unit.

18. A meeting of Directors of relevant UNEP regional offices was convened in Athens, 8-9 April 1987. The meeting recommended several steps with a view to strengthen co-operation and co-ordination with the Unit.

Item 14 - Appeal to the Mediterranean population and tourists

19. Information on Mediterranean Action Plan is conveyed through press contacts as part of project implementation.

Item 15 - Mediterranean Environment Week

20. The Mediterranean Environment Week should commence during 1987, to coincide with the launching of the "European Year of the Environment 1987", and the selection of the 14th of October every year as the "Arab Environmental Day" and the 5 June "World Environment Day". In 1987, MAP has supported the EEC initiative of the Mediterranean cruise of the Italian sailing vessel "Amerigo Vespucci" by providing material and speakers at its ports of call (Split, Athens, Tunis, Barcelona).

Item 17(a) - Port reception facilities

21. The majority of Mediterranean ports do not meet the reception facilities requirements of MARPOL 73/78. Three major surveys were carried out:

- 1978 - IMO/UNEP project (FP/0503-78-01) covered 73 ports in 16 countries;
- 1981 - EEC (through Snamprogetti of Italy) covered 52 ports in 11 countries;
- 1982 - IMO/UNDP (RAB/79/015) covered 4 countries.

22. The overall picture was presented by UNEP in the document on "Development of port reception facilities in the Mediterranean" (UNEP/WG.104/4/Add.1), submitted to the meeting on the contribution of Mediterranean Bilateral and Multilateral programmes to the objectives of the Mediterranean Action Plan (Brussels, 23-26 October 1984) and again to the Genoa meeting. It had a projected cost of US\$141 million (1984 prices). A computer map showing the location of the ports has been developed.

Item 17(b) - Sewage treatment plants and submarine outfalls

23. It is proposed to publish the list of Med coastal cities of 100,000 and 10,000 population, respectively, with the known status concerning availability of the above facilities. Annual reports will inform the Contracting Parties of the progress made.

Item 17(c) - Environmental Impact Assessment

24. The item is included in the PAP work programme.

Item 17(d) - Safety of maritime navigation

25. The IMO Assembly, in Resolution A.378(14) of 20 November 1985, adopted Guidelines for Vessel Traffic Services. These guidelines are used by the EEC and, therefore, strengthen its initiative, known as COST 301.

26. The experimental stage has been concluded in the North Sea and in the Mediterranean (Italy and France) in 1986.

27. A development phase of 3 years is being considered by the EEC to be co-financed with France, Italy (stations at Genoa and Messina) and Spain.

28. It is expected that the EEC will inform the Athens meeting on progress made and solicit participation of other countries in this initiative.

Item 17(e) - Endangered marine species

29. It is proposed to convene a consultation meeting during 1987 on the Mediterranean monk-seal, in co-operation with IUCN.

30. A similar programme will be developed for Mediterranean sea turtles one year later.

Item 17(f) - Solid Waste

31. The item is included in the PAP work programme.

Item 17(g) - 100 coastal sites of common interest

32. The secretariat entrusted the International Council on Monuments and Sites (ICOMOS) to produce draft criteria and a preliminary list of sites. Review meetings were held in Paris, 17 December 1986 and 14 May 1987.

33. The criteria have received the support of UNESCO. The list is being submitted in document UNEP/IG.74/4.

RECOMMENDATIONS CONCERNING THE 100 SITES

34. The Executive Director recommends that the Meeting review and approve the criteria and the initial list of 100 coastal historic sites of common Mediterranean interest.

Item 17(h) - Protection of at least 50 new coastal sites or reserves

35. The Regional Activity Centre for Specially Protected Areas (SPA/RAC), Tunis, produced draft guidelines for selection, establishment and management of Specially Protected Areas. After endorsement by SPA focal points (Athens, 1-4 June 1987) and adoption by the present meeting, SPA/RAC will promote, in consultation with coastal States, the selection of new areas. Annual reports will inform the Contracting Parties of progress made towards the goal of 50 new sites.

Item 17(i) - Prevention of soil loss

36. The item is included in the PAP work programme.

Item 17(j) - Reduction of air pollution

37. New initiatives must await results of the study on atmospheric transport of pollution being conducted under MED POL.

Draft Programme Calendar 1986-1995

38. During the Fourth Ordinary Meeting of the Contracting Parties to the Barcelona Convention (Genoa, September 1985), the secretariat proposed a draft programme calendar for the period 1986-1995. Some participants emphasized the importance of this programme due to the fact that it contained specific targets to be achieved by certain dates. The meeting requested the secretariat to circulate the draft programme calendar to the member countries for comments and invited the Bureau of the Contracting Parties to discuss it before further action was taken.

39. The secretariat received observations and made the necessary revision to the programme calendar by incorporating the observations and improving the presentation of the calendar. The new version was sent to the Contracting Parties on 20 August 1986 for their comments and was reviewed by the Bureau at its meetings in Madrid, 11 September 1986, and Istanbul, 25 March 1987. The Bureau took note of the programme calendar and requested the secretariat to submit it to the Fifth Ordinary Meeting of the Contracting Parties.

RECOMMENDATIONS CONCERNING THE PROGRAMME CALENDAR

40. The Executive Director recommends that the Meeting review and approve the programme calendar 1986-1995 contained in document UNEP/IG.74/Inf.7.

II FRAMEWORK CONVENTION AND RELATED PROTOCOLS WITH THEIR TECHNICAL ANNEXES
FOR THE PROTECTION OF THE MEDITERRANEAN ENVIRONMENT

II(a) IMPLEMENTATION OF THE CONVENTION FOR THE PROTECTION OF THE
MEDITERRANEAN SEA AGAINST POLLUTION

41. The following articles have not, or have been insufficiently acted upon:

Article 6 - Pollution from Ships

PROGRESS REPORT

42. The Mediterranean Sea was given special area status in MARPOL Convention 1973/78, which totally prohibits the operational discharge of oily wastes from ships in such special areas. In pursuance to Article 6 of the Barcelona Convention and to MARPOL Convention, Contracting Parties should establish port reception facilities in their ports in order to prevent, abate and combat pollution of the Mediterranean Sea Area caused by discharges from ships.

43. During 1986/1987 some progress has been achieved in this regard. (See Section IV(d) below with regard to petroleum hydrocarbons in the Mediterranean Sea).

Article 7 - Pollution resulting from exploration and exploitation of
the Continental shelf and the sea-bed and its sub-soil

PROGRESS REPORT

44. The Contracting Parties requested the secretariat to initiate preparation for a Protocol on the protection of the Mediterranean Sea against pollution from offshore exploration and exploitation (Genoa, September 1985). In pursuance to this request the secretariat convened a meeting of experts on the technical aspects of the Protocol (Athens, 22-26 September 1986, document UNEP/WG.155/1). A Consultant prepared a Guide to exploration for and exploitation of oil and gas resources of the Mediterranean sea-bed, with glossary of terms in common use, illustrations, and bibliography (UNEP/IG.74/Inf.5).

45. The International Juridical Organization (IJO) has prepared a draft Protocol which is presented in document UNEP/IG.74/Inf.9.

RECOMMENDATIONS CONCERNING OFFSHORE PROTOCOL

46. The Executive Director submits the draft Protocol to the Contracting Parties for their preliminary review and requests their authorization to convene a Conference of Plenipotentiaries in 1989 to review and adopt the Protocol.

Article 10 - Monitoring

PROGRESS REPORT

47. A few Contracting Parties have not yet designated the competent authorities responsible for pollution monitoring within areas under their national jurisdiction as required by Article 10, paragraph 2.

RECOMMENDATIONS CONCERNING MONITORING

48. The Executive Director recommends that Contracting Parties that have not done so, designate the competent authorities responsible for pollution monitoring within area under their national jurisdiction.

Article 11.3 - Scientific and technological co-operation

PROGRESS REPORT

49. The relevant information and the recommendations of the Executive Director are found in section IV below.

Article 12 - Liability and compensation

PROGRESS REPORT

50. Further to the offer made at the Genoa Meeting, the EEC is expected to present its document on liability and compensation. A consultant prepared an information paper (UNEP/IG.74/Inf.6), updating the study concerning the Mediterranean Inter-State Guarantee Fund and Liability and compensation for damage resulting from the pollution of the marine environment, submitted to the Second Meeting of the Contracting Parties (Cannes, March 1981).

RECOMMENDATIONS CONCERNING LIABILITY AND COMPENSATION

51. The Executive Director recommends that the meeting take note of these documents.

Article 20 - Reports

PROGRESS REPORT

52. The Contracting Parties are requested to submit reports on the measures adopted in the implementation of the Convention and of Protocols to which they are Parties.

53. Few Contracting Parties have submitted their annual reports in pursuance to Article 20, namely, Algeria (1985), Egypt (1985), France (1985), to be re-issued in 1987, Israel (1986), Morocco (1985), Spain (1985), Tunisia (1985), Yugoslavia (1983).

RECOMMENDATIONS CONCERNING REPORTS

54. The Executive Director recommends that the Meeting may wish to reaffirm the need for each Contracting Party to submit a consolidated annual report by 30 June of each year on measures adopted during the previous 12-month period.

Article 21 - Compliance Control

55. Any Contracting Party wishing to "recognize as compulsory ipso facto and without special agreement, in relation to any other party accepting the same obligation, the application of the arbitration procedure in conformity with the provisions of Annex A of the Convention" may do so at the Meeting.

II(b) IMPLEMENTATION OF THE PROTOCOL FOR THE PREVENTION OF POLLUTION OF THE MEDITERRANEAN SEA BY DUMPING FROM SHIPS AND AIRCRAFT

PROGRESS REPORT

56. The progress report of the implementation of the Protocol is contained in Section IV(c) of this report.

II(c) IMPLEMENTATION OF THE PROTOCOL CONCERNING CO-OPERATION IN COMBATING POLLUTION OF THE MEDITERRANEAN SEA BY OIL AND OTHER HARMFUL SUBSTANCES IN CASES OF EMERGENCY

PROGRESS REPORT

57. The Fourth Meeting of the Working Group on Scientific and Technical Co-operation for MED POL (WGSTC) (Athens, 16-20 June 1986), reviewed the report of the secretariat on the implementation of the emergency Protocol (UNEP/WG.144/5), and decided to recommend to the present meeting that in the future technical matters related to oil pollution abatement within the framework of the emergency Protocol would not be referred to WGSTC. Such matters should be considered and discussed by the Regional Oil Combating Centre (ROCC) focal points.

58. The ROCC Review Meeting (Malta, 23-27 February 1987), agreed on Draft Guidelines for Co-operation in Combating Marine pollution in the Mediterranean, in particular, the meeting agreed that, at the present time, these Guidelines should be limited to oil pollution.

59. During 1986-1987, no reports on the type and nature of spillages of pollutants at sea, expected according to Articles 8 and 9 of the Emergency Protocol, have been received.

60. The list of alerts and accidents 1977-1986 has been distributed in document UNEP/IG.74/Inf.3

61. An assesement of the overall inputs of pollutants through discharges in emergency situations or released accidentally into the Mediterranean cannot be made on the basis of the data supplied by the end of 1986.

RECOMMENDATIONS CONCERNING EMERGENCY PROTOCOL

62. On the basis of the recommendations of the Fifth Meeting of the Working Group for Scientific and Technical Co-operation for MED POL (Athens, 6-10 April 1987) (UNEP/WG.160/13), the Executive Director places before the Meeting the following recommendations for approval:

In future, technical matters related to oil pollution abatement within the framework of the Emergency Protocol would not be referred to the Working Group on Scientific and Technical Co-operation for MED POL. Such matters should be considered and discussed by the ROCC National Focal Points.

II(d) IMPLEMENTATION OF THE PROTOCOL FOR THE PROTECTION OF THE MEDITERRANEAN SEA AGAINST POLLUTION FROM LAND-BASED SOURCES

PROGRESS REPORT

63. The Government of Greece has ratified the Protocol on 26 January 1987 bringing the number of ratifications to ten.

64. The progress report of the scientific/technical implementation of this Protocol is contained in Section IV(c) of this report.

RECOMMENDATIONS CONCERNING THE LBS PROTOCOL

65. The Executive Director considers that the process of ratifications needs to be accelerated. It is hoped that announcements on this matter will be made at the Meeting.

66. The Meeting may wish to recommend that all Parties to the Barcelona Convention ratify the LBS Protocol by the end of 1987.

67. Recommendations concerning scientific/technical implementation of this Protocol are contained in Section IV(c) of this report.

II(e) IMPLEMENTATION OF THE PROTOCOL CONCERNING MEDITERRANEAN SPECIALLY PROTECTED AREAS

PROGRESS REPORT

68. The SPA Protocol entered into force on 23 March 1986.
69. As of 31 May 1987 nine Contracting Parties ratified the SPA Protocol and five more had signed but not yet ratified it. Ratifications cover 45 percent of the Mediterranean coastline.
70. The progress report of the scientific/technical implementation of this Protocol is contained in Section III(c) of this report.

RECOMMENDATIONS CONCERNING THE SPA PROTOCOL

71. The Executive Director considers the progress of ratification to be slow and is concerned that further delays will imperil the sites already identified for protection.
72. The Meeting may wish to reconfirm its decision of the last meeting (Genoa, September 1985) by recommending the ratification of the Protocol by all Parties to the Barcelona Convention by the end of 1987.
73. Recommendations concerning scientific/technical implementation of this Protocol are contained in Section III(c) of this report.

II(f) OTHER LEGAL MATTERS

Ratification of relevant international conventions

PROGRESS REPORT

74. The Mediterranean sea was one of the first seas given special area status in IMO's MARPOL Convention 1973/1978, which prohibits the operational discharges of oily wastes from ships in such special areas.

RECOMMENDATIONS CONCERNING THE MARPOL CONVENTION

75. The Executive Director recommends that the Meeting invite the Contracting Parties that have not yet done so (Algeria, Cyprus, Libyan Arab Jamahiriya, Malta, Monaco, Morocco, Syrian Arab Republic and Turkey) to ratify the International Convention for the prevention of pollution from ships, 1973 and the related Protocol 1978 (MARPOL 73/78).

Interparliamentary Union Conference

PROGRESS REPORT

76. The Conference of the Interparliamentary Union (IPU), held in Nairobi in November 1984 recommended that IPU should take appropriate steps to reinforce its programme for the protection of the Mediterranean sea against pollution in support to the Mediterranean Action Plan developed by UNEP.

77. The Fourth Ordinary Meeting of the Contracting Parties (Genoa, September 1985), invited the Secretariat to assist the IPU Committee, scheduled to convene during 1986, to discuss the means to control pollution.

78. Pursuant to the above-mentioned decision, consultations were held with the IPU Secretary-General. UNEP and IPU organized the meeting of the Ad hoc Committee to review the implementation of the recommendations of the 1984 Interparliamentary Conference on Environment. The meeting was convened in Nairobi, 23-25 February 1987. Senior representatives from 18 countries of the IPU have issued a report calling on developed countries to make environmental programmes a central element in development aid and recommending the strengthening of the United Nations system in the environmental field.

RECOMMENDATIONS CONCERNING IPU

79. The Executive Director recommends that the Meeting may wish to recommend that co-operation between UNEP and IPU be strengthened towards involving parliaments to play a particular role in enhancing public awareness of the environment and in responding to public concerns on various environmental issues.

Further development of the legal and policy component

80. It is proposed to develop further the legal and policy component of the Mediterranean Action Plan by promoting the management of all legal issues at national and international levels to help in the raising of the quality of performance of the Barcelona Convention.

81. The proposed work will more particularly:

- assist the function of the Co-ordinating Unit in advancing the implementation of the Mediterranean Action Plan, through the compilation of all legal instruments which refer to the up-to-date action, national and international, as well as to the respective institutional structures of the Contracting Parties in the context of the Barcelona Convention;
- strengthen the role of the Co-ordinating Unit and create the conditions for further integration and effective co-operation among the Contracting Parties, through the establishment of a Committee of Legal and Policy Experts;

- give a new impetus for the implementation of the already reached level of technical co-operation between the Contracting Parties, through the consideration, either on individual or on collective basis, of outstanding legal and policy issues which substantially affect the co-operation of the participants.
82. The proposed work will be organized on two levels:
- first, the level of compilation of all legal instruments which deal, in detail, with the overall level of regulation of those environmental issues as provided in the framework of the Barcelona Convention. Such a compilation would not be a merely mechanical exercise but, a well-structured "mapping" operation which will clearly demonstrate the institutional and administrative setting of marine and coastal protection in each Contracting Party. At the same time, it will provide the Co-ordinating Unit with a significant source of information which will enable it to promote an integrated policy of implementation of technical standards and of harmonization of the environmental laws and policies of the Contracting Parties;
 - Greece will be the starting point of the proposed compilation process. An attempt will be made to establish a model of compilation of all international legal instruments reflecting co-operative commitments which either emanate from the framework of the Barcelona Convention or, indeed, complement it, and have a multilateral or a bilateral form (Multilateral Treaties, Bilateral Treaties, International Commissions). It will then continue to include all those national legal enactments which deal with the prevention, abatement and combat of pollution and with the protection of the environment in regard to the pollution caused by dumping from ships and aircraft, by discharges from ships, by the exploration and exploitation of the continental shelf, by discharges from rivers, coastal establishments or outfalls or by any other land-based sources within the territory of Greece, and, finally, in regard to those marine areas which are important for the safeguard of the natural resources and natural sites of the Mediterranean Sea Area. The work will also detect the level and the extent of the harmonization of the Greek Environmental Legislation to the respective European Communities Law on matters within the scope of the Barcelona Convention. Particular emphasis will be laid upon those enactments which set up the institutional structure and machinery responsible for the building up of the environmental policy, the production of national legislation and the implementation of the standards established at national and international level;
 - this model of compilation will be then effectively used for each one of the rest of the Contracting Parties. It will require, therefore, on the spot visits and continuous communication with the competent authorities of the Contracting Parties;
 - second, the level of elaborating and promoting a more effective normative and policy integration among the Contracting Parties with the view to supporting and advancing the function of the political foundation of the Barcelona Convention. In the operational phase of the Barcelona Convention scheme, the policy as well as the normative aspect of the Mediterranean Action Plan need to be fully considered and more interactively developed between the participants if a step, beyond

monitoring and assessment, is to be made possible. At this critical stage, where assessment through technical co-operation has been admittedly moved forward, there is an indispensable need to support, at this stage, the consensus-development of the decision-making function of the Action Plan, otherwise technical co-operation will be relegated into a pointless exercise;

83. It is, therefore, proposed that an essential part of the work will be the setting of the stage for establishing, under the auspices of the Co-ordination Unit, a Committee of Legal and Policy Experts, representing all Contracting Parties. Its task will be to prepare a full Report on policies, processes and rules which significantly affect the environmental behaviour of the Contracting Parties at national and international levels. The task of the Committee will, moreover, include the elaboration and the presentation of a possible Draft Convention on the Settlement of Environmental Disputes, possible Models for Bilateral Agreements of the Protection of Marine Environment and it might make an attempt to promote the establishment of a Code of Environmental Conduct for the Protection of the Marine Environment of the Mediterranean. It may also, look into the possibility of preparing Models for bilateral Agreements on the Transfer of Technology so that all participants, irrespective of their level of economic development, will be more actively involved in the various activities of the Mediterranean Action Plan. It will be able to elaborate authoritatively the Constitutive Instrument of the Inter-State Guarantee Fund.

84. An important aspect of the work at this level will be also to develop the function of the Committee into an authoritative adviser to the Contracting Parties on issues of International Law which appear to directly affect their co-operation. In doing so, the Committee will have the opportunity to discuss and elaborate on those subjects of International Law which are in the process of interactive development and directly affect, by their nature, the quality of co-operation between the Contracting Parties (e.g., issues concerning international liability, jurisdiction, Law of the Sea, etc.) The significance of dealing with these issues collectively, in the framework of a Committee representing all the interests involved, is obvious.

85. Of course, the responsibility for directing its activities needs to be carefully approached. A first step to this direction will be the preparation of an informal meeting of Legal and Policy Experts, from all the Contracting Parties and with the sole purpose of establishing a Committee to deal with the whole range of the issues mentioned above.

RECOMMENDATIONS CONCERNING THE LEGAL AND POLICY COMPONENT

86. The Executive Director recommends that the Meeting may wish to:

- approve the compilation of legal instruments related to the Barcelona Convention;
- approve the case study on Greece to develop a model of compilation;
- approve the setting up of a Committee of Legal and Policy Experts to be nominated by the Contracting Parties;
- approve the budgetary implications contained in Section I, Chapters I and 2 of annex IV.

III INTEGRATED PLANNING OF THE DEVELOPMENT AND MANAGEMENT OF THE RESOURCES OF THE MEDITERRANEAN BASIN

III(a) THE BLUE PLAN (BP)

PROGRESS REPORT

87. In pursuance to the decisions of the Contracting Parties (Genoa, September 1985), to complete the Blue Plan exercise by the end of 1987, the Blue Plan Regional Activity Centre, in close co-operation with the Co-ordinating Unit, intensified its work during 1986-1987 through various steps:

- consolidating and strengthening the permanent team and consultants at the centre; two researchers from Morocco (November 1985) and Greece (March 1986) were selected to the permanent team of the Blue Plan. The procedure for recruitment of the third expert (Egypt) could not be successfully completed;
- convening two meetings of the Steering Committee of the Blue Plan at the Centre's premises on 21-22 October 1986 and 29-30 April 1987. The meetings reviewed progress achieved and steered the work of the whole exercise;
- the Study Group on Mediterranean Scenarios convened two meetings one in 1986 and one in 1987;
- a drafting group of six (I. Abdel-Rahman, S. Antoine, M. Batisse, M. Grenon, J. Lesourne, A. Manos) met five times during 1986 and 1987, during which agreement was reached on the method of presentation, use to be made of the sectoral studies and statistical information collected, as well as on structure, content, length and timetable of the Blue Plan main Report;
- a meeting with the Executive Director took place in Paris (17 October 1986) to review and agree upon the programme and the timetable scheduled for the achievement of the second phase of the Blue Plan and to stress the importance of the environmental aspects in the whole process;
- the Bureau of the Contracting Parties was regularly informed about the progress achieved concerning Blue Plan final Report. On two occasions, the Bureau acted on requests for re-allocation of funds for Blue Plan;
- a high level Consultant (Mr. I. Abdel-Rahman, Egypt) undertook missions to Algeria, Egypt, Morocco, Syria and Turkey to assist in formulating national scenarios. The Blue Plan Centre assisted other Contracting Parties, technically and financially in their efforts to prepare their national scenarios;

- a joint meeting of the National Focal Points for Blue Plan and Priority Actions Programme was held in Athens, 28-30 April 1986. A set of recommendations was adopted. The report of the meeting is contained in document UNEP/WG.143/8. These efforts culminated in a meeting of the National Focal Points for the Blue Plan, Sophia Antipolis, 20-22 July 1987. During this meeting the draft Report on the second phase of the Blue Plan was extensively reviewed by the participants.

THE BLUE PLAN AND ITS FOLLOW-UP

88. The second phase of the Blue Plan was launched in the spring of 1985 after the signing of an agreement between UNEP and France and the establishment at Sophia Antipolis, of the Regional Activities Centre of the Blue Plan. The preliminary report concluding this second phase and dealing mainly with results of a certain number of Mediterranean scenarios will be submitted to the Focal Points of the Blue Plan in July 1987. During the third phase which will be concluded as planned at the end of December 1987, the observations, comments and criticisms of the Focal Points and the Contracting Parties, formulated during their respective meetings or through direct contacts, will be taken into consideration for the drafting of the definite text of the Blue Plan as well as of the annexes and specialized volumes that will accompany it.

89. From the beginning of 1988, the content, the result and the conclusions of the Blue Plan will thus begin being disseminated and the period of its gradual implementation will start, so that it will be the basis for reflection and orientation in the decision taking and the action programmes of the Mediterranean countries, in everything that concerns the relationship between the environment and development.

90. In so far as the Contracting Parties will deem it desirable, it is planned to conclude the necessary arrangements in order that the definite text of the Blue Plan as well of the annexes and the specialized volumes be published in the beginning of 1988 in the two working languages of MAP and given the widest possible dissemination throughout the world.

91. At the same time, special arrangements could also be made by those countries that wish it to translate and publish these documents in other Mediterranean languages. It is through this wide dissemination that the true impact of the Blue Plan will be made and fully appreciated, both at national and at Mediterranean levels, in official and academic circles and by the general public.

92. During the period of gradually taking into consideration the results of the Blue Plan in 1988 and 1989, the Contracting Parties will probably think about the scope of some conclusions at national level and will wish to look deeper into certain aspects which may be of greater concern to them, either individually or collectively, in terms of the action priorities which will have been proposed by the Mediterranean Action Plan. On the other hand, the experience of prospective projects such as the Blue Plan, implemented at national level or at the level of international organizations (FAO, OECD, etc.), shows that they are actually taken into consideration and implemented, after they have undergone a critical examination on the part of national planners and decision makers and after a period of interaction and exchange of views between them and those responsible for the prospective projects.

93. Within this framework, the Steering Committee and the Focal Points of the Blue Plan, as well as the Secretariat of the MAP believe that, during the 1988-1989 biennium which follows immediately after the definite formulation of the Blue Plan and which is the beginning of the implementation, it is important not only to ensure its dissemination, but also to foster the interest that is generated by this prospective project in all Mediterranean countries and not to waste the experience and knowledge that will have been acquired.

94. It especially appears necessary to continue the dialogue and to maintain the working relations with the institutions and individuals which will be entrusted with the development of national scenarios in the light of the results of the Blue Plan and with comparable methodologies. In this framework, it is also necessary to keep up-to-date and ensure the continuity of the series of socio-economic and environmental data collected at Mediterranean level.

95. Thus, the 1988-89 biennium could be defined as an interaction period between the results and the methods of the Blue Plan on the one hand and its implementation at the level of future development and planning by the various countries on the other.

96. During this period, the available information should be utilized, maintained and further specialized according to the priorities established by the Contracting Parties collectively or individually. Such a course requires that, during this period, certain tasks be taken over by the Regional Activities Centre with the aim essentially to put at the disposal of the countries that would wish it the experience and knowledge acquired, and further, to keep the information up-to-date. The draft budget for the 1988-1989 biennium is conceived in this perspective.

