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MEDITERRANEAN ACTION PLAN

First Meeting of the Scientific  
and Technical Committee

Athens, 23-27 May 1988

REPORT OF THE FIRST MEETING OF THE SCIENTIFIC  
AND TECHNICAL COMMITTEE

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UNEP  
Athens, 1988

## INTRODUCTION

1. At their Fifth Ordinary Meeting, held in Athens from 7 to 11 September 1987, the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution and its related Protocols approved the establishment of a Scientific and Technical Committee and a Socio-economic Committee (UNEP/IG.74/5, Section II.A) as the two standing subsidiary bodies of the Contracting Parties, to which the Parties would assign the preliminary review of the designated programme and budget components and the recommendations thereon. The two Committees would meet in April/May of each year and their reports would be received by the Bureau for comments before submission to the Contracting Parties. The existing structure of national focal points for each component of the Mediterranean Action Plan was maintained, but meetings of such focal points would only be convened on an ad hoc basis when a particular programme development required it.

2. In pursuance of this decision, the Co-ordinating Unit of the Mediterranean Action Plan convened the first meeting of the Scientific and Technical Committee, to review the appropriate components of the Plan (MED POL, the Regional Oil Combating Centre and Specially Protected Areas) in the premises of the Co-ordinating Unit in Athens from 23 to 27 May 1988. The Contracting Parties were invited to nominate representatives to attend this meeting. Representatives of the relevant UN bodies, Co-operating Agencies and non-governmental organizations: the United Nations Economic Commission for Europe (ECE), the Food and Agriculture Organization of the United Nations (FAO), United Nations Educational, Scientific and Cultural Organization (UNESCO), World Health Organization (WHO), World Meteorological Organization (WMO), International Maritime Organization (IMO), United Nations Industrial Development Organization (UNIDO), International Atomic Energy Agency (IAEA), Intergovernmental Oceanographic Commission (IOC), International Union for the Conservation of Nature and Natural Resources (IUCN), as well as the relevant Regional Centres for the MAP (Regional Oil Combating Centre and Regional Activity Centre for Specially Protected Areas) were also invited.

3. The meeting was attended by designated representatives from 15 Mediterranean countries and the European Economic Community (EEC), representatives of 9 United Nations bodies, Specialised Agencies and non-governmental organizations, and representatives of 2 MAP Regional Centres. A list of participants is attached as Annex I to this report.

### Agenda item 1. Opening of the meeting

4. Mr A. Manos, Co-ordinator of the Mediterranean Action Plan, welcomed the participants on behalf of the Executive Director of UNEP, Dr Mostafa K. Tolba.

5. He noted that, over the past year, considerable progress had been made with regard to the three MAP components which were being reviewed by the Committee. In particular, fourteen countries were now covered by national monitoring agreements, or were transmitting data. However, only eight countries had submitted data for 1986 and only four for 1987, most of which was incomplete. A greater effort was necessary to ensure the submission of the agreed monitoring data.

Furthermore, five reference methods were drafted, six new reporting forms were prepared, four intercalibration exercises were carried out, three data quality assurance programmes launched, fifteen maintenance missions carried out and over 60 fellowships and participants at training courses, and 109 ongoing research projects had been financed.

Assessments and proposed measures concerning used lubricating oils and organotin compounds were submitted.

The Regional Oil Combating Centre had conducted three regional and two national training courses, issued a new version of the guide for oil pollution combating, a catalogue of spill response equipment and the updated list of alerts and accidents. However, only eight countries had so far adopted a national contingency plan and others should be urged to do likewise.

The Regional Activity Centre for Mediterranean Specially Protected Areas had distributed the guidelines, and revised the Directory of Mediterranean coastal and marine protected areas. It had also established, with the collaboration of the IUCN Ecology Commission, a group of experts on the selection of new Mediterranean areas to be protected. That group on the conservation of coastal ecosystems was responsible for proposing additional Mediterranean areas for protection.

In the light of this progress, Mr Manos expressed his disappointment at the delay in the payment of contributions by certain Contracting Parties, and pointed out that \$2.2 million for 1986-1987 were still due from eleven countries. He invited the participants to exercise their best efforts to accelerate such payments.

Considering that the Contracting Parties had approved the overall budget for 1989, the Secretariat was proposing a zero growth budget for each of the three components under consideration (MED POL, ROCC and SPA)

Agenda item 2. Rules of procedure

6. The Secretariat informed the meeting that the rules of procedure for the meetings and conferences of the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution and its related protocols (UNEP/IG.23/11, Annex VII) would apply mutatis mutandis to the Meeting of the Scientific and Technical Committee for the Mediterranean Action Plan, as a subsidiary body of the Conference for the Contracting Parties.

Agenda item 3 : Election of Officers

7. The meeting unanimously elected the following Officers:

Chairman	: Mr Joaquin Ros	(Spain)
Vice-Chairmen	: Mr Jacques Vaccarezza	(EEC)
	: Mrs Hedia Baccar	(Tunisia)
Rapporteur	: Mr Abdul Fattah Boargob	(Libya)

Agenda item 4. Adoption of the Agenda

8. The meeting adopted the Agenda which appears in Annex II to this report. The documents which were available to the meeting are listed in Annex III.

Agenda item 5. Organization of work

9. The meeting agreed to work only in plenary sessions, with the proviso that ad hoc working groups or drafting committees would be formed by the Bureau in consultation with the Secretariat, as needed.

Agenda item 6. Progress report on the implementation of MED POL during 1987/1988 and proposed activities and budgetary requirements for 1989

10. The Secretariat introduced document UNEP(OCA)/MED WG.1/3 which, in its first part, described the MED POL monitoring and research activities carried out during the period January 1987-March 1988, and, in the second part, described the activities approved by the Contracting Parties for the year 1989, as well as a proposed budget for discussion and approval by the Committee.

11. The meeting discussed the activities implemented during the period 1987-1988. The MED POL National Co-ordinator from Tunisia informed the Committee that the national monitoring agreement would be signed shortly, and that the data already submitted, as well as additional data, would be sent to the Co-ordinating Unit on the appropriate forms. The Syrian National Co-ordinator for MED POL pointed out that, in document UNEP(OCA)/MED WG.1/3, Annex I, it had erroneously been stated that Syria had not transmitted any data. Data for 1986 had in fact been sent to the Co-ordinating Unit during 1987, and the 1987 data were submitted to the Secretariat during the meeting. The Turkish National Co-ordinator for MED POL informed the Committee that, even though the procedure for formal signature by his country of the monitoring agreement was not yet finalised, data in the required format would continue to be sent on a regular basis together with all necessary explanations concerning sampling and analysis.

12. During the discussion, the Secretariat and the representative of WHO explained that the project currently being undertaken on the health effects of methylmercury, which would be reviewed at the Consultation Meeting on health-related environmental quality criteria (Ljubljana, 12-16 September 1988), referred to in paragraph 32 of UNEP(OCA)/MED WG.1/3, was in accordance with the recommendation approved by the Contracting Parties at their Fourth Ordinary Meeting in Genoa from 9 to 13 September 1985 (UNEP/IG.56/5, Recommendation F.5(g)) regarding relevant activities to be carried out within the framework of MED POL. It was not envisaged that any measures proposed by this Consultation would run counter to any already adopted by the Contracting Parties in the same recommendation, or involve the adoption of any new legal measures on a common basis.

13. Regarding the work being undertaken by the Secretariat in connection with information on mortality of sea urchins, several representatives recommended that the same procedure should be followed with regard to sponge degradation phenomena noted in a number of Mediterranean areas.

14. Regarding the assessment of the state of pollution of the Mediterranean Sea by cadmium and cadmium compounds, the representative of the EEC again stressed that this document should contain information on the best available technology to eliminate pollution by these substances, the industries associated with discharge of such wastes, and relevant legal and administrative measures currently in force on the subject.

