



United Nations Environment Programme



UNEP(OCA)/MED WG.111/6
10 May 1996

Original: ENGLISH

MEDITERRANEAN ACTION PLAN

Meeting of MAP National Focal Points

Athens, 6-10 May 1996

REPORT OF THE MEETING OF THE MAP NATIONAL FOCAL POINTS

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Introduction

1. The Ninth Ordinary Meeting of the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution (Barcelona, 5-8 June 1995) decided to convene a meeting of MAP National Focal Points during 1996 to review the progress achieved in the Mediterranean Action Plan and to propose recommendations concerning the MAP programme and budget for 1997 to be considered by the Extraordinary Meeting of the Contracting Parties (Montpellier, 1-4 July 1996).
2. Pursuant to the decision of the Ninth Ordinary Meeting, the Meeting of National Focal Points was convened at the DIVANI-CARAVEL Hotel, Athens, from 6 to 10 May 1996.

Participants

3. The following Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution and its Protocols were represented at the Meeting: Albania, Algeria, Croatia, Cyprus, Egypt, European Community, France, Greece, Israel, Italy, Lebanon, Libyan Arab Jamahiriya, Malta, Monaco, Morocco, Slovenia, Spain, Tunisia and Turkey.
4. The following United Nations bodies and specialized agencies were represented by observers: United Nations Environment Programme (UNEP), Food and Agriculture Organization of the United Nations (FAO), World Health Organization (WHO), International Atomic Energy Agency/Marine Environment Laboratory (IAEA-MEL), Intergovernmental Oceanographic Commission of UNESCO (IOC) and World Tourism Organization (WTO).
5. The following intergovernmental and non-governmental organizations were represented by observers: Centre for Environment and Development for the Arab Region and Europe (CEDARE), Association de Protection de la Nature et de l'Environnement de Kairouan (APNEK), European Chemical Industry Council (CEFIC), Hellenic Marine Environment Protection Association (HELMEPA), Institut Méditerranéen de l'Eau (IME), Islamic Development Bank, Mediterranean Association to Save the Sea Turtles (MEDASSET), Mediterranean Information Office for Environment, Culture and Sustainable Development (MIO-ECSD), International Energy Foundation and World Wide Fund for Nature International (WWF).
6. The UNEP/IMO Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC), the Regional Activity Centre for the Blue Plan (BP/RAC), the Regional Activity Centre for the Priority Actions Programme (PAP/RAC), the Regional Activity Centre for Specially Protected Areas (SPA/RAC), the Regional Activity Centre for Environment Remote Sensing (ERS/RAC) and the Regional Activity Centre for Cleaner Production (CP/RAC) were also represented.
7. The list of participants is attached as Annex I to this report.

Agenda item 1: Opening of the Meeting

8. On behalf of Ms Elizabeth Dowdeswell, Executive Director of UNEP, Mr Lucien Chabason, Coordinator of the Mediterranean Action Plan (MAP), welcomed the participants and introduced Ms T. Melvasalo, Director of Water Branch, UNEP. He emphasized that the Mediterranean Action Plan was in many ways an exemplary regional programme and that important action had been taken over the past two years to review it, taking into account the

decisions adopted at the Rio Conference on Environment and Development. Although many initiatives had been launched in response to the environmental problems of the Mediterranean area, much remained to be done. It was the role of MAP to ensure that the responses to these problems were kept under continual review to ensure that they remained appropriate and relevant. The sea was MAP's principal concern and its main field of action in this respect consisted in helping countries to monitor the state of the sea, prevent accidents, identify and assess pollution sources and adopt policies to deal with particularly sensitive areas and sources of pollution.

9. He noted that important progress had recently been made in the Mediterranean region in the context of MAP, which was celebrating its 20th anniversary. The new action plan adopted by the Contracting Parties was more ambitious and broader in scope than its predecessor. The Mediterranean Commission on Sustainable Development was also due to convene its first meeting later in the year. The renewal of the legal framework covering the protection of the Mediterranean Sea had continued with the adoption in Syracuse, Italy, of the revised Land-Based Sources Protocol, which was a particularly advanced instrument that went beyond the specifications of the Global Action Plan adopted in Washington DC in 1996. A meeting of legal and technical experts would be held in Izmir, Turkey, from 26-28 September 1996, followed by a Conference of Plenipotentiaries from 30 September to 1 October 1996, on the draft Protocol on Hazardous Wastes in the Mediterranean. The programme of environmental research and monitoring had continued and a report on the state of the environment would be produced in time for the Extraordinary Meeting of the Contracting Parties, to be held in Montpellier in July 1996. He further noted that MAP was cooperating with the World Bank in the context of the METAP programme with a view to capacity building, the prevention of pollution at "hot spots" and coastal areas management. MAP was also following with interest the environmental aspects of the initiative adopted by the European Union in cooperation with the other Mediterranean countries at the recent Conference of Euro-Mediterranean Cooperation held in Barcelona.

10. Ms T. Melvasalo, Director of Water Branch, UNEP, expressed her appreciation of the work carried out to improve the environment in the Mediterranean area. The refocusing of the Barcelona system had clearly demonstrated the potential of regional environmental programmes. The instruments adopted, such as the amended Barcelona Convention and the Dumping and Land-Based Sources Protocols, provided a solid basis for demonstrating that sustainable development of coastal regions was possible, not only in theory, but also in practice. In particular, the amendments to the Land-Based Sources Protocol brought it very much into line with the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities (GPA), which encapsulated a very modern concept of how to approach the problem. It was most important to be able to show that through the adoption of this Protocol and the corresponding programmes of action, pollution of the marine environment from land-based sources could be effectively controlled and eliminated. Another significant initiative in the region in this respect was the forthcoming establishment of the Mediterranean Commission on Sustainable Development (MCSD).

11. She emphasized that the enormous task of aiming for the sustainable development of coastal areas required adequate funds for the development and implementation of the programme of activities. In that context, the proposed 7 per cent increase in contributions was modest in relation to the expansion of the programme. She therefore hoped that the Contracting Parties would adopt the proposed increase. In conclusion, she wished the delegates every success in their important work.

Agenda item 2: Rules of Procedure

12. The Meeting decided that the Rules of Procedure for Meetings and Conferences of the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution and its Protocols would apply *mutatis mutandis* to its deliberations (UNEP/IG.43/6, Annex XI).

Agenda item 3: Election of officers

13. In accordance with Rule 20 of the Rules of Procedure and after informal consultations, the Meeting unanimously elected the following officers:

Chairman:	Mr A. Lascaratos	(Greece)
Vice-Chairman:	Mr A. Boargob	(Libyan Arab Jamahiriya)
Vice-Chairman:	Mr M. Bricelj	(Slovenia)
Vice-Chairman:	Mr L. Selfo	(Albania)
Vice-Chairman:	Mr T. Dicorrado	(European Community)
Rapporteur:	Mr A. Borg	(Malta)

Agenda item 4: Adoption of the agenda and organization of work

14. After some discussion, the Meeting adopted the provisional agenda (UNEP(OCA)/MED WG.111/1) and approved the timetable of work set out in the Annex to the annotated agenda (UNEP(OCA)/MED WG.111/2) with the inclusion of item 7.6 "Strengthening of the Legal Framework". The agenda appears as Annex II to this report.

15. The Meeting decided to establish an open-ended working group with a view to considering and finalizing the draft terms of reference of MCSD contained in document UNEP(OCA)/MED WG.111/Inf.11 and Add.1. It designated Mr Joaquin Ros (Spain) to chair the working group and report back to the Plenary on its deliberations.

Agenda item 5: Progress report by the Coordinator on the implementation of the Mediterranean Action Plan during 1995/1996**Agenda item 6: General discussion on the programme budget for 1997**

16. The Coordinator introduced the progress report on the implementation of the Mediterranean Action Plan during 1995/1996 (UNEP(OCA)/MED WG.111/3 and Add.1) and the proposed recommendations and programme budget for 1997 (UNEP(OCA)/MED WG.111/4 and Add.1, Add.2 and Add.3, and Corr.1).

17. After outlining the activities of the current year, he noted that a number of successes had received acknowledgment and expressed the hope that the proposed recommendations and programme budget for 1997 would counter adverse comments to the effect that MAP tended to adopt an over-academic approach. He pointed out that there was a lack of information material on MAP due to shortage of resources, and hoped to remedy the situation without expanding staff by the production of two publications in time for the Montpellier meeting. Furthermore, the structure of the budget had been rationalized and an amount had been set aside to enable MCSD to begin its work. Finally, the new MED POL policies and automatic increases in personnel costs had been taken into account in the proposed budget, which showed an average increase of 7 per cent to ensure that the proposed activities could

be carried out. At its last meeting (Cairo, 1-2 April 1996) the Bureau of the Contracting Parties had considered a 7 per cent rise in contributions reasonable, and it was hoped that the European Community would reassess its voluntary contribution accordingly.

18. In addition, certain revised institutional arrangements within the Coordinating Unit, which did not have budgetary implications, were proposed.

19. In reply to a request for clarification, a representative of the Secretariat explained that once the requisite information had been received, the Status of Signatures and Ratifications of the Convention of a number of countries set out in Annex III to the progress report would be amended as appropriate. Furthermore, it was agreed that a reference should be included under PAP/RAC to the national seminar on sustainable development in coastal areas held in Israel in 1995.

20. The need for close cooperation between the Regional Activity Centre for Cleaner Production in Barcelona and other regional and national centres for clean production was stressed and it was emphasized that centres should be linked with National Focal Points. Reflection on the concepts underlying new centres and the establishment of their budgets on a rational basis were also advocated.

21. One representative expressed the view that the lists to be annexed to the new Protocol concerning Specially Protected Areas and Biodiversity in the Mediterranean should be reviewed by a meeting of government-designated experts before submission for adoption by a Conference of Plenipotentiaries.

22. The Director of SPA/RAC described the method followed for establishment of the lists and the Coordinator confirmed that the process had been carried out in due form.

23. At the end of the general discussion, the Meeting took note of the progress report by the Coordinator.

Agenda item 7: Recommendations and programme budget for 1997

24. The Meeting reviewed in detail document UNEP(OCA)/MED WG.111/4 "Recommendations and programme budget for 1997" with its three addenda and one corrigendum, as well as document UNEP(OCA)/MED WG.111/5 "Programme for the Assessment and Control of Pollution in the Mediterranean Region - MED POL Phase III (1996-2005)" and took note of the other assessment and guidelines documents before the Meeting (UNEP(OCA)/MED WG.111/Inf.3 to 10).

Agenda item 7.1 Programme coordination

25. The Coordinator introduced section A of document WG.111/4 concerning institutional and financial arrangements.

26. The Meeting was unable to agree upon an overall figure for the programme budget. The representatives of three Contracting Parties said that they could not accept the proposed 7 per cent increase. As an expression of its support of MAP in general and MAP Phase II and MED POL Phase III in particular, the representative of Greece supported the 7 per cent increase. Other speakers also supported that increase. The Meeting decided that the

Secretariat should prepare three alternative budget proposals with increases at the levels of 0, 3.5 and 7 per cent for submission to the Montpellier meeting in July 1996.

27. A number of suggestions were also made concerning the presentation of the budget proposals. After recalling his delegation's statement on the budget, as contained in the report of the meeting of the Contracting Parties held in Barcelona in June 1995, the representative of the European Community requested particularly that the Secretariat should make a clearer distinction between personnel and operating expenses on the one hand, and activities on the other, calculate sub-totals and supply more precise descriptions of the proposed activities. In this regard, he asked that a one-page explanatory paper should be prepared for each activity inscribed in the budget document. Representatives of other Contracting Parties also asked that, in view of the broader responsibilities placed upon MAP as a result of the revision of the Barcelona Convention and its Protocols, MAP activities should be more targeted and prioritized. The Secretariat undertook to improve the budget proposal in the light of the suggestions made.

28. In discussion of sources of financing, clarification was provided by the Secretariat on the re-institution and use of the revolving fund and the fact that certain advance payments towards future pledges had been included under uncommitted funds. The Coordinator informed the Meeting that, as decided by the Bureau of the Contracting Parties at its meeting in Cairo on 1-2 April 1996, the President of the Bureau and himself would pay a visit to the European Union to conduct consultations concerning both the possibility to readjust the EU voluntary contribution and the financing through MEDA of some priority projects within MAP Phase II.

29. Considerable debate took place on the recommendations relating to contacts with the European Union and METAP and agreement was reached on an acceptable text including a reference to nature conservation as an aspect which the latter might consider as an activity of common interest.

30. On the subject of institutional arrangements, the Meeting accepted a proposal for a small ad hoc group of limited duration composed of representatives of the Contracting Parties to assist the Coordinator in reviewing the structure of the Coordinating Unit, RACs and the Secretariat of 100 Historic Sites and their mutual relations. The Secretariat should submit the conclusions to the Contracting Parties.

31. It was suggested that, in view of the forthcoming departure of a number of highly experienced staff members and the implementation of MED POL III, an effort should be made to enable the Secretariat to continue to benefit from their experience.

32. The observer for the International Atomic Energy Agency (IAEA), referring to the departure of the maintenance engineer for MED POL, said that the numerous activities carried out by the IAEA Marine Environmental Laboratory in Monaco were funded jointly by the IAEA, UNEP and the Mediterranean Trust Fund. The IAEA proposed that part of the funding provided for the departing engineer's post be transferred to support provision of a training officer for six man/months per year, starting in 1998. The IAEA was extremely willing to continue to provide the necessary infrastructure for a comprehensive data quality analysis (DQA) programme for MED POL.

33. With regard to strategic priorities, the Meeting agreed that a special effort should be made to ensure that the recently adopted Land-based Sources and Specially Protected Areas Protocols got off to a good start. In connection with projects relating to those Protocols, especially in the field of biodiversity, the observer for the World Wide Fund for Nature International (WWF) outlined the efforts WWF had made towards creating the special fund referred to in the Barcelona Resolution on the Environment and Sustainable Development in the Mediterranean Basin. The Coordinator said that a report based on the WWF proposals would be submitted to the first meeting of MCSD .

34. In the course of the debate on the budget allocated to MCSD two opposing views emerged. Some representatives considered that this budget should not be allocated to ill-defined activities nor assigned to three specific Centres. In their view, the Commission should be able to identify its own priority fields of activity. Other representatives supported the list of activities and allocations contained in the proposed budget for 1997. The Coordinator explained that these amounts had been transferred from the budgets of the Centres concerned, with their agreement. It was finally decided that the proposed activities and the budgetary allocations for them should be retained, with the names of the Centres deleted. Reservations were expressed by the representatives of Italy and Spain, the latter considering that the programme budget should contain no mention of the activities to be carried out by the Commission in 1997, of the names of the Centres concerned, or of specific allocations.

35. Concluding the debate on this agenda item, the Meeting recommended that the Contracting Parties approve the recommendations contained in the relevant section of Annex III and invited the Secretariat to submit the related programme and budget to the Contracting Parties.

Agenda item 7.2: Sustainable development in the Mediterranean

Integrating environment and development

(a) Observation and systemic and prospective analysis of environment and development in the Mediterranean (Blue Plan BP/RAC)

36. The Director of BP/RAC, Mr B. Glass, introduced the discussion on this agenda item and supplemented the information provided in the relevant sections of the progress report and the programme and budget document. The Centre's activities continued to give emphasis to the development of the Mediterranean Environment and Development Observatory, mainly financed by the EC, in cooperation with RACs, including assistance to the establishment of national observatories. He noted that special attention was given to the development of widely accepted environmental performance indicators, as well as to the development of environmental statistics in collaboration with the relevant agencies and authorities, including METAP and EUROSTAT, in the context of the follow-up to the Euro-Mediterranean Conference in Barcelona. Other important aspects of the Blue Plan were the continuous systemic and prospective approaches, with focus on coastal areas, and the preparation of an integrated programme of activities, "Blue Plan 2000", that should update and complete the analysis of environment and development interactions, and contribute to the MAP strategic review for the year 2000.

37. In response to a request for clarification, he explained that the "major Mediterranean output" referred to in recommendation 2 consisted principally, with a view to the implementation of the concept of sustainable development, of the integration into the Centre's activities of

social and cultural aspects, in addition to the link between development and the environment on which its work had hitherto been concentrated. During the debate on this agenda item, a number of speakers expressed their appreciation of the work of the Centre.

38. The observer for the World Tourism Organization (WTO) stated that WTO followed with considerable interest the work of MAP. Tourism was of great economic importance in Mediterranean States and the health of the Mediterranean Sea was of vital importance to the future of tourism in the region. Sustainable development was, therefore, the only way forward and WTO was carrying out a number of projects in this respect, including the development of a specific Agenda 21 for the travel and tourism industry, the formulation of indicators of sustainability for tourism managers, the publication of guidelines and the extension of the European Union's Blue Flag Clean Beaches campaign to other Mediterranean States. He expressed the readiness of his organization to cooperate with MAP in the field of tourism.

39. Concluding the discussion on the item, the Meeting recommended that the Contracting Parties approve the relevant recommendations and the budgetary allocations contained in Annex III to this report.

(b) **Coastal planning and management (Priority Actions Programme - PAP/RAC)**

40. The Acting Director of PAP/RAC, Mr I. Trumbic, introduced the discussion on this agenda item. He explained that the recommendations were designed to continue the process of streamlining the Centre's activities and their concentration on integrated coastal planning and management. The Centre's work consisted principally of the development of coastal management methodologies, capacity-building activities and assistance in the implementation of coastal management plans.

41. A number of speakers praised the assistance provided by the Centre at the national level. They also suggested that greater emphasis should be placed in its activities on environmental planning and management in urban coastal areas and on the integration of sustainable development into coastal planning and management. The observer for WWF, while recognizing the need for integrated coastal planning and management studies and the good work done by PAP/RAC, pointed out that much more attention should be given in future to implementing those studies in the field. Central governments and local authorities should not simply be left alone after the completion of the studies, but strongly assisted in implementing the plans and approaching the most important funding institutions.

42. In response to comments concerning the very small number of permanent staff at the Centre and its large volume of activities, Mr Trumbic and the Coordinator emphasized that the Centre's methods of work, involving cooperation with national counterparts and collaboration with a team of consultants, had proved to be very efficient and cost-effective. Moreover, it had developed a stock of training materials which meant that training activities could be undertaken at short notice and at low cost. In this respect, local training activities had proved to be especially effective. They added that the Centre's activities would be assessed by the small *ad hoc* group to be set up to evaluate all the regional activity centres.

43. Concluding the discussion on the item, the Meeting recommended that the Contracting Parties approve the relevant recommendations and the budgetary allocations contained in Annex III to this report.

(c) **Cleaner Production (CP/RAC)**

44. The Director of CP/RAC, Mr V. Macià, introduced this agenda item, supplementing information given in the progress report and the programme and budget document. He pointed out that it was intended to request the Contracting Parties to appoint National Focal Points on cleaner production as soon as possible, consisting preferably of existing centres having practical experience in the field. The Spanish Government had set aside funds for the organization of a first meeting of National Focal Points in 1996 in conjunction with a meeting of experts, *inter alia* to exchange views and experience on the current state of clean production, to draw up inventories of pollutants, to prepare a legal framework and to establish priority areas with a view to selecting future activities and providing information for other centres and the Contracting Parties. CP/RAC considered itself to be the focal point of a much wider network and he fully agreed that it must cooperate closely with national and regional clean production centres. A second meeting of National Focal Points was planned for 1997.

45. Concluding the discussion on the item, the Meeting recommended that the Contracting Parties approve the relevant recommendations contained in Annex III to this report.

(d) **Coastal Areas Management Programme (CAMP)**

46. Mr I. Dharat, Senior Programme Officer, introduced the discussion on this agenda item, supplementing the information given in the progress report and the programme and budget document. He pointed out that the CAMP programme, which had been launched in 1989, included twelve projects, of which six had been completed and the others were in various stages of development. After briefly explaining the three recommendations, he informed the Meeting that the Secretariat had received a request from Slovenia for a CAMP project in that country. He therefore proposed the addition of a fourth recommendation relating to a new CAMP project in Slovenia.