97. It is possible that, at a later stage and depending on the orientation to be defined in due course, the Contracting Parties deem it necessary to enter into a collective and prospective examination of the relationship between development and environment and also of the actions that will ensue from such an examination within the framework of the MAP.

98. Obviously the exact nature and methods for such work cannot be defined at the present time. However, it is clear that the interaction period on the follow-up of the Blue Plan must allow the Contracting Parties to take at a later stage an informed and well-advised decision on the form that their co-operation in the socio-economic field will take in the future.

PROPOSALS FOR THE 1988-1989 BUDGET

99. For the interaction period represented by the 1988-1989 biennium within the follow-up of the Blue Plan, the proposals for the budget were reduced to the minimum amount which would cover the projects and services planned, taking into account the substantial counterpart contribution of the host country.

100. The budget provides firstly for the continuation during this period as scientific consultant of the expert who held the post of scientific director during the second and third phase. Secondly, the budget provides for a small number of high-level international consultants from various Mediterranean countries who have played an active role in the preparation of Mediterranean

scenarios and thus will be able to assist the scientific consultant in providing advice and technical and methodological support to the interested countries as requested. The support personnel needed for the Regional Activities Centre will essentially be furnished by the host country and the contribution of the MAP will be limited to one part-time mathematician and one secretary-documentalist. A quite considerable budget line will be reserved to travel, in order that the scientific consultant and, if need be, the international consultants be in a position to visit the countries that have requested their presence to help formulate the national scenarios on environment-development or the latter's utilization on terms of land-use.

101. On the other hand, credits have been provided for the organisation of training courses and individual missions by specialists from various countries - especially the Southern Mediterranean countries - to the Regional Activities Centre in order to familiarize themselves with the methodology of the scenarios and to use the documentation and information available at the Centre. The up-dating of the socio-economic and environmental data and their statistical and cartographic treatment will be the object of the appropriate sub-contracts. Office and data-processing costs will be reduced to the minimum and for the most part will be borne by the host country. Finally, a financial contribution is provided for in order to ensure the commercial publication and dissemination of the Blue Plan (Main Report and specialized volumes) in the two working languages from the beginning of 1988 onwards.

102. The necessary agreements must be concluded with well-known publishers who can ensure world-wide dissemination, with the understanding that a percentage of the product of sales will be collected by them in return. Agreements could also be concluded for the translation and publication in the other Mediterranean languages. The Contracting Parties will be invited to study this matter and take initiatives or provide technical/financial support for the best possible dissemination of the Blue Plan in the various languages.

103. For 1986-1987, the total contribution of the Mediterranean Trust Fund to the Blue Plan amounted to US\$ 1,365,000. In addition, the Bureau approved US\$ 100,000 for publications. The contribution proposed on the follow-up of the Blue Plan for 1988-1989 amounts to US\$ 800,000, or 54% of the previous contribution in absolute numbers. Taking into consideration the devaluation of the dollar vis-à-vis the French Franc, it represents only 40% in real terms.

104. The counterpart contribution of the host country in cash and in kind, which in 1986-1987 represented 44% of the contribution of the Mediterranean Trust Fund to the Blue Plan, will reach 77% in 1988-1989.

RECOMMENDATIONS CONCERNING THE BLUE PLAN

105. The Executive Director recommends to the Meeting to:

- take note and approve the recommendations of the meeting of National Focal Points for the Blue Plan (Sophia Antipolis, 20-22 July 1987) which are contained in an Addendum to the present report in view of the late holding of the Focal Points Meeting;
- approve the budget as proposed in the Addendum to this report, since the budget included in annex IV of this report, has not been reviewed and endorsed by the Blue Plan National Focal Points Meeting.

III(b) PRIORITY ACTIONS PROGRAMME (PAP)

PROGRESS REPORT

106. During 1986 and in the framework of the workplan approved by the Fourth Ordinary Meeting of the Contracting Parties (Genoa, September, 1985) the Regional Activity Centre for the Priority Actions Programme has been carrying out 10 priority actions and 2 specific activities. Fourteen demonstration studies and 68 other documents have been prepared, and 13 expert meetings (with the participation of interested UN agencies), one working meeting, 5 seminars, 14 country missions (some with WHO and FAO) and a number of other meetings have been organized. By the end of 1986, the fact-finding and reconnaissance process, as well as identification of specific needs of the countries (of subregional areas) were completed in the majority of actions.

107. The Contracting Parties have been well represented in all the actions. Their contribution and activity have largely increased. In all actions a fruitful co-operation has been set up with various Agencies of the UN system and with other international organizations (WHO, UNDRO, FAO, UNESCO, UNCHS, MEDRAP, WTO, ICCROM, ACSAD). Duplication and overlapping of activities have thereby been avoided, and the use of advanced international knowledge as well as a rational allocation of resources have been secured. In all joint activities PAP has provided the environmental component, while the Agencies have provided their professional expertise.

108. The network of experts and institutions has been consolidated and enlarged facilitating a reliable choice of specialists for any given action in the future.

109. Since 1986 the activities have been increasingly aimed at direct and concrete results (country missions, preparation of manuals and guide-books, organization of workshops on methodological topics, training courses for specialists and professionals, round-table discussions for decision makers, formulation of co-operative project proposals). A wide participation of Mediterranean countries in the 1986 PAP activities has enabled an insight into the state of environment and the specific problems pertaining to the use of resources in a country and/or a subregion.

110. Respecting the conclusions of the Joint Meeting of national focal points for the Blue Plan and the Priority Actions Programme (Athens, April 1986), each PAP report contains an executive summary, and in each action a choice of documents is being made and published as MAP Technical Report Series. Such manner of document presentation should facilitate and promote the use of PAP outputs in the Region.

111. A part of PAP activity was for the first time organized outside Yugoslavia (seminars in Athens, Palma de Mallorca and Genoa, Working Group in Malta). This proved useful although somewhat more costly. With the help of public information media, the events received attention of a large number of national experts who were being informed in detail of MAP and PAP projects. On the occasions, contacts at high levels were set up opening perspectives for a permanent, intensive and active-oriented co-operation in the field of interest to the host countries.

112. The 1987 workplan was a continuation of the 1986 programme with the introduction of new forms of work such as the organization of training courses; the preparation of documents, preparation of papers for wider public and information media; drafting project tasks for complex activities directed to selected sites and planned for launching in the 1988-1989 period.

113. The principal objective of PAP in the following period 1988-1989 is to contribute, actively and continuously, to an environmentally sound development and management of Mediterranean coastal zones. The integrated planning process, including the application of environmental impact assessments in the decision making process, should represent the basic method for achieving the above objectives.

114. Following is a brief outlook of progress achieved during 1986-1987 for each priority action:

(a) Directories of Mediterranean Institutions and Experts:
Directories in the fields of human settlements (two volumes), soil protection (two volumes) and tourism were published and disseminated in 1986. An addendum for the field of tourism is in preparation.

(b) Water Resources Management (with participation of WHO, UNESCO and ACSAD):
The action was launched in 1984 with two PAP fact-finding missions and a meeting of experts (June 1985), country missions, the Seminar in Palma de Mallorca (September 1986) and another seminar in Malta (December 1986).

Activities in 1987 included:

- workshop on re-use of wastewater;
- preparation of a technical guidebook on selected topics specific for Mediterranean coastal zones and islands (water resources planning, management and development, groundwater, surface water, water supply systems, water treatment, operation and maintenance, pollution prevention and water resources conservation).

(c) Integrated Planning and Management of Mediterranean Coastal Zones (with participation of UNESCO and the Blue Plan):
Launched in 1984 with the preparation of national reports and eight demonstration studies on selected topics (such as touristic areas, urban areas, highly developed coastal zones, comprehensive plan of economic and social development of sites of exceptional natural beauty and of rare ecosystems, etc.) which were reviewed by a seminar (Athens, June 1985).

Activities in 1987 included:

- workshop on common Mediterranean elements of integrated planning; workshop on planning tools, Split, 6-8 May;
- missions to countries on subjects related to planning and management of coastal zones and/or islands, Algeria, Cyprus, Syria, Turkey;
- joint formulation of programmes for integrated plans of coastal zones and islands in selected pilot areas (pilot country projects).

- (d) Historic Settlements (with participation of UNESCO, ICCROM and ICOMOS):
Launched in 1984 with the preparation of national reports, meeting of experts (May 1985), eight case studies (from Cyprus, France, Israel, Italy, Morocco, Spain, Tunisia and Yugoslavia), a seminar in May 1985 and a seminar in April 1986.

Activities in 1987 included:

- workshop on methodological issues related to rehabilitation and reconstruction of Mediterranean historic settlements (analysis of actual state of historic settlements and architectural survey), held in Marseille on 18-20 March;
- country missions on selected topics related to historic settlements of particular Mediterranean interest (Algeria, Cyprus, Syria, Turkey);
- preparatory activities for a workshop on methodological issues related to the analysis of the evolution of historic settlements.

- (e) Mitigation of Seismic Risk in Mediterranean Region (jointly with UNDRP, UNESCO, UNIDO and UNCHS):

Launched in 1984 with the preparation of national reports, three in-depth studies, meeting of experts (April 1985), seminar (Cetinje, June 1985), which defined the thematic framework and follow-up of the action. Five in-depth studies and another seminar (Genoa, October 1986) which formulated recommendations, reviewed and supported the proposal of the Mediterranean co-operative project for seismic risk mitigation.

Activities in 1987 included:

- consultation with host country and UNDP on the co-operative project for seismic risk mitigation in the Mediterranean (UNDP financing and host-country financing requested).

- (f) Solid and Liquid Waste Management, Collection and Disposal (with participation of WHO and MED POL):

Launched in 1984 with the preparation of national reports, a synthesis report and meetings of experts (December 1985 and March 1986).

Activities in 1987 included:

- work on guidelines for solid waste treatment in Mediterranean conditions (methods of collecting, organization, treatment, disposal, management, composting, incineration, recycling, services and maintenance);
- work on engineering aspects and mathematical modelling of submarine outfalls (jointly with MED POL);
- work on a code of practice on selected Mediterranean specific topics related to management of liquid waste (coastal waters, water uses, pollution sources, feasibility design, design criteria, effluent standards and characteristics, EIA, systems design, organization and financing, training, maintenance).

- (g) Soil Protection (jointly, or with participation of FAO and ACSAD):
Launched in 1984 with the preparation of national reports, synthesis report, expert meeting (November 1985) which identified common and specific problems in the field, and the preparation of a number of case studies related to water erosion and protection of agricultural land.

Activities in 1987 included:

- seminar on soil protection against water erosion and loss of agricultural land for non-agricultural uses (Split, 14-16 April 1987);
- preparation of an FAO-PAP-ACSAD project on inventory and network of erosion measurement, including the preparation of thematic maps on erosion distribution and a common Mediterranean methodology, and in the project of observation of rainfall-induced erosion phenomena;
- development of an environmental approach to soil erosion phenomena through the application of total catchment management practice.

- (h) Development of Tourism Harmonised with Environment (with participation of WTO and the Blue Plan):
Launched in 1985 with the preparation of national reports, a synthesis report, a seminar on nautical tourism (September 1984, jointly with the Blue Plan), meeting of experts (May 1986) which identified common problems and proposed the preparation of demonstration studies on selected topics and areas.

Activities in 1987 included:

- preparation of demonstration studies recommended by the Seminar (Split, September 1987), and organization of a seminar on selected subjects of environmentally sound planning and management of tourism in the Mediterranean coastal zones (nautical tourism, tourism on islands, coastal and hinterland tourism, historic settlements and tourism, organization of free-time tourism, tourist complexes in earthquake zones, sewage management, mitigation of conflicts caused by tourism).

- (i) Environmentally Sound Management of Mediterranean Aquaculture (jointly with, or with participation of FAO and eventually MEDRAP):
Initiated in 1984 in close co-operation with FAO and MEDRAP to identify and protect the sites suitable for aquaculture, including the interrelations between aquaculture and ecosystem. Meetings of experts (December 1985 and June 1986), a MEDRAP-PAP seminar on environmental aspects of aquaculture (Patras, April 1986).

Activities in 1987 included:

- preparation of the draft of the co-operative project entitled "Definition of Ecological Criteria for the Rational Development and Protection of Aquaculture in Mediterranean Coastal Areas", in co-operation with FAO, and activities aimed at providing the necessary financial support.

- (j) Renewable Sources of Energy:
Project started in 1984-1985 with the preparation of a number of selected in-depth studies.

Activities in 1987 included:

- organization of a seminar to review and discuss the possibility of application of solar energy for housing, greenhouses, crop drying and in tourist complexes and historic settlements (Almeria, Spain, 20-22 May);
- support to a training course on photovoltaic conversion of solar energy and its application for pumping and supply of isolated consumers and on practical use of wind energy (Almeria, Spain, 7-11 December).

(k) Environmental Impact assessment:

("An important tool to ensure proper development" - Genoa Declaration). Launched in 1986 (meetings of experts in July and November 1986). A simplified methodology for EIA has been developed in co-operation with OCA/PAC, MEDU and WHO, to be applied under specific Mediterranean conditions. Expert missions were sent to two countries. Preparatory activities for training courses were undertaken.

Activities in 1987 included:

- a consultative meeting between OCA/PAC, PAP/RAC and MEDU for the preparation of PAP simplified procedure to be applied in Mediterranean conditions, Athens, 23-25 February.

(l) Coast-hinterland Relations:

Experience gained through several priority actions in the course of 1984-1986 shows that there is a considerable impact of the coast-hinterland interaction on the state of coastal resources and environment. An introductory paper, "Coast-Hinterland Socio-Economic relations as an essential element of integrated planning of Coastal Zones and enhancement of Ecosystems in the Mediterranean" has been produced and an expert meeting organized in Split, 16-17 December 1986.

PROPOSED 1988-1989 WORK PROGRAMME

115. The principal objective of PAP in the following period is to contribute, actively and continuously, to an environmentally sound development and management of Mediterranean coastal zones. Environmentally sound development implies a long-term optimum use of natural resources, along with the protection and enhancement of the Mediterranean environment. The integrated planning process, including the application of environmental impact assessments in the decision making process, should represent the basic method for achieving the above objective.

116. The necessary conditions for the realisation of the programme have been created: the network of national focal points for PAP developed; the network of experts and institutions for all priority actions developed; the scientific, administrative and technical support to PAP/RAC strengthened; technical documentation prepared; the acquired knowledge and experience evaluated in seminars and workshops; collaboration with UN agencies and other international organisations established, as well as the collaboration with, and the possibility of using the results of other components of MAP.

117. The basic strategy of the programme proposed for the period 1988-1989 is the following:

- to carry on with the activities within the actions in progress according to the recommendations of the relevant seminars and workshops, taking care of the need to establish professional and, particularly, methodological basis for the implementation of the process of integrated planning and management of coastal zones;
- in the course of 1987 and, partly, in 1988, the preparation has to be completed of documents that are to serve as tools in the implementation of the process of integrated planning; those are: (a) Directories of experts and institutions in six priority fields - completed except for the appendix for Tourism; (b) list of PAP experts and institutions engaged in various priority actions (end 1987); (c) demonstration documents from each priority action to be published within MAP Technical Reports Series (end 1987); (d) technical guidebook on water resources management (1988); (e) guidebook on elements of common methodology for integrated planning (1988); (f) guidebook on methodology of reconstruction and rehabilitation of Mediterranean historic settlements (1988); (g) guidebook for solid waste treatment (1987); (h) code of practice for liquid waste treatment (1988); guidelines for estimating of carrying capacity of coastal areas (tourism, 1988); and (j) EIA - a simplified procedure, guidelines and terms of reference for selected topics (1988);
- within the priority action of integrated planning, to establish a direct co-operation with the selected pilot-zones (country pilot-projects) in order to initiate the process of integrated planning and management and to formulate adequate programmes, with the application of experience obtained in other priority actions in these pilot-zones;
- as last and, perhaps, most important, PAP should be included in the joint programme at the level of MAP aimed at the realisation of the process of integrated planning and management in the entire Mediterranean Region with the full co-operation of all MAP components. This section, as well as the preceding one, will be formulated more precisely on the basis of the Meeting's decisions on Programme orientation, contained in Section V(a) of this report.

118. The programme will be implemented using the following methods:

- preparation, evaluation and dissemination of the documents, reports, demonstration studies, synthesis reports, executive summaries, methodological instructions, guidelines, guidebooks, manuals, etc.;
- organisation of expert meetings, seminars, workshops, round-table discussions for decision-makers and conferences;
- sending expert missions to countries to collaborate with national institutions and experts in resolving the problems interesting for the particular country, as well as for the entire region;

- formulation and promotion of proposals of co-operative programmes to be implemented in selected fields;
- training of experts;
- direct co-operation on the preparation and implementation of the process of integrated planning of coastal zones (country pilot projects);
- participation in the activities implemented on the levels of MAP and OCA/PAC-UNEP.

119. The majority of the above activities need no further explanation, being standard, except for the co-operative programmes, country pilot projects and MAP projects.

120. The preparation of the proposal of the co-operative programmes and of their implementation represents a special form of activity introduced by the Programme for 1986-1987. These suggestions came from the participants in the relevant priority actions. The programme objectives and basis were defined and evaluated by seminars and/or workshops, while their contents and structure were elaborated in close co-operation with the relevant UN agencies. The programmes were formulated in such a way as to: provide for the synthesis of the existing knowledge and for the necessary interdisciplinary approach; provide elements for formulating national policy in the field; prepare the necessary documentation and other professional bases for achieving the established objectives; elaborate the outputs which should secure the achievement of the objectives; present the final documents intended for the professionals, to be applied in practice, and special documents intended for decision makers; provide for the exchange of experience between the Mediterranean countries by organising 1 or 2 workshops and a meeting of decision makers.

121. The various phases of the programmes can be realised separately, and each represents a whole, the results of which can be used immediately. The financial means necessary for the realisation of the programmes are beyond the possibilities of PAP and MAP budgets, besides a certain financial support by PAP, which should have a catalytic role, outside financing will be needed. For the projects that are actually in the process of preparation (in the fields of seismic risk mitigation, aquaculture, and soil protection) the financial support should be provided by the funding agencies, host-countries and by other donors. For the realisation of these co-operative projects the establishment of new centres or administrative structures is not envisaged, except for engagement of executives responsible for the projects for the time of their duration.

122. Country pilot projects represent a new form of advanced collaboration of PAP with national and local institutions and experts, aimed at creating conditions for the implementation of the process of integrated planning and management of Mediterranean coastal zones. These country projects will be located on selected pilot areas, dealing with subjects being of interest for the majority of Contracting Parties. The project outputs should be of practical benefit to the host country and at the same time they should be used at regional level as demonstration documents for the exchange of experience

and training through workshops and training courses. The involvement of experts, institutions and expertise from relevant priority actions, and inputs from other MAP components such as MED POL, LBS, Blue Plan, ROCC and SPA will be secured. According to the specific features of the selected sites, the co-operation will include various relevant priority actions (for example, water resources management, historic settlements, solid and liquid waste management, tourism and renewable sources of energy). An evaluation of the state and problems of each selected pilot site, terms of reference for the preparation of the integrated plan, assistance in preparation of plans, and at least one EIA regarding a particular project will be prepared.

123. In order to secure an immediate and smooth start in 1988, some preparatory activities related to country projects will be undertaken in the second half of 1987.

124. The actions at the level of MAP represent the new global orientation of the whole Plan, aimed at implementing the process of integrated planning and management of the Mediterranean coastal zones with the harmonised participation of all MAP components and the relevant international institutions. The actions will be programmed, co-ordinated and implemented by the Co-ordinating Unit in Athens.

125. Departing from the proposed methodological approach, the programme has been divided into 3 levels:

- integrated planning and management of Mediterranean coastal zones: MAP projects, country pilot projects, activities within individual priority actions;
- Mediterranean co-operative projects on regional level (in the fields of seismic risk reduction, soil protection and aquaculture);
- general support to PAP.

RECOMMENDATIONS CONCERNING THE PRIORITY ACTIONS PROGRAMME

(as approved by the Meeting of the National Focal Points for Priority Actions Programme (Split, 24-26 June 1987) (UNEP/WG.170/9))

126. The Meeting of National Focal Points for Priority Actions Programme (Split, 24-26 June 1987) reviewed the Centre's activities and agreed on a set of recommendations for the consideration and approval by the Meeting. These recommendations are presented below.

WORKPLAN FOR PRIORITY ACTIONS PROGRAMME FOR 1988-1989

127. Integrated planning and management of Mediterranean coastal zones

(a) At the level of MAP - integrated planning for the entire Mediterranean Region:

- a global programme will be prepared and relevant activities undertaken with the participation of all MAP components. PAP will participate with the network of institutions and experts in the chosen fields. PAP will contribute to the formulation of the projects and will co-operate with national and local experts in various segments of the project related to the PAP priority actions, as well as give support to national experts with staff training.

(b) Integrated planning and management through PAP country pilot projects:

- this part of PAP programme will consist of practical application of the results and experience hitherto obtained in all activities on the selected pilot sites in direct co-operation with national, regional and local authorities, institutions and experts;
- the sites selected by the national authorities will be typical for the problems pertaining to the impact of development on the environment. For each selected site a programme will be formulated, directed towards the process of integrated management of coastal zones. According to the specific features of the selected site the co-operation will include various priority actions (for example, water resources management, historic settlements, solid and liquid waste management, aquaculture, tourism and soil protection). An evaluation of the state and problems of pilot sites, terms of reference for the preparation of plans, and at least one study on the environment impact assessment (EIA) regarding a particular project will also be prepared;

- the experience and results of the Blue Plan and other MAP components as well as of relevant UN agencies, will be made available;
- the PAP contribution to the realisation of this direct co-operation will consist of the following:
 - sending missions for the assessment of state, analyses of the available data, and formulation of project programmes (4 missions per year);
 - co-operation on the preparation of documents, of preliminary project studies, and in the elaboration of plans or their segments (experts/consultants will be engaged to assist/co-operate with the local and national institutions involved);
 - sending national experts and representatives to other countries for consultations and brief training (2 m/m per year);
 - help establish relations with the relevant UN agencies for assistance in resolving the problems regarding the pilot-site;
 - co-operation in the formulation of proposals of national projects for international financing (3 m/m in 1989).
 - preparation of a workshop to present and evaluate the achieved results.
- in the 1988-1989 biennium, up to six country pilot projects will be initiated, and their first phase completed. In the following biennium the co-operation on these projects will be continued and the projects in other Mediterranean countries initiated;
- a guidebook will be prepared on the elements of common Mediterranean methodology of integrated planning, and a workshop organised.

(c) Water resources management in Mediterranean islands and coastal areas:

- the Guidebook for Water Resources Management in Small Mediterranean Islands and Coastal Areas will be prepared (see Proposal - reference document);
- the preparation will be initiated of the project of mathematical modelling of aquifer management in a medium size Mediterranean island, in co-operation with WHO, UNESCO and ACSAD;
- expert missions will be sent to interested countries to co-operate with local experts and institutions on resolving of the problems of water resources management (1-2 missions per year);
- a training course will be prepared on water resources management, reuse and sanitation problems;

(d) Rehabilitation and reconstruction of Mediterranean historic settlements:

- one workshop will be organised in 1988, on the methodology of analysis of the historic development, and one in 1989, on the methodology of evaluation of historic settlements;
- methodological guidelines for the integrated process of rehabilitation and reconstruction of historic settlements will be prepared and disseminated (1988-1989);
- expert missions will be sent to the interested countries (2 per year);
- PAP will participate in the action "100 coastal historic sites of common Mediterranean interest" according to the programme to be prepared on the MAP level, in co-operation with UNESCO and ICOMOS.

(e) Development of Mediterranean tourism in harmony with the environment:

- one seminar will be prepared in 1988 on selected subjects (impact of different types of tourist activities on the environment, tourism on islands, environmentally sound management of tourism, nautical tourism, etc.), and one workshop in 1989 on the application of carrying capacity assessment and EIA in planning of tourist activities;
- expert missions will be sent to the interested countries for projects evaluation and help with the preparation of pilot EIAs for tourist facilities or zones (2 per year).

(f) Renewable energies (with participation of UNESCO and FAO):

- two training courses on the application of photovoltaic conversion and wind energy will be organised, one in 1988 and another in 1989;
- the preparation of a proposal for the Mediterranean centre for renewable energy will be initiated.

(g) Environmental impact assessment (EIA) (with support by and in co-operation with OCA/PAC-UNEP and MEDU):

- in co-operation with OCA/PAC, an inter-regional meeting will be organised in 1988 for the evaluation of EIAs prepared according to the PAP simplified procedure;
- sub-regional training courses will be organised, 2 each year;
- expert missions will be sent to the interested countries, 2 each year.

(h) Solid and liquid waste management and disposal (in co-operation with WHO):

- 2 training courses on the maintenance of the urban wastewater treatment plans will be organised;

- guidelines will be prepared for the system design of urban wastewater collection and treatment, for towns of 10,000 - 100,000 inhabitants, and for cities of more than 100,000 inhabitants;
- expert missions will be sent to interested countries, 2 per year.

128. Mediterranean co-operative projects on regional level:

(Project proposals with the explanations have been prepared for all of the three projects in co-operation with the relevant UN agencies).

(a) co-operative programme of seismic risk reduction in the Mediterranean Region (in co-operation with UNDRO, UNESCO, UNIDO and UNCHS; Italy offered to be the host):

- provisions will be made for obtaining financial means and for creating organisational conditions for launching the project;
- support will be provided in accordance with the project proposal;
- in case the necessary conditions are not created, the first phase of the project will be accomplished (synthesis of the existing knowledge and its presentation on the levels of experts and decision makers) using the funds allocated to the support.

(b) definition of ecological criteria for the rational development and protection of aquaculture in Mediterranean coastal zones (in co-operation with FAO and the future UNDP aquaculture project):

- the necessary conditions will be performed and the conditions created for the implementation of the project and, if necessary, the project will be rearranged in accordance with the available funds;
- the necessary support to the project will be provided;
- in case that the necessary financial support is not provided the first phase of the project will be accomplished (synthesis of the existing knowledge and its presentation at the levels of experts and decision makers). One round-table and one workshop will be organised;
- the Mediterranean Conference on Aquaculture is to be organised in 1988.