15. The Committee then discussed the activities proposed for 1989, as well as the proposed budgetary allocations.

16. Regarding the monitoring of transport of pollutants through the atmosphere, currently at the end of its pilot phase, the representative of WMO presented the monitoring and modelling programme prepared and proposed by experts at the Workshop on Airborne Pollution of the Mediterranean Sea which was held in Belgrade from 10 to 13 November 1987 (UNEP(OCA)/MED WG.1/Inf.3). The Committee after lengthy deliberation, agreed that the programme, as described in annex IV, should be initiated within the framework of national monitoring agreements in as many countries as possible on a voluntary basis. Assistance towards its implementation should similarly be granted within the overall framework of the MED POL monitoring assistance component. In reviewing the parameters appearing in appendix 1, annex IV, of this document, the Committee agreed that these should be considered as indicative, and not binding. The Committee also agreed that an ad hoc expert group on airborne pollution of the Mediterranean Sea be established to work by correspondence for reviewing and co-ordinating activities under the programme, and for preparing the second workshop to be held at the end of 1989.

17. The Secretariat explained that the pilot project on monitoring of carcinogenic/mutagenic/teratogenic marine pollutants was not an academic exercise, but was designed to provide the data on levels of selected substances with proven carcinogenic/mutagenic/teratogenic properties (as defined in annex I to the LBS protocol) necessary for preparation of the relevant assessment document, in accordance with the approved calendar of activities for progressive implementation of the protocol.

18. It was also explained that the evaluation of criteria already adopted by the Contracting Parties referred to measures being implemented by countries towards their eventual enforcement, including the provision of advice and assistance to that end. In the case of criteria adopted by the Contracting Parties on an interim basis, i.e. those related to bathing waters, it was necessary to undertake the necessary studies for confirmation or otherwise as provided by the relevant recommendation of the Contracting Parties in Genoa in 1985 (UNEP/IG.56/5, Recommendation F.6).

19. The Secretariat also confirmed that the meetings proposed for 1989 under the research component of MED POL were in accordance with the recommendation approved by the Contracting Parties at their Fifth Ordinary Meeting (UNEP/IG.74/5, Recommendation F).

20. Following extensive discussion, the Committee approved the budget for 1989 as shown in Annex V.

21. The representative of France expressed his satisfaction that, following the concern expressed by his country regarding increases in the MED POL monitoring budget, the proposed budget for 1989 was identical to that approved for 1988. In addition, he expressed his country's view that this figure should represent a ceiling not to be exceeded in future years but, on the contrary, to be reduced gradually as and when the financial responsibility was taken over by the respective Contracting Parties. However, the opposite view was expressed by other representatives, who stressed the important role of this assistance to some of the countries, as well as the need for quality assurance and for the implementation of the LBS Protocol.

22. Some representatives suggested that the cost of salaries of United Nations Agency staff engaged in MED POL on a full-time basis, could be partially financed by the respective organizations. The Secretariat explained that, in accordance with established procedures prevailing within the United Nations System, the salaries of United Nations staff assigned to extra-budgetary programmes are borne by such programmes. Any organization of the United Nations System would only be able to bear the costs of such staff salaries from their regular budget allocation if provided with a specific mandate from their Member States at the appropriate meeting of their Assemblies or Councils to include such programmes in their regular budgets.

23. Following discussion regarding the provision of direct assistance to Contracting Parties in connection with monitoring activities, it was explained that, in the provision of such assistance, the modalities described in the recommendation approved by the Fifth Ordinary Meeting of the Contracting Parties (UNEP/WG.74/5, Recommendation H) would be followed.

Agenda item 7. Progress in the implementation of the Land-based Sources Protocol

24. The Secretariat introduced document UNEP(OCA)/MED WG.1/4, which contained updated information on the status of the Protocol and on its implementation in the various countries.

25. The representative of the EEC informed the meeting that on 11 April 1988, his Organization had conveyed to the MAP Co-ordinating Unit information on institutional arrangements related to compliance with the recommendations of the Fifth Ordinary Meeting of the Contracting Parties in September 1987, concerning measures to prevent mercury pollution, and environmental quality criteria for shellfish waters.

Agenda item 8. Progress in the implementation of the Dumping Protocol

26. The Secretariat introduced document UNEP(OCA)/MED WG.1/5, which contained updated information on the status of the Protocol and on its implementation in the various countries. Participants provided additional information relevant to the designation of "competent authorities" and dumping activities in 1987 and "nil" reports.

27. The Committee requested the Secretariat to prepare for its next meeting:

- (a) a list of the "competent authorities";
- (b) a consolidated report of substances and quantities dumped following the model of the 1972 London Dumping Convention.

28. The meeting recalled that dumping of dredging spoils should also be reported in accordance with the terms of the Protocol.

29. One participant, recalling the recommendation contained in document UNEP/WG.14/5 of 1982 relating to the incineration of wastes at sea, informed the Meeting that the Second Ministerial Conference on the North Sea (London, 24-25 November 1987) had decided to reduce incineration at sea by 65% by 1991 and to phase it out by 31 December 1994. The EEC had already presented a draft Directive concerning the dumping of wastes at sea, including incineration.

30. It could therefore be necessary for the Contracting Parties to consider amending the Dumping Protocol in order to prohibit incineration at sea in the Mediterranean area.

Agenda item 9. Assessment of the state of pollution in the Mediterranean Sea by used lubricating oils and proposed measures

31. The Secretariat introduced document UNEP(OCA)/MED WG.1/6 entitled "Assessment of used lubricating oils in the Mediterranean Sea and proposed measures for their elimination". It was explained that, for technical reasons, the document had been distributed to participants at the Meeting.

32. It was agreed by the Committee that, because of the late submission of the document, representatives were not in a position to make detailed comments. However, a number of preliminary remarks were made during a general discussion. While new material on country legislation and data had been added to the original 1987 document, further updating was necessary. The proposed definition of used lubricating oils would have to be reviewed. It was finally agreed that the Secretariat would send a simplified questionnaire to MAP national focal points, with a copy to national MED POL Co-ordinators, who would provide new or updated information and data to enable a revised version of the document to be submitted to the Committee at its next meeting in 1989.

Agenda item 10. Assessment of the state of pollution in the Mediterranean Sea by organotin compounds and proposed measures

33. The Secretariat introduced document UNEP(OCA)/MED WG.1/7 entitled "Assessment of organotin compounds as marine pollutants and proposed measures for the Mediterranean". It was explained to the Meeting that the measures proposed were based on data from other regions which were considered sufficient to justify regional measures, even with limited information on levels of organotin compounds in the Mediterranean as such.

34. During the discussion, the Meeting agreed that the document as a whole was of very good quality. A number of modifications were suggested by various representatives to the measures proposed for adoption by the Contracting Parties. The revised set of proposed measures, as provisionally accepted by the Committee (annex VI), would be submitted to the next Committee Meeting after examination by the competent national authorities.

35. It was also agreed that the assessment document (UNEP(OCA)/MED WG.1/7), incorporating the proposed measures, as revised, and containing as an annex the report on the results of the ongoing pilot monitoring study on organotin compounds, should be submitted to the Committee at its next meeting prior to formal submission for adoption by the Contracting Parties at their Sixth Ordinary Meeting.

36. It was also agreed that the Secretariat, in co-operation with IMO, would study the feasibility of a complete ban on the application of free association tributyltin (TBT) paints in the Mediterranean for all vessels, and would report to the next Meeting of the Committee.

Agenda item 11. Progress report on the work of the Regional Oil Combating Centre (ROCC) during 1987-1988 and proposed activities and budgetary requirements for 1989

37. The Director of the Regional Oil Combating Centre (ROCC) introduced the progress report on the work of the Centre (UNEP(OCA)/MED WG.1/8) the first part of which contained information on the activities implemented, or being implemented during 1987-1988 and the second part of which presented the activities to be carried out during 1989, including the proposed budgetary requirements, which were submitted to the Committee for discussion and approval.

38. The Meeting considered and discussed the activities implemented during the period 1987-1988.

39. During the discussion, the representative of Malta reaffirmed his delegation's position concerning the premises of the Centre in Malta, as reflected in the report of the Review Meeting of ROCC, held in Malta in February 1987 (UNEP/WG.150/8), to the effect that, in the event that the Maltese Government was unable to extend the lease of the ROCC premises, it would make available to ROCC similar and adequate accommodation on the same terms and equipped with the same facilities as the premises covered by the current lease.