47. In the ensuing discussion several speakers emphasized the importance of the proposed evaluation of the results of CAMP projects and considered that new projects should be developed in the light of the results of that evaluation. It was pointed out that an important criterion for the selection of new projects was that they should have a demonstration function for the whole of the Mediterranean area. The representative of Slovenia drew attention to the innovative nature of the proposed CAMP project in his country, which was being developed with the intention of trilateral collaboration with Italy and Croatia. One speaker referred to the need for MAP to develop a model project in collaboration with local and national authorities to show how the results could be followed up, while another stressed the great success of CAMP projects in capacity building and raising public awareness. A further speaker expressed the view that the CAMP programme had been one of MAP's most successful activities and stated that the purpose of the evaluation exercise should be to improve future work, not to restrict it.

48. Concluding the discussion on the item, the Meeting recommended that the Contracting Parties approve the relevant recommendations and the budgetary allocations contained in Annex III to this report.

Agenda item 7.3: Conservation of nature, landscape and sites**(a) Specially Protected Areas (SPA/RAC)**

49. The Director of SPA/RAC, Mr M. Saied, introduced the discussion on this agenda item, supplementing information given in the progress report and the programme budget document. He noted that the adoption of the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean and MAP Phase II opened new prospects for the protection of the natural heritage. In this regard, he briefly reported on the activities undertaken by SPA/RAC in collaboration with the Coordinating Unit for the preparation of the annexes to the Protocol. The proposed activities concentrated on four main areas: the improvement of knowledge, the alignment of national legal texts, the active management of the natural heritage and the enhancement of national capabilities. Given the high costs involved in implementing certain activities in the field, it was proposed to focus attention on regional efforts. The Centre would continue to carry out some of its activities with the assistance of other partners, such as national institutions and NGOs.

50. In the course of the debate a number of speakers praised the work of SPA/RAC. Various amendments were approved and clarifications were provided. The representative of Turkey said that her Government was willing to host a training workshop on SPA management in 1997. It was agreed that a government-designated expert meeting should be held to prepare the final draft of the annexes to the SPA Protocol immediately prior to the Conference of Plenipotentiaries that would adopt them.

51. The observer for the Association de Protection de la Nature et de l'Environnement de Kairouan (APNEK) informed the Meeting that APNEK had organized an international workshop entitled "Partners against Desertification" in the framework of the implementation of the United Nations Convention to Combat Desertification. The results of the workshop included the adoption of the Kairouan Charter on NGO partnership in this field, a report on cooperation methods, a report on financing and the establishment of a Euro-Mediterranean liaison centre to combat desertification, to be placed under the auspices of UNEP/MAP which had attended and supported the meeting.

52. Concluding the discussion on the item, the Meeting recommended that the Contracting Parties approve the relevant recommendations and the budgetary allocations contained in Annex III to this report.

**(b) Programme for the 100 Coastal Historic Sites of Mediterranean Interest
(Secretariat for 100 Historic Sites)**

53. In the absence of the Director of the Secretariat for the 100 Historic Sites, the Deputy Coordinator, Mr L. Jeftic, introduced the discussion on this agenda item, drawing attention to the relevant recommendations. He explained, furthermore, that the budget allocation of US \$ 60,000 was split up and appeared under several budget heads. A number of delegations pointed out that they were not in a position to proceed to approval when no representative of the Secretariat for 100 Historic Sites was available to participate in the discussion and reply to questions.

54. Concluding the debate, the Meeting decided that, for the sake of clarity, all the sums allocated provisionally to the Programme should be consolidated in a single table and that consideration of the item be deferred until the Montpellier Meeting in July 1996.

Agenda item 7.4: Assessment, prevention and elimination of marine pollution

(a) MED POL activities

55. The Deputy Coordinator, Mr L. Jeftic, introduced the agenda item, supplementing information given in the progress report and the programme budget document. He also referred to document UNEP(OCA)/MED WG.111/5 "Programme for the Assessment and Control of Pollution in the Mediterranean Region - MED POL Phase III (1996-2005).

56. In the course of the discussion on MED POL III, a number of delegations queried the rationale behind the proposal to establish an Advisory Group of Experts for MED POL. The Meeting agreed to establish an Advisory Group with the terms of reference as presented in the recommendations. The representative of Tunisia expressed a reservation on this subject. The Meeting also agreed that MED POL National Coordinators should not be members of the group.

57. One delegation questioned the methodology used by the Secretariat to date in conducting the survey of land-based sources of pollution; ultimately the Meeting decided that the exercise should be continued.

58. After a wide-ranging discussion on the proposed control measures for copper and zinc in coastal waters, the representative of Spain maintained his country's reservation and undertook to provide to the Secretariat for distribution to Contracting Parties a short paper proposing a number of changes.

59. In response to an observation that the important issue of the proliferation of *Caulerpa* had not been included in the budget recommendations, the observer for the Food and Agriculture Organization of the United Nations (FAO), on behalf of the Secretariat, explained that a workshop to exchange scientific experience and confront different opinions on the subject had been planned. However, due to financial constraints, it had not been considered possible to include the issue in the budget recommendations. Alternative sources of funding for such a workshop were being explored, although without success up to the present time. The Meeting agreed that the workshop on *Caulerpa* should be included in the budget proposals with a low level of funding, with the specification that further financing would be sought from other sources and that this field which is linked to the development of invasive species belongs more to the preservation of biodiversity than to the Land-Based Sources Protocol.

60. Concluding discussion on the item, the Meeting recommended that the Contracting Parties approve the relevant recommendations and the budgetary allocations contained in Annexes III and IV to this report.

(b) The Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC)

61. The Director of REMPEC, Mr J.C. Sainlos, introduced this agenda item supplementing information given in the progress report and the programme and budget document. He explained that no recommendations had been prepared for REMPEC's future activities which were contained in its medium-term programme approved by the Contracting Parties in 1995. He briefly described the ongoing activities relating to assistance to Albania, Lebanon and Libya, as well as the subregional system for combating pollution involving Cyprus, Egypt and Israel, financed by the European Union. He referred to a joint exercise in Port Said in October 1995,

during which vessels from the three countries had participated. Pilot projects on emergency preparedness had been drawn up for the ports of Mersin (Turkey) and Tangier (Morocco), and a third was under consideration. A regional training course held in Istanbul with the assistance of the Turkish authorities, whom he wished to thank, had involved participants from both the Mediterranean and the Black Sea.

62. The Centre had recently been facing difficulties arising from the need to move its premises and from shortage of staff, in particular the loss of an engineer provided by France, who had been invaluable both as a computer specialist and a translator. The Centre's capacity to fulfil its responsibilities had been seriously affected and administrative and management problems were interfering with its work. Looking to the future, he pointed out that MAP Phase II had created new conditions, making it essential to consider the whole issue of pollution from ships in a more global context. The next meeting of REMPEC Focal Points would consider the matter and a report would be sent to the Contracting Parties.

63. The representative of Malta outlined the efforts made by his Government to find new premises for REMPEC. After a first solution had fallen through owing to circumstances beyond the authorities' control, a building acceptable to the Centre had been located and would be refurbished.

64. Some representatives also voiced their strong support for REMPEC, whose realistic and concrete approach was highly appreciated. The representatives of Cyprus, Egypt and Israel also expressed their deep appreciation to REMPEC for its assistance in developing the subregional system for combating pollution, and in particular to the European Union for its financial support. The representative of the European Community said that he was well aware from personal experience that one of the reasons for the success of the project had been the strong involvement of the three countries in its implementation. The hope was expressed that future REMPEC activities would be closely related to the new context created by MAP Phase II, leading to synergy with other centres. It was pointed out that praise for REMPEC's work should be backed up by practical measures to solve its staffing problems.

65. The representative of Turkey emphasized the great success of the training course held in Istanbul, which had been attended by participants from the Mediterranean and the Black Sea, and obtained confirmation from the Director of REMPEC that the sensitivity maps being prepared for the region of Sfax would follow the methodology recommended by the REMPEC Focal Points meeting. The representative of Albania observed that, with the help of the Centre, his country was organizing its national response system and looked forward to joining Croatia, Italy and Slovenia in the subregional system for the North Adriatic. He submitted a request for a project relating to the port of Durres.

66. Concluding the discussion on the item, the Meeting recommended that the Contracting Parties approve the budgetary allocations contained in Annex III to this report.

(c) **Environment Remote Sensing (ERS/RAC)**

67. The Director of ERS/RAC, Mr M. Raimondi, introduced the item, briefly presenting the activities of the Centre during the 1995-1996 period, emphasizing the concrete results achieved and stressing that work on the Albania, Fuka-Matrouh and Sfax CAMPs and the Daphne Project on vegetation monitoring were completed. All those activities had included educational components and close cooperation with the institutions of the countries involved. Most of the documentation had been prepared and the last of it, concerning the Sfax CAMP, would be

issued in the near future. In presenting the recommendations for 1997, he underlined that carrying out the activities planned was dependent on availability of funds from external sources, such as EC financial support programmes, since the MAP budget did not include any substantial contribution from the MTF. He recalled that the costs of the Centre, its infrastructure and personnel were offered by Italy.

68. The work of ERS/RAC was commended by several speakers who stressed the value of remote sensing techniques in the sphere of sustainable development in the Mediterranean. In reply to questions, Mr Raimondi gave clarification on the potential applicability of remote sensing techniques for the monitoring of environmental issues such as oil spills, coastal development and land-based marine pollution.

69. The representative of Italy expressed the hope that the facilities and expertise provided for ERS/RAC would be used to their full capacity, in accordance with the same criteria and conditions applied to other RACs, to complement the activities of the various MAP components. He regretted that the Centre had not been provided with corresponding budgetary allocations from MAP to enable it to undertake the new responsibilities entrusted to it. He asked that a first provisional evaluation of the Centre's activities should be made before the Meeting of the Contracting Parties in Montpellier to allow a budgetary allocation for 1997 that was more in line with the approved recommendations.

70. The representative of Egypt expressed his appreciation for the Centre's activities and thanked the Government of Italy for the facilities provided for ERS/RAC. He stressed that the offer made by Italy had been gratefully accepted when made on the understanding that no financial burden for MAP would be incurred. Recognizing, however, that remote sensing was a tool, he recommended that ERS/RAC participate effectively in activities being implemented or to be implemented by other MAP Centres. For other activities ERS/RAC could seek external financing.

71. Concluding discussion on the item, the Meeting recommended that the Contracting Parties approve the relevant recommendations and the budgetary allocations contained in Annex III to this report.

Agenda item 7.5: Information and participation

72. Introducing the discussion on this agenda item, Mr Civili, First Officer, on behalf of the Secretariat, stated that information activities had taken on much greater importance as a result of the adoption of MAP Phase II. In line with the decisions of the Barcelona Conference, although the recommended funding for information activities was at the same level as the 1996 budget, greater emphasis was being placed on the dissemination of information to a much broader public. This could be seen in the MEDWAVES bulletin, which had been reoriented from a publication concentrating on MAP activities to cover wider issues of interest to the Mediterranean environment. The library continued to fulfil an important function in providing information to students, government officials and non-governmental organizations in support of their activities.

73. In response to a request for clarification on how MAP scientific reports could be made accessible to a broader public, he explained that executive summaries were being prepared for technical documents with a view to their wider dissemination, and that a number of "MAP dossiers" were going to be produced on specific technical and scientific subjects to make them more accessible. In response to comments concerning the strategic importance of Internet in

making information readily accessible to a very broad public, he emphasized that the Secretariat was well aware of the great potential of Internet. It was hoped to have a MAP home page in operation later in 1996 and to place some of the most important MAP documents on Internet. The meeting congratulated the Secretariat on its information activities and emphasized their importance.

74. The representative of Monaco informed the Meeting that a symposium had recently been organized in Tunisia by the International Telecommunication Union (ITU) on the contribution of telecommunication and data-processing to the protection of the environment and recommended that the Secretariat should approach ITU about possible contributions to the Mediterranean countries.

75. Mr Dharat introduced the discussion on the relation of MAP with NGOs, the MAP Directory of Non-Governmental Organizations (NGOs), the lists of MAP Partner NGOs approved by the Contracting Parties in Barcelona and the requests received from five further NGOs for inclusion on these lists (UNEP(OCA)/MED WG.111/Inf.12). The MAP National Focal Point from Israel provided information on one of these organizations, the Israel Society for the Protection of Nature. In reply to a request for clarification, Mr Dharat explained that it was the responsibility of the Secretariat to inform the Contracting Parties when requests were received for inclusion in the above lists. According to the decisions of the Barcelona Meeting, the Bureau would review every two years the list of NGOs with which MAP collaborated. The Secretariat would therefore prepare a review of its NGO partners for submission to the Bureau in 1997. Referring to the two lists of partner NGOs approved by the Contracting Parties, he noted that one of them consisted of organizations with a more general environmental mandate, while the other contained organizations with a more specific concern.

76. A number of speakers raised the question of whether the European Fertilizer Manufacturers Association (EFMA) was a suitable MAP partner organization in view of its status as a professional association. One speaker considered that only public interest groups should enjoy the status of MAP partner NGOs. A number of other speakers believed that it was beneficial to the work of MAP to collaborate with producer associations and noted that fertilizers had an important effect on the environment. They considered that MAP should be open in its attitude to partner associations, which could make an important contribution to its work.

77. Concluding discussion of this item, the Meeting recommended that the Contracting Parties approve the relevant recommendations and the budgetary allocations contained in Annex III to this report.

Agenda item 7.6: Strengthening the legal framework

78. Mr Dharat introduced the discussion of this agenda item, supplementing the information given in the progress report and the programme and budget document. He noted in particular that two meetings were planned for 1997 under this item of the agenda. These included a Conference of Plenipotentiaries for the adoption of the three annexes to the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean, preceded by a one-day Government-designated expert meeting, as well as a second meeting of Government-designated legal and technical experts to review a draft of appropriate procedure for the determination of liability and compensation for damages from the pollution of the marine environment.

79. Concluding discussion of this item, the Meeting recommended that the Contracting Parties approve the relevant recommendations and the budgetary allocations contained in Annex III to this report.

Agenda item 8: Mediterranean Commission on Sustainable Development (MCSD)

80. The Coordinator introduced document UNEP(OCA)/MED WG.111/Inf.11, "Mediterranean Commission on Sustainable Development - Progress Report by the Secretariat", which contained the proposed terms of reference of the MCSD. An open-ended working group, chaired by Mr Ros, MAP National Focal Point from Spain, held three sessions and revised the terms of reference of the MCSD, which were adopted by the Meeting with the relevant modifications. The proposed terms of reference of the MCSD are contained in Annex V to this report.

81. The Meeting was informed that the first meeting of the MCSD would be hosted by Morocco in the city of Fez during the month of December 1996. Mr Ros informed the Meeting that the Spanish Government was a candidate to host the second meeting of the MCSD in 1997.

82. Concluding discussion of this item, the Meeting recommended that the Contracting Parties approve the relevant recommendations and the budgetary allocations contained in Annex III to this report. It also recommended that the Contracting Parties approve the draft terms of reference of the MCSD contained in Annex V of this report.

Agenda item 9: Other business

83. The Meeting was informed that the Italian Government was a candidate to host a meeting in Sorrento, Italy, in 1997 for the formulation and adoption of a regional action plan for reduction and elimination of pollution from land-based sources and activities.

84. The representative of Turkey referred to the decision taken at the last Meeting of the Contracting Parties in Barcelona regarding the establishment of a biennial award of a gold medal, the first of which it had decided to award to Mr. Serge Antoine of France. She proposed that the Secretariat make the necessary arrangements to invite Mr. Antoine to Montpellier to receive his medal. The Meeting accepted this proposal.

Agenda item 10: Adoption of the report of the Meeting

85. The Meeting adopted its report on Friday, 10 May 1996.

Agenda item 11: Closure of the Meeting

86. After the customary exchange of courtesies, the Chairman declared the meeting closed on Friday, 10 May 1996, at 14.30 hrs.

ANNEX I

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ANNEX II

AGENDA

AGENDA

1. Opening of the meeting
2. Rules of procedure
3. Election of officers
4. Adoption of the Agenda and organisation of work
5. Progress Report by the Coordinator on the implementation of the Mediterranean Action Plan during 1995/1996
6. General discussion on the Programme Budget for 1997
7. Recommendations and Programme Budget for 1997:

7.1 Programme Coordination

7.2 Sustainable Development in the Mediterranean

7.2.1 Integrated environment and development (economic activities and the environment)

7.2.2 Urban management and the environment

7.2.3 Sustainable management of natural resources

7.2.4 Integrated Coastal Area Management

 . Coastal Areas Management Programme (CAMP)

7.2.5 Elements for a Mediterranean Strategy (including MEDO)

7.2.6 National and local capacity building

7.3 Conservation of Nature, landscape and sites

7.3.1 Implementation of the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA Protocol)

7.3.2 Collection of data and periodic assessment of the situation

7.3.3 Legal measures

7.3.4 Planning and management

7.3.5 Public awareness and participation

7.3.6 Exchange of experience and strengthening of national capabilities

7.4 Assessment, prevention and elimination of marine pollution

7.4.1 Programme for the Assessment and Control of Pollution in the Mediterranean Region - MED POL Phase III (1996-2005)

7.4.2 Assessment of pollution - related problems

- . Assessment of the state of pollution of the Mediterranean Sea by zinc, copper and their compounds
- . Assessment of the state of pollution of the Mediterranean Sea by anionic detergents
- . Assessment of the state of microbiological pollution of the Mediterranean Sea
- . Assessment of the state of eutrophication in the Mediterranean Sea

7.4.3 Pollution prevention

- Prevention and elimination of the pollution of the marine environment from Land-based activities (**LBS Protocol**)
 - . Information on the amendments to the LBS Protocol
 - . Preparation of the Regional Action Plan and the National Action Plans for the Protection of the Marine Environment from Land-Based Activities
 - . Guidelines for submarine outfall structures for Mediterranean small and medium size coastal communities
 - . Guidelines for treatment of effluents prior to discharge into the Mediterranean Sea
 - . Guidelines for authorizations for the discharge of liquid wastes into the Mediterranean Sea
 - . Survey of pollutants from Land-Based Sources in the Mediterranean
- Prevention of and response to the pollution of the marine environment from sea-based activities
 - . Prevention of pollution of the marine environment from ships
 - . Preparedness for, response to and cooperation in case of accidental marine pollution (**Emergency Protocol**)

- Prevention of the pollution of the marine environment by dumping from ships and aircraft (**Dumping Protocol**)
- Prevention and control of the pollution of the marine environment resulting from exploration and exploitation of the continental shelf and the seabed and its subsoil (**Offshore Protocol**)
- Prevention and control of the pollution of the environment resulting from transboundary movements of hazardous wastes and their disposal (**Hazardous Wastes Protocol**)
- Supporting measures

7.5 Information and participation

7.6 Strengthening of the legal framework

8. Mediterranean Commission on Sustainable Development (MCSD)
9. Other business
10. Adoption of the report of the meeting
11. Closure of the meeting

ANNEX III

RECOMMENDATIONS AND PROGRAMME BUDGET FOR 1997

I. RECOMMENDATIONS:

The following recommendations are submitted to the Contracting Parties for adoption:

A. INSTITUTIONAL AND FINANCIAL ARRANGEMENTS (Chapter III of MAP II)**(a) Financial Arrangements**

- [1. To approve the "Summary of Budgetary Allocations" as proposed in part II of this annex (pages 22 to 24).]
- [2. To approve the "Sources of Financing" and the "Proposed Contributions to the Mediterranean Trust Fund for 1997" as proposed in part II of this annex (pages 27 and 28).]
- [3. To approve the programme budget for 1997 covering the chapter on "Programme Coordination" as proposed in part II of this annex (page 29) and MAP personnel and operating costs (pages 30 to 40).]
4. To request the Secretariat to establish contact with the European Union (EU) to consider further development of its financial participation in MAP through an increase of its voluntary contribution.
5. To call on Mediterranean countries, Contracting Parties to the Barcelona Convention, invite the EU, in the light of the expanded fields of activities defined in MAP II, to identify together with the Secretariat priority problems, and develop programmes and activities in the framework of the Mediterranean Action Plan which could be financed through the Euro-Mediterranean Initiative (MEDA).
6. To invite METAP to consider the further strengthening of its joint work with the Secretariat and an increased financial contribution to activities of common interest, such as: (a) development and implementation of the Regional Programme of Action and the National Programmes of Action for the implementation of the LBS Protocol, and in this context the identification of pollution "hot spots" and the preparation of feasibility studies for investment in the programme for their elimination; (b) capacity building in developing countries, in particular assistance to countries for the establishment or improvement of national systems of environmental inspections; c) improvement of the development of Integrated Coastal Areas Management (ICAM) in the Mediterranean and d) conservation of nature.