(c) inventory and network of soil erosion measurements in the Mediterranean for an environmentally sound land management:

- the necessary activities will be performed and conditions created for the implementation of the project and, if necessary, the project will be rearranged in accordance to the available funds;
- provisions will be made for obtaining the necessary financial support;

- if the necessary conditions can not be created, the first phase of the project will be accomplished: (a) preparation of the synthesis of the existing knowledge; (b) organisation of a workshop on the methodology of and experience in the preparation of thematic erosion maps by use of remote sensing; (c) organisation of a meeting of the institutions performing the erosion monitoring for the exchange of experience and formulation of instructions and recommendations for a uniform approach to monitoring; and (d) sending missions to the interested countries to collaborate with local experts and institutions on the preparation of thematic erosion maps based on the remote sensing techniques.

129. General support to PAP:

- (a) provisions will be made for securing a continuous management and co-ordination of the Programme as a whole, preparatory activities, co-ordination with the Co-ordinating Unit and other components of MAP, collaboration with UN agencies, co-operation with the National Focal Points of the Contracting Parties, and reporting on the progress achieved in PAP activities;
- (b) PAP Bulletin, in English, French and Arabic, will be issued quarterly;
- (c) for the meetings of the National Focal Points for PAP and of the Contracting Parties, to be held in 1989, reports will be prepared on the progress of the Programme implementation;
- (d) two more terminals for the word processor and telefax equipment will be provided;
- (e) a data bank will be arranged according to the priority actions, and harmonised with the MAP data bank;
- (f) a PAP documentation centre will be set up. It will be available for the interested institutions and experts of the Contracting Parties, and for other users;
- (g) the 1986-1987 budget for PAP approved in Genoa was US\$ 1,082,000. The host country contributed, in addition, an equivalent of US\$ 560,000, representing 52 percent of the contribution of the Mediterranean Trust Fund to PAP. The budget proposals submitted to the National Focal Points for PAP are costed at US\$ 1,600,000. The proposed use of funds by priority area and co-operative project is shown in table 1 on page 30, summary of PAP budget.

Table 1. Summary of PAP budget (in US \$)

	1986 Approved	1987 Approved	1988 Proposed	1989 Proposed
<u>1. Integrated management of coastal zones</u>				
1.1 Integrated management: Project on MAP level	-	-	80,000	100,000
1.2 Integrated management - PAP: methodological approach and co-operation with selected areas	42,000	58,000	80,000	120,000
1.3 Water resources	60,000	50,000	60,000	60,000
1.4 Historic settlements	50,000	69,000	60,000	60,000
1.5 Tourism	40,000	44,000	60,000	60,000
1.6 Renewable energies	40,000	44,000	30,000	30,000
1.7 Environmental Impact Assessment	28,000	40,000	40,000	50,000
1.8 Solid and liquid waste management	56,000	57,000	40,000	50,000
1.9 Directories of institutions and experts	6,000	23,000	-	-
1.10 Coastal hinterland relations	10,000	15,000	-	-
Component total	332,000	400,000	450,000	530,000
<u>2. Multilateral co-operative projects</u>				
2.1 Earthquake zones	38,000	33,000	40,000	40,000
2.2 Aquaculture	30,000	21,000	40,000	40,000
2.3 Soil protection	40,000	26,000	40,000	40,000
Component total	108,000	80,000	120,000	120,000
<u>3. Support</u>	81,000	81,000	180,000	200,000
Component total	81,000	81,000	180,000	200,000
GRAND TOTAL	521,000	561,000	750,000	850,000

Note: The resources approved for country pilot projects in line 1.2 will be supplemented from the allocations made for the individual priority actions concerned (lines 1.3, 1.4, 1.6, 1.7 and 1.8) up to an amount of US\$ 40,000 in 1986 and US\$ 50,000 in 1989, with the flexibility accorded to the secretariat

130. The Executive Director recommends that the Meeting approves the above mentioned recommendations as well as their corresponding budgetary allocations (annex IV of this report)

III(c) SPECIALLY PROTECTED AREAS (SPA)

PROGRESS REPORT

131. In pursuance of the recommendations of the Fourth Meeting of the Contracting Parties, three more Contracting Parties have ratified the SPA Protocol, bringing the number of ratification to nine. In conformity with Article 18, the SPA Protocol entered into force on 23 March 1986. However, there is a need for the ratification of the Protocol by all parties to the Barcelona Convention in order to respect the deadline designated by the Contracting Parties during their Genoa Meeting, i.e. the ratification of the Protocol by all parties before the end of 1987.

132. During 1986 and 1987, the Regional Activity Centre for the Specially Protected Areas (RAC/SPA), in close co-operation with IUCN, prepared drafts for:

- directory of marine and coastal protected areas of the Mediterranean region;
- a guideline and criteria for selection, establishment and management of specially protected areas;
- case studies utilizing the draft guidelines.

133. These documents were reviewed and approved by the First Meeting of National Focal Points for SPA, Athens, 1-4 June 1987. The main objectives of the SPA Centre during 1988-1989 would be assisting the Contracting Parties in the selection, establishment and management of specially protected areas, placing at the disposal of the Mediterranean Action Plan data gathered, the presentation of the national Mediterranean ecosystems, the training of personnel and the establishment of a regional network of coastal and marine protected areas (document UNEP/WG.163/9).

134. On 13 February 1987, the SPA Centre was officially inaugurated. The Vice President of the Bureau of the Contracting Parties, H.E. Mr. Abdul-Hamid Munajid, Minister of State for Environment (Syria) represented the Bureau at the official opening.

135. The substantive work of the Centre is progressing well. There still exist some administrative and financial obstacles hindering the smooth operation of the Centre on which the Tunisian authorities are expected to take the necessary actions soon. The Bureau of the Contracting Parties (Istanbul, 25 March 1987) has expressed the same sentiments regarding this question. The 1986-1987 budget for SPA approved in Genoa was US\$ 390,000. The host country contributed in addition the equivalent of US\$ 100,000.

RECOMMENDATIONS CONCERNING SPECIALLY PROTECTED AREAS

(as approved by the First Meeting of the National Focal Points, for Specially Protected Areas in the Mediterranean (Athens, 1-4 June 1987) (UNEP/WG.163/9))

136. The meeting of National Focal Points for Specially Protected Areas (Athens, 1-4 June 1987), reviewed the Centre's activities and agreed on a set of recommendations for the consideration and approval by the Meeting. These recommendations are presented below:

A. DIRECTORY OF MARINE AND COASTAL PROTECTED AREAS OF THE MEDITERRANEAN REGION

1. That the Directory should reflect information on established protected areas and to the extent possible areas under consideration by relevant governments and the term "proposed areas" be deleted.
2. That countries which have not yet done so, should reply to the questionnaires on SPA and that other countries should send their corrections, and any other relevant information to be reflected in the Directory, to the Centre through the Co-ordinating Unit in Athens, by the end of September 1987 at the latest.
3. That the Contracting Parties should take note of the existing draft Directory as an output of the Centre for Specially Protected Areas, and a new, updated version would be issued by the Centre.

B. GUIDELINES FOR THE SELECTION, ESTABLISHMENT, MANAGEMENT AND NOTIFICATION OF INFORMATION ON MARINE AND COASTAL PROTECTED AREAS IN THE MEDITERRANEAN

Introduction

The Guidelines proposed below, concerning the Selection, Establishment, Management and Notification of Information on Marine and Coastal protected areas, adopted at the First Meeting of Focal Points (Athens, 1-4 June 1987), were offered as a guide and not as a formal obligation for their application.

GUIDELINES FOR SELECTION OF PROTECTED AREAS

Establish policies and objectives

1. The organization of a protected area programme should be based on clearly-defined policies and objectives approved by the highest levels of government, taking into account the regional goals and contents of the Protocol. These could include:
 - the maintenance of the productivity of marine and coastal resources, and the reconstitution of depleted stocks;
 - the conservation of the richness and diversity of the country's natural resources, including examples of all representative ecosystems and habitats, and the genetic diversity of important species;
 - the preservation of sites of particular importance because of their scientific, aesthetic, historical, archaeological, cultural or educational interest;
 - the environmentally sound sustainable development of economic activities linked to the rational and exploitation of marine and coastal resources, especially tourism and fisheries;
 - the protection of the environmental quality, the health and safety of coastal communities and resource users.

Create a planning team

2. A planning team should be chosen to begin the process of selecting and establishing protected areas. A survey of the agencies, organizations and experts able to contribute to this planning team should be one of the first steps to be taken.

Survey the marine and coastal environment

3. Each country should survey its marine and coastal areas to the possible extent to identify sites worthy of protection. Existing information should be compiled and new surveys made if necessary to provide information on coastal features, natural habitats and species, and points of special interest. The surveys should consider:
 - environmental characteristics such as species distributions and abundance, habitat occurrence according to a standard classification (for marine habitats see classification in appendix I), and physico-chemical parameters (climatology, geomorphology, hydrology, sedimentation, geochemistry, water quality);
 - socio-economic uses and potential for recreation, tourism, fisheries and aquaculture;
 - existing and potential threats from tourism, urbanization, industry, mining, drilling, dredging, dumping, agriculture, aquaculture, navigation and naval works.

4. Information from country surveys, bibliographic research and other sources should be compiled on a regional basis to determine regional patterns and processes. This can be done by the Regional Activity Centre for Specially Protected Areas (RAC/SPA).
5. The resulting national and regional inventories of natural sites and special features should be updated periodically.

Evaluate sites and features

6. All sites and features on which information has been collected should be evaluated according to criteria adopted by each country in accordance with their national goals and international obligations. Examples of criteria are:
 - Ecological criteria : Diversity, Naturalness, Dependency of species or processes on the area, Representativeness, Uniqueness, Integrity, Productivity, Vulnerability;
 - Social criteria : Social acceptance by local people, Public health, Recreation, Culture, History, Archaeology, Aesthetics, Conflicts of interest with local activities, Safety, Accessibility, Benchmark or Reference value, Education, Research;
 - Economic criteria : Importance to commercial species, Importance to fisheries, Nature of threats to value of area, Economic benefits, Tourism;
 - Regional criteria : Regional significance, national significance, Contribution to regional awareness, Demonstration of compatible uses;
 - Pragmatic criteria : Urgency, Size, Degree of threat, Effectiveness, Opportunism, Availability, Restorability.
7. The development of regional definitions for selection criteria and of procedures for their application should be undertaken through the RAC/SPA.

Rank sites

8. Sites should be ranked by the respective countries both for their value according to each criterion, and their ability to meet multiple criteria, leading to listings of the highest priority sites for designation as protected areas.
9. Consultation with the RAC/SPA can help to identify sites of particular regional interest. This could be necessary, for instance, to protect a species of regional importance.

GUIDELINES FOR ESTABLISHMENT OF PROTECTED AREAS

Designate a responsible authority

10. There should be an authority responsible for the marine and coastal protected areas.

11. The authority should be given clearly-defined objectives and responsibilities.
12. It might be useful for the authority to have the following responsibilities:
 1. define institutional responsibilities and relations;
 2. establish priorities and mechanisms for selecting, establishing and developing marine and coastal protected areas;
 3. communicate with the regional authorities and centres responsible for co-ordinating the Mediterranean network of protected areas;
 4. co-ordinate the activities of the different departments with marine and coastal responsibilities in order to:
 - (a) protect species and their critical habitats;
 - (b) conserve threatened, rare, endemic and commercial species, threatened, unique, representative and valuable marine habitats, and cultural, archaeological and historical sites;
 - (c) ensure permanent protection;
 - (d) conduct or arrange for relevant research and surveys;
 - (e) provide mechanisms for developing and implementing management plans for each protected area, based on scientific data;
 - (f) control developments, activities and sources of pollution outside the protected areas that may adversely affect them;
 - (g) regulate exploitation in protected areas and their adjacent buffer zones;
 - (h) control navigation through and mooring in marine protected areas; and
 - (i) promulgate regulations and provide enforcement mechanisms.

Survey potential sites

13. The site of each potential protected areas should be surveyed in detail, identifying areas with greatest value for different uses.

Adopt legislation

14. The establishment and management of marine protected areas should be supported by adequate legislation. Comprehensive legislation for sustainable use of large marine areas including both protected areas and other management measures should be considered.
15. The regional development of model legislation for coastal and marine protected areas might be useful.

Obtain a consensus

16. To be effective, protected areas should have public acceptance and local co-operation in their operation. The establishment of protected areas should thus be subject to wide discussion and if possible consensus among the public, representatives of interested groups, or at least all the government departments concerned.

Provide financial support

17. Adequate financial support or revenues should be made available to the authority to carry out its mandate effectively.

Establish boundaries

18. The boundaries of coastal and marine protected areas should be ecologically sensible, easily identifiable by the public; they should be determined mainly on the basis of ecological considerations and should encompass, the terrestrial and marine component of the area, the subsoil below the area and the airspace above the area to the extent possible.
19. Areas with both a terrestrial and marine component should be considered as one entity and be managed under an integrated management plan. Consideration should also be given to establishing areas that have only a marine component (within the geographical definition given in Article 2 of the Protocol).
20. Protected areas should allow as many multiple uses as are consistent with conservation objectives.

Identify resources needed

21. The needs for infrastructure, equipment, finance, field personnel (terrestrial and marine) and management support for each protected area should be identified.

Establish appropriate legislation

22. Each protected area shall be identified by a legal text defining the status of the protected area and based on the standard categories set forth in appendix II. This text which may be of a permanent or temporary nature, shall be drawn up in accordance with international agreements and with these guidelines.

Notify RAC/SPA

23. The Regional Activity Centre for Specially Protected Areas shall be notified of the creation or the modification of protected areas.

Offer alternatives or compensate displaced activities

24. Equity should be respected in the creation of protected areas. Users or community groups whose rights or activities are displaced or reduced should be given alternate rights or activities or otherwise compensated.

GUIDELINES FOR MANAGEMENT OF PROTECTED AREAS

Prepare and establish a management plan

25. A management plan should be prepared and established for each protected area, and periodically updated in the light of experience. A model outline is given in appendix III.

Implement the management plan

26. The management plan should be implemented and the necessary regulations or controls adopted and adequately enforced. Facilities should be built, equipment purchased and personnel hired on a scale consistent with available funds.

Use zoning and buffer zones

27. Zoning should be used whenever appropriate to permit the maximum compatible uses of the protected area. Buffer zones should be created around the protected area to prevent encroachment or degradation (Article 5).

Establish educational and information programmes

28. Educational opportunities and public interpretation and information programmes should be developed within protected areas whenever possible.

Monitor the effectiveness of protection

29. Critical species, ecosystems and physical and chemical parameters should be monitored in protected areas to verify the effectiveness of management actions.
30. The RAC/SPA should encourage the development and application of standard regional methods for monitoring protected areas and species.

Conduct research

31. Research under appropriate conditions should be encouraged in protected areas, particularly to define baselines for area and coastal environments, or to develop restoration techniques for natural habitats.

Restore damage

32. Damaged or degraded areas and resources should be restored to their natural state in accordance with the established objectives of the protected area to the extent possible.

Promote the rational use of natural resources

33. The management plan should promote and serve as an example for the rational use of the natural resources of the Specially Protected areas.

NOTIFICATION OF INFORMATION ON PROTECTED AREAS

Assign responsibility

34. The notification of information on protected areas is the responsibility of the National Focal Point (Article 14.2 of the Protocol).

Provide information to RAC/SPA

35. All information shall be transmitted to RAC/SPA as soon as available and as complete and updated as possible at least every two years before the meeting of the Focal Points. Transmission to RAC/SPA shall be made through the MAP Co-ordinating Unit. Information on each country in accordance with the standard format in appendix IV shall be transmitted to RAC/SPA.
36. Information on each protected area is to be furnished regularly to the Regional Activity Centre for Specially Protected Areas in accordance with the standard format in appendix V to the possible extent.
37. Similar information on potential and planned protected areas should also be provided to the possible extent to the RAC/SPA.
38. Information on current and planned research, general surveys, monitoring of the status of species and ecosystems, and other data or regional interest are to be shared with other Parties through the RAC/SPA.
39. Information on the experience acquired, the problems encountered, and the methods developed to resolve them are to be supplied to the RAC/SPA, which can suggest solutions or appropriate studies, and prepare technical and information documents.

Distribute information and regional recommendations

40. In all cases, the RAC/SPA is to make information received widely available to the Parties. It should recommend programmes of co-ordinated research and standard scientific methods for the selection, management and monitoring of protected areas in order to improve the information available on the status of Mediterranean species, ecosystems and cultural resources.

Appendix I : Standard classification of Mediterranean marine zones
and associated benthic biocenosis (from PERES & PICARD, 1964)

Supralittoral Zone

supralittoral rocks
rapid drying beaches
slowly drying beaches

Midlittoral zone

upper midlittoral rocks
lower midlittoral rocks
-with Lithophyllum tortuosum
-with Ralfsia verrucosa
midlittoral caves
midlittoral detritus
midlittoral sands
muddy sands and muds of lagoons and estuaries

Infralittoral zone

photophilic algae
-with Cystoseira stricta
-with Corallina
infralittoral shingles
coarse sands and fine gravels under wave influence
sands partly protected from wave influence
calm water muddy sands
euryhaline and eurythermal lagoons
terrigenous well-graded fine sands
fine surface sands
Posidonia oceanica beds

coarse sands and fine gravels under influence of bottom currents (various depths)

Circalittoral zone

"Coralligenous" (with shade-loving algae)
semi-dark caves
completely dark caves and tunnels
open sea rocky bottoms
coastal detrital bottoms
-with algaloliths
-with branched coralline algae
-with Lithothamnium
-with Squamariaceae
muddy detrital bottoms
coastal terrigenous muds
open sea detrital bottoms

Bathyal zone

white corals
bathyal muds

Abyssal zone

Appendix II : Categories and management objectives of Protected Areas

1. Scientific Reserve/Strict Nature Reserve/Strict Marine Reserve (IUCN I; EEC 1): To protect nature and maintain natural processes in a undisturbed state in order to have ecologically representative examples of the natural environment available for scientific study, environmental monitoring and education and for the maintenance of genetic resources in a dynamic and evolutionary state.
2. National Park/Marine National Park (IUCN II: EEC 3): To protect large natural and scenic areas of national or international significance for scientific, educational and recreational uses.
3. Natural/Cultural Monument (IUCN III: EEC 6): To preserve significant natural, cultural or archaeological features because of their special interest or unique characteristics.
4. Managed Natural Reserve/Wildlife Sanctuary/Marine Sanctuary (IUCN IV; EEC 2): To assure the natural conditions necessary to protect significant species, groups of species, biotic communities, or physical features of the environment, where these require specific human manipulation for their perpetuation.
5. Protected Landscape/Seascape (IUCN V; EEC 4): To maintain significant natural landscapes or coastlines which are characteristic of the harmonious interaction of man, land and sea, while providing opportunities for public enjoyment through recreation and tourism within the normal life-style and economic activity of these areas.
6. Resources Reserve (IUCN VI): To protect the natural resources of the area for future use, and prevent or contain development activities that could affect the resource pending the establishment of objectives which are based upon appropriate knowledge and planning.
7. Natural Biotic Area/Anthropological Reserve (IUCN VII; EEC 5): To allow human societies living in harmony with the environment to continue their way of life undisturbed by modern technology.
8. Multiple Use Management Area/Managed Resource Area/Fisheries Reserve (IUCN VIII): To provide for the sustained production of fisheries, wildlife, tourism and outdoor recreation, with conservation of nature primarily oriented to the support of the economic activities, or with several zones designated to achieve specific conservation objectives.

There are several titles involving special international recognition of protected areas that may be used in addition to the above:

- Biosphere Reserve: Unesco category to conserve for present and future use the diversity and integrity of representative biotic communities of plants and animals within natural ecosystems, and to safeguard the genetic diversity on species of which their continuing evolution depends.

- World Heritage Site: site listed under the World Heritage Convention to protect natural or cultural features of World Heritage quality, and to provide information for worldwide public enlightenment.
- Biogenetic Reserve: area which is part of Council of Europe network established in order to preserve the biological integrity and ensure the effective conservation of marine or terrestrial habitats, biocenosis or ecosystems.

Appendix III : Indicative Model Outline for Protected Area
Management Plan (covering 3 to 5 years)

- I. Executive Summary
- II. Introduction
 - A. Purpose and scope of plan
 - B. Legislative authority for the action
- III. Description
 - A. Regional setting: location and access
 - B. Resources (only facts pertinent to management)
 - 1. Physical
 - 2. Biological
 - 3. Cultural
 - C. Existing uses (description, facilities, economics, etc.)
 - 1. Recreational
 - 2. Commercial
 - 3. Research and education
 - 4. Traditional
 - D. Existing legal and management framework
 - E. Existing and potential threats and implication for management.
- IV. The Management Plan
 - 1. Goals and Objectives
 - 2. Administrative management
 - a. Responsible authority
 - b. Advisory committees
 - c. Agreements (with agencies, organizations, individuals)
 - d. Regional assistance
 - 3. Physical plan
 - a. Boundaries
 - b. Zoning
 - c. Buffer zone
 - d. New regulations
 - 4. Resource management
 - a. Scientific research
 - b. Protection of cultural resources
 - c. Management of natural resources
 - d. Pollution control
 - e. Monitoring uses and impacts

5. User management and enforcement
 - a. Tourism, recreation
 - b. Management of economic activities
 - c. Education, interpretation
6. Requirements (3- to 5-year plan)
 - a. Staffing
 - b. Training
 - c. Facilities and equipment
 - d. Budget
7. Revision of management plan

V. References

VI. Appendices

Appendix IV : Country Data Sheet headings

1. Name of country
2. Area (sq km)
3. Length of Mediterranean coastline (km)
4. Population
5. Legislation on marine and coastal protected areas
6. Description of protected area administration
7. Address of national authorities
8. Scientific and technical organizations (list and addresses)
9. Experts on marine and coastal subjects (list and addresses)
10. List of established marine and coastal protected areas
11. List of marine and coastal protected areas under consideration by respective governments.
12. List of potential marine and coastal protected areas
13. Principal reference material

Appendix V : Area Data Sheet headings

1. Official name of area
2. Geographical location (place and coordinates)
3. Area
 - Total area (km)
 - Terrestrial surface (km)
 - Water surface (sq. km)
 - Length of coastline (km)
4. Annotated description of the area
5. Legal protection
 - a) Legislation
 - b) Legal status (category)
6. Effective date of establishment

7. Land tenure
Ownership and other information related to land tenure
8. Human population
9. Physical features
 - I. Terrestrial features
 - a) Geology, topography and hydrology
 - b) Maximum altitude (m)
 - c) Mean temperature (summer and winter) (°C)
 - d) Mean precipitation (summer and winter) (mm)
 - e) Prevalent wind direction and speed (km/h)
 - f) Major seasonal climatic features
 - II. Marine environment
 - a) Geology, topography, sedimentology
 - b) Maximum and average depth (m)
 - c) Mean water temperatures (summer and winter) (°C)
 - d) Salinity (summer and winter) (mg/l, o/oo)
 - e) Prevalent currents (summer and winter)
10. Vegetation (characteristic, endemic and endangered)
 - a) Terrestrial
 - b) Marine
11. Fauna (characteristic, endemic and endangered)
 - a) Terrestrial
 - b) Marine
12. Cultural/historical features
13. Management
 - a) Management practices
 - b) Staff
 - c) Budget
14. Uses
 - a) Recreation/Tourism
 - b) Research
 - c) Education/Training
 - d) Exploitation of resources
15. Problems
 - a) Environmental problems
 - b) Management problems
16. Principal reference material
17. Contact address of local agencies or national authorities

C. WORK PLAN FOR THE REGIONAL ACTIVITY CENTRE FOR SPECIALLY PROTECTED AREAS FOR 1988-1989

1. The 1988-1989 activities will be carried out in close collaboration with the National Focal Points and with the assistance and support of national and international centres and experts. Due to the time given over to the completion of the 1985-1986 activities, the new activities should continue within the framework of the 1988-89 programme.

2. Within the framework of Objective A: Improvement of the data bank.

The Centre will carry out the following activities:

- completion and publication of the Directory of Marine and Coastal Protected Areas of the Mediterranean Region having an ecological and biological value;
- improvement and extension of the programme Data Base III;
- preparation of a document concerning the bibliography of the Mediterranean Protected Areas (Ecosystems, species etc.);
- preparation of an annual report on the projects of each country concerning protected areas;
- preparation of the second part of the Directory on the Protected Areas of cultural importance as specified in Article 3.2.b of the Protocol;
- preparation of a document on the proposed areas on the basis of available studies;
- preparation of a computer programme to store and treat data on inventorying and selection of marine and coastal protected areas in agreement with other international programmes;
- establishment of a network and preparation of a list of experts on marine and coastal protected areas in connection with National Focal Points, the Research Centres and International Organisations.

3. Within the framework of Objectives B and C: Co-operation with countries on the application of the Guidelines and assistance to the countries.

The Centre will carry out the following activities:

- inventorying and selection: Assistance to the countries to inventory and select marine and coastal areas (application of selection methods, identification of consultants, field studies, preparation of reports);
- establishment: To prepare a document reviewing national legislation and international agreements governing the Mediterranean marine and coastal protected areas;
- management: To prepare models of planning and management (Management programmes of protected areas, ecosystems, species and of cultural resources).

4. Within the framework of Objective D: Training, Information, Education.

The Centre will carry out the following activities:

- preparation of technical guides for training and education, especially on the study and management of the marine and coastal protected areas, ecosystems and species, the creation and utilization of data banks, etc.;

- promote training of personnel by and in the Mediterranean countries for the management of marine and coastal protected areas and study of the possibilities to organize training courses (place, subject, availability of fellowships, external financial support);
 - strengthening of the means of the Regional Activity Centre/Specially Protected Areas in equipment and personnel;
 - participation in conferences and seminars for the presentation of the work carried out and the results obtained by the Centre, for making contacts and collecting data;
 - strengthening of activities aiming at protecting marine and coastal areas and species, within the above-mentioned objectives;
 - improvement of dissemination of information, especially in collaboration with the Focal Points, the other MAP Centres and International Organizations;
 - making available the data on protected areas (experts, bibliographical lists, special topics etc.);
 - acquisition, inventorying and dissemination to the general public of material on marine and coastal protected areas (audiovisual material, brochures etc.).
5. Within the framework of objective E, the meeting endorsed the intention of UNEP and IUCN to convene a consultative meeting on an Action Plan for the Conservation of the Mediterranean Monk Seal.
 6. In meeting its objectives and in fulfilling its workplan the Centre may, in consultation with the Focal Points for Specially Protected Areas, engage specialist consultants and convene advisory and open working groups of Mediterranean experts which will provide assistance and guidance, in particular concerning the application of the guidelines.
 7. The meeting approved the budget required for the permanent running of the Centre RAC/SPA (Objectives A, B, C and D) for adoption by the forthcoming meeting of the Contracting Parties (Athens, 7-11 September 1987).
 8. In accordance with Article 14, para. 2 of the Protocol concerning Mediterranean Specially Protected Areas, the next meeting of the National Focal Points for Specially Protected Areas will be convened in 1989, prior to the Sixth Ordinary Meeting of the Contracting Parties to the Barcelona Convention.