40. Concerning the agreement between the Government of Malta and IMO on the status of the Centre, the representative of Malta informed the Meeting that there were no substantive problems hindering the signature of the agreement, and promised to bring the matter to the attention of his Government.

41. The representative of Libya said that, while he appreciated the training courses organized by the Centre, he thought that the courses organized at the national level might be extended to include participants from countries in the same area.

42. The representative of Greece suggested that it would be useful to model the catalogue of equipment in conformity with the relevant catalogue of the EEC Information System, in order to ensure comparability and avoid duplication of work. She also stressed the need for an inventory of methods and techniques appropriate for intervention in case of chemical pollution of the sea.

43. The Committee then discussed the activities proposed for 1989, as well as the proposed budgetary allocations.

44. The Director of ROCC and the Co-ordinator of MAP explained in detail the background to and reasons for the proposal that a new post of Chemist be created, which arose from the recommendation made at the last Meeting of the Contracting Parties that the responsibilities of ROCC be extended to include harmful substances other than oil.

45. During the discussion, views were expressed to the effect that there was no need to replace the post of Deputy Director (Administrator) by a Chemist (P-3) as proposed by the Secretariat.



46. Other representatives suggested that the Centre should be given the option of utilizing the sum proposed for the post of Chemist to hire consultants during 1989, and invited it to present concrete proposals on the issue to the Contracting Parties at their next meeting, on the basis of the experience gained during the first year. In the meantime, the expertise of other specialized organizations in the field of hazardous substances could be utilized.

47. The representative of IOC pointed out that his Organization was ready to provide all relevant information to the Centre free of charge.

48. Following the discussion, the Committee accepted the Secretariat's proposal to cancel the post of Deputy Director (Administration). The Committee also decided to allocate the funds earmarked for the proposed post of Chemist to the budget line on consultants. The Committee then approved the budget for 1989 as shown in annex V.

Agenda item 12 Progress in the implementation of the Emergency Protocol

49. The Director of ROCC introduced the document on that agenda item (UNEP(OCA)/MED WG.1/9), which summarised the status of implementation of the Emergency Protocol by the Contracting Parties.

50. He informed the meeting that only eight Contracting Parties had so far drawn up national contingency plans. That was most regrettable and he urged the other Contracting Parties to finalize their plans, stating that the Centre was ready to assist in that regard. He urged the Mediterranean countries to furnish the Centre with regular reports on accidents and any other useful data that could be employed by the Centre to update its publications.

51. The representative of Libya informed the Meeting that his country was in the process of finalizing its national contingency plan, and that it should be ready by the end of 1988, with the assistance of ROCC.

52. The representative of Lebanon explained that, although his country was going through a difficult time, the finalization of its contingency plan was under way.

53. The representative of Malta stressed the importance of obtaining the equipment needed for the contingency plan.

54. The Co-ordinator of MAP thanked those Contracting Parties that had assisted the Centre's training programmes in cash or in kind. He recalled that, in accordance with Resolution 7 establishing the Centre, the latter had several functions in addition to training, many of which required full co-operation by Governments.

55. The representative of the EEC informed the Meeting that a floating reception facility had recently become operational in Rijeka (Yugoslavia) financed by the national and local authorities with a contribution from the EEC. Progress was being made with respect to three further pilot projects.

56. With regard to port reception facilities, the Secretariat announced that up-to-date information was expected to become available as a result of a World Bank mission with which the ROCC technical expert had been associated.

57. The Secretariat recalled the decision by the Contracting Parties at their Fifth Ordinary Meeting to invite countries to examine the draft Protocol on exploration and exploitation of the continental shelf and the sea-bed and its subsoil (UNEP/IG.74/5, Section II, D,1). A reminder had recently been sent to all Contracting Parties recalling the deadline of September 1988 for the submission of written comments to the Secretariat.

58. The representative of France pointed out that his country had serious objections to some sections of the draft Offshore Protocol. A written reply would be sent to the Secretariat.

59. All written observations on the draft Offshore Protocol would be communicated to the Contracting Parties, and a technical meeting was scheduled for early 1989, to consider the draft.

60. The representative of Yugoslavia informed the Meeting concerning an accident which had occurred three years before, involving a ship transporting dangerous substances. He explained the action that had been taken by his country to deal with that serious event, and offered to share the experience gained through that operation with other Mediterranean countries.

61. The Director of the Centre told the Committee that he expected to retire before its next meeting was held and thanked the participants for their support. The Co-ordinator paid tribute to Mr Voirin's professional and personal qualities which had been of great benefit to ROCC and to the Action Plan. On behalf of the Committee, the Chairman expressed warm thanks to the Director for the work performed and the progress achieved by the Centre.

Agenda item 13. Progress report on the Specially Protected Areas/Regional Activity Centre (SPA/RAC) during 1987/1988 and proposed activities and budgetary requirements for 1989

62. The Director of the Specially Protected Areas/Regional Activity Centre (SPA/RAC), introducing document UNEP(OCA)MED WG.1/10 which had been prepared by the SPA/RAC in collaboration with the Secretariat, said that the first part of the document contained information on the activities implemented or being implemented by SPA/RAC in 1987/1988, while the second part presented the activities to be carried out in 1989, including their budgetary requirements, and a draft Action Plan for the management of the Mediterranean monk seal which required consideration and approval by the Committee.

63. The Director informed the Meeting that the deadline for sending comments and information on the Directory for Marine and Coastal Protected Areas had been extended to 30 June 1988. The final version of the Directory would come out in December 1988. He urged the focal points to submit information on their protected areas and various activities so as to assist the Centre in updating the official version of the Directory, the map of the Mediterranean protected areas and the data bank. He mentioned that the meeting of a group of experts dealing with the selection of protected areas for southern Mediterranean countries would be held in Tunisia from 19 to 24 September 1988.

64. The Committee took note of the Centre's activities in 1987-88. Detailed explanations were given of the difference between the approved budgets and the expenditures in 1987, which was due to the late start of activities, and had been carried out with funds from 1986.

65. One representative asked the SPA centre to provide all the national focal points with a list of the experts employed by the Centre. The Director promised that that would be done.

66. The Co-ordinator of MAP drew the attention of the participants to the report of the joint expert Consultative Meeting on Conservation of the Mediterranean Monk Seal convened at Athens on 11 and 12 January 1988. The Meeting had been convened jointly by IUCN and UNEP (OCA/PAC) in collaboration with UNEP/MEDU. It had not been an inter-governmental meeting but a consultative inter-agency meeting of experts attended by experts from or representatives of 17 organizations from 10 countries, at their own expense with no financial implications for the Mediterranean Trust Fund apart from the use of the premises of the Co-ordinating Unit, which had been made available for the duration of the Meeting. He referred, in particular, to Section (A-2) of document UNEP(OCA)MED WG.1/10 concerning the Action Plan for the management of the Mediterranean monk seal (Monachus monachus), as proposed by the Consultative Meeting.

67. During the discussion on the monk seal Action Plan, some representatives pointed out that various activities connected with the monk seal were being carried out by the Council of Europe, as well as by individual Mediterranean countries. They emphasized the need for more co-operation and co-ordination of all those activities with those being undertaken within the framework of the Mediterranean Action Plan. The Turkish representative informed the Committee that international activities were started in 1978 by a Conference on Conservation of the Mediterranean Monk Seal, which was held at Rhodes. A second Conference was held at La Rochelle, France, and the third one at Antalya, Turkey. He also informed the Committee that the first coastal nature reserve for protection of the Mediterranean monk seal was established in 1966, followed by two others in 1972 and 1976.

68. Two representatives, while appreciating the work done by the Consultative Meeting and noting the good quality of the Action Plan, regretted that some well-known experts in the field concerned who had been invited to attend, could not participate, and that no official government representatives from Mediterranean countries had been invited.