(b) Institutional Arrangements

1. To approve a revised structure of the personnel at the Coordinating Unit with the creation of an official post of Deputy Coordinator, a post of MEDPOL Coordinator and a post of a Marine Scientist within MEDPOL, by converting the present post of a Senior Marine Scientist, the post of Senior Fishery Officer (FAO) and the post of IAEA Maintenance Engineer (Monaco). The function of Deputy Coordinator will include coordinating the activities related to the implementation of sustainable development in the Mediterranean and assisting the work of the Mediterranean Commission on Sustainable Development (MCSD). The Secretariat in the course of the above restructuring should make every possible effort to retain experienced MED POL staff already serving in the MED Unit.
2. To further strengthen the cooperation of MAP with UN Agencies.
3. To invite the Coordinator to establish a small ad hoc group of limited duration, composed of representatives of the Contracting Parties, to examine the best possible structures for the Coordinating Unit and MED POL in the light of the activities to be carried out by MAP following the revision of the Convention and its Protocols in Barcelona in 1995.

The group will also review the role, functions and structures of the Regional Activity Centres and the Secretariat of the 100 Historic Sites and the relations they should maintain with one another. It will also make recommendations to be submitted to the Contracting Parties for their approval concerning the evaluation of the activities of the Regional Activity Centres and the Secretariat of the 100 Historic Sites.

4. To approve the Terms of Reference of the Mediterranean Commission on Sustainable Development (MCSD) as contained in annex V to this report.

(c) Strategic Priorities

1. To invite the Contracting Parties to give high priority to the implementation of the MAP legal instruments, and request the Secretariat to assist them in the implementation of those instruments, in particular the Land-based Sources and Specially Protected Areas Protocols as priority tasks.
2. To invite the Contracting Parties to make every effort for the full implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities, through the development of National Programmes of Action as envisaged in the amended LBS Protocol.
3. To invite the Contracting Parties which are eligible to apply for projects with the Global Environment Facility (GEF), in particular projects in the fields of biodiversity and international waters.

4. To invite the Secretariat, in consultation with the Contracting Parties and with the assistance of two to three experts, to propose the development of a system of coherent reporting by the Contracting Parties in conformity with MAP II and the relevant provisions of the Barcelona Convention and its protocols.

B. SUSTAINABLE DEVELOPMENT IN THE MEDITERRANEAN (Chapter I of MAP II)

SUPPORT TO THE MEDITERRANEAN COMMISSION ON SUSTAINABLE DEVELOPMENT

- [1. To approve the programme budget for 1997 covering the chapter on "Support to the Mediterranean Commission on Sustainable Development" as proposed in part II of this annex (page 41).]
2. To ask the Secretariat to assist through all its components the work of MCSD through the preparation of the necessary documentation and the organization of meetings.

1. INTEGRATING ENVIRONMENT AND DEVELOPMENT

- [1. To approve the programme budget for 1997 covering the chapter on "Integrating Environment and Development" as proposed in part II of this annex (pages 42 to 49).]
 - (a) Observation and Systemic and Prospective Analysis of Environment and Development in the Mediterranean (Blue Plan-BP/RAC)
 1. To invite the Secretariat (BP/RAC) to pursue and improve, in conformity with Agenda MED 21, the systemic and prospective analysis of development/environment interactions in the Mediterranean and mainly its coastal regions, in particular the analysis of Mediterranean sustainable development problematics, and to identify short and medium-term objectives for sustainable development programmes, as a contribution to the decision-making process towards sustainable development and as technical support for the activities of the Mediterranean Commission on Sustainable Development.
 2. To invite the Secretariat (BP/RAC) to prepare a medium (5 year) and long (10 year) term programme of activities ("Blue Plan 2000"), integrating its major functions, taking into consideration cooperation with MEDU and RACs and the production of a major Mediterranean output by the year 2000, and focusing on coastal regions.

3. To invite the Secretariat (BP/RAC) to develop and strengthen a Mediterranean environment and development information system, and to identify and elaborate pertinent indicators, statistics and information to monitor and evaluate Mediterranean institutions, environment and development, in order to assist the decision-making process towards sustainable development.
4. To invite the Secretariat (BP/RAC) to strengthen the implementation and development of the "Mediterranean Environment and Development Observatory" function (MEDO) in close cooperation with MEDU and RACs, together with Mediterranean countries and regional/international organizations (e.g. EU-EC/EEA/EUROSTAT, UNEP/GRID, METAP, FAO, OECD, CEDARE, SSO), and to provide it with the necessary assistance and support.
5. To invite the Secretariat (BP/RAC) to assist Contracting Parties in the preparation, implementation and development of national/local observatories as supporting tools for National Environmental Action Plans (NEAPs) and sustainable development strategies and policies, through technical support, exchange of experience and cooperation in order to promote a Mediterranean network.
6. To encourage the Secretariat (BP/RAC) to continue to seek additional support from partner institutions such as EC/EEA/EUROSTAT, METAP, etc, in order to strengthen studies, networking and capacity-building activities, mainly on development/environment interactions, environmental statistics, indicators and institutional analysis.
7. To invite the Secretariat (BP/RAC) to improve information on its activities and the dissemination of its products and to continue the preparation and publication of its regional and sectoral studies, such as "Fascicules", "Country Profiles" and "Technical Notes".

(b) Coastal Planning and Management - Priority Actions Programme (PAP/RAC)

1. To invite the Secretariat (PAP/RAC) to continue furthering and refining the methodology of integrated planning and management in coastal areas (ICAM) with the aim of achieving a rational management of coastal resources and sustainable development in Mediterranean coastal areas.
2. To invite the Secretariat (PAP/RAC) to develop and apply, in cooperation with other components of MAP, as well as national and local authorities, organizations and institutions operating outside the MAP system, relevant policies and methods of sustainable development planning in coastal towns of the Mediterranean basin, particularly those of the developing countries.

3. To invite the Secretariat (PAP/RAC) to develop practical management methods, tools and techniques for sensitive and vulnerable coastal resources, particularly the Geographic Information System (GIS), Carrying Capacity Assessment for tourism (CCA), Decision Support and Expert Systems (DSS), multicriteria analysis, etc., and to ensure their dissemination to the Mediterranean countries.
4. To invite the Secretariat (PAP/RAC) to continue developing tools and techniques for the assessment of the environmental effects of development decisions in coastal areas through the implementation of individual projects (Environmental Impact Assessment - EIA), and to assist Mediterranean countries in the application of these tools and techniques.
5. To invite the Secretariat (PAP/RAC) to continue its activities of building up and strengthening national and local institutional capacities for ICAM, with emphasis on the organization of national and regional training courses, workshops, and seminars addressing topics of special importance.
6. To invite the Secretariat (PAP/RAC) to continue furthering the method of integrated management of water resources in Mediterranean coastal areas, as well as relevant tools and techniques, and to assist the responsible national authorities and institutions in applying them.
7. To invite the Secretariat (PAP/RAC) to develop and disseminate appropriate methodologies within the scope of other priority actions (solid and liquid waste management, environmentally sound aquaculture development, and soil erosion and desertification), and to transfer to Mediterranean countries the most successful experiences in these priority fields.

(c) Cleaner Production in the Mediterranean - Cleaner Production Regional Activity Centre (CP/RAC)

1. To invite the Secretariat (CP/RAC) to organize in 1997, as a follow-up to the First National Focal Points on Cleaner Production Meeting in 1996, a Second National Focal Points Meeting to be held in a South Mediterranean Basin country.
2. To invite the Secretariat (CP/RAC) to organize in 1997, as a follow-up to the First Surface Treatment and Coating Sector Expert Meeting in 1996, a Second Expert Meeting coinciding with the Second NFP Meeting, which will discuss and analyse the sector proposed in the First NFP Meeting.
3. To invite the Secretariat (CP/RAC) to publish a CP/RAC presentation folder to introduce it and to spread its goals and functions as the Cleaner Production Regional Activity Centre within the framework of the Mediterranean Action Programme.

4. To invite the Secretariat (CP/RAC) to publish a leaflet about cleaner production success stories within the Mediterranean region to show real examples of pollution prevention and cleaner production achieved by different companies, most especially small and medium-sized ones.

(d) Coastal Areas Management Programme (CAMP)

1. To invite the Secretariat to continue work on the six projects approved by the Seventh and Eighth Meetings of the Contracting Parties (Algeria, Tunisia/Sfax, Morocco/Al-Hoceima, Israel, Malta and Lebanon).
2. To invite the national authorities concerned and the relevant bilateral and multilateral programmes to support the above-mentioned CAMP projects as practical demonstration areas for sustainable development and for the protection of the Mediterranean environment.
3. To present to the next Ordinary Meeting of the Contracting Parties an evaluation of the results of the CAMPs and proposals for necessary changes for the future.
4. To approve and start preparation for a Coastal Area Management Programme for Slovenia, in line with the procedure being applied by the Secretariat for CAMP projects and taking into consideration the results of the evaluation of CAMPs.

2. CONSERVATION OF NATURE, LANDSCAPE AND SITES

- [1. To approve the programme budget for 1997 covering the chapter on "Conservation of Nature, Landscape and Sites" as proposed in part II of this annex (pages 50 to 53).]

(a) Specially Protected Areas

1. To take note of the three draft annexes to the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (List of endangered or threatened species; List of species whose exploitation is regulated; Common criteria for the choice of protected marine and coastal areas that could be included in the SPAMI List) as recommended by the meeting of the National Focal Points for SPA (Tunis, 25-27 March 1996).
2. To take note of the report of the meeting of experts on endangered species (Montpellier, 22-25 November 1995), and to invite the Secretariat (SPA/RAC) to work on the implementation of the recommendations of the above meeting.

3. To invite the Secretariat (SPA/RAC) to pursue the development of its databases and to disseminate them in a computerized form to the Contracting Parties and concerned NGOs.
4. To invite the Secretariat (SPA/RAC) to evaluate the implementation of the three action plans for the conservation of species adopted within MAP.
5. To invite the Secretariat (SPA/RAC) to prepare common criteria and guidelines for the preparation, at the national level, of inventories of sites, species and other elements of biological diversity, and guidelines for preparing management plans for SPAs.
6. To invite the Secretariat (SPA/RAC) to pursue coordination with the Secretariat of the Convention on Migratory Species concerning the agreement on cetaceans currently under preparation for the Mediterranean and the Black Sea.
7. To invite the Secretariat (SPA/RAC) to pursue its activities for the enhancement of national capabilities, taking into account the relevant recommendations made by the Third Meeting of the National Focal Points for SPA (Tunis, 25-27 March 1996).
8. To invite the Secretariat (SPA/RAC) to pursue its assistance to the Contracting Parties in managing protected areas, in particular by elaborating common methodologies for the evaluation of the efficiency of management programmes.

[(b) Programme for the 100 Coastal Historic Sites of Common Mediterranean Interest

1. To continue its action on the identification and evaluation of activities for the protection and safeguarding in two countries of sites contained in the 100 historic sites list.
2. To assist the countries which so request in their efforts to protect and safeguard at least 5 historic sites through the preparation of legal, administrative and financial files.
3. To promote the legal protection of sites of particular interest for their cultural value.
4. To define and finalize, in cooperation with local authorities, projects related to the protection of historic sites, including permanent and urgent measures.
5. To encourage the development of Mediterranean historic sites related to cultural tourism.

6. To assist the countries which so request to evaluate the major risks to threatened sites and prepare preventive measures.
7. To contribute to promoting an exchange of expertise between the persons responsible for the 100 historic sites, notably through local and regional authorities, in liaison with the Coordinating Unit of the MAP and its centres, in particular with the SPA/RAC and PAP/RAC.]

3. ASSESSMENT, PREVENTION AND ELIMINATION OF MARINE POLLUTION

- [1. To approve the programme budget for 1997 covering the chapter on "Assessment, Prevention and Elimination of Marine Pollution" as proposed in part II of this annex (pages 54 to 60).]

- (a) **MED POL Activities**

- 1. MED POL Phase III**

To ask the Secretariat to prepare the assessment of the MED POL-Phase II programme (1981-1996) including the summarized results of the monitoring and research activities, an overview of the Data Quality Assurance programme and assistance to countries through training and fellowships.

To approve the MED POL - Phase III Programme for the assessment and control of pollution in the Mediterranean region (1996 - 2005), as contained in annex IV.

To establish an Advisory Group of Experts for MED POL* which will advise the Secretariat and the Meeting of MED POL National Coordinators on the scientific and technical aspects of the design, development and implementation of the MED POL programme, as well as on the review of its accomplishments. MED POL National Coordinators should not be members of the Group. The terms of reference of this Group are as follows:

**Terms of Reference of the Advisory Group of Experts
for MED POL**

1. The institutional arrangements of MAP Phase II provide for the establishment of advisory groups. The Advisory Group of Experts for MED POL is established as an advisory body of the Meeting of the National Coordinators for MED POL. It will advise the Secretariat and the Meeting of MED POL National Coordinators on the scientific and technical aspects of the design, development and implementation of MED POL-Phase III.

* Tunisia expressed a reservation.

2. More specifically, it will advise on the scientific and technical details relating to:
 - the establishment of a coastal zone trend monitoring programme;
 - the establishment of a biological effects monitoring programme;
 - the establishment of a compliance monitoring programme;
 - the implementation of the Land-based Sources Protocol;
 - the evaluation and utilization of MED POL data and information;
 - any other aspect of MED POL as decided by the Meeting of National Coordinators.
3. The Advisory Group will consist of a core group of 4-6 Mediterranean experts to be nominated for a 2-year term, with the possibility of extension for a further period of 2 years, by the Meeting of MED POL National Coordinators on the basis of a proposal made by the Secretariat. In order to prepare such a proposal, the Secretariat will inform the Contracting Parties that the process of preparation of the proposal has started and that, if they have an appropriate candidate, they should submit such candidature to the Secretariat.
4. The travel and subsistence expenses of the members of the Group will be covered by the Secretariat.
5. The Group will meet as necessary, but at least once a year. The meetings of the Group will be announced to the Contracting Parties, which may wish to send observers at their own cost.

To ask the Secretariat to cooperate with existing major international programmes (e.g. RAMOGE, POEMBC, PRIMO) in the implementation of MED POL Phase-III.

2. Assessment of Pollution-related Problems

To ask the Secretariat to formulate a regional programme of coastal zone trend monitoring to be implemented by the Contracting Parties.

To ask the Secretariat to formulate compliance monitoring programmes to be implemented by the Contracting Parties in their respective countries: the programmes should include all the adopted common measures and other relevant decisions of the Contracting Parties.

To ask the Secretariat to provide assistance to developing Contracting Parties, which so request, in their efforts to redesign and implement their national monitoring programmes.

To ask the Secretariat to continue to work on the development of a biological effects (marine organisms) monitoring programme to be implemented by the Contracting Parties in parallel with the chemical component of the existing monitoring programme within the framework of MED POL, as decided at the Eighth Ordinary Meeting of the Contracting Parties in 1993.

To ask the Secretariat to continue implementing Data Quality Assurance activities, including microbial parameters, in order to ensure the full reliability of results and to assist countries in their interpretation.

To approve the utilization of 50 per cent of the 1997 budget earmarked for research for projects on eutrophication and biological effects.

3. Pollution Control

(i) Implementation of LBS Protocol

To ask the Secretariat to take all necessary action in order that full implementation of the LBS Protocol is achieved.

To urge Contracting Parties to implement the common measures adopted and to inform the Secretariat accordingly.

To urge Contracting Parties to report on their action to incorporate the decisions on common measures into national legal instruments.

To ask the Secretariat to provide assistance (including capacity building) to Contracting Parties requesting it for the implementation and enforcement of the control measures adopted by them.

To request the Secretariat to follow up the implementation by the Contracting Parties of the pollution control measures adopted.

To ask the Secretariat to provide assistance to Contracting Parties requesting it in formulating and implementing national, subregional and regional action plans for the control of land-based pollution.

To urge Contracting Parties which have not completed the questionnaires for the survey of land-based sources of pollution to do so at the latest by September 1996 to enable the Secretariat to prepare a final version of the survey by March 1997.

To ask the Secretariat to organize a meeting of government-designated experts for the preparation of the Regional Action Plan for the control and elimination of pollution by land-based sources and activities.

To ask the Secretariat to organize a regional and, if necessary, sub-regional, programme for the identification of pollution "hot spots" (sources).

To ask the Secretariat to formulate a programme of assistance for the Contracting Parties which request it, for the establishment or enhancement of a national inspection system, and the organization of the appropriate training.

(ii) Implementation of the Dumping Protocol

To urge Contracting Parties to make every effort to send out on a regular basis annual reports to the MED Unit on dumping, including nil reports.

(iii) Assessments and control measures

To take note of the following:

Assessment of the state of pollution of the Mediterranean Sea by zinc, copper and their compounds

Zinc and copper, which appear in Annex II of the LBS Protocol, are found in nature principally in sulphide deposits and in minerals of basaltic rocks. Zinc also occurs as a silicate complex and as a carbonate. Weathering and erosion of the earth's crust release and transport zinc and copper into the marine environment, mainly by surface run-off, rivers and atmospheric deposition. Anthropogenic activities also contribute to the level of inputs into the marine environment. Such activities are: mining, industrial processing of ores and metals and the disposal of metals and their compounds mainly in sewage and sludges. Other activities, such as the combustion of fossil fuels, waste incineration and smelting-release zinc and copper into the atmosphere from where they are subsequently transported to the sea through various routes.

If atmospheric inputs, as well as inputs through the straits of Gibraltar and the Dardanelles, are taken into consideration, the estimated loads into the Mediterranean sea are about 90,000 tons per year for zinc and 24,000 tons per year for copper.

The levels of zinc in seawater can be as high as $450 \mu\text{g L}^{-1}$ especially in polluted harbours. However, in clean offshore areas, the values range from 1 to $5 \mu\text{g L}^{-1}$ and can even be as low as $0.02 \mu\text{g L}^{-1}$. The reported copper concentrations for the Mediterranean are lower and vary from $0.2 \mu\text{g L}^{-1}$ to $50 \mu\text{g L}^{-1}$ in the vicinity of point sources.

The concentration levels of these metals found in sediments vary with the extraction method used. For total extraction and subsurface samples the background levels for zinc and copper are estimated to be 20 and 15 $\mu\text{g g}^{-1}$ DW respectively. In polluted areas, concentrations of up to a few thousand $\mu\text{g g}^{-1}$ have been reported, with copper values lower than those for zinc.

The concentrations of these metals in marine biota vary according to species. The highest concentrations are found in some molluscs, such as oysters, in which concentrations of Zn may exceed 100 $\mu\text{g g}^{-1}$ FW and those of copper 20 $\mu\text{g g}^{-1}$ FW. From MED POL data it has been estimated that the average zinc value for the entire Mediterranean in the mussel Mytilus galloprovincialis is 27 $\mu\text{g g}^{-1}$ FW and in the fish Mullus barbatus about 4 $\mu\text{g g}^{-1}$ FW. The respective values for copper are 1.3 $\mu\text{g g}^{-1}$ for M. galloprovincialis and 0.4 $\mu\text{g g}^{-1}$ for M. barbatus.

Seafood is a major source of zinc and copper for man. Intake of excessive doses of copper by man leads to severe mucosal irritation and corrosion, widespread capillary damage, hepatic and renal damage and irritation of the central nervous system followed by depression. However, in general, the concentrations found in edible species do not pose a threat to human health. The reported lowest lethal dose known for zinc for a human is 500 $\mu\text{g kg}^{-1}$ bw/day, and zinc has not been implicated in any human disease derived from the eating of seafood. Copper poisoning of dietary origin is also rare in man and higher mammals owing to the powerful emetic action of copper. However, both metals have been found to have adverse effects on marine life at concentrations much lower than those occurring in polluted areas. Copper concentrations in seawater as low as 10 $\mu\text{g L}^{-1}$ had a significant inhibitory effect on the shell growth of M. edulis and 5 $\mu\text{g L}^{-1}$ on the reproduction of the isopod Idothea baltica. Zinc values of between 10 and 40 $\mu\text{g L}^{-1}$ have been shown to have harmful effects on the life of marine organisms.