137. The Executive Director recommends that the meeting approves the above mentioned recommendations as well as their corresponding budgetary allocations (annex IV of this report).

IV CO-ORDINATED POLLUTION MONITORING AND RESEARCH PROGRAMME FOR THE MEDITERRANEAN (MED POL)

IV(a) MONITORING

PROGRESS REPORT

138. The monitoring component of MED POL was extensively discussed at the Fifth Meeting of the Working Group for Scientific and Technical Co-operation for MED POL (Athens, 6-10 April 1987, UNEP/WG.160/3 and UNEP/WG.160/13) and satisfaction was expressed with its development since the last meeting of the Contracting Parties (Genoa, September 1985).

139. At the time of the Genoa Meeting, agreements on National Monitoring Programmes were signed with seven Mediterranean countries (Algeria, Cyprus, Israel, Lebanon, Malta, Morocco and Yugoslavia). Since the Genoa Meeting, agreements on National Monitoring Programmes were reached with additional six countries. With Egypt, Libya and Syria agreements were signed, while France (including Monaco) and Spain transmitted their National Monitoring Programmes and relevant monitoring data. From the remaining countries, Italy and Turkey transmitted to the Secretariat certain monitoring data with strong indication that both countries will submit their National Monitoring Programmes during 1987. Actions were taken by the Secretariat in order to finalize agreements with Greece and Tunisia.

140. As in the past, during 1986 and 1987 the secretariat, in close collaboration with the Co-operating Agencies, has provided direct assistance in cash or in equipment, as well as indirect assistance in training, fellowships, intercalibration and maintenance. The amount of direct assistance to the countries that signed monitoring agreements reached US\$ 340,300 in 1986 and is planned at US\$ 431,000 for 1987. Direct assistance in 1986 was distributed as follows: Algeria US\$ 40,000; Cyprus US\$ 20,500; Egypt US\$ 40,000; Israel US\$ 38,000; Lebanon US\$ 15,000; Libya US\$ 50,000; Malta US\$ 20,000; Morocco US\$ 28,000; Syria US\$ 40,000 and Yugoslavia US\$ 48,800.

141. As to the implementation of the monitoring of the transport of pollutants through the atmosphere, in addition to the activities carried out as part of the research component of MED POL, a pilot project on studying air pollutant depositions into the Mediterranean region and pollutant concentrations in air was initiated and twelve countries are at present participating (Algeria, Cyprus, Egypt, France, Greece, Israel, Italy, Libya, Morocco, Spain, Tunisia and Yugoslavia).

142. All the data received through monitoring programmes have been entered into the data bank of the Co-ordinating Unit after a preliminary control of their quality achieved through the results of the intercalibration exercises, as well as through accurate analyses of each entry carried out by the competent Co-operating Agency.

143. As to the utilization and dissemination of data and results, these were fully used for the preparation of various assessments as requested for the implementation of the Land-based Sources Protocol (Used Lubricating Oils: UNEP/WG.160/7; Mercury: UNEP/WG.160/8; Cadmium: UNEP/WG.160/9; Shellfish

Waters: UNEP/WG.160/10; and Petroleum Hydrocarbons: UNEP/WG.160/11). Also work is in progress to publish the analysis of results, trends and conclusions of the established National Monitoring Programmes in a number of issues of the MAP Technical Reports Series.

144. In order to improve the quality of the data received through monitoring activities, in addition to the existing mandatory intercalibration exercises (UNEP/WG.160/3, annex VI; UNEP/WG.160/Inf.6 and UNEP/WG.160/Inf.7) new exercises were launched by IAEA in August 1986 covering trace metals and organochlorine compounds in organisms, with the participation of thirty-four laboratories from ten countries. In order to make full use of results of the various intercalibration exercises, contacts were continued with laboratories where the results had shown methodological problems (sampling and/or analysis). The intention of the secretariat is to continue to improve this line with the participating laboratories and to use, whenever needed, the training component of MED POL.

145. Under the over-all co-ordination of the Oceans and Coastal Areas Programme Activity Centre (OCA/PAC) of UNEP, and in close collaboration with the Co-operation Agencies, the work continued on the preparation and updating of reference methods to be used in the monitoring activities (UNEP/WG.160/3, annex IV).

146. Maintenance services of analytical instruments, organized in collaboration with IAEA's International Laboratory for Marine Radioactivity (ILMR) in Monaco, continued to be provided to the MED POL participating institutions in various countries. In addition to the regular and emergency service visits carried out by the maintenance engineer from ILMR for instruments provided through MED POL, other instruments used for the programme were also serviced. In addition to maintenance of laboratory and field instruments, during 1986 the ILMR maintenance engineer was in charge of the maintenance of the WANG computers provided to the SPA/RAC in Tunis, ROCC in Malta and PAP/RAC in Split (UNEP/WG.160/3, annex VII).

147. Assistance was provided to MED POL participants in the form of individual and group training, support to participation at MED POL meetings (workshop and intercalibration exercises) and travel grants for attendance at meetings related to the MED POL programme (UNEP/WG.160/3, annex VIII).

148. As a follow-up to the decisions of the Genoa Meeting, the secretariat initiated in 1986 the process of evaluation of the monitoring component of MED POL in the light of the first five years of implementation. The secretariat has conducted this evaluation through numerous discussions with scientists participating in the monitoring activities as well as MED POL National Co-ordinators in the course of meetings, country visits and personal contacts. Another important mechanism used was the regular meetings of the Inter-Agency Advisory Committee as well as the normal day-to-day collaboration with the Co-operating Agencies. This mechanism proved to be very effective considering that the Co-operating Agencies' staff attached to the Unit is in close contact with the scientists working in MED POL and that, in addition, through their organizations, they are aware of other similar programmes in other regions with comparable aims and objectives. In addition, a small consultation meeting was held in January 1987 with experienced scientists during which the initial objectives of MED POL, the modalities for their implementation and the results so far achieved were thoroughly reviewed. On

the basis of this evaluation as well as the discussions held at the Fifth Working Group meeting, it was concluded that the overall approach adopted by the Contracting Parties (UNEP/IG.23/11, annex V) is considered still adequate in its administrative and scientific aspects for the achievement of the general objectives of MED POL and therefore should be continued. Only minor changes are proposed to the Contracting Parties in the selection of parameters, mainly on the basis of the experience gained during the first five years of MED POL and of the requirements of the Land-based Sources Protocol implementation (para. 154 of this report).

149. At the Fifth Working Group Meeting, it was agreed that comprehensive evaluation of the monitoring, which should involve Mediterranean experts to the greatest possible extent, should be completed and submitted to the 1989 Working Group Meeting. Also closer contacts are proposed between institutions from different countries participating in the programme with the aim of stimulating collection and analysis of data and launching long-lasting scientific collaboration among them.

150. Although the number of countries participating in the MED POL monitoring programme almost doubled since the Genoa Meeting (from 7 to 13, with 60 participating laboratories) the secretariat believes that a greater effort should be made in order to improve the completeness of the country programmes, their comparability and the data quality. Several national programmes are still not covering all components agreed upon (monitoring of sources, coastal, estuarine and open waters), and in some cases, the regularity of the reporting and the participation in the intercalibration exercise has to be improved in order to assure the required data quality.

151. On the basis of above considerations, the Working Group is proposing to the Contracting Parties to increase the direct assistance for monitoring from US\$ 431,000 in 1987 to US\$ 580,000 in 1988 and US\$ 620,000 in 1989. In addition, for data quality assurance for which no budgetary allocations had been envisaged in 1987, which is a weak point of monitoring programmes even in the most developed countries, it is proposed to the Contracting Parties to approve US\$ 175,000 for 1988 and US\$ 210,000 for 1989.

RECOMMENDATIONS CONCERNING MONITORING

(as approved by the Fifth Meeting of the Working Group for Scientific and Technical Co-operation for MED POL (Athens, 6-10 April 1987) (UNEP/WG.160/13))

152. The Executive Director recommends that the proposed activities for monitoring (general, selection of parameters, data collection, data quality assurance and data processing, management and utilization) contained in paras 153 to 158 of this document, as well as the corresponding budgetary allocations (annex IV, Section I, Chapter 3 of this report) be approved by the Meeting. For easy reference, the summary of the MED POL budget, including the approved budget for 1986 and 1987 and proposed budget for 1988 and 1989 is presented in table 2 on page 80 of this report.

Monitoring (general)

153. It is recommended to (UNEP/WG.160/13, annex IV):

- (a) continue negotiations with the MED POL National Co-ordinators in order to increase the contributions to MED POL - PHASE II through their MED POL National Monitoring Programmes or other monitoring programmes; specific efforts will be made to improve the presently still incomplete coverage of the Mediterranean and to achieve a more efficient and meaningful regular reporting on the obtained results;
- (b) continue contacts with national research centres designated as participants in the monitoring activities of MED POL - PHASE II (in consultation with National Co-ordinators) in order to facilitate their participation in the programme;
- (c) continue support to the participants in MED POL through the common maintenance service, provision of equipment, training and fellowships to national research centres and scientists, at the request of, and in consultation with, MED POL National Co-ordinators in the States with signed National Monitoring Programmes;
- (d) sponsor participation of Mediterranean scientists/experts at meetings organized by other bodies on subjects relevant to monitoring activities of MED POL including the IX ICSEM/IOC/UNEP Workshop on Marine Pollution;
- (e) stimulate the creation of long-term relations between more developed institutes from the northern Mediterranean and institutes from the southern Mediterranean through joint projects and exchanges of visiting scientists in order to stimulate collection and analysis of data and launch a long-lasting scientific collaboration;

(f) continue the evaluation of the monitoring component of the MED POL programme through:

- a meeting of responsible investigators in monitoring programmes (1988);
- ad hoc consultation meetings on monitoring (1988, 1989);
- Inter-Agency Advisory Committees (1988, 1989);
- meetings of the Working Group for Scientific and Technical Co-operation (1988, 1989).

Selection of parameters

154. It is recommended that (UNEP/WG.160/13, annex IV) the parameters to be monitored be divided into two categories:

Category I:

- Parameters which should be included in national monitoring programmes within the framework of MED POL.

Category II:

- Parameters which should be included in national monitoring programmes whenever necessary and applicable.

(a) Monitoring of effluents

Category I parameters:

Volume and characteristics of discharge (e.g. pH, temperature, general composition).

- Total mercury
- Total cadmium
- Total suspended solids
- Total phosphorus
- Total nitrogen
- Faecal coliforms
- BOD/COD
- High molecular weight halogenated hydrocarbons

Category II parameters:

- Petroleum hydrocarbons
- Detergents
- Phenols
- Total chromium
- Selected radionuclides
- Other pollutants known to be discharged in significant quantities

Note: In the specific case of monitoring industrial effluents, the parameters listed above and/or other parameters should be selected in accordance with the specific composition of the wastewater discharged.

(b) Monitoring of coastal waters including sediments and biota

Category I parameters:

- Total mercury in organisms and sediments
- Organic mercury in organisms
- Cadmium in organisms and sediments
- High molecular weight halogenated hydrocarbons in organisms and sediments
- Faecal coliforms in recreational waters and bivalves

Category II parameters:

- Basic oceanographic and meteorological parameters (e.g. salinity, oxygen, temperature, chlorophyll, wind).
- Floating tar balls and tar balls on beaches
- Total arsenic in organisms
- Radionuclides in organisms
- Pathogenic microorganisms
- Polynuclear aromatic hydrocarbons in organisms

Note: Other parameters could be included according to local requirements.

(c) Monitoring of estuaries including the areas defined in Article 3(b) of the Land-Based Sources Protocol

Category I parameters:

- Total mercury in organisms and sediments
- Organic mercury in organisms
- Total cadmium in organisms and sediments
- High molecular weight halogenated hydrocarbons in organisms and sediments
- Faecal coliforms in water and bivalves
- Total phosphorus in water and suspended matter
- Total nitrogen in water and suspended matter
- Total suspended matter
- COD
- Basic oceanographical and meteorological parameters (salinity, oxygen, temperature, chlorophyll)

Category II parameters:

- Radionuclides in organisms
- Polynuclear aromatic hydrocarbons in organisms
- Phenols in water

(d) Monitoring of reference area

The same parameters (both Category I and Category II) selected for coastal waters.

Data collection

155. It is recommended to (UNEP/WG.160/13, annex IV) continue to collect data through:

- official channels, through MED POL National Monitoring Programmes;
- open scientific literature of high international standards;
- regional and sub-regional research and monitoring programmes;
- other sources of information, as appropriate.

Data quality assurance

156. In order to ensure a high quality, reliability and compatibility of the data collected the following is recommended (UNEP/WG.160/13, annex IV):

- formulation, review and amendment, as appropriate, of Reference Methods;
- formulation of data reporting formats for all the monitoring parameters;
- continuation of the regular intercalibration exercises of analytical techniques for agreed parameters;
- provision of standards and reference materials;
- visits of experts to laboratories in order to work together with local scientists on sampling, analysis, quality assurance procedures, presentation and evaluation of results;
- intercomparison of results including sampling and analysis of split samples and expert assistance to laboratories for sampling, analysis, presentation and evaluation of results;
- assistance to countries for the preparation, design and enhancement of monitoring programmes;
- joint exercises, where appropriate on monitoring including intercomparison of sampling and analysis.

157. In addition, the following specific activities are also recommended (UNEP/WG.160/13, annex IV) for implementation during the biennium:

- intercalibration and training course on determination of chlorinated hydrocarbons (1988);
- training course on treatment and interpretation of biological effects data (1988);
- intercalibration and training course on determination of organic mercury (1989);

- training course on analysis of physical oceanographic data and time-series (1989);
- intercalibration and training courses on determination of microbiological pollution (1988; 1989).

Data processing, management and utilization

158. It is recommended that (UNEP/WG.160/13, annex IV):

- (a) the processing of the monitoring data should continue with the following objectives:
- to prepare, in consultation with National Co-ordinators, maps (contouring if possible) of pollution in the Mediterranean, or its sub-regions;
 - to prepare periodically reports on the overall state of marine pollution in the Mediterranean or its sub-regions;
 - to prepare standard statistical and correlation analysis of available data;
 - to prepare assessments of the state of pollution of the Mediterranean Sea with respect to particular pollutants;
 - to help countries to prepare national reports on the state of marine pollution in the areas under their jurisdiction;
 - to exchange processed data with other international bodies and organizations.
- (b) two small ad hoc consultation meetings be held in 1988 and 1989 with scientists/experts to advise the secretariat in the implementation of the activities listed under (a).

IV(b) RESEARCH

PROGRESS REPORT

159. During 1986 there were 146 ongoing research projects with a total contribution of US\$ 261,800 and 34 projects were completed. In 1987 sixty-seven research proposals were received, distributed to the Co-operating Agencies and most of them are being negotiated (UNEP/WG.160/3).

160. Activity A (Development and testing of sampling and analytical techniques for monitoring of marine pollutants). There were 14 ongoing projects in 1986 with a total contribution of US\$ 34,500. Projects on the development and/or revision of microbiological methodology were completed in 1986, others extended, and one new project accepted. The revision of the Reference Method on the determination of arsenic in marine organisms has been published. Three methods on acute toxicity testing, one method on health-related monitoring, one method on statistical analysis and interpretation of microbiological data, and three on determination of pathogenic microorganisms are ready for printing. Other ongoing projects under this activity were dealing with the determination of heavy metals, halogenated hydrocarbons and organophosphorous compounds in marine organisms. An IAEA/FAO/UNEP Workshop on the determination of mercury, cadmium and lead in marine organisms and sediments took place in Monaco (3-6 November 1986) and an intercalibration exercise for the determination of petroleum hydrocarbons was organized by IOC and held in Barcelona, 13-17 October 1986.

161. Activity B (Development of reporting formats required according to the Dumping, Emergency and Land-based Sources Protocols). During 1986 there was one ongoing project with a contribution of US\$ 4,000. This project dealt with the development of approaches for the continuous assessment of pollution loads.

162. Activity C (Formulation of the scientific rationale for Mediterranean Environmental Quality Criteria). There were five ongoing projects in 1986 with a total contribution of US\$ 15,500. At the start of this activity, research projects commenced in 1986 dealing with intercomparison studies on techniques for monitoring shellfish-growing waters and shellfish, studies related to environmental quality criteria of coastal waters, and development of models for the calculation of the environmental capacity of seawater in the Mediterranean.

163. Activity D (Epidemiological studies related to Environmental Quality Criteria). There were 13 ongoing projects in 1986 with a total contribution of US\$ 13,000. In the part of the activity dealing with the correlation of coastal seawaters quality with health effects, the projects, dealing with (a) pathogenic fungi and (b) epidemiological studies among bathers, have been completed so far. Other ongoing projects deal with the relationships between pathogenic bacteria or viruses and indicator organisms, viral pollution of seawater, and epidemiological studies regarding virus infections contacted from bathing. A consultation meeting on microbial pollution in Mediterranean coastal areas and associated health effects will be held in Athens, 29 June - 3 July 1987. The meeting will review progress in ongoing research projects, and is expected to produce recommendations regarding the need, feasibility and methodology for monitoring specific pathogenic organisms (including viruses).

In the part of the activity dealing with mercury, the projects dealing with concentrations of total mercury, methylmercury and selenium in marine organisms have been completed. The other ongoing projects deal with the relationship between total mercury and methylmercury concentrations in various species of marine organisms, dietary surveys in selected populations to determine seafood consumption patterns, and human hair analysis in indicated sections of these sample populations. A consultation meeting on health effects of methylmercury in the Mediterranean area was held in Athens, 15-19 September 1986 (UNEP/WG.160/Inf.5), at which progress in the whole sub-activity was reviewed, the necessary follow-up agreed upon, and the instructions for epidemiological studies finalized. Evidence was established that two of the main population groups at risk are (a) adult fishermen, and (b) pregnant women, particularly from fishing families.

164. Activity E (Guidelines and criteria for the application of the Land-Based Sources Protocol). There were two ongoing projects in 1986 with a total contribution of US\$ 8,000. At the start of this activity, research projects commenced dealing with design of submarine outfalls in the Mediterranean, and studies on used lubricating oils in effluents together with alternative means of disposal.

165. Activity F (Research on oceanographic processes). There were 14 ongoing projects in 1986 with a total contribution of US\$ 10,000. A review of Mediterranean oceanographic processes is in progress and it will be ready by mid 1987. The review includes the preparation of a bibliography which is expected to be ready for publication by mid 1987 in the MAP Technical Reports Series. The projects ongoing during 1986, also include hydrodynamic modeling of various Mediterranean regions.

166. Activity G (Research on the toxicity, persistence, bioaccumulation, carcinogenicity and mutagenicity). There were 26 ongoing projects in 1986 with a total contribution of US\$ 57,500. The topics covered under this activity include toxicity of oil and oil dispersants, heavy metals (mainly mercury and cadmium), organosilicon compounds, PCBs, organophosphorus and other pesticides. Also bioaccumulation and various physiological and biochemical aspects of the effects of the most of the above-mentioned pollutants were studied. Three Reference Methods on acute toxicity testing are ready for publication and the Reference Methods on sub-lethal toxicity are being developed.

167. Activity H (Eutrophication and concomitant plankton blooms). There were two ongoing projects in 1986 with a total contribution of US\$ 6,000. The subjects dealt with under this activity include eutrophication problems in the port of Algiers, the lake of Tunis, Izmir bay and North and Central Adriatic. The two ongoing projects study the toxic dinoflagellates and the irregular blooms of macro- and micro-plankton. Guidelines for the assessment of receiving capacity of waters for substances inducing eutrophication were prepared and discussed at the meeting held in Bologna, 2-6 March 1987.

168. Activity I (Pollution-induced ecosystems modifications). There were four ongoing projects in 1986 with a total contribution of US\$ 11,000. Under this activity studies were made on the effects of pollution on various marine communities in some coastal areas in Greece, Yugoslavia, Turkey, France, Italy and Lebanon. The two main conclusions of the Blanes (Spain) Meeting (7-11 October 1985) (UNEP/WG.160/Inf.4) were that (a) the FAO Manual on the ecological assessment of pollution effects (prepared during MED POL - PHASE I)

needed updating and (b) there was a need for training in methods of data analysis. The FAO Manual is now being revised and a training course is proposed to take place in 1988 on treatment and interpretation of biological effects data.

169. Activity J (Effects of thermal discharges on coastal organisms and ecosystems). There was one ongoing project in 1986 with a contribution of US\$ 3,000. Two projects were completed in 1986 studying the effects of thermal pollution on marine communities in specific areas of Cyprus and Italy and a new similar project has been initiated in 1986 in Algeria.

170. Activity K (Biogeochemical cycles of specific pollutants). There were 14 ongoing projects in 1986 with a total contribution of US\$ 31,000. Projects have been completed under this activity dealing with the biogeochemical cycle of mercury and other heavy metals. At present, the ongoing projects cover such aspects as mercury speciation, transformation of organic and inorganic mercury by bacteria, fate of organotin compounds and radionuclides in biota. Projects on survival of pathogens were completed in 1986, and others were commenced. The results of this work will provide an input into the studies on efficiency of submarine outfall structures.

171. Activity L (Pollutant-transfer processes). There were 26 ongoing projects in 1986 with a total contribution of US\$ 34,300. Work is progressing through research projects which deal with pollutant-transfer processes at river/sea and air/sea interfaces, by sedimentation and through the straits. Development of sampling techniques of surface microlayer for petroleum is also progressing through research projects. In June 1986 the national experts designated by the Governments to participate in the pilot project on transport of pollutants through the atmosphere were approached by WMO and asked to propose a workplan relative to the implementation of the project. Information on ongoing national activities was also requested.

172. Jellyfish programme. There were 24 ongoing projects in 1986 with a total contribution of US\$ 34,000. All the projects which were part of the jellyfish programme (1984-1986) are completing the work. A review meeting was held in Trieste in January 1986 (UNEP/WG.145/3) where progress reports of participating laboratories were reviewed. A small workshop is being organized by the CIMAM, Trieste, in September 1987, during which final reports of the two-year programme will be presented. The secretariat intends to publish the final reports of the programme in the MAP Technical Reports Series. New projects covering the subject of jellyfish are being analysed and the ones which present a regional and not a local interest may be introduced in other research activities, according to the specific topics covered.

173. In order to present and disseminate results of research activities, the final reports of Principal Investigators participating in MED POL - PHASE I (projects MED POL I to VIII) were published in the first eight volumes of the MAP Technical Reports Series. Volume nine of the same series contains a final report of the MED POL - PHASE I, prepared with the co-operating Agencies and giving a summary of scientific results and conclusions, information on administrative and financial aspects and general assessment. Final reports of projects in MED POL - PHASE II are being published as from volume 10 of the Series, with the plan of publishing by the end of 1987 about ten volumes concerning research activities.

174. At the Fifth Meeting of the Working Group, during the discussion on research activities, it was agreed that a comprehensive evaluation of the research component of MED POL - PHASE II should be completed and presented to the 1989 Working Group Meeting and that in such evaluation Mediterranean experts should be involved to the greatest possible extent.

175. In the frame of the Joint Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP), Mediterranean scientists as well as members of the secretariat are active in the work of several Working Groups, in particular on integrated global ocean monitoring, long-term effects of low-level contamination, potentially harmful substances, eutrophication, state of the marine environment, etc. In the frame of the latter Working Group a regional report on the state of the Mediterranean Sea is being prepared and should be ready by the beginning of 1988.

176. As a response to the concern expressed in certain regions about the possible implications of expected climatic changes (mostly man-induced) for the marine and coastal environment, Oceans and Coastal Areas Programme Activity Centre (OCA/PAC) of UNEP has initiated the preparation of studies which would review the situation in several regions covered by the Regional Seas Programme. Such study for the Mediterranean region has been initiated and report should be ready by mid 1988.

177. The 1987 budget for research component, approved in Genoa, was US\$ 332,500. The Working Group Meeting proposed that US\$ 370,000 be allocated for 1988 and US\$ 425,000 for 1989 for the research component of MED POL.

RECOMMENDATIONS CONCERNING RESEARCH

(as approved by the Fifth Meeting of the Working Group for Scientific and Technical Co-operation for MED POL (Athens, 6-10 April 1987) (UNEP/WG.160/13))

178. The Executive Director recommends that proposed activities for research contained in para. 179 of this document, as well as corresponding budgetary allocations (annex IV, Section I, Chapter 4 of this report) be approved by the meeting. For easy reference the summary of the MED POL budget, including approved budget for 1986 and 1987 and proposed budget for 1988 and 1989 is presented in table 2 on page 80 of this report.

179. It is recommended that (UNEP/WG.160/13, annex IV):

- (a) during the 1988-1989 biennium the selection and funding of research proposals will follow the procedures endorsed by the Working Group for scientific and technical co-operation and approved by the Contracting Parties;
- (b) the already existing close link between the research and the monitoring components of MED POL should be further strengthened in order to make full use of the results of the research activities in the assessments of the state of pollution of the Mediterranean Sea;
- (c) to ensure maximum cost-effectiveness of utilization of the limited funds allocated for research, during the biennium 1988-1989, the number of research projects should be limited as appropriate by giving priority to topics of specific relevance to the Mediterranean;
- (d) during the biennium 1988-1989 the following meetings be convened:
 - review meeting on activities relevant to oceanographic processes responsible for transfer and distribution of pollutants (activity 'F') (1988);
 - consultation meeting to discuss the reference methods on toxicity and review the progress of work (activity 'G') (1988);
 - consultation meeting on epidemiological and related studies regarding environmental quality criteria (activity 'D') (1989);
 - consultation meeting on programmes and measures in connection with Article 7 of the Land-based Sources Protocol (activity 'E') (1989);
 - workshop on monitoring and assessment of the airborne pollution of the Mediterranean Sea (activity 'L') (1989).