69. The Greek representative informed the Committee on the activities in her country during the last ten years, regarding the protection of monk seals occurring in the Aegean and the Ionian Sea. She referred to the existing legislation, the scientific research and surveys that resulted in the establishment of the marine park of the Northern Sporades, the monitoring and rescue system, and the information campaigns. International co-operation, in particular with the EEC and some European countries, had been an important contribution to the protection of monk seals and their biotopes in Greece.

70. The IUCN representative explained the nature of the meeting which had been organized in co-operation and co-ordination with UNEP (OCA/PAC and MED Unit) and SPA/RAC. The proposed Action Plan would be used by his Organization as a framework for future action. He expressed the hope that the meeting would adopt the plan.

71. Some representatives stressed the importance of taking practical actions for the protection of this species by assisting countries financially, especially developing countries that may so request, to develop activities in this field.

72. In conclusion, the Committee took note, with appreciation, of the Action Plan for the Management of the Mediterranean Monk Seal (Monachus monachus), which appears in annex VII.

73. The Committee noted the secretariat's intention to convene an IUCN/UNEP expert consultation for marine turtles but requested that national focal points for Specially Protected Areas be informed in time so that they might nominate national experts and finance their participation.

74. The representative of Monaco recalled that the International Commission for the Scientific Exploration of the Mediterranean was an inter-governmental organization which possessed an advisory structure on the problem of scientific study of the Mediterranean, in the form of scientific committees, such as the Committee on Marine Vertebrates and Cephalopods. He therefore suggested that MAP should turn to ICSEM regarding the problem of selection of scientific experts on the monk seal. A list of experts might thus be drawn up by the central Bureau at its forthcoming meeting in October 1988. In addition he indicated that ICSEM had included a meeting on marine turtles in the agenda of its forthcoming plenary Assembly (Athens, October 1988) and that if a problem of selection of scientific experts arose - as in the case of the monk seal - the proposal set forth above would be followed.

75. Following some questions on budgetary and administrative issues, and replies from the Centre's Director, the Committee approved the budget for 1989 as shown in annex V.

76. With regard to the proposed 1989 activities, the representative of Tunisia, supported by other representatives, requested that unspent balances from 1988 be used in 1989 for assistance to countries.

Agenda item 14. Progress in the implementation of the Specially Protected Areas Protocol

77. The Director of SPA/RAC introduced document UNEP(OCA)/MED WG.1/11, prepared by the secretariat, summarizing the status of implementation of the Specially Protected Areas protocol by the Contracting Parties.

78. The representative of Tunisia informed the meeting that a new protected area had been established in her country.

79. The representative of Libya pointed out that his country was in the process of ratifying the protocol. Technical assistance was needed by that country in the selection, establishment and management of protected areas.

80. Some representatives mentioned the possibility of progressing further in the implementation of the Protocol by developing twinning arrangements among those responsible for managing protected areas in the various countries.

81. Following its brief discussion on this item, the Committee took note of the document.

Agenda item 15. Other business

82. The representative of the EEC requested a clarification of the exact status of the information documents submitted to the Meeting, and of the use made by the Secretariat of the contents of such documents. It was explained that the Secretariat and the Co-operating Agencies were responsible for recruiting the appropriate experts to prepare any document for which such

recruitment was needed. Any relevant parts of information documents that required discussion at meetings were incorporated by the Secretariat into the relevant working documents.

83. The representative of Greece drew the attention of the Meeting to the fact that, as a result of the new Committee structure, the Scientific and Technical Committee was unable to accord sufficient time to technical issues because of the administrative and financial matters which occupied a large proportion of the time allotted to it. She suggested that the problem should be brought to the attention of the Contracting Parties. It was agreed that the matter would be placed on the agenda for the next meeting of the Scientific and Technical Committee.

84. The representative of Greece also referred to the Mediterranean Environment Week, which was to be held from 4 to 10 July 1988. She urged all countries to organize appropriate activities, and invited the representatives of the Contracting Parties to a discussion meeting which would be held at Athens on 10 July 1988, within the framework of the activities organized by Greece.

85. In connection with the Secretariat's recent request to the Contracting Parties to provide information on the implementation of the 1985 Genoa Declaration, the representative of France said that, while his country was ready to supply the necessary information, he would like the Secretariat to provide a detailed plan of the report requested, including a list of the headings to be developed, so that the information could be supplied in the appropriate format. The Secretariat undertook to provide such details.

86. At the suggestion of the Secretariat, the Committee agreed that its next meeting would be held in Athens from 22 to 27 May 1989.

87. The representative of Syria informed the Committee about a cargo of dangerous substances currently transported by the ship Zanoobia. The Co-ordinator thanked the Syrian authorities for the action taken, and the participants from Greece and Italy for making available the relevant information with a view to resolve this problem.

Agenda item 16. Adoption of Report

88. The Meeting adopted its report on 27 May 1988.

Agenda item 17. Closure of the Meeting

89. After the customary exchange of courtesies, the Meeting was closed by the Chairman on 27 May 1988, at 13.00 hours.

Annex I

List of participants  
Liste des participants

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Annex II

Agenda

1. Opening of the Meeting
2. Rules of procedure
3. Election of Officers
4. Adoption of the agenda
5. Organization of work
6. Progress report on the implementation of MED POL during 1987/1988 and proposed activities and budgetary requirements for 1989
7. Progress in the implementation of the Land-based Sources Protocol
8. Progress in the implementation of the Dumping Protocol
9. Assessment of the state of pollution in the Mediterranean Sea by used lubricating oils and proposed measures
10. Assessment of the state of pollution in the Mediterranean Sea by organotin compounds and proposed measures
11. Progress report on the work of the Regional Oil Combating Centre (ROCC) during 1987/1988 and proposed activities and budgetary requirements for 1989
12. Progress in the implementation of the Emergency Protocol
13. Progress report on the work of the Specially Protected Areas/Regional Activity Centre (SPA/RAC) during 1987/1988 and proposed activities and budgetary requirements for 1989
14. Progress in the implementation of the Specially Protected Areas Protocol
15. Other business
16. Adoption of Report
17. Closure of the Meeting

Annex III

List of documents

Working documents

UNEP(OCA)/MED WG.1/1	Agenda
UNEP(OCA)/MED WG.1/2	Annotated Agenda
UNEP(OCA)/MED WG.1/3	Progress report on the implementation of MED POL during 1987/1988 and proposed activities and budgetary requirements for 1989
UNEP(OCA)/MED WG.1/4	Progress in the implementation of the Land-based Sources Protocol
UNEP(OCA)/MED WG.1/5	Progress in the implementation of the Dumping Protocol
UNEP(OCA)/MED WG.1/6	Assessment of the state of pollution in the Mediterranean Sea by used lubricating oils and proposed measures
UNEP(OCA)/MED WG.1/7	Assessment of organotin compounds as marine pollutants and proposed measures for the Mediterranean
UNEP(OCA)/MED WG.1/8	Progress report on the work of the Regional Oil Combating Centre (ROCC) during 1987/1988 and proposed activities and budgetary requirements for 1989
UNEP(OCA)/MED WG.1/9	Progress in the implementation of the Emergency Protocol
UNEP(OCA)/MED WG.1/10	Progress report on the work of the Specially Protected Areas/Regional Activity Centre (SPA/RAC) during 1987 and proposed activities and budgetary requirements for 1988/1989
UNEP(OCA)/MED WG.1/11	Progress in the implementation of the Specially Protected Areas Protocol