In order to protect marine organisms, communities and ecosystems, the concentrations of both metals in seawater have to be reduced to levels which are not harmful. For this purpose it is necessary to limit the inputs of copper and zinc in the marine environment, both in the quantity discharged per unit time and the concentration of the metals in liquid effluents and sludges, as well as emissions to the atmosphere.

It is recommended that environmental quality objectives be set for the coastal waters of the Mediterranean. As a step towards the achievement of these water quality objectives, it is also recommended that limit values be set for all effluent discharges into the Mediterranean Sea.

For the protection of human health, it is recommended that the situation should be monitored and that legal limits should be imposed only when and where necessary.

To adopt the following:

Measures for the control of pollution by zinc, copper and their compounds*

The Contracting Parties, bearing in mind article 4 of the Barcelona Convention and article 6 and Annex II of the Land-Based Sources Protocol, as well as the principle of the precautionary approach adopted by them at their 6th Ordinary Meeting (Athens, 3-6 October 1989), and taking into consideration the conclusions of the UNEP/FAO/WHO document (UNEP(OCA)/MED WG.104/Inf.4) on the assessment of the state of pollution of the Mediterranean sea by zinc, copper and their compounds,

agree to take the following action as from 1 January 1998:

(a) For the protection of marine organisms, communities and ecosystems

- to set water quality objectives for total dissolved copper and zinc in their coastal waters: These objectives should be $10 \mu\text{g L}^{-1}$ for zinc and $5 \mu\text{g L}^{-1}$ for copper.

As a step towards the achievement of the above quality objectives, they agree:

- to set limit values for both copper and zinc in all effluent discharges into the Mediterranean Sea before dilution. These values should be 0.5 mg for copper and 1.0 mg for zinc per litre discharged (monthly flow-weighted average concentration of total copper and zinc);

(b) For the protection of human health

- to monitor the trends of zinc and copper content in marketed species of seafood;
- to identify areas where high levels of copper and zinc in edible species of seafood are reported and might pose a health problem, taking into account their intake from other sources;
- to impose legal limits on the copper and zinc content of seafood in such areas (or any other restrictions considered appropriate under prevailing conditions), should the local situation so demand, including prohibition of aquaculture and fishing activities in such areas;

* A reservation was made by the representative of Spain.

- to formulate and implement recommended measures to regulate the type and amount of seafood consumed by high-risk groups, if it is considered that such groups are not sufficiently protected by local measures of a general nature;
 - (c) To report to the Secretariat on measures taken in accordance with this decision.
- To take note of the following:

Assessment of the state of pollution of the Mediterranean Sea by anionic detergents

Detergents containing anionic surfactants represent 60% of the commercially used surfactants; cationic surfactants used as fabric softeners and disinfectants (quaternary ammonium cationics) represent 10%; and the remainder is represented by non-ionic surfactants. The most widely used anionic detergents are LAS (linear-secondary alkylbenzenesulfonate), which is rapidly degraded by environmental microorganisms, derived from linear alkylbenzenes (LAB) by sulfonation of alkylbenzene with H_2SO_4 or SO_3 . Degradation of anionic detergents in sewage treatment plants before reaching natural waters is not always complete, and alkyl phenols which are highly toxic to fish and small water invertebrates, may be formed during aerobic and especially during anaerobic treatment in anoxic conditions. It has been demonstrated that primary biodegradation of LAS in estuarine waters depends strongly upon several factors, such as the origin of the bacterial culture, the temperature conditions and the structure of alkylbenzenes.

The most important sources of anionic detergents in the Mediterranean Sea are land-based sources, and detergents are introduced into the marine environment directly from outfalls discharging into the sea or through coastal dispersion, and indirectly through rivers, canals or other watercourses, including underground watercourses, or through run-off. Information on the amount of anionic detergents reaching the Mediterranean Sea is sparse. A pilot monitoring survey carried out in 1992 provided some more information on levels of anionic detergents. Levels in seawater ranged from 0.01 to $4.2 \mu g L^{-1}$, in effluents from 0.11 to $34.07 \mu g L^{-1}$ and in rivers from 0.06 to $26.86 \mu g L^{-1}$. This study, however, had to be restricted to a few coastal areas and the results cannot be interpreted as providing any indication of the situation prevailing in the Mediterranean as a whole. Overall assessment of the situation with regard to the Mediterranean was made on the basis of current knowledge at the global level, taking into consideration the existing differences in sampling and analytical techniques. For the purpose of the study, the levels of concentration were determined by methylene blue active substances (MBAS) and LAS.

Considering that the ingestion of small quantities, even repeatedly, of seawater polluted by anionic surfactants, may be regarded as free of risk, the poor percutaneous absorption and the low toxicity of anionic detergents suggest that

there appears to be no risk to human health through contact with detergent-polluted seawater, provided that concentrations in any particular locality do not reach levels sufficient to produce visible foam on the surface. Nevertheless, it must be borne in mind that another effect of detergents on the skin barrier is that it allows the absorption of other compounds which are temporarily present.

Concentrations of anionic detergents measured in the Mediterranean Sea may represent a risk for marine biota on all occasions when they reach levels of effect. The danger to fish comes from exposure of the gill tissues to the detergent, rather than from ingestion. Very important toxic effects are experienced by fish swimming in water containing LAS (or other detergents) at low (few $\mu\text{g L}^{-1}$) concentrations. It must also be taken into account that no data are available to support the hypothesis of a widespread risk for marine biota in the Mediterranean Sea from anionic detergents, but that some data may lead to the belief that there are some risk situations where high amounts of non-degraded anionic detergents are present in seawater, especially in areas where there is a discharge of untreated sewage wastes.

In a number of Mediterranean countries, detergents are limited by legal restrictions respecting their discharge into the marine environment. Such restrictions generally relate to the use of a high percentage of anionic detergents and to permissible concentrations of detergents in the discharges, as well as in the sea.

- To adopt the following:

Measures for the control of pollution by detergents

The Contracting Parties, bearing in mind article 4 paragraph 1 of the Barcelona Convention and article 6 and Annex II of the Land-Based Sources Protocol, as well as the principle of the precautionary approach adopted by them at their 6th Ordinary Meeting (Athens, 3-6 October 1989), and also taking into account the high incidence of the use of anionic detergents as compared to non-anionic ones, and of the fact that anionic detergents are rapidly degraded in the environment, consider that a holistic approach has been adopted for detergents in general. The Contracting Parties also, taking into consideration the conclusions of the UNEP/WHO document (UNEP(OCA)/MED WG.104/Inf.5) on the assessment of the state of pollution of the Mediterranean Sea by anionic detergents,

agree to take the following action as from 1 January 1998:

- (a) to promote measures to reduce inputs into the marine environment of non-biodegradable detergents by restricting the use of detergents to those which are reasonably (90%) biodegradable;
- (b) to reduce the input of detergents in identified hot-spot areas: such actions would have to be individually tailored to suit the conditions prevailing in each particular locality so identified;

- (c) to monitor the level of detergents in coastal recreational areas: as a routine measure this could be done visually, with analysis only resorted to when any particular circumstance so demands;
- (d) to make, whenever possible, the monitoring of detergents in effluents a component of pollution source monitoring within the framework of MED POL;
- (e) to report to the Secretariat on all measures taken in accordance with this decision.

(iv) Other recommendations

Recommendations for prevention and control of microbiological pollution

The Contracting Parties, bearing in mind the targets relating to the establishment of sewage treatment plants and submarine outfall structures contained in the Genoa Declaration and the interim environmental quality criteria for bathing waters, adopted for a transitory period during their Fourth Ordinary Meeting in Genoa from 9 to 13 September 1985, as well as the criteria for shellfish waters, adopted during their Fifth Ordinary Meeting in Athens from 7 to 11 September 1987, and taking into consideration the UNEP/WHO document (UNEP(OCA)/MED WG.104/Inf.9) on the new assessment on the state of microbiological pollution of the Mediterranean Sea, completed in December 1995,

- Take note of the following:

Assessment of the state of microbiological pollution of the Mediterranean Sea

A considerable number of species and strains of pathogenic microorganisms, including mainly bacteria and viruses, but also fungi and protozoa, are known to be present in varying degrees of population density in Mediterranean coastal waters. Some of these are endemic in a number of Mediterranean areas. A number of algal species that produce biotoxins which affect man; mainly through the consumption of contaminated shellfish, have also been identified in various parts of the Mediterranean and are posing a risk in areas where local conditions lead to eutrophication and the development of algal blooms.

Diseases and disorders associated with infection by such pathogenic organisms have been recorded both among local Mediterranean populations and among tourists visiting the region. Except under specific circumstances, however, it is difficult to link infection with bathing in polluted coastal marine areas, with consumption of contaminated shellfish, as practically all such diseases and disorders can result from causes other than marine pollution. In the case of a number of non-gastrointestinal diseases contracted through bathing, it is being recognized that the cause may be high bather density rather than polluted seawater.

In conformity with global practice, the rationale for developing and enforcing seawater and shellfish quality criteria and standards in all Mediterranean countries involves the establishment of upper concentration limits of one or more bacterial indicator organisms as an index of acceptability or otherwise. Criteria and standards for bathing waters vary in the different countries, most of them being based either on the interim criteria for bathing waters adopted by the Contracting Parties to the Barcelona Convention and Protocols in 1985, or on the 1975 EC Directive on the quality of bathing waters. There is a similar variation between the various national criteria and standards for shellfish waters.

Records of bathing water monitoring for the period 1983 to 1992 from thirteen Mediterranean countries submitting their data to MED POL and assessed on the basis of conformity with the 1985 interim criteria for bathing waters appear to show reasonable microbiological quality, but cannot be properly evaluated owing to non-compliance with the stipulated monitoring frequency. These records, however, are known to present an incomplete picture of actual monitoring programmes in at least some Mediterranean states. On the other hand, the quality of bathing waters in the four Mediterranean EC Member States, assessed on the basis of compliance with the guide values of the 1975 EC bathing water Directive, show a positive trend over the last few years, probably as a result of improved wastewater management practices. The two sets of criteria and standards are not directly comparable. In the case of shellfish waters, no monitoring data has been available since the completion of the first phase of MED POL in 1981.

Recent international epidemiological data have cast doubts on the validity of current indicator bacteria as an accurate index of pathogen presence and density, in view of the longer survival of pathogens than of the indicator bacteria in seawater and shellfish and their greater resistance (particularly in the case of viruses) to conventional sewage treatment. The results of the studies in question have also accentuated the need for reliance on multiple, as opposed to single, indicator bacteria, supplemented by monitoring for the more serious pathogens at appropriate times. There is now sufficient data on the basis of which criteria and standards of a more permanent nature than the interim ones adopted in 1985 can be developed, in order to ensure adequate health protection for both local populations and tourists using coastal marine recreational amenities. In view of the lack of data, the matter of shellfish requires further study.

While the general situation can be said to have improved to a variable extent over the Mediterranean region, an acceleration of effort in achieving those targets listed in the 1985 Genoa Declaration related to the establishment of sewage treatment plants and submarine outfall structures is necessary in order to further reduce marine pollution and its resultant threats to human health.

Action for prevention and control of microbiological pollution

Agree on the following action:

- (a) To observe the terms of the measure on interim criteria for bathing waters adopted during their Fourth Ordinary Meeting in 1985 as well as to draw up new criteria taking into account the results of work conducted in an international context and to establish new standards relevant to the Mediterranean;
- (b) to observe the terms of the measure on the criteria for shellfish waters, adopted during their Fifth Ordinary Meeting in 1987, and to ensure that this is supplemented by adequate health or marketing legislation on shellfish quality to protect the consumer from contaminated produce;
- (c) to promote, both within the framework of MED POL and otherwise, the following studies:
 - microbiological surveys to satisfy the requirement for a more comprehensive catalogue of the presence and (where feasible) density of pathogenic microorganisms in sewage effluents and in those marine areas (recreational and shellfish-growing) known to be affected by such effluents. This would provide essential data for the design of new sewage treatment facilities and outfall structures in such localities, and for any possible modifications required in the case of existing ones;
 - epidemiological studies (i) on the correlation between recreational water quality and observed health effects on exposed population groups, covering the main water sport activity areas (including bathing), (ii) correlating the incidence of specified diseases and disorders with beach overcrowding, and (iii) aimed at identifying the extent to which contaminated seafood (as opposed to other sources) is responsible for the incidence of gastrointestinal diseases and disorders in both local populations and tourists;
 - microbiological studies correlating the density of bacterial indicator organisms with the presence and density of pathogens such as *Salmonella*, and studies to try to interpret the real pathogenic significance of pathogens such as *Salmonella* and enteroviruses in seawater samples;
 - Studies: (i) on the development of less expensive techniques for the identification of viruses, (ii) on the development of reliable techniques for the determination of bacteriophages and on the criteria for selection of the most appropriate bacteriophages to be determined for evaluation of the presence of enteroviruses, with the aim of being able, at some future date,

to propose limit values for bacteriophages, and (iii) on the survival and adaptation of pathogenic and indicator microorganisms released into the Mediterranean marine environment, including the mechanisms responsible for change;

- (d) to include, to the extent possible, all coastal waters used for bathing purposes in their national and local coastal recreational water quality monitoring programmes, and to include all ongoing programmes in this field in their national agreements with the Secretariat within the framework of MED POL;
 - (e) to accelerate the establishment of sewage treatment plants and submarine outfall structures in the appropriate cities and towns, in order to further prevent pollution by sewage at source, and achieve the relative targets contained in the 1985 Genoa Declaration by the earliest possible date;
 - (f) to provide the Secretariat to the Convention and Protocols with the fullest information possible on all updates of legislation and administrative measures respecting national criteria and standards for coastal recreational and shellfish waters.
- (c) Remote Sensing Activities (ERS/RAC)
- 1. To invite the Secretariat (ERS/RAC) to enhance its activities relating to the development and demonstration of the physical observation and study of the environmental state and modification of marine and coastal areas in the Mediterranean basin, thus contributing to the decision-making process concerning the sustainable management of resources.
 - 2. To invite the Secretariat (ERS/RAC) to strengthen cooperation with the Focal Points, the MAP Coordinating Unit, RACs and other MAP components for the implementation of the approved programmes by developing activities supported by the use of remote sensing techniques in conjunction with other sources of data.
 - 3. To invite the Secretariat (ERS/RAC) to further develop its activities relevant to the observation and assessment of the state and modification of forest and plant coverage in the whole Mediterranean region, as well as their relation with environmental changes, in liaison with other programmes such as the FAO Forest Action Plan.
 - 4. To invite the Secretariat (ERS/RAC) to strengthen the use of remote sensing techniques in the implementation of the ongoing and future Coastal Areas Management Programmes (CAMPs), also promoting their integration in multi-disciplinary approaches.

5. To invite the Secretariat (ERS/RAC) to develop and propose the use of remote sensing techniques for the observation and study of eutrophication phenomena and of pollution from both marine and land-based sources, as well as for the assessment of pollutant dispersion in marine coastal areas; and to invite ERS/RAC to coordinate its activities with relevant IOC programmes as appropriate.
6. To invite the Secretariat (ERS/RAC) to promote the dissemination and exchange of information and activities relating to remote sensing data and applications among the Mediterranean countries and relevant operational Centres, with a view to developing and strengthening a remote sensing Mediterranean network.
7. To invite the Secretariat (ERS/RAC) to develop and propose appropriate methods for a sound understanding of the Mediterranean environment, by transferring knowledge of remote sensing applications through on-the-job training and capacity-building activities.
8. To invite the Secretariat (ERS/RAC) to take into account possible requests from Mediterranean countries relevant to the monitoring of environmental changes in a number of characteristic zones:
 - large urban centres and their suburbs;
 - coastal zones subject to pressure;
 - ecologically fragile sites;
 - zones exposed to desertification phenomena.

4. INFORMATION AND PARTICIPATION

- [1. To approve the programme budget for 1997 the covering chapter on "Information and participation" as proposed in part II of this annex (page 61).]
2. To prepare relevant publications, brochures and reports presenting MAP activities and to disseminate them to decision-makers, scientists and administrators as well as the public at large.
3. To carry out activities related to the promotion of environmental awareness, exchange and dissemination of information, educational assistance and information on MAP activities through the strengthening of the library and library services of MEDU.
4. To enhance cooperation with environmental Mediterranean NGOs and encourage their active participation in MAP-related activities.
5. To recommend the inclusion of the following NGOs in the list of MAP Partners, as approved by the Ninth Ordinary Meeting of the Contracting Parties (Barcelona, 5-8 June 1995), "MAP Cooperation with Non-Governmental Organizations":

- Israel Society for the Protection of Nature, Israel;
- Ricerca e Cooperazione (RC), Italy;
- Sustainability Challenge Foundation, Italy;
- European Fertilizer Manufacturers Association (EFMA), Belgium;
- International Marine Mammal Association (IMMA), Canada.

III. STRENGTHENING OF THE LEGAL FRAMEWORK (Chapter II of MAP II)

- [1. To approve the programme budget for 1997 covering the chapter on "Strengthening of the Legal Framework" proposed in part II of this annex (page 62).]
2. To ask the Executive Director of UNEP to convene a Conference of Plenipotentiaries for the adoption of the three annexes to the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean, to be preceded by a one-day meeting of government-designated experts.
3. To invite the Contracting Parties to notify to the Depository, in writing, their acceptance of the amendments to the Convention for the Protection of the Mediterranean Sea against Pollution, the Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft (Dumping Protocol), and the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-based Sources (LBS Protocol).
4. To invite the Contracting Parties that have not done so, to sign/ratify the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA Protocol) and the Protocol for the Protection of the Mediterranean Sea against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil (Offshore Protocol).
5. To invite the Contracting Parties to review their countries' position with respect to other pertinent international conventions, protocols and agreements and to ensure the early signature of those instruments which may have a positive influence on the Mediterranean Basin.

II. PROGRAMME BUDGET FOR 1997:**I. INSTITUTIONAL AND FINANCIAL ARRANGEMENTS (Chapter III of MAP II)****SUMMARY OF BUDGETARY ALLOCATIONS**

	Proposed Budget 1997 (,000 US\$)
I. INSTITUTIONAL AND FINANCIAL ARRANGEMENTS	
PROGRAMME COORDINATION	402
PERSONNEL AND OPERATING COSTS	
1. COORDINATING UNIT, Athens, Greece	
- Secretariat Personnel and Unit's Operating Costs	804
- MEDPOL Personnel	431
- Operating costs covered by the Greek Counterpart Contribution	400
2. MED POL COOPERATING AGENCIES	385
3. REGIONAL MARINE POLLUTION EMERGENCY RESPONSE CENTRE FOR THE MEDITERRANEAN (REMPEC)	552
4. BLUE PLAN REGIONAL ACTIVITY CENTRE (BP/RAC)	447
5. PRIORITY ACTIONS PROGRAMME REGIONAL ACTIVITY CENTRE (PAP/RAC)	328
6. SPECIALLY PROTECTED AREAS REGIONAL ACTIVITY CENTRE (SPA/RAC)	274
7. ENVIRONMENT REMOTE SENSING REGIONAL ACTIVITY CENTRE (ERS/RAC)	-*
8. SECRETARIAT FOR THE 100 HISTORIC SITES	-*
9. SECRETARIAT FOR THE CLEANER PRODUCTION REGIONAL ACTIVITY CENTRE (CP/RAC)	-*
	SUB-TOTAL 3,621
PROGRAMME SUPPORT COST**	790
TOTAL INSTITUTIONAL AND FINANCIAL ARRANGEMENTS	4,813

* Covered by the host country.