IV(c) SCIENTIFIC/TECHNICAL IMPLEMENTATION OF THE LAND-BASED SOURCES AND DUMPING PROTOCOLS

PROGRESS REPORT RELEVANT TO THE LBS PROTOCOL

180. Following the decision of the Contracting Parties (Dubrovnik, 1983) a Meeting of Experts of the Technical Implementation of the Protocol for the Protection against Pollution from Land-based Sources (LBS Protocol) was held in Athens, 9-13 December 1985.

181. After comprehensive discussion on the approach, workplan and financial requirements in order to implement the LBS Protocol, the Meeting adopted (UNEP/WG.125/10):

- general guidelines for the development of programmes and measures for the implementation of the Protocol (para. 189 of this report);
- guidelines for the elimination of pollution from Land-based sources, in terms of Article 5, by substances listed in annex I to the Protocol (para. 190 of this report);
- guidelines for limiting pollution from Land-based Sources, in terms of Article 6, by substances or sources listed in annex II to the Protocol (para. 191 of this report).

182. In addition, based on the recommendations of the Contracting Parties (UNEP/IG.56/5, recomm. F3) the Meeting adopted:

- workplan for the LBS Protocol implementation for 1986 and 1987 (para. 192 of this report), and
- indicative workplan for the LBS Protocol implementation from 1988 to 1995 (para. 193 of this report).

183. Since there were no budgetary allocations for the implementation of the LBS Protocol, on the recommendation of the the LBS experts meeting, the secretariat proposed to the Bureau of the Contracting Parties to transfer unspent funds for the preparation of documents related to the LBS Protocol implementation (US\$ 68,000 for 1986 and US\$ 61,000 for 1987) and the Bureau approved such transfer (UNEP/BUR/26).

184. Since the Working Group for MED POL has within its mandate the scientific/technical implementation of the LBS Protocol, related subjects were considered at its Fourth (Athens, 16-20 June 1986, UNEP/WG.144/13) and Fifth (Athens, 6-10 April 1987, UNEP/WG.160/13) Meetings.

185. The Fourth Meeting of the Working Group recommended to the Contracting Parties to provide for an increase in the MED POL 1988-1989 budget to cover additional monitoring activities which would provide the necessary data for the technical implementation of the LBS Protocol. The Fifth Meeting of the Working Group approved the recommendations contained in para. 194 of this document. In addition, it was agreed that for the substances listed in annex I of the Protocol not covered by National Monitoring Programmes, it was

necessary to launch small pilot monitoring studies. The relevant recommendations are contained in para. 195 of this report. For all the activities related to the implementation of the LBS Protocol, it is proposed to Contracting Parties to allocate US\$ 182,500 for 1988 and US\$ 160,000 for 1989.

186. In conformity with the principle of updating the annexes to Protocols adopted under the terms of the Barcelona Convention as and when necessary, and of the request of one Contracting Party, the position regarding the organosilicon compounds in both LBS and Dumping Protocols has been reviewed. The document "An Assessment of organosilicons as Marine Pollutants, with Particular Reference to their status in the Mediterranean Dumping and Land-based Sources Protocols" (UNEP/WG.160/12) was presented to the Fifth Meeting of the Working Group. The meeting agreed that the necessary steps should be initiated towards the deletion of organosilicon compounds from the relative annexes of the LBS and Dumping Protocols and relevant recommendations are contained in para. 196 of this report.

PROGRESS REPORT RELEVANT TO THE DUMPING PROTOCOL

187. In connexion with the implementation of the Dumping Protocol, several National Co-ordinators expressed their concern at the Fifth Meeting of the Working Group regarding the low degree of implementation of the relevant recommendations of the Genoa Meeting (UNEP/IG.56/5, recomm. F4).

RECOMMENDATIONS CONCERNING SCIENTIFIC/TECHNICAL IMPLEMENTATION OF THE
LBS AND DUMPING PROTOCOLS

(as approved by the Meeting of Experts of the Technical Implementation of the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-based Sources (Athens, 9-13 December 1985) (UNEP/WG.125/10) and by the Fifth Meeting of the Working Group for Scientific and Technical Co-operation for MED POL (Athens, 6-10 April 1987) (UNEP/WG.160/13))

188. The Executive Director recommends that the proposed procedures and activities contained in paras. 189 to 196 of this document, as well as the corresponding budgetary allocations (annex IV, Section I, Chapter 3 of this report) be approved by the meeting. For easy reference, the summary of the MED POL budget, including approved budget for 1986 and 1987 and proposed budget for 1988 and 1989 is presented in table 2 on page 80 of this report.

General guidelines for the development of programmes and measures for the implementation of the Protocol

189. It is recommended that (UNEP/WG.125/10, annex IV):

- (a) the existing level of pollution of the Mediterranean Sea and the severity of its effects on the Mediterranean ecosystem, human health and amenities should be used as indications guiding the timetable for the formulation of measures;
- (b) the Protocol should be implemented progressively, through a step-by-step process, according to a long-term workplan and timetable agreed by the Contracting Parties;
- (c) the best available information on scientific and technical matters should be used in formulating proposals for measures to be taken under the Protocol;
- (d) the ecological, geographical and physical characteristics of the Mediterranean Sea and its coastal zone, including the absorptive capacity of the marine environment, should be taken into account in formulating the measures;
- (e) the implementation of the Protocol should be linked with and reinforced by the other components of the Action Plan, MED POL in particular;
- (f) the programmes and measures for the implementation of the Protocol shall include common guidelines, standards or criteria, wherever appropriate;
- (g) the measures adopted individually or jointly under the Protocol should take into account the economic capacity of the Contracting Parties;

- (h) assistance should be made available to developing countries in the implementation of the Protocol. Such assistance should include exchange of information in the fields of services and technology, training in pollution control methodologies as well as acquisition of appropriate pollution control technologies on advantageous terms;
- (i) annex IV to the Protocol concerning pollution from land-based sources transported by the atmosphere, should be prepared in accordance with the provision of Article 4 of the Protocol.

Guidelines for the elimination of pollution from Land-based Sources, in terms of Article 5, by substances listed in Annex I to the Protocol

190. It is recommended that (UNEP/WG.125/10, annex V) in addition to the general guidelines the following will be applied:

- (a) a survey on land-based sources and amounts of pollutants reaching the Mediterranean Sea should be prepared as an updating of the MED POL X exercise;
- (b) for each of the group of substances listed in annex I to the Protocol, an assessment of the state of pollution in the Mediterranean Sea should be prepared. Such assessments would include, inter alia:
 - sources of pollution in the Mediterranean Sea;
 - levels of pollution;
 - effects of pollution;
 - present legal, administrative and technical measures at national and international level.
- (c) such assessments should include all available relevant information from the Contracting Parties (Article 8 of the Protocol), from other components of MAP, in particular MED POL, as well as from other sources (e.g. Paris/Oslo Commission, Baltic Convention, etc.);
- (d) preparatory work should take already-existing material fully into account. This would avoid (a) overlap and duplication of work, which would be uneconomic and time-consuming, and (b) the production of sets of standards and criteria which could be at a variance with already-existing norms and, as a result, place a number of countries in a difficult position regarding compliance. Eventually, a certain degree of variance with already-existing criteria might very well turn out to be necessary, but this would have to be fully justified;
- (e) on the basis of such assessments, measures would be proposed which should take into account the provisions of Article 7 of the Protocol.

Guidelines for limiting pollution from land-based sources, in terms of Article 6, by substances or sources listed in annex II to the Protocol

191. It is recommended that (UNEP/WG.125/10, annex VI) in addition to the general guidelines the following will be applied:

- (a) a survey on land-based sources and amounts of pollutants reaching the Mediterranean Sea should be prepared as an updating of the MED POL X exercise;
- (b) for each of the group of substances listed in annex II to the Protocol, an assessment of the state of pollution in the Mediterranean Sea, should be prepared. Such assessments would include, inter alia:
 - sources of pollution in the Mediterranean Sea;
 - levels of pollution;
 - effects of pollution;
 - present legal, administrative and technical measures at national and international level.
- (c) such assessments should include all available relevant information from the Contracting Parties (Article 8 of the Protocol), from other components of MAP, in particular MED POL, as well as from other sources (e.g. Paris/Oslo Commission, Baltic Convention, etc.);
- (d) on the basis of such assessments measures would be proposed which should take into account the provisions of Article 7 of the Protocol;
- (e) the proposed measures should also take into account the provisions of annex III to the Protocol;
- (f) guidelines for the issue of authorization for discharge should be prepared, based on annex III to the Protocol as well as on the said assessments and proposed measures.

192. It is recommended (UNEP/WG.125/10, annex VII) to approve:

LAND-BASED SOURCES PROTOCOL IMPLEMENTATION WORKPLAN FOR 1986 AND 1987

Actions	Relevance to the Protocol	Responsible Agencies	Target Date
1. Completion and Revision of the Glossary	Protocol and Annexes	UNEP/MEDU, WHO	Dec. 1986
2. List of substances falling within each of the Groups in Annex I to the Protocol	Annex I	UNEP/MEDU, IRPTC	Dec. 1986
3. List of substances falling within each of the Groups in Annex II to the Protocol	Annex II	UNEP/MEDU, IRPTC	Dec. 1986
4. Assessment of the state of pollution in the Mediterranean Sea by used lubricating oils and proposed measures	Article 5; Annex I	UNEP/MEDU, UNIDO	Dec. 1986
5. Survey of land-based sources and amounts of pollutants reaching the Mediterranean Sea	Articles 5 and 6; Annexes I and II	UNEP/MEDU, WHO	Dec. 1986
6. Assessment of the state of microbial pollution in the Mediterranean Sea and proposed measures for shellfish and shellfish-growing waters	Article 6; Annex II	UNEP/MEDU, WHO	Dec. 1986
7. An evaluation of the benefits and limitations of submarine pipelines, whether or not associated with treatment plants, for discharge of liquid effluents.	Article 7; para 1 (a)	UNEP/MEDU, WHO	Dec. 1986
8. Formulation of the procedure for the collection and submission of information from the Parties on measures taken, results achieved and difficulties encountered in the application of the Protocol	Article 13	UNEP/MEDU, WHO	Dec. 1986

Actions	Relevance to the Protocol	Responsible Agencies	Target Date
9. Draft guidelines for the issue of authorisations for the discharge of liquid wastes into the Mediterranean	Article 6	UNEP/MEDU, WHO	Dec. 1987
10. Assessment of the state of pollution in the Mediterranean Sea by cadmium and cadmium compounds and proposed measures	Article 5; Annex I	UNEP/MEDU, FAO	Dec. 1987
11. Assessment of the state of pollution in the Mediterranean Sea by organohalogen compounds and proposed measures	Article 5; Annex I	UNEP/MEDU, FAO	Dec. 1987
12. Assessment of the state of pollution in the Mediterranean Sea by mercury and mercury compounds and proposed measures	Article 5, Annex I	UNEP/MEDU, FAO	Dec. 1987
13. A comparative review of the various types of treatment existing in the Mediterranean area for wastewaters, with the view to their re-use or their discharge into the sea	Article 7, para 1 (a)	UNEP/MEDU, WHO	Dec. 1987
14. Compilation of detailed information on existing legislative measures regarding the discharge of wastes through submarine outfalls in Mediterranean countries together with similar information from selected countries outside the region, to enable comparison and evaluation of applicability	Article 7; para 1 (a)	UNEP/MEDU, WHO	Dec. 1987
15. Identification and categorization of effluents requiring special and/or separate treatment and listing of such treatment and/or other requirements normally associated with or advisable for such effluents	Article 7, para 1(b)	UNEP/MEDU, WHO, UNIDO	Dec. 1987

193. It is recommended (UNEP/WG.125/10, annex VIII) to approve:

INDICATIVE WORKPLAN AND TIMETABLE FOR THE FORMULATION OF PROGRAMMES AND MEASURES IN TERMS OF ARTICLES 4, 5, 6, 7 AND 13 OF THE PROTOCOL FROM 1988 TO 1995

Actions	Relevance to the Protocol	Responsible Agencies	Target Date
1. Assessment of the state of pollution in the Mediterranean Sea by persistent synthetic materials which may float, sink or remain in suspension, and proposed measures	Article 5; Annex I	UNEP/MEDU, UNIDO	Dec. 1988
2. Assessment of the state of pollution in the Mediterranean Sea by organo-phosphorus compounds and proposed measures	Article 5; Annex I	UNEP/MEDU, FAO	Dec. 1988
3. Assessment of the state of pollution in the Mediterranean Sea by organotin compounds and proposed measures	Article 5; Annex I	UNEP/MEDU, FAO	Dec. 1988
4. Completion and revision of the list of substances included in the groups contained in annexes I and II to the Protocol	Annexes I, & II	UNEP/MEDU, IRPTC, FAO	Dec. 1988
5. Evaluation of <u>in situ</u> investigations on selected submarine outfalls to determine their technical efficiency and cost-effectiveness	Article 7, para 1(a)	UNEP/MEDU, WHO	Dec. 1988
6. Survey of the situation currently existing with regard to products, installations and other processes within the region actually or potentially causing significant pollution of the marine environment	Article 7, para 1(d)	UNEP/MEDU, WHO, UNIDO	Dec. 1988
7. Preparation of draft Annex IV to the Protocol concerning pollution from land-based sources transported by the atmosphere	Article 4	UNEP/MEDU, WMO	Dec. 1988
8. Assessment of the state of pollution in the Mediterranean Sea by radioactive substances and proposed measures	Article 5; Annex I	UNEP/MEDU, IAEA	Dec. 1989
9. Assessment of the state of pollution in the Mediterranean Sea by substances proven carcinogenic, teratogenic or mutagenic and proposed measures	Article 5; Annex I	UNEP/MEDU, WHO	Dec. 1989

Actions	Relevance to the Protocol	Responsible Agencies	Target Date
10. Assessment of the present state of pollution in the Mediterranean Sea by pathogenic microorganisms and proposed measures	Article 6; Annex II	UNEP/MEDU, WHO	Dec. 1989
11. Compilation and evaluation of already existing international experience of use of alternative products and processes. In this regard, experiences on recycling and re-use of solid and liquid wastes will be taken into account	Article 7, para 1(d)	UNEP/MEDU, WHO, UNIDO	Dec. 1989
12. Assessment of the state of pollution by crude oils and hydrocarbons of any origin and proposed measures	Article 6; Annex II	UNEP/MEDU	Dec. 1990
13. Assessment of the state of pollution in the Mediterranean Sea by zinc, copper and lead with proposed measures	Article 6; Annex II	UNEP/MEDU, FAO	Dec. 1990
14. Assessment of the present state of pollution in the Mediterranean Sea by nickel, chromium, selenium and arsenic with proposed measures	Article 6; Annex II	UNEP/MEDU, FAO	Dec. 1990
15. Identification and categorisation of alternative products, installations and other processes capable of reducing pollution of the Mediterranean marine environment	Article 7, para 1(d)	UNEP/MEDU, WHO, UNIDO	Dec. 1990
16. Assessment of the present state of pollution in the Mediterranean Sea by inorganic compounds of phosphorus and elemental phosphorus and proposed measures	Article 6; Annex II	UNEP/MEDU, IOC	Dec. 1991
17. Assessment of the present state of pollution in the Mediterranean Sea by non-biodegradable detergents and other surface-active substances and proposed measures	Article 6; Annex II	UNEP/MEDU, WHO	Dec. 1991
18. Assessment of the present state of pollution in the Mediterranean Sea by thermal discharges and proposed measures	Article 6; Annex II	UNEP/MEDU, FAO	Dec. 1991

Actions	Relevance to the Protocol	Responsible Agencies	Target Date
19. Common guidelines for the determination of the length, depth and position of pipelines for coastal outfalls, taking into account, in particular, the methods used for pre-treatment of effluents	Article 7, para 1(a)	UNEP/MEDU, WHO	Dec. 1991
20. Compilation of a Mediterranean inventory of effluents requiring special and/or separate treatment including type, category, amount, locality and existing treatment, if any, together with, wherever possible, those local characteristics influencing the effects of such effluents on the marine environment, and the feasibility of separate and/or special treatment	Article 7, para 1(b)	UNEP/MEDU, WHO, UNIDO	Dec. 1991
21. Formulation of draft common guidelines, standards and criteria for special requirements for effluents necessitating separate treatment	Article 7, para 1(b)	UNEP/MEDU, WHO, UNIDO	Dec. 1991
22. Survey on the yield and the cost/benefit of the application of alternative products and processes	Article 7, para 1(d)	UNEP/MEDU, WHO, UNIDO	Dec. 1991
23. Assessment of the present state of pollution in the Mediterranean Sea by acid or alkaline compounds of such composition and in such quantity that they may impair the quality of seawater and proposed measures	Article 6; Annex II	UNEP/MEDU, IOC	Dec. 1992
24. Assessment of the present state of pollution in the Mediterranean Sea by substances which have, directly or indirectly, an adverse effect on the oxygen content of the marine environment, especially those which may cause eutrophication and proposed measures	Article 6; Annex II	UNEP/MEDU, IOC	Dec. 1992
25. Assessment of the present state of pollution in the Mediterranean Sea by barium, uranium and cobalt with proposed measures	Article 6; Annex II	UNEP/MEDU, FAO	Dec. 1992
26. Assessment of the present state of pollution in the Mediterranean Sea by cyanides and fluorides and proposed measures	Article 6; Annex II	UNEP/MEDU, WHO	Dec. 1993

Actions	Relevance to the Protocol	Responsible Agencies	Target Date
27. Assessment of the present state of pollution in the Mediterranean Sea by substances which, though of a non-toxic nature, may become harmful to the marine environment or may interfere with any legitimate use of the sea owing to the quantities in which they are discharged and proposed measures	Article 6; Annex II	UNEP/MEDU, IOC	Dec. 1993
28. Assessment of the present state of pollution in the Mediterranean Sea by organosilicon compounds and substances which may form such compounds in the marine environment, excluding those which are biologically harmless or are rapidly converted into biologically harmless substances and proposed measures	Article 6; Annex II	UNEP/MEDU, FAO	Dec. 1993
29. Assessment of the present state of pollution in the Mediterranean Sea by antimony, tin and vanadium with proposed measures	Article 6; Annex II	UNEP/MEDU, FAO	Dec. 1994
30. Assessment of the present state of pollution in the Mediterranean Sea by substances which have a deleterious effect on the taste and/or smell of products for human consumption derived from the aquatic environment, and compounds liable to give rise to such substances in the marine environment and proposed measures	Article 6; Annex II	UNEP/MEDU, WHO	Dec. 1994
31. Assessment of the present state of pollution in the Mediterranean Sea by biocides and their derivatives not covered in Annex I and proposed measures	Article 6; Annex II	UNEP/MEDU, FAO	Dec. 1994
32. Assessment of the present state of pollution in the Mediterranean Sea by titanium, boron and silver and proposed measures	Article 6; Annex II	UNEP/MEDU, FAO	Dec. 1995
33. Assessment of the present state of pollution in the Mediterranean Sea by molybdenum, beryllium, thallium and tellurium with proposed measures	Article 6; Annex II	UNEP/MEDU, FAO	Dec. 1995

194. Since activities connected with the progressive implementation of the LBS Protocol constitute a new component of MED POL not covered in previous budgets, it is recommended that (UNEP/WG.160/13, annex IV):

- (a) during the biennium 1988-1989, the corresponding activities listed in the approved indicative calendar for the progressive implementation of this Protocol (paras. 192 and 193 to this document) should be initiated or implemented, as appropriate, and should be adequately provided for in the relevant component of the MED POL budget proposals;
- (b) apart from the above activities, direct assistance should also be provided to countries in order to facilitate their implementation of the terms of the Protocol at national level. Such assistance should be provided mainly in the form of expert visits and local training, as well as in any other form which might be required according to individual circumstances.

Pilot monitoring exercises

195. It is recommended that (UNEP/WG.160/13, annex IV):

- (a) in addition to the parameters listed in para. 17 of this report, pilot studies for the determination of the levels in selected areas as well as the analytical method which could be recommended, should be either continued or launched as appropriate, for the following parameters:
 - pollutant transport into the Mediterranean sea through the atmosphere (ongoing since 1986);
 - organotin compounds (item 3 of annex I A to the Land-based Sources Protocol) (1987);
 - organophosphorus compounds (item 2 of annex I A to the Land-based Sources Protocol) (1987);
 - persistent synthetic materials (item 7 of annex I A to the Land-based Sources Protocol) (1987);
 - polynuclear aromatic hydrocarbons in organisms (item 8 of annex I A to the Land-based Sources Protocol) (1988).
- (b) on the basis of the results of the pilot studies, recommendations be presented to the Working Group for Scientific and Technical Co-operation for the possible introduction of the parameters in the National Monitoring Programmes.

196. Recommendations to the Contracting Parties regarding the future status of organosilicon compounds in the Dumping and Land-based Sources Protocols (UNEP/WG.160/13, annex VIII):

(a) Recommendations regarding the future status of organosilicon compounds in the Protocol for the prevention of pollution of the Mediterranean Sea by dumping from ships and aircraft

The Contracting Parties:

- considering recent scientific evidence regarding the toxicity and persistence of organosilicon compounds, and their status as actual or potential marine pollutants;
- further considering that any future control measures becoming necessary can be adequately covered by the provisions of annex I, item 5 and annex II, item 1(iv) to the above-mentioned Protocol;
- amend annex I to the Protocol for the prevention of pollution of the Mediterranean Sea by dumping from ships and aircraft, by deleting item 2 thereof - "Organosilicon compounds and compounds which may form such substances in the marine environment, excluding those which are non-toxic or which are rapidly converted in the sea into substances which are biologically harmless, provided that they do not make edible marine organisms unpalatable".

(b) Recommendations regarding the future status of organosilicon compounds in the protocol for the protection of the Mediterranean Sea against pollution from Land-based Sources

The Contracting Parties:

- considering recent scientific evidence regarding the toxicity, persistence and bioaccumulation of organosilicon compounds, and their status as actual or potential marine pollutants;
- further considering that any future control measures becoming necessary can be adequately covered by annex I, item 7, annex II, item 10 and annex II, item 13 to the above-mentioned Protocol;
- amend annex II to the Protocol for the protection of the Mediterranean Sea against pollution from Land-based Sources by deleting item 3 thereof - "Organosilicon compounds and substances which may form such compounds in the marine environment, excluding those which are biologically harmless or are rapidly converted into biologically harmless substances".

IV(d) ENVIRONMENTAL QUALITY CRITERIA

PROGRESS REPORT

197. Since the Genoa Meeting, the secretariat, in close collaboration with the Co-operating Agencies, continued to work on the preparation of environmental quality criteria, as part of the work programme for the implementation of the LBS Protocol (paras. 192 and 193 of this report).

198. The following assessments were prepared and were submitted to the Fifth Meeting of the Working Group for consideration:

- assessment of the state of pollution in the Mediterranean Sea by used lubricating oils and proposed measures (UNEP/WG.160/7);
- assessment of the state of pollution in the Mediterranean Sea by mercury and mercury compounds and proposed measures (UNEP/WG.160/8);
- assessment of the state of pollution in the Mediterranean Sea by cadmium and cadmium compounds and proposed measures (UNEP/WG.160/9);
- assessment of the state of microbial pollution in the Mediterranean Sea and proposed measures for shellfish and shellfish-growing waters (UNEP/WG.160/10);
- assessment of the state of pollution by petroleum hydrocarbons in the Mediterranean Sea (UNEP/WG.160/11).

199. The Working Group agreed that the document on used lubricating oils required thorough revision as well as the inclusion of more up-to-date information regarding the situation in the various countries. In this regard, it was agreed that those countries not having already done so, would submit relevant information by 31 July 1987 to the secretariat and that a revised version of the document incorporating such information would be submitted to the next meeting of the Working Group.

200. The Working Group considered the document on mercury as very comprehensive and of high quality, and expressed its satisfaction in this regard. Following a lengthy discussion over the proposed measures and the feasibility of their application, the Group agreed that the assessment component of the document should be published in the MAP Technical Reports Series, following slight revision on the basis of information received by the secretariat from National Co-ordinators by 31 May 1987. The Group also agreed on a set of recommendations on proposed measures for mercury, for submission to the next meeting of the Contracting Parties, with a view to their adoption (para. 207 of this report). The Group agreed that reference methods relative to mercury analysis in the various matrices should be prepared by the secretariat as soon as possible.

201. The Working Group discussed comprehensively the document on cadmium. It was considered that more information was necessary regarding the treatment of wastes from certain types of industries. It was therefore decided that the document should be revised to ensure the inclusion of such information, and re-submitted to the next meeting of the Working Group. In order to ensure timely preparation of the revised document, it was agreed that National Co-ordinators would supply relevant country information to the secretariat by 1 July 1987.

202. The Working Group considered the document on microbial pollution and agreed on a set of recommendations to the Contracting Parties regarding environmental quality criteria for shellfish waters (para. 208 of this report).

203. The Working Group considered the document on petroleum hydrocarbons and agreed that the document was of high quality and that, after slight modification, the part dealing with assessment should be issued in the MAP Technical Reports Series. Concrete comments regarding modifications were to reach the secretariat by 31 May 1987. Concerning the second part of the document (legal, administrative and technical arrangements) and its recommendations, the Group considered that this aspect fell within the competence of the Regional Oil Combating Centre's Focal Points.

204. Efforts have been and are being made by the Secretariat to assist all the countries who intend to apply environmental quality criteria and for this purpose a budgetary provisions of US\$ 45,000 for 1988 and US\$ 105,000 for 1989 is envisaged in the LBS implementation (annex IV, Chapter 3 of this document).

RECOMMENDATIONS CONCERNING ENVIRONMENTAL QUALITY CRITERIA

(as approved by the Fifth Meeting of the Working Group for Scientific and Technical Co-operation for MED POL (Athens, 6-10 April 1987) (UNEP/WG.160/13))

205. The Executive Director recommends that the proposals contained in paras. 206 to 208 of this report be approved by the Meeting.