Information documents

- UNEP(OCA)/MED WG.1/Inf.1 List of documents
- UNEP(OCA)/MED WG.1/Inf.2 List of participants
- UNEP(OCA)/MED WG.1/Inf.3 Report on the WMO/UNEP Workshop on Airborne Pollution of the Mediterranean Sea (Belgrade, 10-13 November 1987)
- UNEP(OCA)/MED WG.1/Inf.4 Report of the FAO/UNEP/IAEA/WHO ad hoc Meeting on Organotin Compounds (Athens, 5-7 October 1987)
- UNEP(OCA)/MED WG.1/Inf.5 Report of the FAO/UNEP/IAEA/WHO ad hoc Meeting on Organophosphorus Compounds (Athens, 18-20 November 1987)
- UNEP(OCA)/MED WG.1/Inf.6 Report of the IOC/FAO/UNEP ad hoc Meeting on Persistent Synthetic Materials (Athens, 14-16 October 1987)
- UNEP(OCA)/MED WG.1/Inf.7 Report on the WHO/UNEP Consultation on Microbial Pollution of Mediterranean Coastal Areas and Associated Health Effects (Athens, 22-26 September 1987). EUR/ICP/CEH 052, WHO, Copenhagen, 1988
- UNEP(OCA)/MED WG.1/Inf.8 Report on the Scientific Workshop on Eutrophication in the Mediterranean: Receiving Capacity and Monitoring of Long-term Effects (Bologna, 2-6 March 1987). Eutrophication in the Mediterranean Sea: Receiving capacity and monitoring of long-term effects. MAP Technical Reports Series No. 21. UNEP, Athens, 1988
- UNEP(OCA)/MED WG.1/Inf.9 List of Alerts and Accidents recorded at R.O.C.C. between August 1977 and December 1987
- UNEP(OCA)/MED WG.1/Inf.10 Report No. 33 - Preliminary Report on the intercalibration exercise of organochlorine compound measurements on shrimp homogenate MA-A-3/OC and MA(S)-MED-86/OC and fish homogenate MA-B-3/OC and MA(F)-MED-86/OC. IAEA, Monaco, May 1987;
- UNEP(OCA)/MED WG.1/Inf.11 Report No. 34 - Trace element measurements on shrimp homogenate. Results of the worldwide intercomparison run MA-A-3/TM and of the MED POL exercise MA(S)MED-86/TM. IAEA, Monaco, June 1987;
- UNEP(OCA)/MED WG.1/Inf.12 Report No. 35 - Results of MED POL II exercise for the intercomparison of trace element measurements on fish tissue homogenate MA(F)-MED-86/TM. IAEA, Monaco, April 1988.

Reference documents

- UNEP/IG.74/5 Report of the 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)
- UNEP/WG.160/13 Report of the Fifth Meeting of the Working Group for Scientific and Technical Co-operation for MED POL (Athens, 6-10 April 1987)
- UNEP/WG.150/8 Report of the Meeting of the National Focal Points for the Regional Oil Combating Centre (ROCC) (Malta, 23-27 February 1987)
- UNEP/WG.163/9 Report of the First Meeting of National Focal Points for Specially Protected Areas in the Mediterranean (Athens, 1-4 June 1987)
- IUCN/UNEP/MEDU/MM-IC/5 Report of the Joint Expert Consultation of the Conservation of the Mediterranean Monk Seal (Athens, 11-12 January 1988)
- UNEP/FAO Research on the toxicity, persistence, bioaccumulation, carcinogenicity and mutagenicity of selected substances (Activity G). Final reports on projects dealing with toxicity (1983-85). MAP Technical Reports Series No. 10. UNEP, Athens, 1987
- UNEP/FAO/WHO Assessment of the state of pollution of the Mediterranean Sea by mercury and mercury compounds. MAP Technical Reports Series No. 18. UNEP, Athens, 1987
- UNEP/IOC Assessment of the state of pollution of the Mediterranean Sea by petroleum hydrocarbons. MAP Technical Reports Series No. 19. UNEP, Athens, 1988
- UNEP/WHO Epidemiological studies related to environmental quality criteria for bathing waters, shellfish-growing waters and edible marine organisms (Activity D). Final report on project on relationship between microbial quality of coastal seawater and health effects (1983-86). MAP Technical Reports Series No. 20. UNEP, Athens, 1988
- UNEP/UNESCO/FAO Eutrophication in the Mediterranean Sea: Receiving capacity and monitoring of long-term effects. MAP Technical Reports Series No. 21. UNEP, Athens, 1988
- UNEP/FAO Study of ecosystem modifications in areas influenced by pollutants (Activity I). MAP Technical Reports Series No. 22. UNEP, Athens, 1988
- EUR/ICP/CEH 053 Health-related aspects of marine pollution control in the Mediterranean. Report on a WHO Consultation (Copenhagen, 29 June - 3 July 1987). WHO Regional Office for Europe, Copenhagen, 1988.

Annex IV

Monitoring of the transport of pollutants to the Mediterranean Sea  
through the atmosphere

General

1. The purpose of this monitoring is to provide information on the pollution load reaching the Mediterranean Sea through the atmosphere and to develop capabilities for predicting such pollution, and thus to provide the basis for control and abatement measures.
2. The monitoring will be based on the work of national research centres designated by their governments.
3. The major objectives of the programme are the following:
  - to evaluate the importance of the atmospheric transport and deposition of land-based contaminants to coastal and open Mediterranean waters;
  - to assess the airborne contamination level of trace substances which can affect the quality of human life on coastlines;
  - to identify sources and source regions for these atmospheric contaminants;
  - to develop predictive models of the airborne contamination of the Mediterranean environment to provide the basis for future action.

Measurements

4. The monitoring areas will include (i) impact areas directly influenced by identifiable local sources of air pollution (i.e. large seaside cities and industrial areas) and (ii) reference (background) areas not directly influenced by identifiable local sources of air pollution. The reference monitoring stations should be exposed most of the time to maritime air and could be located at remote coastal sites, on Mediterranean islands, and also on existing offshore platforms. Complementary information could be obtained during cruises on board research vessels.
5. Because of the expected temporal variability of atmospheric concentrations and fluxes of contaminants, any monitoring programme should be run continuously for several years. Furthermore, since the ultimate objective is to predict atmospheric contaminant inputs, a simultaneous effort will be undertaken to model the atmospheric transport and deposition of these contaminants at the different spatial scales considered. The models would be progressively calibrated using the data gathered from the field measurements.

6. Atmospheric pollutants to be monitored include:

- a) inorganic, organic and radioactive contaminants of concern for marine waters, marine life and human life along coastlines;
- b) tracers of natural and anthropogenic sources;
- c) meteorological parameters.

The list of pollutants recommended for monitoring is given as appendix 1.

7. Sampling procedures

7.1 Sampling frequency: the sampling duration both for air and rain concentration determinations should not generally exceed one week. When feasible, higher sampling frequency, on a daily basis or even shorter, would be desirable for selected contaminants. This would allow the use of field data for model calibration exercises.

7.2 Aerosols: in order to minimize sample and analytical contamination problems, the use of high volume aerosol filter samplers (as for the WMO BAPMON network) is recommended and specific collection substrates have to be used to sample inorganic and organic contaminants. It is recommended that in the first phase of the monitoring programme, priority should be given to the sampling of inorganic contaminants, including radionuclides. The following chemical parameters should be analyzed:

- heavy metals: Cd, Pb first priority  
Cu, Zn second priority;
- other inorganic elements indicators of natural and anthropogenic contributions: Na, Al  $SO_4^{2-}$ ;
- radionuclides:  $^{137}Cs$ , transuranic elements. Because of the very low levels of these contaminants, the analysis may require the use of composite filter samples integrating up to a month of sampling;
- organic species: PCBs, DDTs, HCHs (hexachlorocyclohexanes), PAHs and other particulate hydrocarbons.

When feasible, other possible parameters to be studied would be:

- elemental carbon, fluorides;
- heavy metals such as Hg, Sn, As, Se.

Furthermore, useful information on the particle size distributions of the atmospheric contaminants could be obtained through the use of high-volume cascade impactor samplers. This would make it possible to improve model calculations of dry deposition fluxes.

7.3 Gas phase: continuous ozone monitoring during the summer season and, if necessary (e.g. at some impact sites), throughout the year should be conducted. This is particularly relevant for impact stations where expected high ozone levels may generate photochemical smog and influence the transformation of some organic compounds such as hydrocarbons.

7.4 Atmospheric deposition: owing to sampling difficulties, direct measurements of dry deposition for atmospheric contaminants cannot be considered as feasible at the present stage in a continuous monitoring programme. It is recommended that dry deposition fluxes should be estimated by using aerosol concentration data and relevant deposition models to the sea surface.