** Programme Support Cost of 13% applies to MTF expenditures of 6,076,000 US\$.

	Proposed Budget 1997 (,000 US\$)
II. SUSTAINABLE DEVELOPMENT IN THE MEDITERRANEAN	
SUPPORT TO THE MEDITERRANEAN COMMISSION ON SUSTAINABLE DEVELOPMENT	110
1. INTEGRATING ENVIRONMENT AND DEVELOPMENT	
1.1 Economic activities and the environment	100
1.2 Urban management and the environment	50
1.3 Sustainable management of natural resources	114
1.4 Integrated coastal area management	
(a) Integrated Planning	31
(b) Coastal Areas Management Programme (CAMP)	408
1.5 Elements for a Mediterranean strategy (including MEDO)	
(a) Observation and Systemic and Prospective Analysis of Environment and Development in the Mediterranean	65
(b) Mediterranean Environment and Development Observatory (MEDO)	65
1.6 National and local capacity-building	20
	SUB-TOTAL
	853
2. CONSERVATION OF NATURE, LANDSCAPE AND SITES	
2.1 Collection of data and periodic assessment of the situation	75
2.2 Legal measures (SPA Protocol)	30
2.3 Planning and management	105
2.4 Exchange of experience and strengthening of national capabilities	70
	SUB-TOTAL
	280

	Proposed Budget 1997 (,000 US\$)
3. ASSESSMENT, PREVENTION AND ELIMINATION OF MARINE POLLUTION	
3.1 Assessment of pollution-related problems	440
3.2 Pollution prevention	
(a) Prevention and elimination of the pollution of the marine environment from land-based activities (LBS Protocol)	300
(b) Prevention of and response to the pollution of the marine environment from sea-based activities	
(i) Preparedness for, response to and cooperation in cases of accidental marine pollution (Emergency Protocol)	180
(ii) Prevention of the pollution of the marine environment by dumping from ships and aircraft (Dumping Protocol)	10
(c) Prevention and control of the pollution of the environment resulting from transboundary movements of hazardous wastes and their disposal (Hazardous Wastes Protocol)	30
3.3 Supporting measures	65
	SUB-TOTAL 1,025
4. INFORMATION AND PARTICIPATION	145
TOTAL SUSTAINABLE DEVELOPMENT IN THE MEDITERRANEAN	2,413
III. STRENGTHENING OF THE LEGAL FRAMEWORK	
TOTAL STRENGTHENING OF THE LEGAL FRAMEWORK	90
GRAND TOTAL	7,316

**AGGREGATE BUDGET COVERING ACTIVITIES AND PERSONNEL AND OPERATING COSTS
FOR THE COORDINATING UNIT AND THE CENTRES:**

	Proposed Budget 1997 (,000 US\$)
1. COORDINATING UNIT	
- Total Activities Coordinating Unit	737
Personnel and Operating Costs:	
- Secretariat Personnel and Unit's Operating Costs	804
- Operating costs covered by the Greek Counterpart Contribution	400
- Total Personnel and Operating Costs	1,204
	TOTAL 1,941
2. MED POL	
- Total Activities MED POL	965
Personnel and Operating Costs:	
- MED POL Personnel in the Coordinating Unit	431
- MED POL Cooperating Agencies Personnel and Operating Costs	385
- Total Personnel and Operating Costs	816
	TOTAL 1,781
3. REGIONAL MARINE POLLUTION EMERGENCY RESPONSE CENTRE FOR THE MEDITERRANEAN (REMPEC)	
- Total Activities	200
- Total Personnel and Operating Costs	552
	TOTAL 752
4. BLUE PLAN REGIONAL ACTIVITY CENTRE (BP/RAC)	
- Total Activities	250
- Total Personnel and Operating Costs	447
	TOTAL 697
5. PRIORITY ACTIONS PROGRAMME REGIONAL ACTIVITY CENTRE (PAP/RAC)	
- Total Activities	415
- Total Personnel and Operating Costs	328
	TOTAL 743
6. SPECIALLY PROTECTED AREAS REGIONAL ACTIVITY CENTRE (SPA/RAC)	
- Total Activities	248
- Total Personnel and Operating Costs	274
	TOTAL 522

	Proposed Budget 1997 (,000 US\$)
7. ENVIRONMENT REMOTE SENSING REGIONAL ACTIVITY CENTRE (ERS/RAC)	
- Total Activities	30
- Total Personnel and Operating Costs	-*
	TOTAL
	30
[8. CENTRE FOR THE 100 HISTORIC SITES	
- Total Activities	60
- Total Personnel and Operating Costs	-*
	TOTAL
	60]
9. CENTRE FOR THE CLEANER PRODUCTION REGIONAL ACTIVITY CENTRE (CP/RAC)	
- Total Activities	**
- Total Personnel and Operating Costs	-*
	TOTAL
	-
OVERALL TOTAL ACTIVITIES, PERSONNEL AND OPERATING COSTS	6,526
PROGRAMME SUPPORT COSTS (13% OF MTF) ***	790
GRAND TOTAL	7,316

* Covered by the host country.

** 1997 activities for the CP/RAC are fully funded by the Spanish Government at an approximate cost of Pesetas 15.000.000.- (around 118,557 US\$ at a rate of 126.5 PTA/US \$).

*** Programme Support Cost of 13% applies to MTF expenditures of 6,076,000 US \$.

SOURCES OF FINANCING

The following scheme of sources of financing for the programme budget for 1997 is proposed to the Contracting Parties:

	1997 (in US\$)
A. Income	
MTF Contributions for 1997	4,714,768
EC Voluntary Contribution	552,178
Greek Counterpart Contribution	400,000
UNEP Counterpart Contribution	50,000
Bank Interest (estimate)	100,000
Unpaid pledges as at 31 Dec. 1996 (estimate)	897,851
Estimated uncommitted funds as at 31 Dec. 1996 (including advance payments towards future pledges)	2,011,209*
Total Expected Income	8,726,006
B. Commitments	
Approved Commitments for 1997	7,315,880
Total Commitments	7,315,880
C. Provisions for revolving fund	1,410,126*

* Includes US\$ 222,509 representing advance payments towards future pledges received during 1996.

PROPOSED CONTRIBUTIONS TO THE MEDITERRANEAN TRUST FUND FOR 1997			
Contracting Parties	%	1996 Approved Contributions	1997 Proposed Contributions (7% increase over 1996)
Albania	0.07	3,084	3,300
Algeria	1.05	46,266	49,505
Bosnia and Herzegovina	0.30	13,219	14,144
Cyprus	0.14	6,169	6,602
Croatia	0.97	42,741	45,734
EC	2.50	110,158	117,869
Egypt	0.49	21,591	23,102
France	37.97	1,673,082	1,790,197
Greece	2.81	123,818	132,485
Israel	1.47	64,773	69,307
Italy	31.37	1,382,264	1,479,023
Lebanon	0.07	3,084	3,300
Libya	1.97	86,805	92,881
Malta	0.07	3,084	3,300
Monaco	0.07	3,084	3,300
Morocco	0.28	12,338	13,201
Slovenia	0.67	29,522	31,589
Spain	14.99	660,508	706,744
Syria	0.28	12,338	13,201
Tunisia	0.21	9,253	9,901
Turkey	2.25	99,142	106,083
Sub-total	100.00	4,406,325	4,714,768
EC Voluntary Contribution		559,888*	552,178*
Host Country		400,000	400,000
UNEP Environment Fund		50,000	50,000
TOTAL		5,416,213	5,716,946

* The funds from the Voluntary Contribution of the European Community are indicative and should be used for specific activities selected within the programme budget for 1997 and after prior agreement from the EC.

PROGRAMME COORDINATION

Objectives

To prepare the work programme and budget for the Mediterranean Action Plan for review by the meetings of the Bureau, the subsidiary bodies and for review and approval by the ordinary meetings of the Contracting Parties. To coordinate MAP activities with participating UN Agencies, intergovernmental and non-governmental organizations, and MAP Regional Activity Centres and to manage the Mediterranean Trust Fund.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)
- 10th Ordinary Meeting of the Contracting Parties to review and approve the 1998-99 programme budget (MEDU)	215
- Meeting of the MAP National Focal Points to consider the progress of the Action Plan and prepare the 1998-99 programme budget (MEDU)	115
- Second Meeting of the Mediterranean Commission on Sustainable Development (MEDU)	*
- Meetings of the Bureau (two per year) to review the progress of the Action Plan, advise the Secretariat on matters arisen since the meeting of Contracting Parties, and decide on programme/ budget adjustments (MEDU)	42
- Meeting of the Regional Activity Centres' Directors and the Coordinating Unit for programming and coordination of MAP activities (MEDU)	10**
- Training of national officials at MED Unit on MAP programmes and procedures (direct support to 2 countries, 4 participants) (MEDU)	5
- Consultation on the preparation of reporting formats for national reports (MEDU)	15
TOTAL ACTIVITIES	402

* Meeting to be hosted by a Contracting Party.

** Amount to cover cost of translation and interpretation. Travel cost included under the relevant Regional Activity Centres.

MAP PERSONNEL AND OPERATING COSTS:

1. COORDINATING UNIT, Athens, Greece

The revised structure of the personnel at the Coordinating Unit, as referred to in the recommendations, are reflected in the proposed budget.

The increase of post adjustment for Athens for the Professional Staff that occurred in December 1995 (from 28.6% to 34.9%) has required an increase of salaries in 1997 compared to 1996. The post adjustment is calculated independently of UNEP by the International Civil Service Commission and reflects the increase of the cost of living in the Duty Station. However, the figures indicated for 1997 are estimates and a further increase of the post adjustment is not excluded. The level of increase of allocation for the post of Deputy Coordinator is less than the other post as it is expected that the recruitment of a new incumbent will be made at a lower step level.

For Administrative Support there has been a readjustment of the salaries (+ 5.84%) that takes into account the recent increase of salaries through the interim salary survey undertaken by the Compensation and Classification Service of UN Headquarters in New York. The figures indicated are indeed estimates and another salary survey is forecast during the second half of 1996 that might result in an even higher increase of salaries, as the survey takes into account such parameters as the level of income tax. The allocation for overtime and temporary assistance however remain at the same level in 1997 as for 1996.

The funds for Travel on Official Business include the travel allocation previously attributed to FAO, due to the closing of the FAO post.

An increase in the Rental cost of MEDU premises of 8.1% has already occurred at the beginning of the year. The figures indicated for 1997 show an estimated increase of 11.9% over 1996 that takes into account the trends observed at the Duty Station. However, it is necessary to underline the favourable conditions provided by the Host Country as the cost of the rent is presently much below the value prevailing in the market in Athens.

The Office Cost includes such costs as the cost of reproduction, telephone and postage. A substantial increase in these costs has occurred in 1996; for postage, for instance, the range of the increase is from 11% for airmail postage to 68% for printed matter in 1996 and for reproduction costs the increase in 1996 is already 8%.

Also included under the budget for office costs are the allocation for non-expendable equipment and the maintenance of the premises. As announced by the Coordinator during the last Joint Committee Meeting held in Athens in 1995, there is an urgent need to replace or upgrade office facilities. In order to catch up with the telecommunications facilities in Greece it will be necessary to replace the obsolete switchboard. An investment of at least US \$20,000 is necessary to this effect. An additional US \$10,000 will also be necessary to replace some equipment and furniture that have not been changed for fifteen years.

COORDINATING UNIT, Athens, Greece

	m/m	Proposed Budget	
		MTF 1997 (,000 US \$)	Greek Counterpart Contribution 1997 (,000 US \$)
Professional Staff			
- Coordinator - D.1/D.2	12	122	
- Deputy Coordinator - D.1	12	116	
- Senior Programme Officer/ Economist - P.5	12	115	
- Fund Management/Admin. Officer - P.3	12	(1)	
- MEDPOL Coordinator - P.5	6	55	
- MEDPOL Senior Programme Officer - P.5	12	115	
- MEDPOL First Officer/ Marine Scientist - P.4	12	89	
- Computer Operations Officer - P.4	12	88	
Total Professional Staff		700	
Administrative Support			
- Information Assistant - G.6	12	34	
- Administrative Assistant - G.6	12	(1)	
- Senior Secretary - G.5	12	29	
- Senior Administrative Clerk - G.4	12	(1)	
- Data Processing Assistant - G.5	12	(1)	
- Research Assistant - G.4/G.5	12	29	
- Senior Secretary - G.4	12	28	
- Senior Secretary - G.4	12	28	
- Senior Secretary (MEDPOL) - G.4	12	28	
- MEDPOL Coord. Secretary (MEDPOL) - G.4	12	28	
- Bilingual Typist (MEDPOL) - G.3/G.4	12	28	
- Telecommunication Clerk - G.3	12	26	
- Clerk/Driver - G.3	12	25	

(1) Paid under Programme Support Costs.

	m/m	Proposed Budget	
		MTF 1997 (,000 US \$)	Greek Counterpart Contribution 1997 (,000 US \$)
- Clerk - G.1/G.2	12	19	
- Office Clerk/Typist - G.3	12	24	
- Temporary Assistance		30	
- Overtime		19	
Total Administrative support		375	
Travel on Official Business		106	
Office Costs			
- Rental		-	122 ⁽¹⁾
Other Office Costs (including sundry)		54	278
Total Office costs		54	400
TOTAL PERSONNEL AND OPERATING COSTS		1,235	400

⁽¹⁾ In the case of a change in the location of premises, the adjustment of the budget, due to the change in cost, to be approved by the Bureau.

2. MED POL COOPERATING AGENCIES

The proposed budget reflected the revised structure referred to in the recommendations with the suppression of the FAO posts (Senior Fishery Officer and FAO Secretary), and the suppression of the IAEA Maintenance Engineer during the second half of 1997.

	m/m	Proposed Budget 1997 (,000 US \$)
Professional Staff		
- WHO Programme Officer/Senior Scientist - MAP Coordinating Unit (Athens) - P.5	12	110
- IAEA Maintenance Engineer (MEL) (Monaco) - P.3	6	95 ⁽¹⁾
Total Professional Staff		205
Administrative Support		
- WHO Secretary - MAP Coordinating Unit (Athens) - G.5	12	29
- IAEA Laboratory Assistant - MEL (Monaco) - G.6	12	55
- WHO Temporary Assistance - (Athens)	6	15
- WMO Temporary Assistance - WMO/HQ (Geneva)		13
- IOC Temporary Assistance - IOC/HQ (Paris)		13
Total Administrative Support		125
Travel on Official Business		
- WHO (Athens)		16
- WMO (Geneva)		10
- IAEA (Monaco)		20 ⁽²⁾
- IOC of UNESCO (Paris)		9
Total Travel		55
Office costs		⁽³⁾
TOTAL PERSONNEL AND OPERATING COSTS		385

⁽¹⁾ The post of IAEA Maintenance Engineer will be terminated in 1997. Estimated cost includes cost of separation (repatriation grant, travel, annual leave, etc.).

⁽²⁾ To be used for field missions for the Data Quality Assurance Programme.

⁽³⁾ Office costs incurred by WHO staff stationed in the Coordinating Unit in Athens are covered by MED Unit office costs. Office costs incurred by all Agencies at their own Headquarters or Regional Offices are covered by the respective agencies as part of their counterpart contributions.

**3. REGIONAL MARINE POLLUTION EMERGENCY RESPONSE CENTRE FOR THE MEDITERRANEAN
(REMPEC) Valletta, Malta**

Cooperating Agency IMO

	m/m	Proposed Budget 1997 (,000 US \$)
Professional Staff		
- Director - D.1	12	128
- Technical Expert - P.4	12	112
- Chemist - P.4	12	102
Total Professional Staff		342
Administrative Support		
- Information Assistant - G.6	12	20
- Senior Secretary/Admin. Assistant - G.6	12	20
- Clerk Secretary - G.4	12	17
- Clerk/Secretary - G.4	12	17
- Caretaker/Docs Reproducer - G.3	12	16
Total Administrative Support		90
Travel on Official Business		35
Office costs		85
TOTAL PERSONNEL AND OPERATING COSTS		552

4. BLUE PLAN REGIONAL ACTIVITY CENTRE (BP/RAC)
Sofia Antipolis, France

The increase in running costs has been kept to a minimum level (less than 4% compared to 1996). This should cover part of the step increase for staff. The allocation for travel has been increased by US\$ 10,000 in order to meet the request for additional field missions, particularly for CAMPs. The increase of the Deputy Director budget reflects the real cost (which still needs to be supplemented) of participation in MAP activities. These increases are compensated by a decrease of \$5,000 on office costs, charged to external sources.

	m/m	Estimated Resources 1997 (,000 US \$)
Professional Staff		
- Chairman	12	
- Director	12	⁽¹⁾
- Deputy Director/Observatory Coordinator	12	100 ⁽²⁾
- Scientific Expert - Prospective	12	72
- Computer Officer	12	42 ⁽²⁾
- Environmental Statistics Expert	12	⁽³⁾
- Specialist Document Officer	12	⁽³⁾
- Specialist in Map Data Processing	12	⁽³⁾
- Administrative and Financial Officer	12	47 ⁽²⁾
Total Experts/Professional Staff		261
Administrative Support		
- Data Collection Assistant/Senior Secretary	12	43
- Bilingual Secretary	12	43
- Secretary	12	⁽⁴⁾
- Temporary Assistance		20
Total Administrative Support		106
Travel on Official Business		30
Office costs		50 ⁽²⁾
TOTAL PERSONNEL AND OPERATING COSTS		447

⁽¹⁾ Seconded by the French Government.

⁽²⁾ Supplemented by the French Government.

⁽³⁾ Covered by other sources (METAP, EC) to be confirmed.

⁽⁴⁾ Covered by the French Government.

5. PRIORITY ACTIONS PROGRAMME REGIONAL ACTIVITY CENTRE (PAP/RAC)

Split, Croatia

The proposed increase in office and personnel costs is due to: (a) the increase of general labour costs (social charges and taxes, in particular) and the resulting need to harmonize the resources with the conditions prevailing in the host country (a considerable increase of salaries in the public sector); and (b) unfavourable rates of exchange which continue to affect personnel salaries and operating costs.

	m/m	Proposed Budget 1997 (,000 US \$)
Professional Staff		
- Director	12	44
- Deputy Director	12	32
Total Professional Staff		76
Administrative Support		
- Senior Assistant to Projects/Translator	12	23
- Assistant to Projects/Translator	12	22
- Assistant to Projects/Translator	12	22
- Assistant to Projects/Translator	12	22
- Administrative Assistant	12	22
- Financial Assistant	12	22
- Temporary Assistance		9
Total Administrative Support		142
Travel on Official Business		27
Office costs		83
TOTAL PERSONNEL AND OPERATING COSTS		328

6. SPECIALLY PROTECTED AREAS REGIONAL ACTIVITY CENTRE (SPA/RAC)
Tunis, Tunisia

	m/m	Proposed Budget 1997 (,000 US \$)
Professional Staff		
- Director	12	33 ⁽¹⁾
- Expert	12	16.5 ⁽¹⁾
- Expert	12	62.5
- Data Researcher	12	44
Total Professional Staff		156
Administrative Support		
- Administrative Assistant	12	14
- Bilingual Secretary	12	12
- Driver	12	6.5
- Finance Officer	12	⁽²⁾
- Cleaner	12	⁽²⁾
- Caretaker	12	⁽²⁾
Total Administrative Support		32.5
Travel on Official Business		25
Office costs		60.5
TOTAL PERSONNEL AND OPERATING COSTS		274

⁽¹⁾ Represents funds allocated to supplement the salary paid by the Host Country.

⁽²⁾ Paid by the Host Country.

7. ENVIRONMENT REMOTE SENSING REGIONAL ACTIVITY CENTRE (ERS/RAC)

Palermo, Italy

	Proposed Budget 1997 (,000)
TOTAL PERSONNEL AND OPERATING COSTS	-*

- * Personnel and Operating Costs are fully funded under the counterpart contribution of the Government of Italy for ERS/RAC.

8. SECRETARIAT FOR THE 100 HISTORIC SITES
Marseilles, France

	Proposed Budget 1997 (,000)
TOTAL PERSONNEL AND OPERATING COSTS	-*

* Personnel and Operating Costs are fully funded under the counterpart contribution of the Municipality of Marseilles.

9. CLEANER PRODUCTION REGIONAL ACTIVITY CENTRE (CP/RAC)
Barcelona, Spain

	Proposed Budget 1997 (,000)
TOTAL PERSONNEL AND OPERATING COSTS	-*

* Personnel and Operating Costs are fully funded by the Spanish Government.

II. SUSTAINABLE DEVELOPMENT IN THE MEDITERRANEAN**SUPPORT TO THE MEDITERRANEAN COMMISSION ON
SUSTAINABLE DEVELOPMENT*****Objectives**

To implement the proposals in priority areas that will be identified during the first meeting of the Mediterranean Commission on Sustainable Development.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)
- Preparation of documents and reports	30
- Observation and Systemic Analysis	40
- Coastal planning and management	40
TOTAL ACTIVITIES	110

* With reservations by Italy and Spain.