206. It is recommended that (UNEP/WG.160/13, annex IV) work should continue on the progressive formulation of common guidelines and, as appropriate, standards and criteria for the substances listed for 1988 and 1989 in the indicative workplan for the implementation of the Land-based Sources Protocol (paras. 192 and 193 of this report) in accordance with article 7.1 (c) of the Land-based Sources Protocol.

207. Recommendations (UNEP/WG.160/13, annex VI) to the Contracting Parties regarding measures to prevent mercury pollution:

on the basis of the assessment, prepared by FAO/WHO/UNEP (UNEP/WG.160/8) and in conformity with paragraph 3(e) of the Interim Environmental Quality criteria for mercury approved by the Contracting Parties at their Fourth Ordinary Meeting, the following recommendations for the limitation of mercury discharges are approved by the Working Group with a view to their transmission by the secretariat to the Fifth Meeting of the Contracting Parties for adoption, with an effective implementation date of 1 July 1989.

The Contracting Parties:

- (a) adopt a maximum concentration (to be calculated as a monthly average) of 50 ug mercury per litre (expressed as total mercury) for all effluent discharges before dilution into the Mediterranean sea, in terms of Article 5 and annex I of the Protocol for the Protection of the Mediterranean sea against pollution from Land-based Sources;
- (b) agree to enforce such measure, for those effluents so demanding, through compulsory monitoring requirements and procedures, including, where appropriate (a) the taking each day of a sample representative of the discharge over 24 hours and the measurement of the mercury concentration of that sample, and (b) the measurement of the total flow of the discharge during this period;
- (c) agree to ensure that outfalls for new discharges of mercury into the sea would be designed and constructed in such a way as to achieve a suitable effluent dilution in the mixing zone so that the increase of mercury concentrations in biota and sediments at a distance of 5 km from the outfall structures will not be more than 50% above background levels. Existing discharges of mercury into the sea would be also

adjusted as to progressively achieve, within a period of 10 years, the above mentioned objective. Appropriate monitoring should be implemented, for both existing and new discharges, for the verification of above;

- (d) provide the secretariat to the Convention with the fullest information possible on:
- legislation and administrative measures on existing national standards and criteria on mercury emissions into the marine environment and water quality regarding mercury;
 - measures taken relevant to (a), (b) and (c) above;
 - relevant monitoring data on (b) and (c) above.

208. Recommendations (UNEP/WG.160/13, annex VII) to the Contracting Parties regarding Environmental Quality Criteria for shellfish waters:

The Contracting Parties

- (a) take into account the provisions of Article 7.1(c) of the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-based Sources, regarding the quality of seawater used for specific purposes that is necessary for the protection of human health, living resources and ecosystems;
- (b) adopt as a minimum common requirement for the quality of shellfish waters, the proposed WHO/UNEP interim environmental quality criteria, as detailed in (c) and (d) below and in the accompanying table;
- (c) for the purposes of such criteria, consider the term "shellfish waters" to mean those coastal and brackish waters in which shellfish (bivalve and gastropod molluscs) live and harvesting is authorized;
- (d) utilise the following in the application of such criteria:
- for the assessment of the microbiological quality of shellfish waters, the shellfish themselves shall be taken into account;
 - for the determination of microbiological parameters, preference shall be given to analysis of shellfish flesh and intervalvular fluid, rather than flesh alone;
 - the results of analysis of microbiological quality shall be expressed by the number of faecal coliforms recorded in 100 ml (FC/100 ml);
 - the method of analysis utilised shall be incubation at 37 ± 0.5 °C with fermentation on a liquid substrate for a period of 24 to 48 hours, followed by a confirmation test at 44 ± 0.2 °C for 24 hours. Enumeration shall be effected according to the Most Probable Number (MPN) method;

- the concentration of faecal coliforms should be less than 300 per 100 ml of shellfish flesh and intervalvular fluid or of flesh alone, in at least 75% of the samples, based on a minimum sampling frequency of once every three months.
- (e) take any other complementary measures, such as increasing sampling frequency, including further parameters, and monitoring of the quality of the water itself in shellfish areas, as may be demanded by national or local circumstances for ensuring satisfactory quality of shellfish waters.
- (f) include, to the extent possible, all shellfish waters in their National Monitoring Programmes within the framework of MED POL - PHASE II;
- (g) provide the secretariat to the Convention with the fullest information possible on:
 - legislation and administrative measures on existing national criteria for shellfish waters;
 - measures taken on (b) and (e) above;
 - relevant monitoring data from (f) above.
- (h) continue to provide full support to the research and monitoring component of MED POL - PHASE II relevant to the assessment of the environmental quality of shellfish waters, in particular to studies on the comparability of faecal coliforms and E. coli determinations, as well as on the usefulness of other indicator organisms.

Proposed interim criteria for shellfish waters in the Mediterranean

<u>Matrix</u>	<u>Parameter</u>	<u>Concentration</u>	<u>Minimum sampling frequency</u>	<u>Analytical method</u>	<u>Interpretation method</u>
Shellfish	Faecal coliforms	< 300 per 100 ml flesh + intervalvular fluid or flesh, in at least 75% of the samples.	every 3 months (more frequently whenever local circumstances so demand).	Multiple tube fermentation and counting according to MPN (most probable number) method. Incubation period: 37 + 0.5 °C for 24 h or 48 h, followed by 44 + 0.2 °C for 24 h.	By individual results, histograms or graphical adjustment of a lognormal-probability distribution.

Table 2 - Summary MED POL budget

	1986	1987	1988	1989
	Approved	Approved	Proposed	Proposed
CHAPTER 3 - MONITORING				
1. PERSONNEL	257,000	269,000	270,000	297,000
2. TRAVEL	50,000	50,000	57,000	62,000
3. SUBCONTRACTS				
- LBS Protocol implementation	68,000 ^{1/}	61,000 ^{1/}	182,500	160,000
- Data quality assurance	6,000	-	175,000	210,000
- Monitoring	316,600	431,000	580,000	620,000
- Other	-	15,000	10,000	-
4. MEETINGS/TRAINING/FELLOWSHIPS	180,000	185,000	252,500	185,000
5. EQUIPMENT	42,800	44,500	50,000	55,000
CHAPTER 3 - TOTAL	920,400	1,055,500	1,577,000	1,589,000
CHAPTER 4 - RESEARCH				
A. SUBCONTRACTS	249,000	296,000	320,000	350,000
B. MEETINGS	36,000	36,500	50,000	75,000
CHAPTER 4 - TOTAL	285,000	332,500	370,000	425,000
GRAND TOTAL	1,205,400	1,388,000	1,947,000	2,014,000

^{1/} Approved by the Bureau of the Contracting Parties (UNEP/BUR/26)

V INSTITUTIONAL AND FINANCIAL IMPLICATIONS OF THE ACTION PLAN

INSTITUTIONAL ASPECTS

V(a) CO-ORDINATION

A. United Nations Resolution on Strengthening of Security and Co-operation in the Mediterranean Region

PROGRESS REPORT

209. During its forty-first Meeting, the UN General Assembly adopted its resolution 41/89 of 4 December 1986, without a vote, on Strengthening of Security and Co-operation in the Mediterranean Region.

210. In recognizing the importance of promoting peace, security and co-operation in the Mediterranean region and of strengthening further the economic, commercial and cultural links in the region, the General Assembly encouraged efforts to intensify existing forms and to promote new forms of co-operation in various fields in the Mediterranean region.

RECOMMENDATIONS

211. The Executive Director recommends that the Meeting may wish to take note of the UN General Assembly resolution on Strengthening of Security and Co-operation in the Mediterranean region, and request the Contracting Parties to report to the Secretary-General their concrete ideas and suggestions on their potential contribution to the strengthening of peace and co-operation in the Mediterranean region. One example of existing co-operation in the region is reflected clearly in the Mediterranean Action Plan.

B. Regional Activity Centres (RACs) as national institutions entrusted with a regional role

PROGRESS REPORT

212. The principle is being accepted with considerable difficulty. In practice, without the support provided by MAP none of the Regional Centres would be a viable entity on its own. The principle that a community of states must pay for the regional functions and services it considers necessary is accepted in the EEC and other groups of States. It does not appear realistic for the Mediterranean community of States to expect that common services will be provided primarily through a network of national institutions.

C. Agreement with Host Countries

PROGRESS REPORT

213. Agreement with Greece is covered by the Host Country Agreement ratified by the Greek Parliament on 11 February 1982. The designation of the Headquarters seat is covered by a supplementary agreement that gives execution to Section III of the main Agreement, signed on 18 June 1982.

214. Agreement with France is through signature of the Blue Plan Project document.

215. Agreement with Tunisia is through signature of the SPA/RAC Project document. A project revision has spelled out the Tunisian authorities' responsibility for administering the funds and the need for UNEP staff to visit the project whenever required.

216. Agreement with Malta covering ROCC is being negotiated by IMO.

217. Agreement with Yugoslavia covering PAP/RAC is being drafted by the Yugoslav authorities and is expected to be discussed with UNEP in the near future.

D. Remote Sensing

218. Clarifications on the Italian proposal made in Genoa were obtained, but were insufficient to start a full-scale regional programme.

E. Bureau of the Contracting Parties

PROGRESS REPORT

219. The elected members of the Bureau have demonstrated a strong personal interest in its work and attended personally its Meetings (Madrid, 20 March 1986 and 11 September 1986; Istanbul, 25 March 1987 and Madrid, 22 June 1987).

220. The Bureau has been briefed on, and took note of, the secretariat's activities; approved minor budget changes; reviewed the 1986-1995 Programme Calendar; approved the Executive Director's intention concerning the proposed budget level for the 1988-1989 biennium, reviewed alternative approaches to the scale of assessment and endorsed the revised scale, and requested the UNEP Governing Council on behalf of the Contracting Parties to extend the Mediterranean Trust Fund through 1989 at its XIV Session (in June 1987).

221. The reports of the Bureau meetings were distributed to the Contracting Parties and appear as reference documents to the present meeting (UNEP/BUR/26, 27, 28 and 29).

F. Programme orientation and streamlining of the institutional and administrative component

222. The Mediterranean Action Plan and the Barcelona Convention have always been oriented towards action that would reduce the pollution of the sea through integrated planning of the development and management of the resources of the Mediterranean Basin.

223. During the initial stages of each MAP component efforts had to be directed to identify pollution problems, assess the capability of coastal States in dealing with such problems, and improve their institutional capability through equipment and training. Research, data collection and network development were given priority, at least temporarily, over the essential action orientation of the programme.

224. On the 10th anniversary of MAP in 1985, the Contracting Parties had an opportunity to review past progress and to indicate its direction for the future. In the Genoa Declaration they focussed attention on the need for a great acceleration of action, and for more concrete action.

225. The Executive Director now proposes to reflect the directives of the Genoa Declaration more fully in the programme, by focussing all MAP activities around the development of an environmentally sound, integrated coastal management plan for the Mediterranean.

226. Under this orientation each MAP activity will contribute visibly to improving the quality of the marine and coastal area of each country and, as a result, the Mediterranean Basin as a whole. Focussing on the coastal area will stress the benefits to be derived from participation in MAP activities as well as the risks involved in non-participation. In particular, National Monitoring Programmes should be seen as providing data for better coastal management to national and local authorities, not simply as an input into a regional, scientific programme. This programme will naturally remain important, because a regional picture is essential, but it should be stressed that when a national monitoring programme is missing or is incomplete, it is the country, not the regional programme, that stands to lose the most. The same applies to the transmission of reports on emergencies and on dumping, or to participation in the networks of the Priority Actions Programme and Specially Protected Areas.

227. In order to mark the transition to the new orientation, it is proposed to consider 1988 as an experimental year during which at least one country on the North and at least one country on the South of the Mediterranean will designate one or more of its coastal regions to work with the secretariat towards the goal of integrated coastal planning. In 1989 the objective should be to involve one or more coastal regions in each coastal State. In the 1990-1991 biennium all coastal regions would participate in the programme.

228. As part of the exercise the appropriate planning organizations would be identified, links would be established with other relevant national or local organizations and a state of pollution report would be produced at the end of the year, leading to a long-term plan for that region.

229. The exercises will be expected to take fully into account the results of the Blue Plan and, in particular of the National Blue Plan scenaria that have been developed or are in the process of being developed in the countries concerned.

230. As such, they will reflect the interrelationship between national and coastal development, and take into account major trends in population growth, migration, coastal overcrowding, unemployment, incentives for transfer of capital, and the need to avoid the negative impact of development of new energy sources, tourism etc.

231. The exercise would be expected to utilize in particular, the networks developed by PAP, with its guidelines and manuals, the formats for reporting on sources and levels of pollution, on dumping permits and quantities dumped, on accidents and contingency plans.

232. Each regional plan would incorporate all relevant targets of the Genoa declaration (sewer outfalls and treatment plants, port facilities, specially protected areas, historic centres, etc.).

233. The exercise would receive, if the country so requires, expert advice through the Co-ordinating Unit. Once local projects are identified in the regional plan, UNEP could assist in the follow-up through its Clearing House. It would contact sources of financing, bilateral or multilateral, in order to make regional solidarity more visible and concrete in the protection of the Mediterranean.

234. The EEC could play an important role through its Integrated Mediterranean Programmes in the EEC member countries, and through specialized programmes that may be open to other coastal States.

235. The special interest of the World Bank and of other development banks, for the Mediterranean area, could be reflected in a joint mechanism that would ensure that MAP results, programmes and recommendation receive a full and sympathetic hearing in funding decisions, while ensuring at the same time that the full picture of relevant funding decisions is made available to the Contracting Parties meetings.

236. Should such a mechanism be established with access to development funds from participating institutions, the Executive Director proposes that the budgetary allocation for integrated development of coastal planning, now included in the PAP budget, be transferred to such a joint mechanism as the MAP contribution to promote a higher level of concrete co-operation among coastal States and interested international institutions.

237. The role of such a mechanism would be:

- (a) to take the initiative for exchange of information with the UN specialized agencies, with other Mediterranean programmes, and for obtaining relevant information from other sources;
- (b) to participate in the review/planning exercises in the designated coastal regions;

238. At the region-wide level the Co-ordinating Unit will continue:

- (a) to analyze, synthesize and present information on sources and amounts of pollution in the Mediterranean, prepare assessments of pollution by specific substances and periodic assessments of the State of pollution of the Mediterranean. The use of cartography, maps, and remote sensing data would be expanded;
- (b) to propose common measures (quality criteria and emission standards).

Institutional Matters

239. In conjunction with the approach outlined in the previous paragraphs, the institutional arrangements by which the Contracting Parties develop their consensus on policy, programme and budgetary matters could also be streamlined.

240. The development of MAP components has necessitated the appointment of National Focal Points who have been meeting annually. In each biennium there are now up to ten such meetings (two each for MED POL, Blue Plan, PAP, ROCC and SPA) a situation on which some concern has already been expressed not only on the basis of the total cost involved, but also in terms of the workload. This represents for government officials attending the meetings and for the staff who prepare and manage them.

241. Furthermore there is some duplication between the working groups established for individual MAP components (WGSTC, NFP/BP, NFP/PAP, NFP/SPA, ROCC correspondents) and the Committee of the Whole of the Contracting Parties meetings. Frequently the same officials meet at a few months' interval to reconsider the same programme and budget, with resulting duplication of efforts, reopening of debates, and delay in decisions.

242. It is, therefore, proposed to maintain the existing structure of National Focal Points, to convene their meetings on an ad hoc basis when a genuine programme development requires it (e.g. to discuss and approve common guidelines, etc.) but to establish a single subsidiary body of the Contracting Parties on environment and development matters.

243. The Working Group for Scientific and Technical Co-operation (WGSTC) and a Committee on Environment and Development would become the two standing subsidiary bodies of the Contracting Parties, to which the Parties assign the preliminary review and recommendation on designated programme and budget components. The two committees would meet in April-May of each year.

244. Their reports would be received by the Bureau for comments before transmission to the Contracting Parties.

245. The Ordinary Meetings of Contracting Parties would take place, as is now customary, in odd years. They would consider specific recommendations from their two subsidiary organs, analyzed and commented upon by the Bureau. The Contracting Parties meetings could therefore be shortened to two-three days, which would allow for higher-level representation. The Parties would deal exclusively with policy matters, discuss and adopt common measures, and adopt the programme and budget for the next biennium.

Administration and management

246. In order to match the streamlining of the decision-making process, the meeting may wish to authorize the Executive Director to review the programme management side as well, with the view to realign functions and post levels in order to reduce administrative costs. There has been a recurrent complaint that administrative costs are too high. Partly, this is due to the Contracting Parties' decision to decentralize the programme, creating duplication of functions and posts as compared with a single location. Also within UNEP the approval procedure for new MAP projects and project revisions remains very long.

247. By taking advantage of computer-based facilities which are now available, the efficiency of the reporting and management function within the programme as a whole should also be improved. Activities of the Unit's Data Processing Centre are summarized below:

- the Centre is equipped with a number of computers including Wang VS-80 with 380 MB online storage and 4 workstations, Tektronix 4170 Graphics Processing Unit, Wang Personal computer, and IBM PC/XT - AT compatible personal computers. Various peripherals (band/ matrix/daisywheel printers, colour plotter/copiers) and communication facilities are also included in the hardware configuration of the Centre. Software products for word processing, database applications, scientific analysis, communications, mapping and graphics are also available;
- the activities of the Centre are focused mainly on scientific projects (National Monitoring Programmes, computerized MED POL reports and analysis of the reports data) and administrative needs (MTF contributions, management of MED projects, research proposals, and recording of financial transactions. Among the other activities are the use of word processing, automated library services, inventory control, accounting and communications with the other UN offices through the use of telex/telephone networks;
- the future targets of the Centre include the integration of scientific and administrative work, expanding the facilities and information exchange through improved communications with the UN system and other data processing centres.

Expansion of the co-ordinating and catalytic role of the Co-ordinating Unit

248. The central role of the Unit vis-à-vis all components of MAP is now well established and frequent consultations take place with Centre Directors.

249. The catalytic and co-ordinating role of the secretariat of the Barcelona Convention vis-à-vis other regional and sub-regional co-operation programmes should be more explicitly stated by the Contracting Parties, based on Article 13 (VI) of the Convention. They should invite reports and statements to the Contracting Parties Meetings from the RAMOGE Commission, the Italian-Yugoslav (Adriatic) Commission, the Italian-Greek (Ionian) Commission; and also from ALECSO on Arab States co-operation in the Mediterranean.

250. Technical programmes such as POEM, MED MODEL, ALPEX/MED-ALPEX, GIBEX, WMCE, ASCOP, should be invited to present reports and statements to the Working Group on MED POL based on Article 11 of the Barcelona Convention.

251. The objective is to allow the Meetings of the Contracting Parties to carry out their main function, namely "to review generally the inventories carried out by the Contracting Parties and competent international organizations on the state of marine pollution and its effects on the Mediterranean Sea Area" (Convention, Article 14.2(i)).

252. In order to achieve this, the Unit will need to strengthen further its data handling capabilities, obtain a mandate to co-ordinate specific issues, as was done for the monk-seal and sea-turtles, and have resources to co-finance activities with other programmes.

253. A strengthening of staff resources through voluntary sources (volunteers, short-term secondment from EEC and other Contracting Parties) should be explored. The adequacy of present Headquarters facilities should be reviewed in the light of projected needs and present relations with the building owners.

254. The Executive Director wishes to note the growing number of initiatives for the protection of the Mediterranean Sea, taken in many inter-governmental and other international fora. While this reflects a better political atmosphere and a rising concern of public opinion for their common sea, it can also be interpreted as reflecting a dissatisfaction with the results so far achieved in the framework of the Barcelona Convention. As already pointed out at the 4th Ordinary Meeting of Contracting Parties, the MAP structure is now well established and should be used as the action-oriented mechanism it was designed to be. New initiatives are no doubt welcome provided they take into account the work already done since 1975 and are prepared to work in concert with MAP in order to avoid duplication of efforts.

255. At the beginning of the second Mediterranean decade this appears essential if MAP is not to be marginalized as the institution that assesses the state of pollution (on incomplete data available to it) and promotes regional networks and projects (for which no financing is assured).

RECOMMENDATIONS CONCERNING PROGRAMME ORIENTATION AND STREAMLINING OF
THE INSTITUTIONAL AND ADMINISTRATIVE COMPONENT

256. The Contracting Parties may reiterate their wish to see their Action Plan play the central role in the protection of the Mediterranean and state clearly their desire to see all other initiatives and programmes, in which they participate, enter into a closer working relationship with MAP.

257. They are invited to approve the proposed programme orientation towards the integrated planning of the development and management of the resources of the Mediterranean basin; approve the proposed establishment of a subsidiary body to be designated as the Committee on Environment and Development of MAP; and approve the Executive Director's intention to carry out a review of the programme management in order to reduce costs.

V(b) MEETINGS

PROGRESS REPORT

258. All the meetings authorized by the Contracting Parties were convened in 1986 and 1987. The Bureau authorized the holding of separate National Focal Points meetings for Blue Plan and Priority Actions Programme in 1987 instead of the joint meeting originally approved.

259. The Genoa meeting approved a meeting on the contribution of bilateral and multilateral aid programmes to the objectives of MAP. The meeting, originally scheduled for 1986, was postponed in order to find a donor country ready to host it.

260. With the generous hospitality of Spain, the meeting was convened in Madrid, 25-27 May 1987. Fourteen Contracting Parties attended the meeting as well as representatives from eight agencies and institutions, and UNEP Clearing House. A consultant from Yugoslavia prepared a report on the Experience of Yugoslavia in this field (UNEP/WG.165/Inf.3).

261. The meeting noted several developments that may significantly affect financing of Mediterranean projects: the adoption of the new Italian law on co-operation, that includes the protection of the environment among its priorities; the decision of the World Bank to set up a special programme for the Mediterranean within its newly established Department for the Environment; the EEC orientation towards a strategy (the MEDSPA) that will co-ordinate the various community structure funds that can also finance projects with beneficial impact on the environment in this area.

RECOMMENDATIONS CONCERNING TECHNICAL CO-OPERATION

262. The Executive Director invites the Meeting to endorse the recommendations of the meeting on Contribution of bilateral and multilateral programmes to the implementation of the MAP, Madrid, 25-27 May 1987 (UNEP/WG.165/4) which are reproduced below.

- the meeting invited the National Focal Points for Priority Actions Programme to provide necessary support to the 3 regional projects (on seismic risk, soil protection and aquaculture) at their forthcoming meeting, to be held in Split (24-26 June 1987);
- the meeting took note of the intentions of the World Bank concerning the Mediterranean environment and requested the Co-ordinating Unit to approach the World Bank in order that its new programme takes into account the work already done or being done within the Mediterranean Action Plan in order to support it;
- the meeting invited the Economic Commission for Europe (ECE), all the United Nations Specialized Agencies, and other organizations active in this field and, in particular, the Council of Europe to provide the secretariat, as soon as possible, with information on their relevant programmes to be submitted to the Fifth Ordinary Meeting of the Contracting Parties (Athens, 7-11 September 1987). This information should include, as much as possible, reference to procedures, deadlines, field of application and eventual allocated amounts;
- the meeting requested the secretariat to compile a list of donor countries and organizations;
- the meeting recommended that the specific objectives of the Genoa Declaration and the needs that derive from them be costed as a joint initiative of the secretariat and the EEC;
- the meeting invited the Contracting Parties to brief their Ambassadors in Mediterranean coastal States on the objectives of MAP and the countries' individual participation in the Mediterranean Action Plan;

- the meeting requested the secretariat to prepare an annual list of regional and multi-national projects in the framework of the Mediterranean Action Plan which require support and circulate it, through the UNEP Clearing House, to multilateral and bilateral donor agencies;
- the meeting invited the interested MAP National Focal Points to transmit through their official channels to the UNEP Clearing House those projects for which they require assistance in project identification or negotiation with aid sources.

RECOMMENDATIONS CONCERNING MEETINGS

263. The Executive Director recommends that the proposed activities and budgets for 1988-1989 for meetings contained in annex IV, be approved by the present Meeting:

- two meetings of the Bureau every year;
- one meeting of the Committee on environment and development every year;
- conference of plenipotentiaries to consider the draft Protocol on off-shore exploration and exploitation (1989);
- one meeting of the Committee of Legal and Policy Experts in January 1989.
- sixth Ordinary Meeting of the Contracting Parties in October 1989 in Athens.

V(c) REGIONAL OIL COMBATING CENTRE (ROCC)

PROGRESS REPORT

264. During 1986 and 1987, the Centre continued its assistance to Mediterranean Coastal States with an objective of strengthening their capacities to combat massive pollution by oil, especially in case of emergencies. Relation with coastal states has been developed considerably through dissemination of information, correspondance, contacts and meetings.

265. The Centre has provided an indispensable forum for technical exchange, a source of expertise, training, information on experts, technique, equipment and materials.

266. The Centre gave particular attention to assist coastal states to develop their National Contingency Plan. However, NCP are lacking in many coastal states, despite continuous efforts by the Centre to promote them. Up to June 1987, six Mediterranean coastal States have developed their NCP, eight more NCP are under preparation.

267. Sub-regional arrangements for co-operation have not materialized. One of the objectives of the Centre is to collect and disseminate information on those areas in the Mediterranean which are especially vulnerable to oil pollution, and the specification of clean-up methods which can be used with minimum environmental damage. The lack of information on these vulnerable areas is a limiting factor to plan further actions at the regional level. However, it is expected that related MED POL projects and information received from Blue Plan would provide material in this field.

268. In order to develop and maintain a communication/information system appropriate to the needs of Mediterranean states, the Centre has developed its facilities according to the needs and development of its activities and has intensified its contacts in the Mediterranean coastal states in order to disseminate information more efficiently. A quarterly news letter is published regularly in English and French.

269. Training is one of the main objectives of the Centre. This has been emphasized by various meetings of Contracting Parties. To fulfil this objective, the Centre has trained more than 150 persons from Mediterranean coastal States, directly or through other regional organizations. Since 1986, the Centre has been directly organizing general training courses on pollution combating (MEDIPOL). Training courses on practical application of certain aspects of pollution control (MEDEXPOL) are still organized in co-operation with specialized organizations. The training is complemented by national seminars, organized on request, with the contribution of the coastal States concerned (Egypt-1986).

270. The Centre has strengthened its contacts and maintained close working relationships with other Mediterranean regional activity centres and with the specialized organizations.