Wet deposition (rain) should ideally be collected on an event basis. Owing to recent developments in instrumentation, it is recommended that a fully automatic device be employed, similar to that used in the WMO BAPMoN network. However, rain collections on an event basis may not be feasible at all stations. It is therefore recommended that precipitation be collected on a weekly basis. For contaminants such as heavy metals and organic species the sampling protocols have to be different from the standard procedures used for major ions. It is therefore recommended that 3 rain collectors be implemented at each station:

- one for pH, acidity, alkalinity, conductivity and major ions: the standard BAPMoN procedure is recommended;
- one for heavy metals and radionuclides: rain-collecting bottles should be preacidified;
- one for organic species: the collection surface should be made of stainless steel. The rain sample processing should meet the procedures adopted in MED POL for organic species in seawater.

First priority should be given to the implementation of two rain collectors, one for major ions and one for heavy metals and radionuclides.

7.5 Meteorological parameters measured during the sampling periods: the sampling sites should be located as close as possible, or within a major meteorological station such as a surface synoptic station or a main meteorological station.

The sampling records should be accompanied by the records on the chronology of precipitation events that occurred during the sampling period. These records should include the beginning and ending times of the precipitation event as well as the information on intensity on preferably hourly basis.

In addition to this, the sampling records should be accompanied at least by the data on the wind speed and direction, air and sea temperature and humidity and other weather phenomena.

If these data are not available or representative from the nearby major meteorological station, they should be measured at the sampling site during these sampling periods.

#### 8. Analytical procedures

The use of the best available techniques either in individual laboratories or in central laboratories nominated by participating countries for conducting analyses within the programme is recommended. Such techniques should be based on reference methods which should be provided to the participating laboratories by WMO and UNEP.

Intercomparisons and intercalibrations of analytical methods should be carried out. These exercises could be co-ordinated by various host countries or international organizations.

#### 9. Data reporting and exchange of information

Monitoring data from background stations should be reported on weekly-averaged basis for precipitation chemistry and on daily basis for pollutant concentrations in air (particles). The corresponding formats, based on the existing WMO BAPMoN formats, are given as appendices 2 and 3. The annual national data reports should be sent to the Co-ordinating Unit for the Mediterranean Action Plan (MED Unit) not later than 1 March of the following year. Copies of all national reports would then be sent to WMO, co-ordinating these activities within MED POL. At the beginning of the monitoring programme implementation the WMO BAPMoN Data Centre (National Climatic Centre, Asheville, N.C., USA) could be used for preliminary treatment and storage of the data. Otherwise a regional data centre should be nominated for this purpose.

National reports from impact stations containing generalised results should also be sent to the MED Unit annually by 1 March of the following year.

Review reports on national activities relevant to the study of airborne pollution of the Mediterranean Sea (including information on national projects and programme, laboratories and their potentialities and needs, scientists involved in studies, cruises, meetings, etc.) could be very useful for further planning and co-ordination of the programme. This information should be collected by the end of 1988 by the MED Unit and WMO through the National Co-ordinators for MED POL and then updated annually.

Countries who joined the programme should nominate one or several monitoring stations for the programme and report information on the stations to the MED Unit using the format given in appendix 4.



#### 10. Assistance and training

Mutual bilateral and multilateral assistance in programme implementation should be encouraged through consultant services, joint cruises, on-job training, etc. Assistance should be provided to the participating institutions to obtain necessary sampling equipment using funds available for the monitoring component of MED POL. The WMO training courses on background air pollution measurements held every year in English or in French should be used for training as fully as possible.

#### 11. Emission inventories

Gathering and compilation of emission data for selected pollutants are the important prerequisite of reliable model calculations. The collection of emission data should be initiated as soon as possible using common methodologies.

#### Modelling

12. Modelling of transport, diffusion, transformation and deposition of all pollutants is an indispensable element of the programme needed both for interpretation of monitoring results and for assessment and forecasting of airborne pollution. When appropriate models are developed and validated on the basis of monitoring data, the modelling will be the main means of such assessment and forecasting.

13. When possible, model calculations for interpretation of experimental results will be made by national institutions participating in the programme. In addition, a meteorological institute in the region should be nominated to co-ordinate modelling activities, to collect relevant data and to make model calculations of air pollutant transport and deposition for the whole region.

14. The following two horizontal scales are considered to be of primary importance for modelling:

- local scales (in the order of 100 km); and
- regional scales (in the order of 1000 km and more).

On both scales, two separate problems should be addressed: a) emission horizontal and vertical diffusion, transformation, dry and wet deposition rates, and b) meteorological driving parameters.

15. At the initial stage of the programme implementation, a one layer, Lagrangian backward trajectory model could be applied in view of its simplicity and relatively low computational cost. However, primarily due to improved computational resources, and better understanding of the processes involved, more sophisticated and potentially more powerful Eulerian models including those based on higher order closure hypotheses and more appropriate treatment of orography are becoming available in the scientific community and in the weather services in the region. A sequential Eulerian model should be used for simulation of selected worst cases of contaminant dispersion and transport over the Mediterranean Basin versus a climatological model that might be used on a seasonal scale.

16. To obtain the relevant meteorological data, two possible ways are proposed. One is to use the existing meteorological records in order to identify predominant weather patterns in the region, or in the local areas, and to estimate the pollution transport and deposition on the basis of the data obtained in this way. The other possibility is to use comprehensive synoptic scale fine-mesh atmospheric models as 4-dimensional interpolation tools. Both approaches have advantages and disadvantages and require further research.

17. Development and improvement of models, parametrization of transport, diffusion, transformation and deposition processes, compilation of meteorological data and model calculations of meteorological data fields will be implemented under the research component of MED POL.

Appendix 1

List of recommended parameters

	<u>Routine programme</u>	<u>Extended programme</u>
<u>Precipitation</u>		
pH	+	+
Conductivity	+	+
Acidity	+	+
Alkalinity	+	+
SO <sub>4</sub> <sup>2-</sup> -S	+	+
NH <sub>4</sub> <sup>+</sup>	+	+
NO <sub>3</sub> <sup>-</sup> -N	+	+
Na	+	+
K	+	+
Mg	+	+
Ca	+	+
Cl	+	+
Cd	+	+
Pb	+	+
Cu	+	+
Zn	+	+
Radionuclides	-	+
Organic compounds	-	+
Precipitation amount	+	+

<u>Particles</u>	<u>Routine programme</u>	<u>Extended programme</u>
SO <sub>4</sub> <sup>2-</sup> -S	-	+
Na	-	+
Al	-	+
Cd	+	+
Pb	+	+
Cu	-	+
Zn	-	+
Radionuclides	-	+
Organic compounds	-	+
Total SPM	+	+
Air volume	+	+
 <u>Gas</u>		
O <sub>3</sub> *)	+	+
 <u>Meteorological parameters</u>		
Wind speed	+	+
Wind direction	+	+
Air temperature	+	+
Sea surface temperature **)	+	+
Dew point	+	+
Relative humidity	+	+
Barometric pressure	+	+

\*) at impact stations  
 \*\*) when applicable

Appendix 2

Weekly Precipitation Data Form

MAIL TO:

\_\_\_\_\_  
1 Agency

\_\_\_\_\_ Station name

\_\_\_\_\_ Site Address

Country			Area			Site		
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	3	4	5	6	7	8	9	10

Agency	Project	Time
<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text"/>
11	12 13	14

Year	Month	Day
<input type="text"/>	<input type="text"/>	<input type="text"/>
15 16	17 18	19 20

Sample start day \_\_\_\_\_ →

Have siting criteria changed? Yes  No

Parameter Name	Method	Units	Parameter Code	Method	Units	DP	Value
Precip (NG)	Volumetric	mm	(23-32) 6 5 3 0 1 7 1 2 9 0				(33-36)
Precip (SG)	Volumetric	mm	(37-46) 6 5 3 0 1 8 1 2 9 0				(47-50)
pH	Glass Electrode	pH	(51-60) 6 5 3 0 2 8 1 6 1				(61-64)
Conductivity	Cond. Cell	µS/cm	(65-74) 6 5 3 0 3 8 1 6 9				(75-78)