1. INTEGRATING ENVIRONMENT AND DEVELOPMENT

1.1 Economic activities and the environment

Objectives

To study the agriculture production system, inputs and practices, and identify the impacts on major environment components, mainly water and soil.

To implement activities relevant to the implementation of the LBS Protocol with respect to industry and industrial pollution.

To secure sustainable development of tourism in the region through capacity-building for determining the capacity-building of sustainable tourism.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)
Agriculture - Mediterranean Agro-Systems and Impact on Environment (BP)	10
Industry LBS Protocol - Application of the LBS Protocol (collection of information, implementation of common measures, preparation and implementation of action plans, capacity-building (MEDPOL)	60
Tourism - National training course on the application of environmentally sound approach to planning and development of tourism activities using the Guidelines for carrying capacity for tourism (PAP)	15
[- Regional workshop on future of ancient ruins/tourist capacity of sites on the list of 100 historic sites (HIST)	15]
TOTAL ACTIVITIES	100

1.2 Urban management and the environment

Objectives

To study past, present and future interactions between urban and rural developments, as well as their impact on environment components, and to identify major parameters to monitor and evaluate their evolutions.

To contribute to the implementation of the concept of sustainable cities in the Mediterranean region, and especially to study the problems of urban infrastructure systems.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)
- Urbanization, Rural Development and the Environment in the Mediterranean: Status and perspectives (BP)	20
- Training course on Urban Solid Waste Management (French) (PAP)	30
TOTAL ACTIVITIES	50

1.3 Sustainable management of natural resources

Objectives

To identify major water management actors, study their strategies and identify relevant indicators to follow, evaluate and (re-)orient their actions towards a sustainable use of water.

To study the major use policies and their impact on soil erosion, quality and availability.

To develop the system of integrated water resources management in the region through capacity-building for water managers, and especially, to develop the management systems in urban and arid areas focusing on the conservation of water resources.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)
Water resources	
- Preparation of Guidelines for Coastal Urban Master Water Planning (PAP)	18
- Expert meeting to revise and adopt the Guidelines for Coastal Urban Master Water Planning (PAP)	10
- Training Course on Integrated Development, Management and Use of Coastal Water Resources (French) (PAP)	20
Soil	
- Reports on measurement of soil erosion phenomena in selected pilot sites in Turkey, Tunisia and Spain, and final editing of draft Guidelines on Mapping and Measurement of Soil Erosion Processes (PAP)	12
- Regional Training Course on consolidated methodology of mapping of soil erosion phenomena, with the participation of FAO (PAP)	30
Living marine resources	
- Expert Group meeting to promote coordination of the ongoing research on ecologically sound integrated management of mollusc culture (PAP)	10*
- Training course on the environmentally sound siting of aquaculture, including the utilization of GIS (15 participants) (PAP)	14*
TOTAL ACTIVITIES	114

* Additional funding to be sought.

1.4 Integrated coastal area management

(a) Integrated Planning

Objectives

To assist coastal States in the formulation, approval and implementation of coastal management policies; to contribute to the strengthening of capabilities of local and national institutions, authorities and experts for the implementation of the integrated coastal and marine areas management (ICAM) process; and to assist in the resolution of concrete environmental problems in coastal areas.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)
- Identification of the directions of future development and implementation of ICAM in the Mediterranean - expert meeting (PAP)	10
- National Training Course on the Application of Guidelines for ICAM (PAP)	11
- National Training Course on the Application of GIS in ICAM (PAP)	10
TOTAL ACTIVITIES	31

1.4 Integrated coastal area management

(b) Coastal Areas Management Programme (CAMP)

Objectives

To integrate environmental/development and resource management policies in Coastal Areas Management Programmes proposed and accepted by the Contracting Parties. Such integrated management programmes should include, as appropriate, findings and know-how of all components of MAP Phase II, such as development and sustainable management of natural resources of coastal zones.

To ensure coastal protection through legal means and to promote the exchange of expertise concerning policies and strategies for coastal protection.

This programme includes six ongoing CAMP projects in different stages of implementation, namely: Sfax/Tunisia, Algeria, Al-Hoceima/Morocco, Israel, Malta and Lebanon.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)
- Identification of pollution "hot spots"; assistance for monitoring programmes (levels and compliance) (MEDPOL)	40*
- Implications of climate change studies (MEDPOL)	20
- Implementation of CAMP activities: assistance to local systematic and prospective analysis (BP)	50*
- Planning and implementation of the activities for the Malta/Morocco/Israel CAMPs - Technical assistance to local counterparts, consultations, meetings, training (ERS)	10
- Implementation of CAMPs in Sfax/Tunisia, Algeria, Al-Hoceima/Morocco, Israel, Malta and Lebanon (PAP)	185*
- Experts, consultants to assist countries participating in CAMPs (MEDU, REMPEC, SPA)	73**
- Consultation meetings relevant to each CAMP project (MEDU)	30
TOTAL ACTIVITIES	408

* Additional funding to be sought.

** The above funds are broken down as follows:
The Med. Coordinating Unit \$25,000, REMPEC \$20,000, and SPA \$28,000.

1.5 Elements for a Mediterranean strategy

Objectives

To provide the development and environment public and private actors, including the Mediterranean Commission on Sustainable Development, with necessary information, pertinent analysis and evaluation, and relevant methods and tools including the use of remote sensing as a major input to their decision-making process towards sustainable development in the Mediterranean region. Systemic and prospective approaches will be applied at regional, national and coastal levels. Through the Mediterranean Environment and Development Observatory, indicators will be identified and elaborated, institutional knowledge will be improved and national observatories will be promoted. Related capacity-building assistance will be extended to Mediterranean partners.

- (a) Observation and Systemic and Prospective Analysis of Environment and Development in the Mediterranean

ACTIVITIES	Proposed Budget 1997 (,000 US \$)
- Preparation and publication of 2 country profiles (BP)	25*
- Systemic and prospective tools for coastal management (BP)	10
- Workshop on identification, elaboration and use of environmental statistics and indicators (BP)	20
- Preparation and publication of a fascicle (BP)	10
TOTAL ACTIVITIES	65

* Additional funding to be sought.

1.5 Elements for a Mediterranean strategy

(b) Mediterranean Environment and Development Observatory (MEDO)

ACTIVITIES	Proposed Budget 1997 (,000 US \$)
- Assistance to countries for preparation of a national environment and development Observatory (BP)	25*
- Data collection and processing and organisation of the Mediterranean Environment and Development Information System (BP)	10*
- Identification and elaboration of indicators: water, soil, wastes, urban, agriculture, etc.. (BP)	20*
- Preparation for a report on the State of Development and Environment in the Mediterranean (BP)	10
TOTAL ACTIVITIES	65

* Additional funding to be sought.

1.6 National and local capacity-building*

Objectives

To assist developing countries through capacity-building activities in the use of remote sensing for the monitoring of the state and the dynamic evolution of the coastal zone environment.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)
- On-the-job training in remote sensing techniques and applications and technical assistance to countries (mainly on monitoring of vegetation , monitoring of coastline changes, assessment of natural resources and land suitability, study of sea dynamics in coastal areas) (ERS)	20
TOTAL ACTIVITIES	20

- * Other capacity-building activities of a more specific nature, such as training courses and direct assistance to countries, are found under each component.

2. CONSERVATION OF NATURE, LANDSCAPE AND SITES

2.1 Collection of data and periodic assessment of the situation

Objectives

Assessment of the status and, where possible, the evolution of biological diversity in the Mediterranean, with a view to identifying appropriate measures for its conservation.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)
- Collection of data and assistance to countries for the preparation of inventories of species and sites of special interest (SPA)	60
- Meeting of Experts on <i>Caulerpa</i> (MEDU)	15*
TOTAL ACTIVITIES	75

* Additional funding to be sought.

2.2 Legal measures (SPA Protocol)

Objectives

The establishment of adequate legislation for the effective protection and management of the natural and cultural heritage of the Mediterranean region, in particular through the effective implementation of the new SPA Protocol.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)
- Analytical study on national legislation related to the conservation of biodiversity and the implementation of the new SPA Protocol (SPA)	20
[- Technical assistance for the establishment of national and local measures of safeguarding and management of sites of cultural heritage (HIST)	10]
TOTAL ACTIVITIES	30

2.3 Planning and management

Objectives

The establishment of effective forms of management of the natural and cultural heritage, in order to ensure its conservation and to promote its social and economic aspects.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)
- Implementation of the Action Plan for the conservation of the Mediterranean Marine Turtles (SPA)	15
- Implementation of the Action Plan for the management of the Monk Seals (SPA)	15
- Implementation of the Action Plan for the conservation of Cetaceans in the Mediterranean Sea (SPA)	15
[- Implementation of international conventions as well as national legislations concerning cultural sites: Workshop for the guides of concerned cultural sites (HIST)	15]
- Assistance to countries in the field of biodiversity conservation (SPA)	20
- Assistance to countries for the improvement of the management of SPA (particularly as regards the development and control of public access to SPAs) (SPA)	25
TOTAL ACTIVITIES	105

2.4 Exchange of experience and strengthening of national capabilities

Objectives

The improvement of the institutional capabilities of the Mediterranean countries in the field of conservation and management of the natural and cultural heritage.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)
- Training sessions on the scientific and technical aspects of the conservation of the natural common heritage (SPA)	50
[- Assistance to countries for the conservation of cultural sites (HIST)	10]
[- Training course on the scientific aspect of conservation of cultural sites (HIST)	10]
TOTAL ACTIVITIES	70

3. ASSESSMENT, PREVENTION AND ELIMINATION OF MARINE POLLUTION

3.1 Assessment of pollution-related problems

Objectives

Assessment of the levels and trends of loads of pollutants reaching the Mediterranean Sea.

Assessment of the levels and trends of pollutants and their potentially harmful effects on marine life, fisheries and human health.

Assistance to Contracting Parties in establishing/improving national monitoring programmes.

Provision of information about general and specific pollution-related problems and potential threats to the Mediterranean region.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)
<u>Assessment</u>	
- Identification of sources and assessment of loads of pollution (MEDPOL)	30
- Monitoring of trends in the levels and effects of pollution (MEDPOL)	30*
- Preparation of documents on loads, levels, trends and effects of pollution (MEDPOL)	30
<u>Assistance</u>	
- Assistance to Contracting Parties to establish/improve national monitoring programmes through capacity-building, training and data quality assurance (MEDPOL)	120
- Assistance to MED POL participating institutes for target oriented research, in particular eutrophication and biological effects (MEDPOL)	120
- Assistance to countries to develop procedures for legal provisions for maximum permissible levels in seafood (MEDPOL)	25
<u>Training and fellowships</u>	
- On-job training of participants in MED POL monitoring programmes and fellowships to present MED POL research and monitoring data (MEDPOL)	40
<u>Meetings</u>	
- First Meeting of Advisory Group of Experts for MED POL (MEDPOL)	20
- Review meeting on the results of the pilot programme for biological effects monitoring (MEDPOL)	25
- Planning workshop on baseline surveys of open Mediterranean waters (MEDPOL)	-**
TOTAL ACTIVITIES	440

* An additional contribution of 20,000 USD will be provided by WHO.

** A contribution of 15,000 USD will be provided by IOC. Additional funds may be sought from other sources.

3.2 Pollution prevention

- (a) Prevention and elimination of the pollution of the marine environment from land-based activities (LBS Protocol)

Objectives

Identification of major pollution "hot spots" in the Mediterranean, development and implementation of action plans (including economic aspects with timetables) for reduction and elimination of major "hot spots".

Development and implementation of concrete pollution control measures required by the Barcelona Convention, its protocols and decisions and recommendations of the Contracting Parties.

Formulation, adoption and implementation of the regional action plan and development and implementation of national action plans for reduction and elimination of pollution from land-based sources and activities.

Assistance to Contracting Parties in establishing compliance monitoring programmes.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)
<u>Action Plans</u>	
- Identification of major pollution "hot spots"; preparation and implementation of action plans (including economic aspects with timetables) for reduction and elimination of pollution at major "hot spots" (MEDPOL)	30*
- Formulation, adoption and implementation of regional action plan for reduction and elimination of pollution from land-based sources and activities (MEDPOL)	30*
<u>Assistance</u>	
- Assistance to Contracting Parties for the development and implementation of national action plans for reduction and elimination of pollution from land-based sources and activities (MEDPOL)	40
- Assistance to Contracting Parties for the implementation and enforcement of adopted pollution control measures (MEDPOL)	30
- Assistance to Contracting Parties for establishment of national compliance monitoring programmes (MEDPOL)	40**
<u>Training</u>	
- Training of national staff in relation to strengthening the system of environmental inspection (MEDPOL)	20*

* Additional funding to be sought.

** An additional contribution of 20,000 USD will be provided by WHO.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)
<u>Meetings</u>	
- Meeting of the National Coordinators for MED POL (MEDPOL)	60
- Inter-Agency Advisory Committee (IAAC) meeting to coordinate activities on MED POL with UN Agencies (MEDPOL)	-*
- One meeting of experts for the development of elements of national action plans for the reduction and elimination of pollution from land-based sources and activities (MEDPOL)	50**
TOTAL ACTIVITIES	300

* Travel cost included in MED POL Cooperating Agencies.

** Additional funding to be sought.

3.2 Pollution prevention

- (b) Prevention of and response to the pollution of the marine environment from sea-based activities
 - (i) Preparedness for, response to and cooperation in cases of accidental marine pollution (Emergency Protocol)

Objectives

To strengthen the capacities of the coastal states in the Mediterranean and to facilitate cooperation among them in order to intervene in case of emergencies and accidents causing or likely to cause pollution of the sea by oil and other harmful substances especially in case of emergency in which there is grave and imminent danger to the marine environment or when it can affect human lives.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)
- Assistance to States in developing their national system for preparedness and response (REMPEC)	10
- Assistance to States which so request for the preparation and development of agreements amongst neighbouring coastal States (REMPEC)	6
- Assistance to States in developing port emergency response system (REMPEC)	8
- Adaptation of predicting models and decision support system to the region (REMPEC)	6
- Regional training course on preparedness and response to accidental marine pollution (REMPEC)	74
- Workshop on Crisis Management (REMPEC)	60
- Technical assistance to States in the organisation of national training courses (REMPEC)	8
- Assistance to States in case of emergency (Mediterranean Assistance Unit) (REMPEC)	8
TOTAL ACTIVITIES	180

3.2 Pollution prevention

- (b) Prevention of and response to the pollution of the marine environment from sea-based activities
- (ii) Prevention of the pollution of the marine environment by dumping from ships and aircraft (Dumping Protocol)

Objectives

Prevention and abatement of pollution of the Mediterranean Sea Area caused by dumping from ships and aircraft.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)
- Collection of information on issuance of permits and dumping activities and assessment of the implementation of dumping protocol (MEDPOL)	10
TOTAL ACTIVITIES	10

3.2 Pollution prevention

- (c) Prevention and control of the pollution of the environment resulting from transboundary movements of hazardous wastes and their disposal

Objectives

To provide Contracting Parties with the necessary assistance related to the implementation of the Protocol on the Prevention and Control of the Pollution of the Environment resulting from Transboundary Movements of Hazardous Wastes.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)
<u>Regional Activities</u> - Assistance to Contracting Parties in carrying out the appropriate preparatory actions (technical and legal) related to the implementation of the Protocol on the Prevention and Control of the Pollution of the Environment resulting from Transboundary Movements of Hazardous Wastes (development of guidelines, rules and procedures for liability and compensation, legal and administrative measures related to the prohibition of export and transit of hazardous wastes) (MEDPOL)	30
TOTAL ACTIVITIES	30

3.3 Supporting measures

Objectives

Building of the institutional capabilities of the Contracting Parties for the assessment and elimination of marine pollution.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)
- Formulation and implementation of data quality assurance programmes (MEDPOL)	40
- Purchase of standards and reference material (MEDPOL)	25
TOTAL ACTIVITIES	65

4. INFORMATION AND PARTICIPATION

Objectives

To strengthen public awareness of the protection and enhancement of the Mediterranean environment, to strengthen cooperation with appropriate NGOs, and to inform Mediterranean decision-makers, scientists, administrators as well as the public at large on MAP activities.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)
- Publication and dissemination of MAP Technical Reports (MEDU)	15
- Library services (environmental awareness and educational assistance); Librarian (Consultant); Exchange/dissemination of information and reports (MEDU)	20
- Preparation and translation of MAP Newsletter MEDWAVES (Arabic, English and French) (MEDU)	15
- Printing and dissemination of MEDWAVES (MEDU)	25
- Support to public awareness national campaigns on the Mediterranean, the conservation of the coastline, scarce water, etc. (support to NGOs, training, competitions, youth campaigns, etc.) (MEDU)	20
- Preparation, editing and translation of MAP brochures and reports (MEDU)	30
- Printing and dissemination of brochures and reports, including the use of the Internet (MEDU)	20
TOTAL ACTIVITIES	145

III. STRENGTHENING OF THE LEGAL FRAMEWORK

Objectives

To seek the early entry into force of the new MAP legal instruments and to promote their early implementation by the Contracting Parties.

To formulate and adopt appropriate rules and procedures for the determination of liability and compensation for damages resulting from the pollution of the marine environment.

To promote the adoption of relevant national legislation and to ensure the compliance of the Contracting Parties to the provisions of the Barcelona Convention and its protocols.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)
- Legal assistance to the Secretariat (MEDU)	15
- Assistance to countries to develop their national legislation in line with the objectives of MAP II (MEDU)	15
- 2nd Meeting of legal and technical experts to review a draft of appropriate procedure for the determination of liability and compensation for damages from the pollution of the marine environment (MEDU)	60
TOTAL ACTIVITIES	90

IV. EXPECTED COUNTERPART CONTRIBUTIONS IN CASH/KIND TO MAP PROJECTS FROM CONTRACTING PARTIES AND U.N. AGENCIES

Countries		1997 (,000 US \$)
Croatia	PAP/RAC	150
Italy	Environmental Remote Sensing Regional Activity Centre (ERS/RAC)	300
Malta	REMPEC	75
Spain	CP/RAC	118.5
Tunisia	SPA/RAC	70
U.N. Agencies		
WHO	MED POL	100
WMO	MED POL	50
IAEA	MED POL	300
UNESCO/IOC	MED POL	95

	1997 (,000 ECU)
France	
BP/RAC	350*
Ville de Marseille	83

* The French Government will provide a contribution to ensure the proper functioning of the Centre. During 1997, this contribution will be equivalent to US \$ 440,000 (or 350,000 ECU as per April 1996 rate), corresponding to:

- The salaries of the Director, of an Expert and the cost of larger premises for a total amount equivalent to US\$ 220,000.
- An amount of US \$ 220,000 to cover the salary of a Secretary as well as part of the operating cost of the Centre.

ANNEX IV

MED POL-PHASE III

PROGRAMME FOR THE ASSESSMENT AND CONTROL OF POLLUTION IN THE MEDITERRANEAN REGION

(1996-2005)

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PREFACE

In 1992, the Bureau of the Contracting Parties asked the Secretariat to organize the preparation of an in-depth evaluation of the MED POL Programme by scientists/experts external to the MAP Office with a view of using this evaluation in the drafting of the Phase III of MED POL. Five consultants worked during 1993 and an evaluation was prepared and presented to the Eighth Ordinary Meeting of the Contracting Parties in October 1993 (UNEP(OCA)/MED IG.3/Inf.6). During the latter Meeting the Contracting Parties also formally agreed that a Phase III of MED POL should be prepared covering the period from 1996 to 2005 and, to this effect, they set a number of basic objectives and principles which should be used for its preparation (UNEP(OCA)/MED IG.3/5, Annex IV).