271. The Fourth Ordinary Meeting of the Contracting Parties to the Barcelona Convention (Genoa, September 1985), recommended that a meeting be convened to review the structure and functions of ROCC. In pursuance to the above mentioned recommendation, the Review Meeting of ROCC was convened in Malta, 23-27 February 1987 (UNEP/WG.150/8). A set of recommendations were adopted by the meeting and recommended for final approval by the Contracting Parties at the present Meeting.

272. In pursuance to the discussion which took place during the Genoa Meeting (September 1985) concerning the possibility of widening the function of the Centre to include other harmful substances, the secretariat undertook a study on the evaluation of the risk of marine casualty involving harmful substances in the Mediterranean sea. The study was prepared by an IMO Consultant, with the financial support of the Swedish International Development Agency (SIDA). The main conclusion of the study was to recommend the integration of harmful substances into the mandate and functions of ROCC.

273. The 1986-1987 budget for ROCC approved in Genoa was US\$ 824,000. The budget proposals submitted for 1988-1989 are costed at US\$ 881,000.

RECOMMENDATIONS CONCERNING ROCC

(as adopted by the Review Meeting on the Structure and Functions of the Regional Oil Combating Centre for the Mediterranean Sea (Malta, 23-27 February 1987) (UNEP/WG.150/8))

274. The Executive Director recommends that the Meeting approves the recommendations of the ROCC Review Meeting which are reproduced below for easy reference, with their budgetary allocations, contained in annex IV:

- (a) that the activities and mandate of ROCC should, pursuant to the Protocol on Co-operation include harmful substances other than oil;
- (b) pending amendment of Resolution 7 and formal adoption of revised terms of reference, ROCC should carry out the following activities within the present budget allocation:
 - make all necessary contacts with existing data bases and other sources of information including data on the maritime transport of such substances;
 - introduce, in provisional form, data on harmful substances other than oil in the ROCC Guide for Oil Pollution Combating in the Mediterranean;
 - introduce elements on harmful substances other than oil in the existing training programme;
 - organize a workshop on maritime transport of harmful substances in the Mediterranean in order to promote the integration of response to spills of such substances into existing National Contingency Plans;
 - explore the possibility for the Centre to obtain expertise in the field of harmful substances
- (c) on the basis of experience in carrying out the above activities, ROCC should prepare for the Sixth Meeting of the Contracting Parties (1989) a detailed proposal on the functions of the Centre including detailed workplan for activities related to harmful substances. The proposal should be discussed at the above mentioned workshop on hazardous substances (para.(b));
- (d) endorse the "Draft Guidelines for Cooperation in Combating Marine Pollution in the Mediterranean" (UNEP/IG.74/Inf.4). At present time, these Guidelines should be limited to oil pollution;
- (e) all Contracting Parties should provide the Centre with all relevant information on existing equipments in their countries for combating massive accidental spillage of oil, on the understanding that not all such equipments could be made available to a requesting Contracting Party.

V(d) TRAINING AND EXCHANGE OF INFORMATION

PROGRESS REPORT

275. In pursuance to the decision of Genoa Meeting (September 1985), a survey of training programmes in MAP was completed by a consultant. The survey is submitted as an information document to this meeting (UNEP/IG.74/Inf.8)

276. In response to a decision of the Contracting Parties during their Genoa Meeting (September 1985), the MED Unit organized a Group Training Course on the Activities of the MAP. The Course, the first in its kind, was held in the Unit's premises from 27 October to 6 November 1986. Ten participants from the Contracting Parties and PAP/RAC took part in the Course (Egypt, Israel, Italy, Malta, Spain (two), Syria, Tunisia and Yugoslavia). During first week, the participants were briefed by staff of MEDU on the four components of MAP. The second week, the participants were grouped in two teams to deal thoroughly with two subjects: Training and Mediterranean Environment Week, as well as to finalize country profiles (UNEP/WG.162/1).

277. The Course proved to be useful to participants who recommended that it should be repeated regularly.

278. The Co-ordinating Unit supported financially the Arab Youth Organization (Egypt) in its efforts to publicize papers on environment in the Arab World.

279. In the field of public information a number of new initiatives have been taken in 1986-1987:

(a) Public Information

- MAP brochure in English, French, Spanish, Arabic, Italian, Serbo-Croat, Greek, Turkish, Hebrew;
- MAP poster (turtle);
- small stickers (Save our Seas);
- press releases and increased contacts with media representatives;
- videocassettes library and catalogue;
- videocassette in English, French, Italian on MAP exhibition;
- MAP exhibition shown in Greece, Cyprus, Algeria, and Nairobi with plans for Morocco, Malta and Egypt;
- enlarged photolibrary.

(b) Press coverage on MAP in 1986/1987 included the (London) Times, the New York Times, newspapers and magazines in Greece, Italy, Spain, FRG, Lebanon, Tunisia, Norway, Australia, India, Sri Lanka. Distribution of information material in national languages has been carried out.

(c) MEDWAVES is published regularly 4 times a year in English and French.

280. The 1986-1987 budget for Training and Exchange of Information approved in Genoa was US\$ 355,000. The budget proposals submitted below are costed at US\$ 415,000.

RECOMMENDATIONS CONCERNING TRAINING AND EXCHANGE OF INFORMATION

281. The Executive Director recommends to the Meeting:
- (a) to take note of the Consultant's report on survey of training programmes in MAP (UNEP/IG.74/Inf.8);
 - (b) to take note of the report of the Group training course on the activities of MAP (UNEP/WG.162/1);
 - (c) to approve the proposed activities and budget for 1988-1989 for training and exchange of information contained in annex IV to the present report.

FINANCIAL ASPECTS

V(e) STATUS OF THE MEDITERRANEAN TRUST FUND (MTF)

PROGRESS REPORT

282. The status of contributions appears in annex II to the present report. As of 31 May 1987 US\$ 4,561,461 remained unpaid for 1987 and previous years.
283. The Executive Director is concerned at the late payment of pledged contributions and recalls a decision by the Contracting Parties setting the end of April of each year as the deadline for payments of contributions.
284. The Host Country's Contribution for 1986, of US\$ 400,000 was paid in July 1986, and US\$ 400,000 for 1987 was paid in April 1987.
285. Support from UNEP (OCA/PAC) budget to the Action Plan has exceeded the level foreseen in the Genoa Budget of US\$ 50,000 per year.
286. The status of 1986 expenditures and 1987 commitments appear in annex III.
287. The Bureau of the Contracting Parties requested in its meeting in Istanbul, 25 March 1987, the UNEP Governing Council for an extension of MTF through 1988 and 1989. The meeting will be informed of the action taken by the Council.

RECOMMENDATIONS CONCERNING THE MTF

288. The Executive Director recommends to the Meeting:
- (a) to take note of the status of the Mediterranean Trust Fund in 1986-1987;
 - (b) to take note of the UNEP Governing Council resolution approving the extension of the MTF through 1989;
 - (c) to resolve to improve the record of payments of pledged contributions to the Mediterranean Trust Fund.

Alternative methods of calculating contributions to the Mediterranean Trust Fund

PROGRESS REPORT

289. As suggested during the Fourth Meeting of Contracting Parties, the secretariat prepared alternative proposals on a new apportionment formula for calculating contributions to the Mediterranean Trust Fund. They were extensively discussed by the Bureau and were submitted to a Meeting of Experts (Madrid, 19-22 June 1987) in conjunction with the Meeting of the Bureau (22 June 1987). Annex VI is based on the consensus reached by the Meeting and by the Bureau.

RECOMMENDATIONS CONCERNING THE METHOD OF CALCULATING CONTRIBUTIONS

290. The Executive Director recommends to the Meeting to consider and adopt the method approved by consensus.

V(f) ADOPTION OF BUDGET AND PLEDGES FOR 1988-1989 BIENNIUM

PROGRESS REPORT

291. The proposed budget appearing in annex IV has been prepared in consultation with the relevant Programme Activity Centres, and has been reviewed by the National Co-ordinators for MED POL, the National Focal Points for ROCC and SPA. The comments of the National Focal Points for Blue Plan and PAP will become available later. The programme has been budgeted within the indicative guideline of 15 percent annual increase that received the Bureau's concurrence at its Istanbul Meeting (25 March 1987).

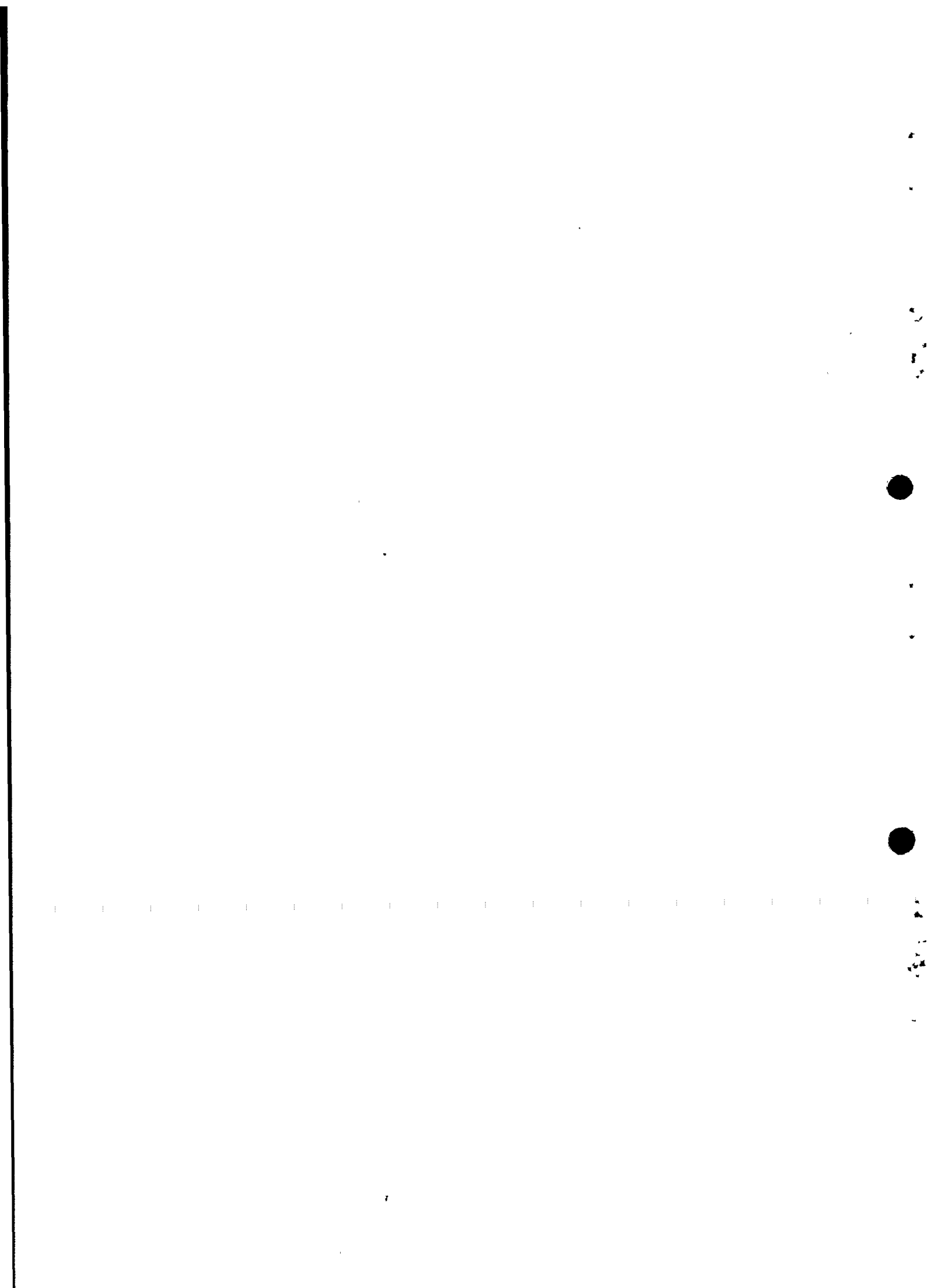
RECOMMENDATIONS CONCERNING BUDGET AND PLEDGES FOR 1988-1989 BIENNIUM

292. The Executive Director recommends to the Meeting to review and adopt the Programme budget appearing in annex IV, the projected Cash Flow appearing in annex V, with the apportionment of contributions appearing in annex VI.

ANNEX I

STATUS OF SIGNATURES AND RATIFICATIONS OF THE CONVENTION FOR THE PROTECTION OF THE MEDITERRANEAN SEA AGAINST POLLUTION AND ITS RELATED PROTOCOLS
Status as at 31 May 1987

	Convention (1)		Dumping (2)		Emergency (3)		Land-Based Sources (4)		Specially Protected Areas (5)	
	Signature	Ratification	Signature	Ratification	Signature	Ratification	Signature	Ratification	Signature	Ratification
Albania	---	---	---	---	---	---	---	---	---	---
Algeria	---	16 Feb 81/AC	---	16 Mar 81/AC	---	16 Mar 81/AC	---	2 May 83/AC	---	16 May 85/AC
Cyprus	16 Feb 76	19 Nov 79	16 Feb 76	19 Nov 79	16 Feb 76	19 Nov 79	17 May 80	---	---	---
Egypt	16 Feb 76	24 Aug 78/AP	16 Feb 76	24 Aug 78/AP	16 Feb 76	24 Aug 78/AP	17 May 80	18 May 83/AC	16 Feb 83	8 Jul 83
France	16 Feb 76	11 Mar 78/AP-R	16 Feb 76	11 Mar 78/AP-R	16 Feb 76	11 Mar 78/AP-R	17 May 80	13 Jul 82/AP-R	3 Apr 82	2 Sep 86/AP-R
Greece	16 Feb 76	3 Jan 79	11 Feb 77	3 Jan 79	16 Feb 76	3 Jan 79	17 May 80	26 Jan 87	3 Apr 82	26 Jan 87
Israel	16 Feb 76	3 Mar 78	16 Feb 76	1 Mar 84	16 Feb 76	3 Mar 78	17 May 80	---	3 Apr 82	---
Italy	16 Feb 76	3 Feb 79	16 Feb 76	3 Feb 79	16 Feb 76	3 Feb 79	17 May 80	4 Jul 85	3 Apr 82	4 Jul 85
Lebanon	16 Feb 76	8 Nov 77/AC	16 Feb 76	8 Nov 77/AC	16 Feb 76	8 Nov 77/AC	17 May 80	---	---	---
Libya	31 Jan 77	31 Jan 79	31 Jan 77	31 Jan 79	31 Jan 77	31 Jan 79	17 May 80	---	---	---
Malta	16 Feb 76	30 Dec 77	16 Feb 76	30 Dec 77	16 Feb 76	30 Dec 77	17 May 80	---	3 Apr 82	---
Monaco	16 Feb 76	20 Sep 77	16 Feb 76	20 Sep 77	16 Feb 76	20 Sep 77	17 May 80	12 Jan 83	3 Apr 82	---
Morocco	16 Feb 76	15 Jan 80	16 Feb 76	15 Jan 80	16 Feb 76	15 Jan 80	17 May 80	---	2 Apr 83	---
Spain	16 Feb 76	17 Dec 76	16 Feb 76	17 Dec 76	16 Feb 76	17 Dec 76	17 May 80	6 Jun 84	3 Apr 82	---
Syria	---	26 Dec 78/AC-R	---	26 Dec 78/AC	---	26 Dec 78/AC	---	---	---	---
Tunisia	25 May 76	30 Jul 77	25 May 76	30 Jul 77	25 May 76	30 Jul 77	17 May 80	29 Oct 81	3 Apr 82	26 May 83/R
Turkey	16 Feb 76	6 Apr 81	16 Feb 76	6 Apr 81	16 Feb 76	6 Apr 81	---	21 Feb 83/AC	---	6 Nov 86/AC-R
Yugoslavia	15 Sep 76	13 Jan 78	15 Sep 76	13 Jan 78	15 Sep 76	13 Jan 78	---	---	30 Mar 83	21 Feb 86
EEC	13 Sep 76	16 Mar 78/AP	13 Sep 76	16 Mar 78/AP	13 Sep 76	12 Aug 81/AP	17 May 80	7 Oct 83/AP	30 Mar 83	30 Jun 84/AP
1- Convention for the protection of the Mediterranean sea against pollution	Adopted (Barcelona):	16 February 1976	16 February 1976	16 February 1976	16 February 1976	16 February 1976	16 February 1976	16 February 1976	16 February 1976	16 February 1976
	Entry into force:	12 February 1978	12 February 1978	12 February 1978	12 February 1978	12 February 1978	12 February 1978	12 February 1978	12 February 1978	12 February 1978
2- The Protocol for the prevention of pollution of the Mediterranean Sea by dumping from ships and aircraft	Adopted (Barcelona):	16 February 1976	16 February 1976	16 February 1976	16 February 1976	16 February 1976	16 February 1976	16 February 1976	16 February 1976	16 February 1976
	Entry into force:	12 February 1978	12 February 1978	12 February 1978	12 February 1978	12 February 1978	12 February 1978	12 February 1978	12 February 1978	12 February 1978
3- The Protocol concerning co-operation in combating pollution of the Mediterranean Sea by oil and other harmful substances in cases of emergency	Adopted (Barcelona):	16 February 1976	16 February 1976	16 February 1976	16 February 1976	16 February 1976	16 February 1976	16 February 1976	16 February 1976	16 February 1976
	Entry into force:	12 February 1978	12 February 1978	12 February 1978	12 February 1978	12 February 1978	12 February 1978	12 February 1978	12 February 1978	12 February 1978
4- The Protocol for the protection of the Mediterranean Sea against pollution from land-based sources	Adopted (Athens):	17 May 1980	17 May 1980	17 May 1980	17 May 1980	17 May 1980	17 May 1980	17 May 1980	17 May 1980	17 May 1980
	Entry into force:	17 June 1983	17 June 1983	17 June 1983	17 June 1983	17 June 1983	17 June 1983	17 June 1983	17 June 1983	17 June 1983
5- The Protocol concerning Mediterranean Specially Protected Areas	Adopted (Geneva):	3 April 1982	3 April 1982	3 April 1982	3 April 1982	3 April 1982	3 April 1982	3 April 1982	3 April 1982	3 April 1982
	Entry into force:	23 March 1986	23 March 1986	23 March 1986	23 March 1986	23 March 1986	23 March 1986	23 March 1986	23 March 1986	23 March 1986
Accession	-	AC								
Approval	-	AP								
Reservation	-	R								

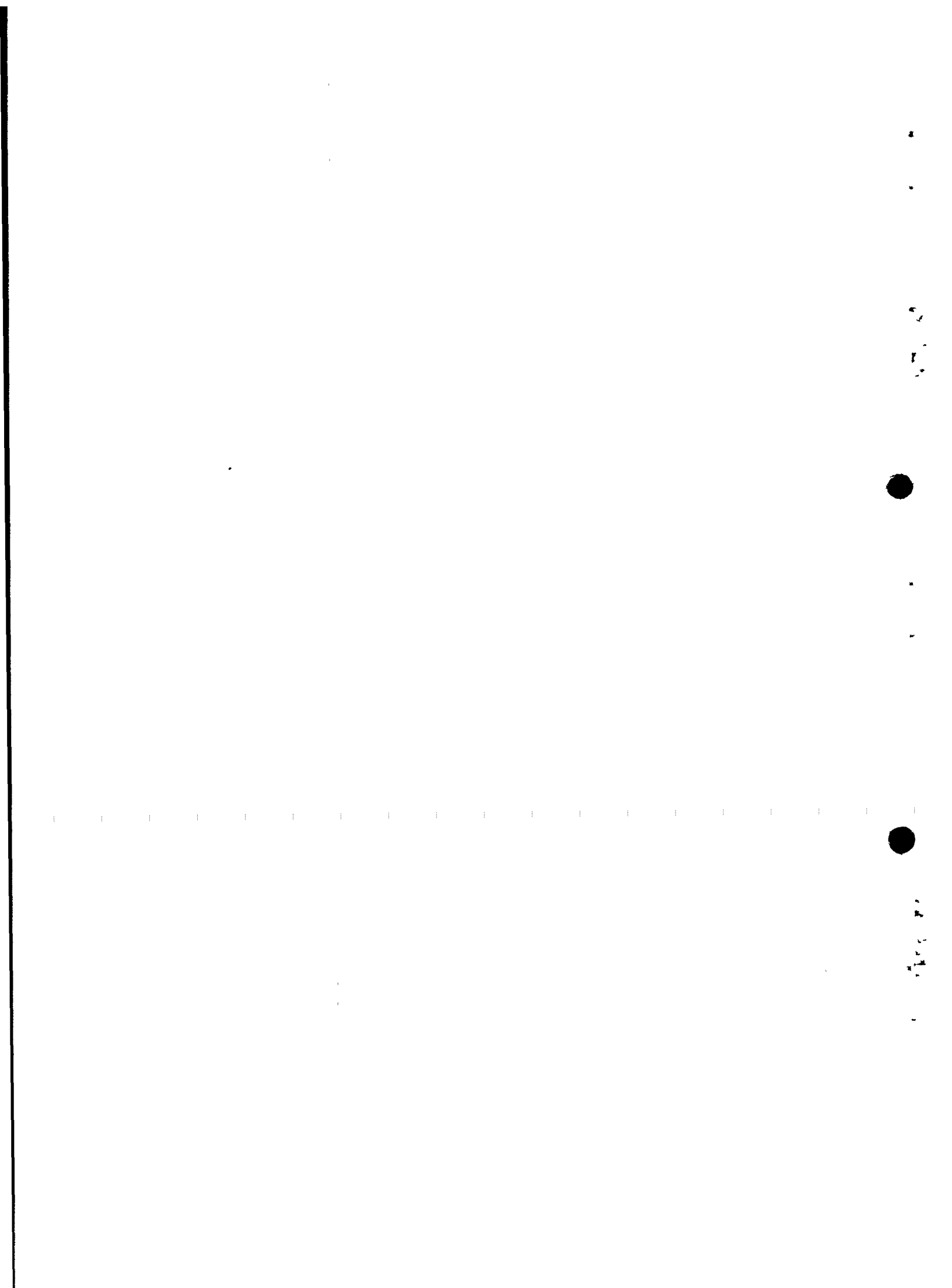


ANNEX II

STATUS OF CONTRIBUTIONS TO THE MEDITERRANEAN TRUST FUND
(as at 31 May 1987) (in US\$)

Countries	Unpaid pledges for 1985 and previous years	Pledges 1986	Pledges 1987	Payments 1986	Payments 1987	Unpaid pledges for 1987 and prior years
Algeria	26,190	25,880	27,174	52,070	-	27,174
Cyprus	-	2,273	2,386	2,273	-	2,386
Egypt	14,407	15,127	15,884	29,534	-	15,884
France	(55,985)	1,178,472	1,237,395	1,122,487	-	1,237,395
Greece	72,384	76,234	80,046	146,221	-	82,443
Israel	45,799	53,341	56,008	28,660	-	126,488
Italy	190,432	722,149	758,256	-	-	1,670,837
Lebanon	8,605	6,384	6,703	3,386	-	18,306
Libya	1,214	49,637	52,118	-	-	102,969
Malta	-	2,273	2,387	2,273	-	2,387
Monaco	388	2,273	2,387	2,661	-	2,387
Morocco	19,029	10,842	11,384	-	18,929	22,326
Spain	(15,905)	352,779	370,418	336,874	-	370,418
Syria	4,093	6,582	6,912	-	-	17,587
Tunisia	8,634	6,582	6,912	-	-	22,128
Turkey	3,779	64,638	67,870	3,793	-	132,494
Yugoslavia	90,734	90,694	95,228	82,470	94,087	100,099
European Economic Community	-	570,468	607,753	570,468	-	607,753
TOTAL	413,798	3,236,628	3,407,221	2,383,170	113,016	4,561,461

Note: Figures in brackets represent payment made in 1986 in excess of pledges. They were recorded as advance payments for 1986



ANNEX III
STATUS OF 1986 EXPENDITURES AND 1987 COMMITMENTS
(as at 31 May 1987) (in US \$)

	1986 <u>1/</u> Approved	1986 <u>2/</u> Expenditures	1986 <u>2/</u> Counterpart Contribution	1987 <u>1/</u> Approved	1987 <u>2/</u> Commitments as at 31.5.87	1987 <u>2/</u> Counterpart Contribution
<u>SECTION I</u>						
CHAPTER 1 - Co-ordination	750,480	630,438 <u>3/</u>	-	764,997	840,833 <u>3/</u>	-
CHAPTER 2 - Meetings	67,000	76,088 <u>4/</u>	-	137,000	180,000 <u>4/</u>	-
CHAPTER 3 - MED POL: Monitoring	855,000	885,746 <u>5/</u>	325,000 <u>6/</u>	997,500	1,271,061 <u>7/</u>	325,000 <u>6/</u>
CHAPTER 4 - MED POL: Research	285,000	168,531	-	332,500	342,618 <u>8/</u>	-
CHAPTER 5 - Oil Combating Centre	412,000	328,848	10,000 <u>9/</u>	412,500	448,955	10,000 <u>9/</u>
CHAPTER 6 - Training and Exchange of Information	170,000	114,368 <u>10/</u>	-	185,000	93,300	-
<u>SECTION II</u>						
CHAPTER 1 - Blue Plan	765,000	713,270	325,000 <u>11/</u>	600,000	714,025 <u>12/</u>	325,000 <u>11/</u>
CHAPTER 2 - Priority Actions Programme	521,000	401,533	280,000 <u>13/</u>	561,000	601,000	280,000 <u>13/</u>
CHAPTER 3 - Specially Protected Areas	195,000	128,143	50,000 <u>14/</u>	195,000	309,127	50,000 <u>14/</u>
GRAND TOTAL	4,020,480	3,446,965		4,185,497	4,800,919	

1/ UNEP/IG.56/5 Annex VIII

2/ As appearing in latest revision of project documents

3/ Out of which \$ 233,022 was spent in drachmas from host country contribution (Greece) in 1986 and \$ 441,140 committed in 1987

4/ Out of which \$ 14,668 was spent in drachmas from host country contribution (Greece) in 1986 and \$ 20,000 committed in 1987

5/ Out of which \$ 120,829 was rephased from 1985 unspent funds, \$ 51,826 were provided by the Environment Fund and \$ 68,000 was authorized by the Bureau of the Contracting Parties