Parameter Name	Method	Units	Parameter Code	Method	Units	DP	Value
Na		mg/l	(23-32) 6 5 3 1 1			6 2	(33-36)
K		mg/l	(37-46) 6 5 3 1 2			6 2	(47-50)
Mg		mg/l	(51-60) 6 5 3 1 3			6 2	(61-64)
Ca		mg/l	(65-74) 6 5 3 1 4			6 2	(75-78)

Parameter Name	Method	Units	Parameter Code	Method	Units	DP	Value
Cl		mg/l	(23-32) 6 5 3 1 6			6 2	(33-36)
NH <sub>4</sub> -(N)		mg/l	(37-46) 6 5 3 1 8			6 2	(47-50)
NO <sub>3</sub> -(N)		mg/l	(51-60) 6 5 3 2 1			6 2	(61-64)
SO <sub>4</sub> -(S)		mg/l	(65-74) 6 5 3 2 2			6 2	(75-78)

Parameter Name	Method	Units	Parameter Code	Method	Units	DP	Value
Acidity	Alkaline Tit.	µeq/l	(23-32) 6 5 3 3 0			8 1 6 7	(33-36)
Alkalinity	Alkaline Tit.	µeq/l	(37-46) 6 5 3 3 1			8 1 6 7	(47-50)
			(51-60)				(61-64)
			(65-74)				(75-78)

Parameter Name	Method	Units	Parameter Code	Method	Units	DP	Value
Cd		µg/l	(23-32) 6 5 3 3 2			6 3	(33-36)
Pb		µg/l	(37-46) 6 5 3 3 7			6 3	(47-50)
Cu		µg/l	(51-60) 6 5 3 3 3			6 3	(61-64)
Zn		µg/l	(65-74) 6 5 3 3 8			6 3	(75-78)

\* (NG) Denotes National Gauge  
(SG) Denotes Sampling Gauge



Appendix 4

Background information about each station

Name of the station : \_\_\_\_\_

Responsible national institute : \_\_\_\_\_

Full address : \_\_\_\_\_

Country : \_\_\_\_\_ Tel. No. : \_\_\_\_\_

Latitude : \_\_\_\_\_ Longitude : \_\_\_\_\_

Elevation : \_\_\_\_\_

Distance from the nearest meteorological station : \_\_\_\_\_

Surrounding area (agricultural land, forest, important sources, etc., if possible). If the monitoring station is within a monitoring network, this should be indicated) : \_\_\_\_\_

Monitored parameters : a) at present \_\_\_\_\_

b) being planned \_\_\_\_\_

Available equipment : a) for sampling \_\_\_\_\_

b) for analysis \_\_\_\_\_

Annex V

Budget for 1989

SECTION I  
 CHAPTER 3 - MED POL - MONITORING

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

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



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Approved  
1989

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3. SUBCONTRACTS

Land-based Sources Protocol implementation:

- |   |        |
|---|--------|
| - Pilot project on monitoring of carcinogenic, teratogenic or mutagenic substances, including selection of method and preparation of assessment and proposed measures                                     | 35,000 |
| - Identification and categorisation of alternative products, installations and other processes capable of reducing pollution of the Mediterranean marine environment                                      | 10,000 |
| - 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 | 10,000 |
| - Assistance to countries for the implementation of LBS Protocol (experts, training, etc.)  | 55,000 |

Data quality assurance:

- |  |         |
|--|---------|
| - Intercalibration and training course on determination of microbiological pollution   | 15,000  |
| - Intercalibration and training course on determination of organic mercury   | 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  | 23,000  |
| - 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 | 100,000 |
-

		Approved 1989
<u>Monitoring:</u>		
- Assistance through agreements for monitoring programmes		580,000
<b>Component total</b>		<b>858,000</b>
 4. MEETINGS/TRAINING/WORKSHOPS/FELLOWSHIPS		
<u>MEETINGS:</u>		
- Scientific and Technical Committee		55,000
<u>Data quality assurance:</u>		
- <u>Ad hoc</u> consultation meeting on data processing		7,500
- <u>Ad hoc</u> consultation meeting on monitoring		7,500
<u>TRAINING:</u>		
- On-job training (through the secretariat)		80,000
<u>FELLOWSHIPS:</u>		
- Attendance at meetings		35,000
<b>Component total</b>		<b>185,000</b>
 5. EQUIPMENT		
<u>(a) Expendable:</u>		
Spare parts for common maintenance services (through IAEA)		35,000
<u>(b) Non-expendable:</u>		
Laboratory equipment (to ILMR), purchase and maintenance		20,000
<b>Component total</b>		<b>55,000</b>
<b>TOTAL CHAPTER 3</b>		<b>1,457,000</b>

SECTION I  
CHAPTER 4 - MED POL - RESEARCH

	Approved 1989
<hr/>	
A. SUBCONTRACTS	
Activities A-L	285,000
<hr/>	
Component total	285,000
<hr/>	
B. MEETINGS	
Consultation Meeting on the determination of microbiological pollution in coastal marine waters in the Mediterranean (Activity A/D/K)	15,000
Consultation Meeting on programmes and measures in connexion with Art. 7 of the LBS Protocol (Activity E)	15,000
Workshop on monitoring and assessment of the airborne pollution (Activity L)	15,000
<hr/>	
Component total	45,000
<hr/>	
TOTAL CHAPTER 4	330,000
<hr/>	

FOCC

SECTION I  
CHAPTER 5 - REGIONAL OIL COMBATING CENTRE

	m/m	Approved 1989
<b>1. PERSONNEL</b>		
<b>(a) <u>Experts/Staff</u></b>		
Director, P-5	12	68,000
Technical Expert, P-4	12	60,000
<b>(b) <u>Consultants</u> <u>1/</u></b>		
		53,000
<b>(c) <u>Administrative support</u></b>		
- Administrative Assistant, G-4	12	20,000
- Information Officer, G-4	12	20,000
- Bilingual Secretary/Word Processor Operator, G-3	12	17,000
- Typist/Telephone/Telex Operator, G-2	12	14,500
- Caretaker/Documents reproducer, G-2	12	14,500
<b>2. TRAVEL</b>		16,000
<b>3. SUB-CONTRACTS</b>		-
<b>Component total</b>		<b>283,000</b>
<b>4. MEETINGS/TRAINING/WORKSHOPS/FELLOWSHIPS</b>		
- Group training, workshops		80,000
- Fellowships		5,000
<b>Component total</b>		<b>85,000</b>

1/ for hydrocarbons and other chemical products

	m/m	Approved 1989
<hr/>		
5. EQUIPMENT		
(a) Expendable Equipment		5,000
(b) Non-Expendable Equipment		4,000
<hr/>		
Component total		9,000
<hr/>		
6. RENTAL AND MAINTENANCE OF PREMISES		
- Rental		host country
- Maintenance		2,000
7. OPERATION AND MAINTENANCE OF EQUIPMENT		-
8. REPORTING COSTS		7,000
9. SUNDRY		38,000
<hr/>		
Component total		47,000
<hr/>		
TOTAL CHAPTER 5		424,000
<hr/>		

SECTION II  
CHAPTER 3 - SPECIALLY PROTECTED AREAS

	m/m	Approved 1989
1. PERSONNEL		
(a) <u>Experts/Consultants</u>		
- Expert	12	50,000
- Data researcher	12	40,000
- Consultants		60,000
(b) <u>Administrative support</u>		
- Secretary	12	8,000
- Driver/Messenger	12	5,000
2. TRAVEL		15,000
3. SUB-CONTRACTS		10,000
4. MEETINGS		15,000
5. EQUIPMENT		
- Expendable		2,000
- Non-expendable		3,000
6. RENTAL AND MAINTENANCE OF PREMISES		host country
7. OPERATION AND MAINTENANCE OF EQUIPMENT		5,000
8. REPORTING COSTS		15,000
9. SUNDRY		
- Communication, postage, freight		12,000
- Hospitality		2,000
- Miscellaneous		3,000
<b>TOTAL CHAPTER 3</b>		<b>245,000</b>

Annex VI

Organotin compounds

MEASURES PROPOSED FOR ADOPTION BY THE CONTRACTING PARTIES

On the basis of the assessment prepared by FAO/WHO/IAEA/UNEP (UNEP(OCA)/MED WG.1/7) the following recommendations regarding organotin compounds are submitted for the consideration of the Scientific and Technical Committee with a view to their transmission by the Secretariat to the next meeting of the Contracting Parties:

The Contracting Parties agree:

- (a) As from 1st January 1991 to ban the use of preparations containing organotin compounds intended for the prevention of fouling by micro-organisms, plants or animals:
  - on hulls of boats having an overall length (as defined by ISO standard no. 8666) of less than 25 m;
  - on all structures, equipment or apparatus used in mariculture;
- (b) To report to the Secretariat on measures taken in accordance with this decision.