The meeting of experts on the preparation of MED POL-Phase III was held in Izmir from 20 to 23 June 1994 with the partial financial support of the Government of Turkey. Twenty experts from the Mediterranean and elsewhere attended the meeting, together with representatives of United Nations agencies and international organizations (UNEP(OCA)/MED WG.75/3). The meeting, after reviewing and discussing the achievements and shortcomings of Phases I and II of the MED POL Programme, prepared a draft MED POL-Phase III Programme, which was submitted for approval to the Joint Meeting of the Scientific and Technical Committee and the Socio-Economic Committee (Athens, 3-8 April 1995). Due to lack of time, this document was not considered by the Joint Meeting and delegations were requested to provide comments to the Secretariat in writing. After reviewing the comments received and taking into account the results of the informal consultation meeting on MED POL-Phase III (Athens, 13-15 December 1995), the document was revised to bring it in line with the Action Plan for the Protection of the Marine Environment and the Sustainable Development of the Coastal Areas of the Mediterranean (MAP-Phase II), approved by the Contracting Parties in June 1995. Finally, the revised document was submitted to the Meeting of the MED POL National Coordinators (Athens, 18-22 March 1996), who discussed in detail its content and agreed on a number of changes. The present document is the text agreed by the National Coordinators and is now submitted to the MAP Focal Points for approval.

1. BACKGROUND

1.1 The MED POL Programme, designed initially as the environmental assessment component of the Mediterranean Action Plan, has been operational since 1975. Its first phase (MED POL-Phase I) was implemented from 1975 until 1980 and it comprised seven basic baseline studies covering the major marine pollution problems in the Mediterranean. In 1981, the Contracting Parties to the Barcelona Convention approved a new ten-year long-term programme (MED POL-Phase II, 1981-1990) which included two main components, monitoring and research. In 1991, the Contracting Parties decided to extend MED POL-Phase II until 1995. In 1995, it was further extended to 1996 to allow the completion of the programme as well as the formulation of the next phase.

1.2 In fact, during the implementation of MED POL-Phase II, the need was felt to bring the MED POL Programme closer to the other components of the Mediterranean Action Plan and in particular to the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources, which entered into force in 1983, and the more recent Coastal Areas Management Programme (CAMP). As a result, preparations were made to refocus the MED POL Programme and thus prepare a new phase of the programme (MED POL-Phase III, 1996-2005). In addition, global events such as the Rio de Janeiro Summit, Agenda 21 and the Contracting Parties meeting in 1995 outlined a different and more integrated dimension in the approach to marine pollution control programmes, i.e. towards sustainable development.

1.3 As early as 1989, a meeting of experts took place to evaluate the main pollution data gathered until then through MED POL (UNEP(OCA)/MED WG. 5/3). Four experts prepared specific reports on sources of pollution (UNEP(OCA)/MED WG.5/Inf.3), micro-organisms in coastal areas (UNEP(OCA)/MED WG.5/Inf.4), heavy metals in coastal and reference areas (UNEP(OCA)/MED WG.5/Inf.5) and petroleum and chlorinated hydrocarbons in coastal and reference areas (UNEP(OCA)/MED WG.5/Inf.6), which presented the available data, showed the existing gaps, and made suggestions for the improved collection and use of data.

1.4 In addition, several meetings and consultations took place within and outside the Secretariat with the scientific community and the United Nations bodies involved in the Programme; in particular, large forums such as the ICSEM/IOC/UNEP Workshops on pollution of the Mediterranean Sea were utilized to discuss with the scientific community the major achievements and shortcomings of the Programme and to propose new approaches. Two review papers, "Monitoring Strategies of Marine Pollution" and "Pollution Problems in the Mediterranean and Relevant Research Strategies", were presented and widely discussed during the Xth CIESM/IOC/UNEP Workshop held in Perpignan (1990). The papers summarized and critically analysed the work carried out within the framework of MED POL in the field of monitoring and research and proposed follow-up activities. During the XIth CIESM/IOC/UNEP Workshop on Pollution held in Trieste (1992) another review paper "The Data Quality Assurance Programme of MED POL" presented the new strategy of MED POL as to data quality assurance and the prospects in the specific field. Discussions on the subject of the new phase of MED POL were also held in the course of all Inter-Agency Advisory Committee Meetings of MED POL.

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(UNEP(OCA)/MED IG.3/Inf.6). During the latter Meeting, the Contracting Parties formally agreed that a Phase III of MED POL should be prepared covering the period from 1996 to 2005 and, to this effect, they set a number of basic objectives and principles to be used in its preparation (UNEP(OCA)/MED IG.3/5, Annex IV).

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2. INTRODUCTION

2.1 The organization of a programme for monitoring of the sources, levels and effects of contaminants, as well as the research related to this monitoring, was one of the cornerstones of the Mediterranean Action Plan (MAP) adopted by the governments of the Mediterranean countries in February 1975. With the adoption, in 1976, of the Barcelona Convention by the same governments, and the subsequent adoption of the Protocols to this Convention, the objectives and methodologies of the programme were gradually modified in order to respond to the expanding goals set by the governments.

2.2 The declared objectives of the first phase of the Programme, MED POL-Phase I (1975-1980), were:

- to formulate and carry out a coordinated pollution monitoring and research programme taking into account the goals of the Mediterranean Action Plan and the capabilities of the Mediterranean research centres to participate in it;
- to assist national research centres in developing their capabilities to participate in the Programme;
- to analyse the sources, levels, pathways, trends and effects of pollutants relevant to the Mediterranean Sea;
- to provide the scientific/technical information needed by the Governments of the Mediterranean States and the EEC for the negotiation and implementation of the Convention and its related Protocols; and
- to build up consistent time-series of data on the sources, pathways, levels and effects of pollutants in the Mediterranean Sea and thus contribute to the scientific knowledge of the Mediterranean Sea.

2.3 While the first phase of the Programme focused on strengthening national capabilities in order to enable all countries to participate in the Programme and on the development of methodologies needed to implement it, the next phase of the Programme¹ (MED POL-Phase II, 1981-1996) had more general and broader objectives to provide the Parties to the Barcelona Convention with:

- information required for the implementation of the Convention and the Protocols;
- indicators and evaluation of the effectiveness of the pollution prevention measures taken under the Convention and the Protocols;
- scientific information that may lead to eventual revision and amendment of the relevant provisions of the Convention and the Protocols, and for the formulation of additional protocols;

¹ Long-term programme for pollution monitoring and research in the Mediterranean (MED POL)-Phase II. UNEP Regional Seas Reports and Studies No. 28. Rev.1. UNEP, 1986.

- information that could be used in formulating environmentally sound national, bilateral and multilateral management decisions essential for the continuous socio-economic development of the Mediterranean region on a sustainable basis; and
- periodic assessment of the state of pollution of the Mediterranean Sea.

2.4 During the second phase of MED POL:

- the gains of the first phase were consolidated by considerable strengthening of national institutional capabilities through: training; provision of equipment; development of suitable sampling and analytical techniques, quality assurance programmes including intercalibration exercises, equipment maintenance and other forms of assistance;
- the monitoring of the levels and effects of contaminants was intensified, and gradually focused on monitoring related to compliance with the pollution control measures adopted by the Contracting Parties, through agreements with governments involving about 80 national institutions in practically all Mediterranean countries;
- the research programme contributing to the improved understanding of the requirements for pollution control measures was considerably broadened, and implemented through more than 500 research contracts with national institutions in practically all Mediterranean countries;
- a detailed survey (inventory) of pollutants from land-based sources, as defined by the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources (LBS Protocol), was initiated;
- consistent databases resulting from monitoring, research and survey activities, and other sources, were built-up and used in the preparation of studies, analyses and assessments of specific environmental pollution problems;
- a regional assessment of the environmental state of the marine and coastal environment was prepared (1989 and 1995);
- a regional assessment of the possible implications of expected climate changes was prepared (1992 and 1995), and 11 detailed site-specific studies were carried out on the implications of these changes, with concrete recommendations for the possible mitigation of the negative effects;
- in-depth analyses ("assessment documents") of 13 specific problems related to the control of individual contaminants (or group of contaminants) covered by the LBS Protocol were prepared and used as the basis for the formulation of control measures subsequently adopted by the Parties to the Convention; and
- significant input was made from all activities listed above into the Coastal Area Management Programme (CAMP) carried out within the framework of the Action Plan.

2.5 The Eighth Ordinary Meeting of the Contracting Parties to the Barcelona Convention (Antalya, 12-15 October 1993) reaffirmed the objective of the Mediterranean Action Plan (MAP) since its establishment to act as an instrument of regional cooperation covering the concerns both of the environment and of development, and approved a set of

recommendations (UNEP(OCA)/MED IG.3/5, Annex IV) on the general strategy to be followed in MAP, as well as the action to be taken under specific components of MAP in order to implement this strategy.

2.6 Recognizing that:

- in line with UNCED and Agenda 21, further emphasis is to be given to those MAP activities contributing to the implementation of the sustainable development concept; and that
- MED POL, as the scientific and technical component of MAP, provides the scientific basis for decision-making related to marine pollution in the region in the process of achieving sustainable development;

recommendation 7.2 of the Antalya meeting called for the development of MED POL-Phase III and specified the fields in which it should assist the Contracting Parties, with the following overall objectives:

- organization of a Mediterranean coordinated marine pollution monitoring and research programme, concentrating on contaminants and pollutants affecting the quality of the marine and coastal environment, as well as the health of man and of the living resources in the Mediterranean and interpretation/ assessment of the results of the programme as part of the scientific basis for decision-making in the region;
- generation of information on the sources, levels, amounts, trends (trend monitoring) and effects of marine pollution, development of capabilities for assessing the present and future state of the marine environment within the Mediterranean region as an additional component of the scientific basis upon which the formulation of proposals for preventive and remedial action can be based;
- formulation of proposals for technical, administrative and legal programmes and measures for the prevention and/or reduction of pollution;
- strengthening and, when necessary, development of the capabilities of the national institutions, in accordance with the circumstances and the country requesting it, so as to implement monitoring and research of pollution of the marine environment; and
- assistance, as appropriate, to Contracting Parties for the implementation of the recommendations adopted with a view to the assessment of their effectiveness; this assistance will allow the competent authorities to verify the recommendations adopted taking into account data of a satisfactory standard.

2.7 The Ninth Ordinary Meeting of the Contracting Parties (Barcelona, 5-8 June 1995) approved the Action Plan for the Protection of the Marine Environment and the Sustainable Development of the Coastal Areas of the Mediterranean (MAP-Phase II). Chapter 3 of MAP-Phase II, which deals with the assessment, prevention and elimination of marine pollution, gives the framework for MED POL-Phase III. In addition, the adoption of the amendment to the 1980 LBS Protocol by the Conference of Plenipotentiaries held in Syracuse on 6-7 March 1996, also provides MED POL with the legal framework of pollution control for the Mediterranean, thus indicating the main programme strategy to be followed.

2.8 The main strategic change in the MED POL Programme is therefore the shift of the emphasis from pollution assessment to pollution control, which brings the programme close to the objectives of the LBS Protocol and MAP-Phase II and makes it an effective tool for achieving sustainable development. The Programme also includes monitoring for compliance purposes, especially as far as the control measures adopted are concerned.

3. OBJECTIVES OF MED POL-PHASE III (1996-2005)

3.1 The objectives of MED POL-Phase III were formulated taking into consideration the experience gained during MED POL-Phases I and II, as well as the documents adopted by the Ninth Ordinary Meeting of the Contracting Parties (Barcelona, 5-8 June 1995), namely, MAP-Phase II, the Barcelona Resolution, the Priority Fields of Activities (1996-2005) and the amended Barcelona Convention and Protocols.

3.2 The ultimate and overall objective of MED POL-Phase III (1996-2005) is the elimination of pollution² of the Mediterranean Sea from all activities that cause such pollution, in particular land-based activities, through the full implementation of the LBS Protocol. MED POL-Phase III provides the basis for action related to assessment, prevention and elimination of marine pollution and relates such action to other components of MAP-Phase II in the perspective of sustainable development.

The specific objectives of MED POL-Phase III are in particular:

- (a) the assessment of all (point and diffuse) sources of pollution, the load of pollution reaching the Mediterranean Sea, and the magnitude of the problems caused by the effect of contaminants on living and non-living resources, including human health, as well as on amenities and uses of the marine and coastal regions;
- (b) assistance to countries, including capacity-building, in the development and implementation of national action plans for the elimination of marine pollution, in particular from land-based activities;
- (c) the assessment of status and trends in the quality of the marine and coastal environment as an early warning system for potential environmental problems caused by pollution;
- (d) the formulation and implementation of action plans, programmes and measures for the prevention and control of pollution, for the mitigation of impacts caused by pollution and for the restoration of systems already damaged by pollution; and
- (e) the monitoring of the implementation of the action plans, programmes and measures for the control of pollution and the assessment of their effectiveness.

3.3 In view of the broad cross-sectoral mandate of MED POL with heavy emphasis on pollution control from all sources, in particular from land-based sources and activities, and taking into account the fact that the control of marine pollution is one of the central issues to be resolved within the framework of MAP-Phase II in order to enable the sustainable development of the Mediterranean region, the new phase of MED POL will require intensified

² In the context of this document, "pollution of the marine environment" is interpreted according to the definition adopted in the United Nations Convention on the Law of the Sea and in the Barcelona Convention (as amended in 1995) as:

the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities.

interaction between MED POL and practically all other components of MAP, and with the Coastal Area Management Programme (CAMP) in particular. Therefore, in outlining the possible elements of MED POL's new phase, an attempt is made in the present document to link the specific objectives and activities proposed for MED POL-Phase III with those adopted for the other components of MAP-Phase II.

3.4 In addition to reflecting the links between MED POL-Phase III and the other components of MAP-Phase II, the Programme was also prepared with due regard for the concepts and recommendations contained in Agenda 21 as they bear on activities relevant to MED POL, specifically those contained in Chapter 17 of Agenda 21³.

3.5 The stated goals shall be achieved through the implementation of interdependent and linked (see Figures 1 and 2) activities grouped in three basic MED POL-Phase III programme elements (assessment of pollution-related problems; pollution control; and supporting measures), all contributing to the ultimate goal of MED POL-Phase III and MAP-Phase II. The rationale of these activities, their specific objectives and means of implementation are described in Sections 5-8 of the present document.

3.6 The development of suitable measures for the prevention, abatement and control of pollution from all sources, and continuous assessment of the effectiveness of their implementation, are the central goals of the new phase of MED POL. All other activities are subsidiary to these goals and contribute to their more efficient achievement. By concentrating on these goals, MED POL-Phase III is expected to provide critically important inputs into practically all other components of MAP-Phase II, notably CAMPs (giving due consideration to pollution problems associated with coastal development), and thus make a significant contribution to the sustainable development of the Mediterranean region.

³ Chapter 17 of Agenda 21, adopted by the United Nations Conference on Environment and Development (Rio de Janeiro, 3-14 June 1992), lists 33 objectives and more than 180 types of activity that are recommended under the heading *Protection of the oceans, all kind of seas, including enclosed and semi-enclosed seas, and coastal areas and the protection, rational use and development of their resources.*

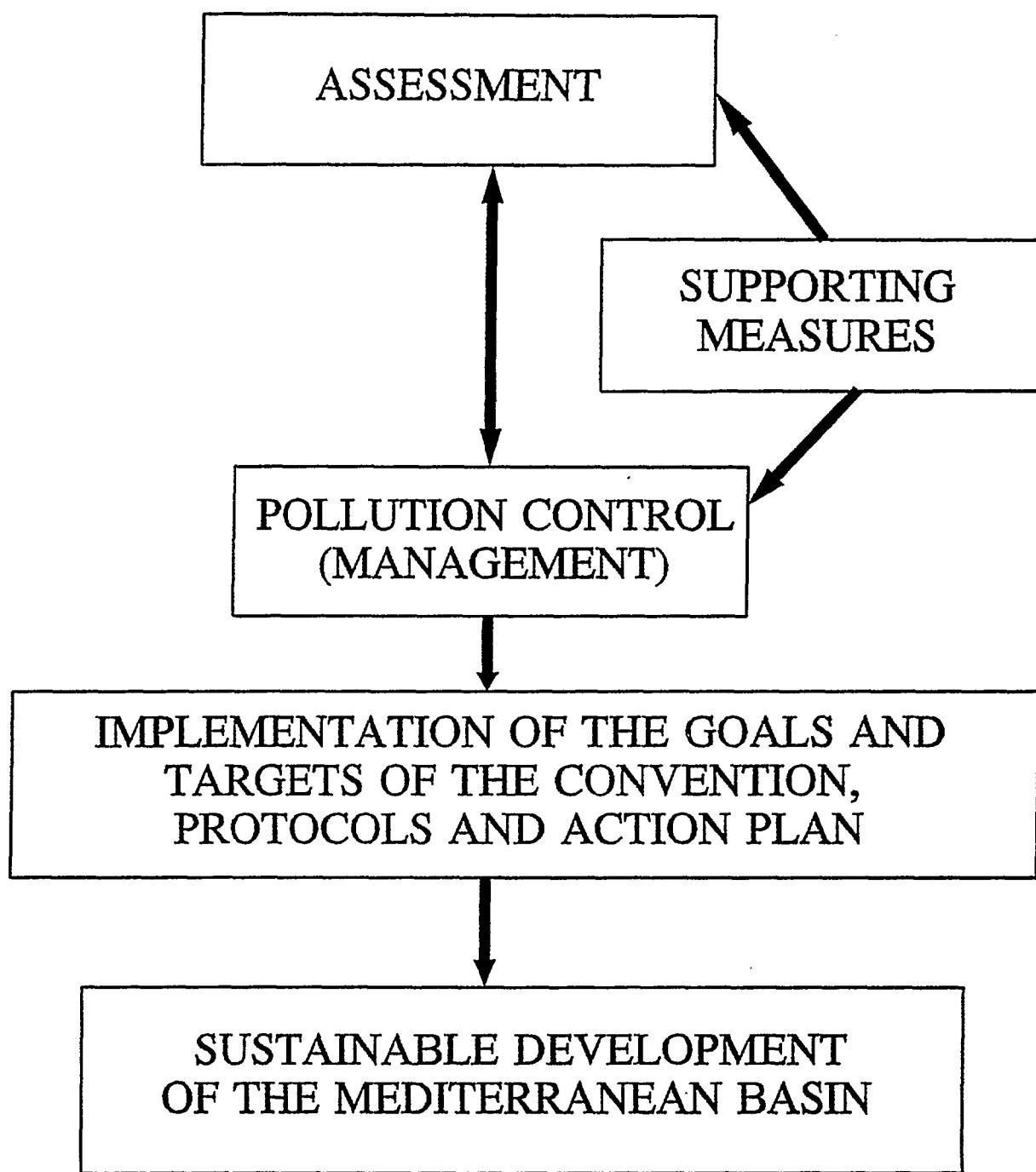


Figure 1: Relationship of MED POL-Phase III to the goals of the Mediterranean Action Plan emphasizing the feed-back relationship between assessment and pollution control.