6/ Counterpart contribution of Co-operating UN Agencies (FAO, WHO, UNESCO/IOC, WMO, IAEA)

7/ Out of which \$ 150,700 was rephased from 1986 unspent funds, \$ 71,400 were provided by the Environment Fund and \$ 61,000 was authorized by the Bureau of the Contracting Parties

8/ Out of which \$ 11,200 was rephased from 1986 unspent funds

9/ Counterpart contribution of the Government of Malta

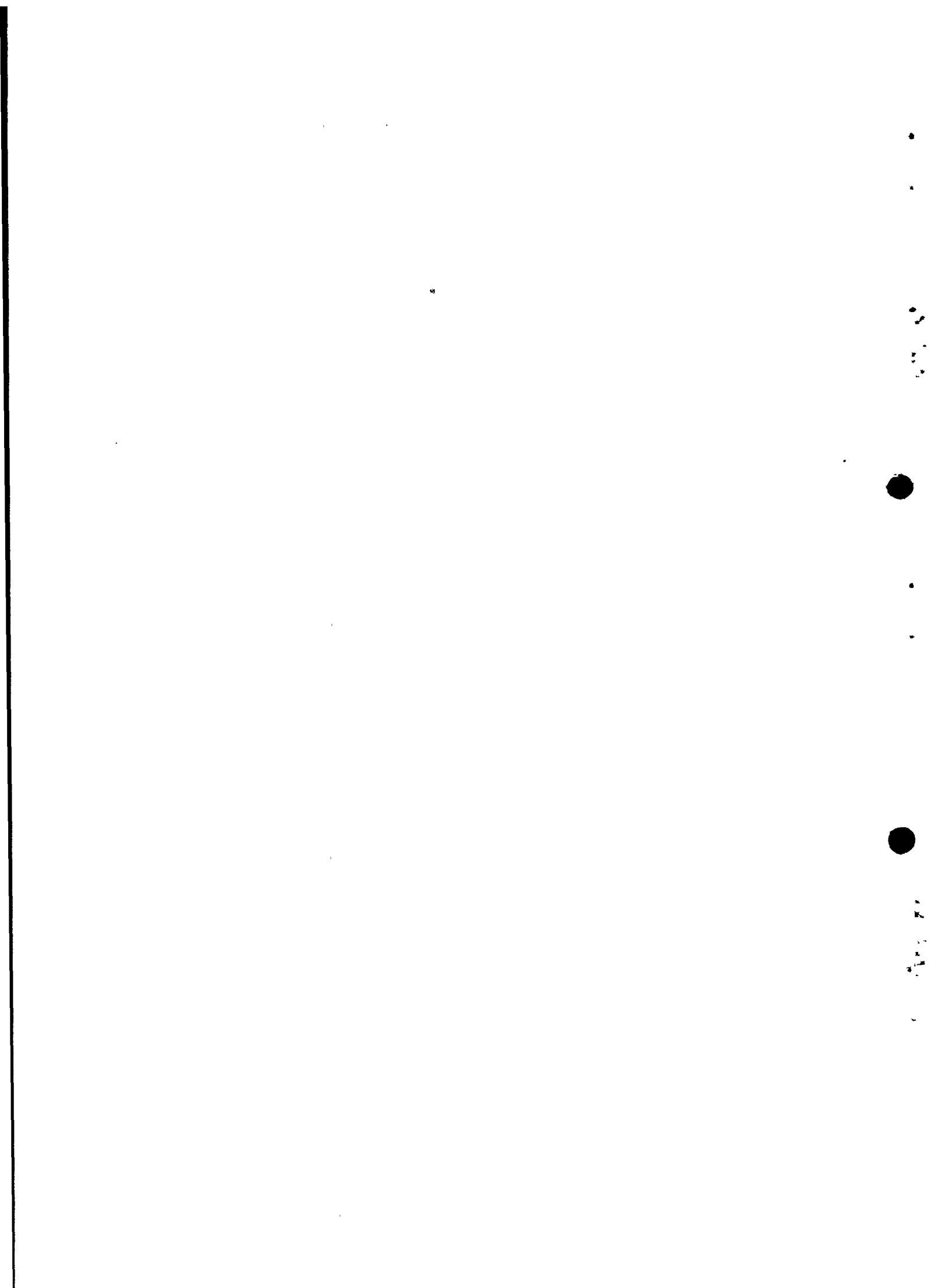
10/ Out of which \$ 17,643 was spent in drachmas from host country contribution (Greece)

11/ Counterpart contribution of the Government of France

12/ Includes \$ 80,000 based on the decision of the Bureau of the Contracting Parties

13/ Counterpart contribution of the Government of Yugoslavia

14/ Counterpart contribution of the Government of Tunisia



ANNEX IV

PROPOSED 1988 AND 1989 PROGRAMME BUDGET
(in US dollars)

	Proposed 1988	Proposed 1989
<u>SECTION I</u>		
CHAPTER 1 - Co-ordination	825,300	887,580
CHAPTER 2 - Meetings	57,000	332,000
CHAPTER 3 - MED-POL: Monitoring	1,577,000	1,589,000
CHAPTER 4 - MED POL: Research	370,000	425,000
CHAPTER 5 - Oil Combating Centre	439,000	442,000
CHAPTER 6 - Training and Exchange of Information	140,000	275,000
<u>SECTION II</u>		
CHAPTER 1 - Blue Plan	450,000	350,000
CHAPTER 2 - Priority Actions Programme	750,000	850,000
CHAPTER 3 - Specially Protected Areas	255,000	313,000
GRAND TOTAL	4,863,300	5,463,580

SECTION I
CHAPTER 1 - CO-ORDINATION

	m/m	Proposed 1988	Proposed 1989
1. PERSONNEL			
(a) Experts/Staff <u>1/</u> <u>2/</u>			
- Co-ordinator - A. Manos (Italy) D.2 Permanent	12	84,000	86,500
- Senior Programme Officer/Marine Scientist L. Jeftic (Yugoslavia) P.5 Fixed-term	12	69,500	71,500
- Programme Officer/Economist - I. Dharat (Libya) P.4 Fixed-term	12	60,000	62,000
- Programme Officer/Marine Scientist F.S. Civili (Italy) P.3 Fixed-term	12	46,000	47,500
- Data Processor - A. Aksel (Turkey) P.2 Fixed-term	12	39,500	40,500
Subtotal 1 (a)		299,000	308,000
(b) Consultants			
- Librarian	5	10,000	10,000
- Legal Aspects	2	8,000	8,000
- Unspecified (Contingency)		20,000	20,000
Subtotal 1 (b)		38,000	38,000

1/ International recruitment

2/ In addition, post of Administrative Officer is paid from Programme Support Costs

	m/m	Proposed 1988	Proposed 1989
(c) Administrative Support ^{1/}			
- Senior Secretary, International Recruitment	12	10,500	11,550
- Administrative Assistant - N. Zevelakis (Greece) G.6 Fixed-term local recruitment	12	12,100	13,310
- Information Assistant - H. Maroudis-Pissala (Greece) G.5 Fixed-term local recruitment	12	9,900	10,890
- Bilingual Secretary - D. Voga (Greece) G.4 Fixed-term local recruitment	12	10,500	11,550
- Bilingual Secretary - E. Varla (Greece) G.4 Fixed-term local recruitment	12	10,500	11,550
- Bilingual Typist - C. Papageorgopoulos (Greece) G.4 Fixed-term local recruitment	12	9,900	10,890
- Bilingual Typist - G.3 M. Foerter-Platis	12	7,700	8,470
- Bilingual Typist - G.3	12	9,000	9,900
- Telephone Operator/Receptionist - E. Zaimis (Greece) G.2 Fixed-term local recruitment	12	9,000	9,900
- Clerk/driver - D. Magiras (Greece) G.2 Fixed-term local recruitment	12	9,000	9,900
- Clerk - G.2	12	7,200	7,920
- Temporary Assistance	8	12,000	13,200
- Overtime		7,000	7,700
Subtotal 1 (c)		124,300	136,730
Component total		461,300	482,730
2. TRAVEL ON OFFICIAL BUSINESS		55,000	60,000
3. SUB-CONTRACTS - Unspecified		20,000	20,000
4. MEETINGS/TRAINING/FELLOWSHIPS		-	-

^{1/} In addition, post of Key punch Operator/Wang Assistant, is paid from Programme Support costs

	Proposed 1988	Proposed 1989
5. EQUIPMENT		
(a) Expendable equipment (Incl. books, magazines)	26,000	26,000
(b) Non-expendable equipment	22,000	36,100
Component total	48,000	62,100
6. RENTAL AND MAINTENANCE OF PREMISES		
- Rental	75,000	93,750
- Cleaning	14,000	15,000
Component total	89,000	108,750
7. OPERATION AND MAINTENANCE OF EQUIPMENT (Typewriters, Xerox, Computer, Official Car)	38,000	40,000
8. REPORTING COST	34,000	34,000
9. SUNDRY		
(a) Telex, Telephone, Postage and Freight	70,000	70,000
(b) Hospitality	4,000	4,000
(c) Miscellaneous	6,000	6,000
Component total	80,000	80,000
TOTAL CHAPTER 1	825,300	887,580

SECTION I
CHAPTER 2 - MEETINGS

	Proposed 1988	Proposed 1989
- Meetings of Bureau (2 per year)	12,000	12,000
- Committee on Env. and Development	45,000	45,000
- Committee of Legal & Policy Experts	-	45,000
- Meeting of Plenipotentiaries on off-shore protocol	-	80,000
- 6th Ordinary Meeting of Contracting Parties	-	150,000
TOTAL CHAPTER 2	57,000	332,000

SECTION I
CHAPTER 3 - MED POL - MONITORING

	m/m	Proposed 1988	Proposed 1989
1. PERSONNEL <u>A/</u>			
(a) <u>Experts/Staff</u>			
- FAO Fishery Expert, P-5	12	67,000	68,000
- WHO Senior Scientist, P-5	12	69,000	70,000
- IAEA Maintenance Engineer, P-3	12	62,000	63,000
Sub-total 1(a)		198,000	201,000
(b) <u>Consultants</u>			
Sub-total 1(b)		15,000	35,000
(c) <u>Administrative Support</u>			
- FAO Secretary, Athens, Local, G-3	12	10,000	11,000
- WHO Secretary, Athens, Local, G-4	12	11,000	12,000
- WHO Secretary, Copenh. Local, G-4	6	9,000	10,000
- IAEA Lab. Assist., Monaco Local, G-4	12	27,000	28,000
Sub-total 1(c)		57,000	61,000
Component total		270,000	297,000
2. TRAVEL <u>B/</u>			
- FAO		11,000	12,000
- UNESCO/IOC		5,500	6,000
- WHO		11,000	12,000
- WMO		7,500	8,000
- IAEA		22,000	24,000
Component Total		57,000	62,000

A/ The cost of UNEP staff involved in MED POL is covered through Chapter I (Co-ordination) of MAP budget

B/ The cost of travel of UNEP staff related to MED POL is covered through Chapter I (Co-ordination) of MAP budget

	Proposed 1988	Proposed 1989
3. SUBCONTRACTS		
<u>Land-based Sources Protocol implementation:</u>		
- Pilot project on monitoring of organo-phosphorus compounds, including selection of method and preparation of assessment and proposed measures	35,000	-
- Pilot project on monitoring of organotin compounds, including selection of method and preparation of assessment and proposed measures	35,000	-
- Pilot project on monitoring of persistent synthetic materials, including selection of method and preparation of assessment and proposed measures	35,000	-
- Pilot project on monitoring of carcinogenic, teratogenic or mutagenic substances, including selection of method and preparation of assessment and proposed measures	5,000	35,000
- Pilot project on monitoring of submarine outfalls and evaluation of their technical efficiency	20,000	-
- Preparation of draft annex IV to LBS Protocol on pollutants transported through the atmosphere	7,500	-
- Compilation of use of alternative products and processes	-	10,000
- Survey of products and installations causing pollution	-	10,000
- Assistance to countries for the implementation of LBS protocol (experts, training, etc.)	45,000	105,000

	Proposed 1988	Proposed 1989
<u>Data quality assurance:</u>		
- Intercalibration and training course on determination of microbiological pollution	15,000	15,000
- Intercalibration and training course on determination of chlorinated hydrocarbons	15,000	-
- Intercalibration and training course on determination of organic mercury	-	15,000
- Training course on treatment and interpretation of biological effects data	15,000	-
- Training course on analysis of physical oceanographic data and time-series	-	15,000
- Purchase of standards and reference materials to be distributed to laboratories	20,000	25,000
- Joint exercises on monitoring and intercomparison of results including sampling and analysis of split samples, expert assistance to laboratories for sampling, analysis, presentation and evaluation of results and improved arrangement for dissemination of relevant scientific material	110,000	140,000
<u>Monitoring:</u>		
- Assistance through agreements for monitoring programmes	580,000	620,000
<u>Other activities:</u>		
- Printing of IX ICSEM/IOC/UNEP Workshop proceedings	10,000	-
Component total	947,500	990,000

	Proposed 1988	Proposed 1989
4. MEETINGS/TRAINING/WORKSHOPS/FELLOWSHIPS		
MEETINGS:		
- Working Group for Scientific and Technical Co-operation	50,000	55,000
<u>Land-based Sources Protocol implementation:</u>		
- <u>Ad hoc</u> meeting for the preparation of annex IV of LBS	7,500	-
<u>Data quality assurance:</u>		
- <u>Ad hoc</u> consultation meeting on data processing	7,500	7,500
<u>Monitoring:</u>		
- Meeting of responsible investigators of monitoring programmes	40,000	-
- <u>Ad hoc</u> consultation meeting on monitoring	7,500	7,500
TRAINING:		
- On-job training (through the secretariat)	80,000	80,000
FELLOWSHIPS:		
- Attendance at IX ICSEM/IOC/UNEP Workshop and other meetings	60,000	35,000
Component total	252,500	185,000
5. EQUIPMENT		
(a) <u>Expendable:</u>		
Spare parts for common maintenance service (through IAEA)	30,000	35,000
(b) <u>Non-expendable:</u>		
Laboratory equipment (to ILMR), purchase and maintenance	20,000	20,000
Component total	50,000	55,000
TOTAL CHAPTER 3	1,577,000	1,589,000

SECTION I
 CHAPTER 4 - MED POL - RESEARCH

	Proposed 1988	Proposed 1989
A. SUBCONTRACTS		
Activities A-L	320,000	350,000
Component total	320,000	350,000
B. MEETINGS		
Activity C	<u>1/</u>	-
D	-	25,000
E	-	25,000
F	25,000	-
G	25,000	-
L	-	25,000
Component total	50,000	75,000
TOTAL CHAPTER 4	370,000	425,000

1/ Meeting will be funded by WHO/EURO at no cost to MTF

SECTION I

CHAPTER 5 - REGIONAL OIL COMBATING CENTRE

	m/m	Proposed 1988	Proposed 1989
1. PERSONNEL			
(a) Experts or Consultants			
- Director P-5	12	69,000	70,000
- Deputy Director P-4	12	60,000	61,000
- Technical expert P-4	12	64,000	65,000
(b) Consultants		5,000	5,000
(c) Administrative support			
- Information Officer (G-4)	12	24,000	24,000
- Bilingual Secretary	12	18,500	18,500
- Typist (Telex) (G-2)	12	17,000	17,000
- Typist (Telephone) (G-2)	12	17,000	17,000
- Caretaker (G-1)	12	14,000	14,000
Component total		288,500	291,500
2. TRAVEL		15,000	15,000
3. SUB CONTRACTS		-	-
4. MEETINGS/TRAINING/FELLOWSHIPS			
- Fellowships		6,000	6,000
- Training and Meetings		84,000	85,000
Component total		90,000	91,000
5. EQUIPMENT			
- Expendable		6,000	6,500
- Non Expendable		7,500	5,000
Component Total		13,500	11,500

	Proposed 1988	Proposed 1989
6. RENTAL AND MAINTENANCE OF PREMISES - Maintenance of premises	2,000	2,500
7. OPERATION AND MAINTENANCE OF EQUIPMENT	-	-
8. REPORTING COSTS	2,000	2,500
9. SUNDRY	28,000	28,000
TOTAL CHAPTER 5	439,000	442,000

SECTION I
CHAPTER 6 - TRAINING AND EXCHANGE OF INFORMATION

	Proposed 1988	Proposed 1989
- Support to training courses	90,000	90,000
- Trainees at Med Unit	5,000	40,000
- MEDWAVES (English/French) four issues a year	30,000	30,000
- Poster on the protection of the Mediterranean	-	15,000
- Support for Mediterranean Environment Week (audiovisual)	15,000	100,000
TOTAL CHAPTER 6	140,000	275,000

SECTION II
CHAPTER 1 - BLUE PLAN

	Proposed 1988	Proposed 1989
1. PERSONNEL		
(a) Scientific Advisor	100,000	100,000
(b) Consultants	60,000	40,000
(c) Administrative Support		
- Mathematician (part time)	20,000	20,000
- Secretary	20,000	20,000
Component total	200,000	180,000
2. TRAVEL	50,000	40,000
3. SUB-CONTRACTS		
- Collection and Processing of socioeconomical and environmental data	50,000	40,000
4. TRAINING and MEETINGS		
- National Missions to BP/RAC	60,000	30,000
- Meeting of Senior Scientists for the analysis of BP results	-	20,000
Component total	60,000	50,000
5. EQUIPMENT	-	-
6. RENTAL AND MAINTENANCE OF PREMISES	-	-
7. OPERATION AND MAINTENANCE OF EQUIPMENT		
- Computer renting/maintenance	20,000	20,000
8. REPORTING COSTS		
- Miscellaneous	10,000	10,000
- Publication and distribution of the Blue Plan (English and French)	50,000	-
9. SUNDRY	10,000	10,000
TOTAL CHAPTER 1	450,000	350,000

SECTION II
CHAPTER 2 - PRIORITY ACTIONS PROGRAMME

	m/m	Proposed 1988	Proposed 1989
1. PERSONNEL			
(a) Experts			
- Director	6	35,000	38,000
- Project Co-ordinator	6	20,000	22,000
(b) Consultants		192,000	233,000
(c) Administrative Support		50,000	59,000
Component total		297,000	352,000
2. TRAVEL		34,000	44,000
3. SUB-CONTRACTS		140,000	155,000
4. TRAINING AND MEETINGS		185,000	185,000
5. EQUIPMENT			
(a) Expendable		4,000	4,000
(b) Non-expendable		3,000	3,000
Component Total		7,000	7,000
6. RENTAL AND MAINTENANCE OF PREMISES		-	-
7. OPERATION AND MAINTENANCE OF EQUIPMENT		3,000	5,000
8. REPORTING COSTS		41,000	53,000
9. SUNDRY		43,000	49,000
TOTAL CHAPTER 2		750,000	850,000

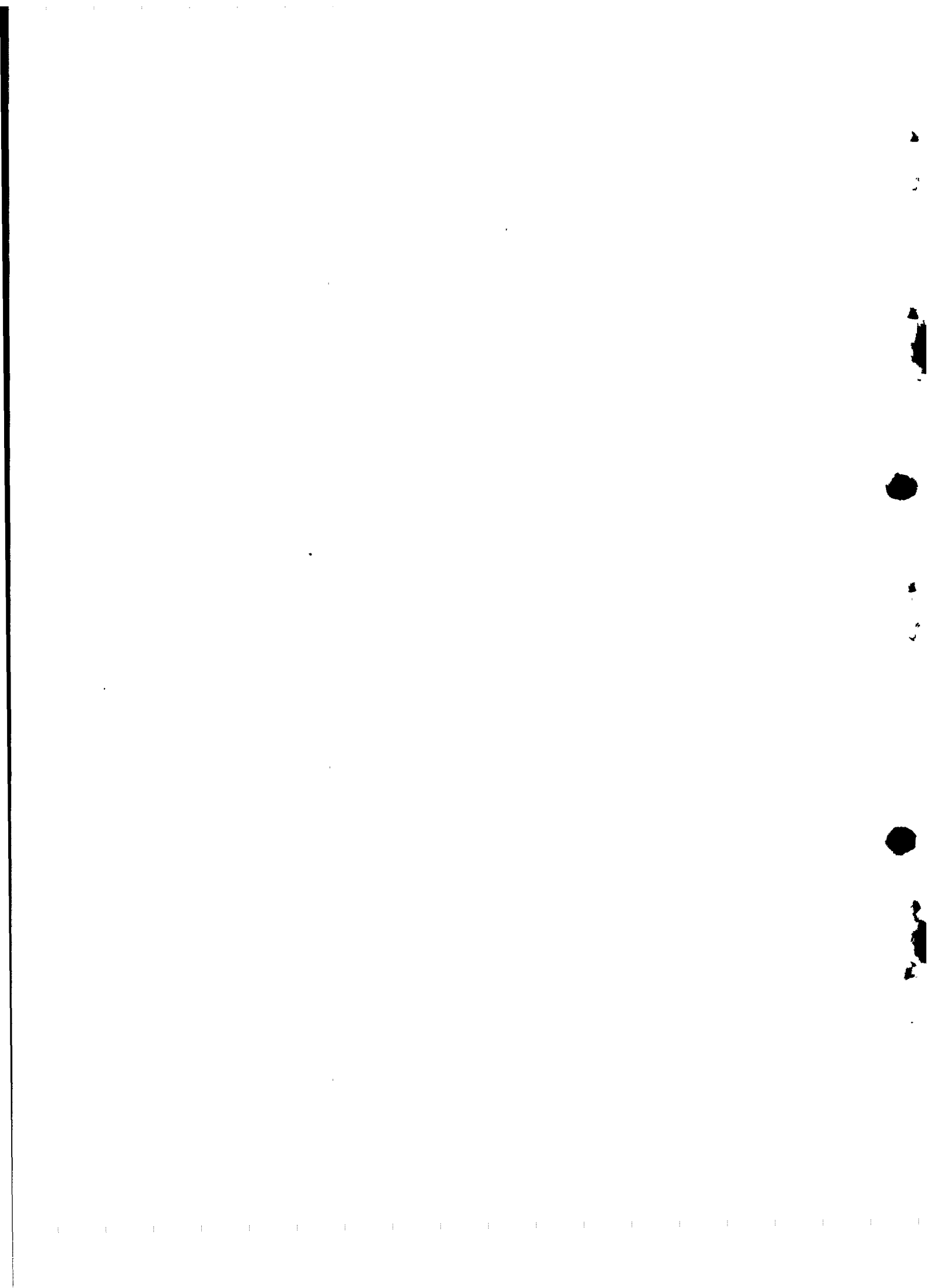
SECTION II
CHAPTER 3 - SPECIALLY PROTECTED AREAS

	m/m	Proposed 1988	Proposed 1989
1. PERSONNEL			
(a) Director			
(b) Experts/Consultants			
- Expert	12	50,000	55,000
- Expert			
- Data Researcher	12	40,000	45,000
- Consultants		60,000	70,000
(c) Administrative support			
- Secretary	12	8,000	10,000
- Driver	12	5,000	6,000
Component total		163,000	186,000
2. TRAVEL		20,000	25,000
3. SUB-CONTRACTS		10,000	15,000
4. MEETINGS (experts, focal points)		15,000	31,000
5. EQUIPMENT			
(a) Non-expendable (car, video)		8,000	5,000
(b) Expendable		2,000	3,000
Component total		10,000	8,000
6. RENTAL AND MAINTENANCE OF PREMISES		-	-
7. OPERATION AND MAINTENANCE OF EQUIPMENT		5,000	10,000
8. REPORTING COSTS		15,000	18,000
9. SUNDRY			
(a) Communication, postage, freight		12,000	14,000
(b) Hospitality		2,000	2,000
(c) Miscellaneous		3,000	4,000
Component total		17,000	20,000
TOTAL CHAPTER 3		255,000	313,000

ANNEX V

ESTIMATED 1986-1989 CASH FLOW
(in thousands of US dollars)

	1986	1987	1988	1989
A. INCOME				
1. Opening Balance				
1.1 Uncommitted at the beginning of the year	3627	4078	1830	1361
1.2 Committed at the beginning of the year	1706	623	2260	2260
Total	5333	4701	4090	3621
2. Contributions paid in by the countries				
2.1 Contributions due for the previous years	414	1267	800	600
2.2 Contributions due for the current year	2666	2799	3219	3702
2.3 Unpaid contributions	1267	800	600	300
Total paid	1813	3266	3419	4002
3. EEC contribution	570	608	699	804
4. Bank interest and miscellaneous income	388	400	400	400
5. Host Country contribution	399	402	400	400
6. UNEP contribution	52	71	50	50
Total Income	8555	9448	9058	9277
B. EXPENDITURES				
1. Programme costs	3447	4801	4863	5464
2. Programme support costs (P.S.C.)	407	557	574	651
Total Expenditures	3854	5358	5437	6115
C. FORWARD COMMITMENTS				
1. Programme costs for the future year	551	2000	2000	2000
2. P.S.C. for the future year	72	260	260	260
Total Commitments	623	2260	2260	2260
D. BALANCE CARRIED FORWARD AT THE END OF THE YEAR (A-B-C)	4078	1830	1361	902



ANNEX VI

APPORTIONMENT OF CONTRIBUTIONS TO THE MEDITERRANEAN TRUST FUND
FOR THE 1988 AND 1989 BIENNIUM (1)
(in US dollars)

Contracting Parties	1988	1989
Algeria	47,646	54,794
Cyprus	5,151	5,924
Egypt	23,823	27,397
France	1,191,495	1,370,220
Greece	128,776	148,092
Israel	75,012	86,263
Italy	867,625	997,769
Lebanon	3,220	3,702
Libya	88,533	101,813
Malta	3,220	3,702
Monaco	3,541	4,073
Morocco	17,063	19,622
Spain	482,908	555,344
Syria	13,521	15,550
Tunisia	10,302	11,847
Turkey	128,776	148,092
Yugoslavia	128,776	148,092
Subtotal	3,219,388	3,702,296
EEC	698,916	803,753
Host Country	400,000	400,000
TOTAL	4,318,304	4,906,049
UNEP Environment Fund	50,000	50,000

(1) Based on the UN Scale of Contributions recommended by the Meeting on Alternative Methods of Calculating Contributions to the Mediterranean Trust Fund (Madrid, 19-22 June 1987) and endorsed by the Bureau (UNEP/BUR/29)