RECOMMENDED ACTIONS BY THE CONTRACTING PARTIES

It is proposed that the following actions be approved by the Contracting Parties:

- (a) Development of a code of practice to minimize the contamination of the marine environment in the vicinity of boat-yards, dry docks, etc., where ships are cleaned of old anti-fouling paint and subsequently repainted;
- (b) Encouragement of the further development of alternative, environmentally acceptable, biocides for anti-fouling paints and coatings;
- (c) Transmission to the Secretariat of relevant information on production and use of organotin compounds, including their use in cooling water systems;
- (d) Communication to the Secretariat of all available information on alternative products in current use.

## Annex VII

### Action Plan for the Management of the Mediterranean Monk Seal (Monachus monachus)

#### Introduction

1. The parties to the Barcelona convention included among their priority targets to be achieved by 1995 the protection of the Mediterranean monk seal (Genoa, 9-13 September 1985).
2. The populations of the Mediterranean monk seal have declined rapidly and drastically. Concerted and effective action by all the countries of the Mediterranean concerned is required in order to reverse this trend.
3. Many important aspects of the monk seal's biology and behaviour are too poorly known to plan a complete management strategy for the species, but so few seals are left that research on them has become very difficult. The situation is too critical to put off action any longer. Plans must be made using the best data available, and then adjusted if necessary as more information is obtained. Action must be taken now.
4. Proposals from various sources which could help to save the Mediterranean monk seal from extinction are included. Scientific opinion is divided as to what is appropriate or unwise. Some possible actions are controversial and may involve some risk to the seals involved. The species is known to be sensitive, and its reactions to close observation or capture are uncertain. However, for a species in danger of extinction the risk of doing nothing may be even greater and may justify active intervention as a last resort. Such actions should be undertaken only, after every effort has been made to evaluate and minimize the risks involved.
5. The major threats to the monk seal are deliberate or accidental killings of adults mostly by fishermen; and human disturbance of breeding areas. Both have increased as men and seals compete for increasingly scarce resources (fish and remote coastal areas). The first priority is the preservation of remnant populations of the monk seal. The challenge is then to find that delicate balance between the biological requirements of the monk seal and human uses of the Mediterranean and its resources that will allow the species to recover to a viable population level.
6. This action plan for the management of the Mediterranean monk seal outlines both immediate and longer-term actions which, if taken together may succeed in reducing pressures on the remaining seal populations enough to permit gradual recovery. No one action by itself is enough. The different components of the management plan are mutually reinforcing and must be taken together to have the chance of success.



Reduction in adult mortality

7. An urgent information campaign among fishermen in all areas where the seal occurs must aim to neutralize their antagonism to the monk seal and win their support for protective measures.
8. Governments should encourage the co-existence of fishermen and monk seals by developing programmes which regulate and control fishing activities and provide additional facilities and opportunities to local fishermen communities.
9. Governments should ensure strict enforcement of regulations prohibiting the use of dynamite for fishing operation, the carrying of firearms in boats and the use of any other illegal fishing techniques endangering the monk seal.
10. Improved fishing nets should be developed which seals cannot damage or become entangled in, and fishermen should receive the assistance necessary to convert to using such nets. Research is needed on techniques for repelling seals from fishing equipment and fishing areas.
11. States that have not yet extended legal protection to the monk seal should do so at once.
12. Governments are strongly urged to ensure that existing protective measures are enforced.

Establishment of a network of marine reserves

13. All countries that still have breeding Monk Seal populations should make immediate efforts for the stringent protection of the remaining seal breeding sites, by isolating seals from incompatible human activities.
14. An inventory of caves all around the Mediterranean is needed to identify breeding caves for inclusion in a network of protected areas for monk seals. Such work has already been carried out for sites like Sardinia, Greece (Northern Sporades), Tunisia (Galite) and should be expanded to cover other areas.
15. A network of marine reserves should be created across the Mediterranean, covering both existing and potential monk seal habitats, so spaced that they can be gradually repopulated as other protective measures take effect and the population recovers. Monk seal reserves should protect suitable caves or other breeding and resting areas, and should be surrounded by a buffer zone of 40 kilometres covering major fishing areas. Fishing with nets or other techniques known to threaten or conflict with the seals should be prohibited or controlled in the buffer zone. Coastal development should be restricted to compatible activities, and intensive tourist development should be avoided in these zones.

16. Tourist visits or other human disturbance of breeding and resting sites should be carefully regulated, it should be completely prohibited during the seal breeding season and while the pups are young.

#### Research, data collection and rehabilitation

17. All countries should encourage an intensive programme of data collection on seal biology and ecology and the interaction of seals with fisheries. The latter research should include economic and sociological aspects. Research should be conducted so as not to increase the threats to any seal population.

18. The establishment of national networks of observers is an extremely effective way of determining which areas are of particular importance for the seals. The exact numbers of seals in these areas can then be determined by intensive study using, for example, "camera traps". Sightings of seals should be reported to appropriate national bodies or focal points.

19. All information obtained on the species should be compiled and evaluated on a regional basis, possibly by an expert group under the auspices of the MAP, UNEP/MEDU, Athens and be distributed through its information exchange network.

20. A small number of rescue centres should be established to receive wounded seals and abandoned pups. When they have recovered these seals should be released in protected areas, preferably in the region where they were originally found. The survival of these animals and the contribution to the wild population should be carefully assessed.

21. If all other attempts to reverse the species' decline fail, the following measures should be considered: captive breeding; translocation of isolated, non-reproducing individuals to better protected groups; and the transfer of pups from healthy colonies to undersized or newly established ones. All appropriate precautions to ensure the adequate welfare of the animals and adherence to international agreements should be taken.

22. A pilot project to determine the practical feasibility of such programmes may be appropriate if it does not increase the risks to the remaining wild population. The value of such a programme for the conservation of the stocks concerned should also be assessed.

#### Information programmes

23. An information programme for fishermen and fishing communities should aim at reducing the killing of seals and encouraging reporting of seal sightings and other observations to the appropriate focal point.

24. Special information activities should be developed for tourists and the tourist industry in areas where tourism threatens seal breeding areas.

25. Information materials should be produced for military authorities, industrial developers and the shipping industry concerning actions they can take for monk seal conservation.

26. A widespread campaign for the protection of the Mediterranean monk seal should encourage public support for conservation measures.

27. Training programmes should be developed for protected area managers responsible for monk seal reserves.

#### Co-ordination, Review and Finance

28. The Co-ordinator of the Mediterranean Action Plan (MAP), agreed that the UNEP/MEDU office, Athens could take responsibility for the co-ordination of the different activities.

29. The major co-ordinative functions will be:

- a) collect the data;
- b) create an information network;
- c) develop monk seal protected areas; and
- d) facilitate regional research projects on monk seals.

30. The Consultation suggested that a person be employed through voluntary offers or through projects or contract in order to facilitate co-ordination of existing and new activities for research, protection and management.

31. The status of the monk seal and the content of this management plan should be reviewed by a regional expert meeting every two years and its report be submitted to the meeting of the contracting parties of the Barcelona Convention for endorsement.

32. Governments, whose local monk seal populations have been exterminated, should assist countries with remaining populations in their efforts to protect these in the hope that recovery of the species will permit its eventual reintroduction throughout its original range.