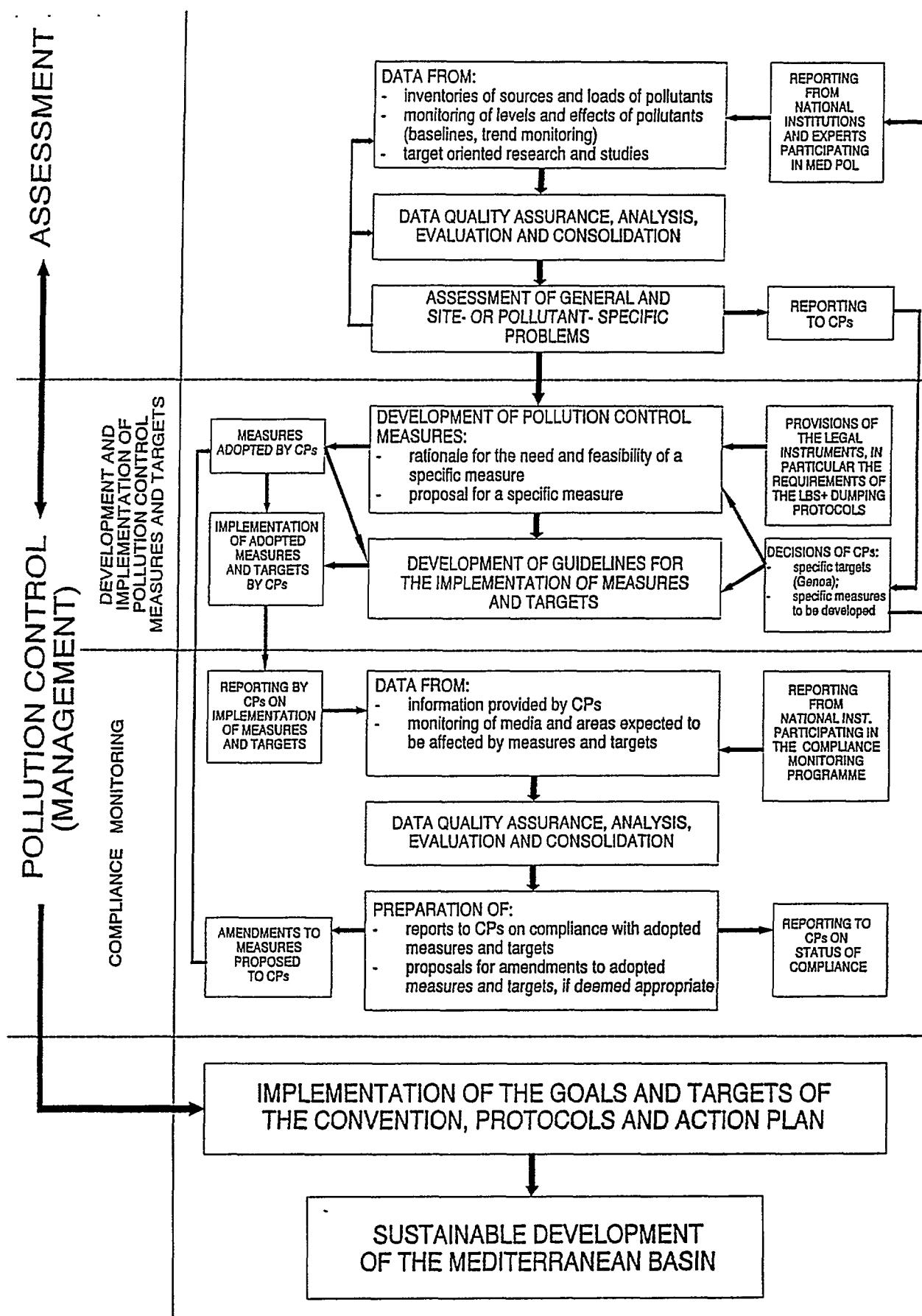


Figure 2: Simplified flow chart showing the more important links between the substantive activities of MED POL-Phase III.

4. MODALITIES OF COOPERATION BETWEEN THE CONTRACTING PARTIES AND THE SECRETARIAT REGARDING MED POL

4.1 In order to ensure the efficient coordination of national efforts related to MED POL and a streamlined communication channel between the *Secretariat of MAP* and the national structures designated by the Contracting Parties to participate in MED POL, each Contracting Party designates a person or office as the *National Coordinator for MED POL*. Their mutual responsibilities shall be as follows:

Responsibilities of the National Coordinators for MED POL

4.2 The National Coordinators for MED POL should actively promote MED POL-related activities in their respective countries and should maintain close and continuous contact with the MED POL Collaborating Institutions, other national agencies involved in the implementation of MED POL, as well as the Secretariat. In order to maximize the National Coordinators' efficiency, the Contracting Parties should establish, as appropriate, national mechanisms (e.g. Intersectoral Coordination Committees, Technical Committees, Scientific Advisory Groups) to assist the National Coordinators in the fulfilment of their duties. Furthermore, the Contracting Parties should endeavour to involve the National Coordinators in MAP-related decision-making at the highest possible levels⁴.

4.3 Responsibility for implementing MAP II of the Barcelona system lies with the MAP Focal Points and consequently also the implementation of MED POL. It is the responsibility of the MAP Focal Points to assist MED POL National Coordinators in the implementation of MED POL.

4.4 The specific responsibilities of the National Coordinators shall be:

- (a) to ensure the implementation of all activities of the national monitoring programme of MED POL covering compliance and trend monitoring;
- (b) to ensure selection and designation of *National MED POL Collaborating Institutions* and coordinate their activities relative to all MED POL activities;
- (c) to serve as the channel for all formal communications between the Secretariat and the National MED POL Collaborating Institutions, while for technical matters Institutions may be contacted directly by the Secretariat;
- (d) to ensure the collection and evaluation of the data and information provided by the National MED POL Collaborating Institutions and to transmit these data and information annually, as well as their evaluation, to the Secretariat according to agreed formats and schedules;
- (e) to ensure preparation and submission of reports on dumping activities relevant to the Dumping Protocol and on implementation of the LBS Protocol;

⁴ Should the Contracting Parties establish National Committees for MAP, the National Coordinators for MED POL should be members of such Committees.

- (f) to organize the preparation of national surveys and/or inventories of point and non-point land-based sources of pollutants relevant to the LBS Protocol, including those relevant to airborne pollutants;
- (g) to organize the preparation of national reports on the state of the marine and coastal environment areas, to be prepared every four years with the first report being prepared by the year 2001;
- (h) to follow the progress achieved in the implementation of national MED POL-related activities and to report to the Secretariat thereon according to agreed formats and schedules;
- (i) to participate in or be represented at the meetings of the MED POL National Coordinators; and
- (j) to review the MED POL-related technical and policy documents and proposals prepared by the Secretariat before their submission to the Contracting Parties, and to advise the Contracting Parties and the Secretariat on how to handle these documents and proposals.

Responsibilities of the National MED POL Collaborating Institutions

4.5 As far as the national monitoring programmes are concerned, individual responsibilities shall be determined by the National Coordinators for MED POL in consultation with the Secretariat, as appropriate; such responsibilities shall be reflected in the monitoring agreements signed between the Secretariat and the National Coordinators for MED POL, as appropriate. The Institutions shall report to the Secretariat through the respective Coordinator according to agreed formats and schedules, and shall participate in the ongoing mandatory Data Quality Assurance programmes organized by the Secretariat.

Responsibilities of the Secretariat

- 4.6 The specific responsibilities of the Secretariat shall be:
- (a) to coordinate and harmonize the work carried out within the framework of the agreed national MED POL programmes in close cooperation with specialized bodies of the United Nations system supporting or participating in the Programme; this shall be done in close consultation and cooperation with National Coordinators for MED POL, National MED POL Collaborating Institutions, MAP's Regional Activity Centres and international and intergovernmental specialized organizations;
 - (b) to evaluate and analyse the data stored in the Secretariat's database received through the National Coordinators for MED POL;
 - (c) to organize Data Quality Assurance programmes with or through the relative competent United Nations specialized agencies participating in the Programme, as appropriate;
 - (d) to organize and implement training and capacity-building activities when needed and requested by developing countries;

- (e) to convene the periodic meetings of the MED POL National Coordinators, the Advisory Group of Experts for MED POL and any other *ad hoc* groups of experts called to:
 - assist in the analysis, evaluation, and integration of data and information made available through the National Coordinators for MED POL or other sources; and
 - review and advise on the technical and policy documents prepared by the Secretariat and the United Nations specialized agencies;
- (f) to prepare, jointly with or through the relevant competent United Nations specialized agency or agencies participating in the Programme, whenever appropriate, technical and policy documents, including guidelines, for the Contracting Parties based on data and information received through the National Coordinators for MAP, through MED POL Collaborating Institutions, through other research Institutions and open scientific literature. These technical and policy documents include:
 - reports on the state and trends in the environmental quality of the marine and coastal areas; and
 - proposals for action plans, programmes and measures for pollution control, including those that may prevent or abate the environmental degradation of these areas, or contribute to the restoration of the areas affected by degradation; and
- (g) to provide the Contracting Parties, and other interested bodies with information available on the state of the Mediterranean environment.

5. ASSESSMENT OF POLLUTION-RELATED PROBLEMS

Basis for action

5.1 A scientific assessment of pollution-related problems of the Mediterranean region is one of the basic prerequisites for development of a rational approach towards the sustainable development of the region. Such an assessment, together with information provided through the other components of MAP-Phase II, is the sound foundation for the decisions and recommendations of the Contracting Parties to the Convention to adopt action plans, programmes and measures suitable and applicable in the Mediterranean region⁵.

Objectives

- 5.2 The specific objectives of this programme element shall be:
- (a) to identify the sources, assess the present levels and keep under periodic review the trends in the load of contaminants reaching the Mediterranean Sea from marine and land-based sources including point and non-point sources and airborne contaminants. This will constitute an inventory of sources of pollution required as basic information for the implementation of the LBS and other Protocols⁶;
 - (b) to assess, in areas under direct influence of pollution sources (e.g. coastal waters, estuaries), the levels and trends of contaminants and their potentially harmful effects on marine life and human health, and the negative effects on fisheries and aquaculture⁶;
 - (c) to assess, in areas not under direct influence of identifiable point or non-point sources of pollution ("reference areas"), the magnitude of parameters which may serve as indicators for the general trend in the environmental quality of larger areas⁶;
 - (d) to evaluate the anthropogenic loads of pollutants and to assess their potential harmful effects on the marine environment, taking into consideration and comparing (on a sub-regional basis) with background levels of relevant substances;
 - (e) to identify and assess potential short- and long-term threats to the Mediterranean environment;
 - (f) to provide the Contracting Parties, and other interested parties, with information available on the state of the Mediterranean environment.

Activities

- 5.3 The stated objectives shall be achieved through:
- (a) monitoring/studies/surveys, as appropriate, of levels, loads, pathways, and distribution of contaminants and their effects;

⁵ Articles 5, 6, 7, 8 and 11 of the Barcelona Convention (1995).

⁶ Paragraph 17.35 of Agenda 21.

- (b) monitoring of trends in the levels and effects of contaminants⁷ (see Annex);
- (c) target-oriented research in support of monitoring activities⁸;
- (d) analysis and evaluation (at a national, sub-regional or regional level) of pollution related data from surveys, baseline studies and monitoring organized within the framework of MED POL;
- (e) preparation of reports on the assessment of specific pollution-related problems of the Mediterranean region including recommendations for action, if deemed appropriate⁹;
- (f) preparation of national reports on the state of the marine and coastal environment, to be prepared every four years with the first report being prepared by the year 2001;
- (g) preparation of short and concise reports on the state of pollution of the Mediterranean environment for each meeting of the Contracting Parties, specifically highlighting the changes and trends identified since the submission of the last report¹⁰; and
- (h) preparation by the Secretariat for the 2001 meeting of the Contracting Parties, of a consolidated report on the state of the Mediterranean environment¹¹.

5.4 The monitoring shall concentrate on the assessment of trends in pollution-related problems in order to provide a solid basis for the appraisal of the environmental health of the Mediterranean as a whole, and to serve as an early warning system for the problems that may be encountered in the future (see Annex), as well as the preparation of inventories of point and non-point sources of pollution, particularly the land-based sources, and the monitoring of the pollution loads reaching the Mediterranean from these sources.

5.5 In some instances, data from monitoring programmes alone will not be sufficient for the assessment of pollution-related problems and their long-term implications. Therefore, in such cases, monitoring data will have to be supplemented by well-defined target-oriented research as indicated by the Contracting Parties.

5.6 Although the overall assessment for the Mediterranean will be organized by the Secretariat of MAP, there is also a need for national assessments in order to decide on national management measures.

⁷ Article 12 of the Barcelona Convention (1995).

⁸ Article 13.3 of the Barcelona Convention (1995).

⁹ The recommendations may lead to the development of proposals for concrete pollution control measures, as described in Section 6A of the present document.

¹⁰ Paragraph 17.106 (d) of Agenda 21.

¹¹ Reports of this nature were published in 1990 and 1996.

Means of implementation

5.7 The assessment of pollution-related problems will require a high degree of coordination and close cooperation between the Secretariat of MAP¹², the National Coordinators for MED POL, the National MED POL Collaborating Institutions, the specialized agencies of the United Nations system supporting or participating in MED POL, as well as other specialized intergovernmental and international organizations¹³. The modalities of their cooperation are described in Section 4 of the present document.

5.8 Data and information relevant to the monitoring of trends in the levels and effects of contaminants, as well as to the inventories of pollution sources and loads (paragraphs 5.3(a) and (b) and 5.4), will be generated and provided to the Secretariat by the National MED POL Coordinators and by the National MED POL Collaborating Institutions as described in Section 4.

5.9 Target-oriented research (paragraphs 5.3(c) and 5.5) will be based on research projects selected by the Secretariat in cooperation with the relative United Nations specialized agency participating in the Programme. For such projects, research contracts will be signed by the Secretariat or agency and the National MED POL Collaborating Institutions, in consultation with the relevant National Coordinators for MED POL. The Collaborating Institutions may receive financial support from the Trust Fund to cover part of the cost of the research carried out by them.

5.10 Assistance to developing countries will be needed in the form of training of their national experts and technical assistance (equipment, consumables, Data Quality Assurance) to their national institutions, in order to enable them to participate effectively in the programme element¹⁴.

¹² In the context of this document, UNEP's Coordinating Unit for the Mediterranean Action Plan in Athens is identified as the Secretariat of MAP.

¹³ - United Nations Environment Programme (UNEP)
- 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 Atomic Energy Agency (IAEA)
- Intergovernmental Oceanographic Commission (IOC)
- World Conservation Union (IUCN)

¹⁴ Article 13.3 of the Barcelona Convention (1995).

6. POLLUTION CONTROL

6.1 A scientific assessment of pollution-related problems of the Mediterranean region is only the first step towards action to prevent, abate and control pollution and its effects. Therefore, the substantive focus of MED POL-Phase II gradually shifted from assessment of the problems related to pollution to the development of proposals for concrete pollution control measures. Taking into account the data and information obtained in the previous phases of MED POL and relying on a permanent system for keeping the present assessment up to date through activities envisaged in Section 5 of the present document, MED POL-Phase III will further emphasize the development of action plans, programmes and measures for the control of pollution and compliance with those adopted by the Contracting Parties, as its central activities.

A. Development and implementation of pollution control measures¹⁵

Basis for action

6.2 Pollution from land-based sources was recognized in the very early stages of MAP as the major problem for the Mediterranean region. The adoption of the LBS Protocol (1980), its entry into force (1983), and its amendment (1996), provided the legal basis for the development of action plans, programmes and measures for the control of pollution from land-based sources and activities in accordance with the Protocol.

6.3 Although the control of pollution from land-based sources remains a major objective of MAP-Phase II, the control of pollutants from other sources and activities is not neglected, as exemplified by the adoption of protocols associated with the Barcelona Convention which deal with pollution from dumping and emergency situations, as well as with offshore exploration and exploitation¹⁶.

¹⁵ In the context of this document, *pollution control measures* are broadly interpreted as a combination of technical (technological), economic, legal and administrative policies, measures and practices contributing to the:

- prevention and mitigation of pollutants' impact on human health and on the quality of the marine and coastal environment, including their living and non-living resources, and amenities;
- general decrease of pollution load reaching the Mediterranean Sea;
- rehabilitation of marine and coastal environment damaged by the present impact of pollution; and
- achievement of sustainable development.

¹⁶ *Protocol concerning Cooperation in Combating Pollution of the Mediterranean Sea by Oil and Other Harmful Substances* (adopted in 1976, entered into force in 1978); *Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft* (adopted in 1976, entered into force in 1978, amended in 1995); *Protocol for the Protection of the Mediterranean Sea against Pollution resulting from Exploration and Exploitation of the Continental Shelf, the Seabed and its Subsoil* (adopted in 1994).

Objectives

- 6.4 The specific objectives of this programme element shall be:
- (a) to develop action plans, programmes and measures for the control of pollution as required by the Barcelona Convention and its Protocols and by the decisions and recommendations of the Contracting Parties; and
 - (b) to implement the action plans, programmes and measures for the control of pollution adopted by the Contracting Parties.

Activities

- 6.5 The stated objectives shall be achieved by:
- (a) providing an assessment of the magnitude and intensity of the problem, which is to be tackled by the measures ("assessment document"), including a scientifically sound rationale for pollution control measures, taking into account ecotoxicological criteria and the precautionary principle¹⁷;
 - (b) formulation of proposals for action plans, programmes and measures for the control of pollution, taking into account article 4.4 of the Barcelona Convention (1995)¹⁸ and the feasibility of implementing the measures in the Mediterranean region;
 - (c) formal adoption of the proposed action plans, programmes and measures, or of their amended versions, by the Contracting Parties;
 - (d) development of technical guidelines for the implementation of adopted action plans, programmes and measures; and
 - (e) implementation by the Contracting Parties of the adopted action plans, programmes and measures for the control of pollution.

Means of implementation

- 6.6 A high degree of cooperation and coordination will be required among the Secretariat, the Contracting Parties, the National Coordinators for MED POL, as well as the relevant Regional Activity Centres of MAP, the specialized agencies of the United Nations system (see

¹⁷ Article 4.3 of the Barcelona Convention (1995).

¹⁸ Article 4.4 of the Barcelona Convention (1995) states that:
In implementing the Convention and the related Protocols, the Contracting Parties shall:

- (a) adopt programmes and measures which contain, where appropriate, time limits for their completion;
- (b) utilize the best available techniques and the best environmental practices and promote the application of, access to and transfer of environmentally sound technology, including clean production technologies, taking into account the social, economic and technological conditions.

footnote 13) as well as the relevant international and intergovernmental organizations to implement the activities listed above.

6.7 The priorities for the formulation of action plans, programmes and measures, as well as the timetable for the development of proposals, shall be determined by the Contracting Parties.

6.8 Based on the decisions of the Contracting Parties, the Secretariat will coordinate the preparation of the assessment documents, the formulation of proposals for action plans, programmes and measures, and the technical guidelines for their implementation.

6.9 Consultants and *ad hoc* meetings of experts may be used by the Secretariat for the preparation of the assessment documents, the proposals for action plans, programmes and measures, and the guidelines for their implementation.

6.10 The meetings of the MED POL National Coordinators shall review, and revise as necessary, the drafts of the assessment documents, the proposals for action plans, programmes and measures and the guidelines for their implementation, before they are submitted for the consideration of the Contracting Parties.

6.11 The implementation of the adopted action plans, programmes and measures shall be the responsibility of the individual Contracting Parties¹⁹.

6.12 Assistance shall be provided through the Secretariat to developing countries requesting training of their national experts, or technical and legal advice to their national institutions, in order to ensure timely and effective implementation of the adopted action plans, programmes and measures for the control of pollution²⁰.

B. Compliance control

Basis for action

6.13 Compliance with the provisions of MAP-Phase II, the Barcelona Convention and its Protocols (in particular the LBS and Dumping Protocols), and specifically with the decisions and recommendations adopted by the meetings of the Parties to the Convention²¹, is the key to successful environmental protection of the Mediterranean Sea. The most relevant decisions and recommendations pertinent to the abatement, prevention and control of pollution are:

¹⁹ Regarding potential financial support for the implementation of the adopted measures, see paragraph 7.8.

²⁰ Article 13.3 of the Barcelona Convention (1995), and Article 10 of the LBS Protocol (1996).

²¹ Article 27 of the Barcelona Convention (1995).

- (a) the relevant targets of the Genoa Declaration, adopted by the Contracting Parties in 1985²², to be achieved as a matter of priority during the second decade of the Mediterranean Action Plan;
- (b) the specific action plans, programmes and measures adopted by the Contracting Parties in the context of the implementation of the LBS Protocol²³; and
- (c) the relevant decisions of the Contracting Parties and especially paragraph 6 of the Barcelona Resolution adopted by the Conference of Plenipotentiaries (Barcelona, 9-10 June 1995).

Objectives

- 6.14 The specific objectives of this programme element shall be:
- (a) to monitor, on a continuous basis, the implementation and to assess the effectiveness of the implementation of action plans, programmes and measures for the control of pollution adopted or recommended by the Contracting Parties;
 - (b) to identify problems experienced by the Contracting Parties in the implementation of the action plans, programmes and measures, and formulate proposals that may assist in overcoming those problems²⁴; and
 - (c) to keep the Contracting Parties regularly informed about the status of the implementation of the adopted action plans, programmes and measures²⁵.

Activities

- 6.15 The stated objectives shall be achieved through:

- (a) analysis and evaluation at a national, subregional or regional level of data and information generated by the Contracting Parties on the status of implementation of the adopted or recommended action plans, programmes and measures for the control of pollution²⁶;

²² Genoa Declaration. UNEP(OCA)/IG.56/5.

²³ The common measures adopted so far are included in MAP Technical Reports Series No. 95.

²⁴ Paragraph 17.25 (b) of Agenda 21.

²⁵ Paragraph 17.35 (b) of Agenda 21.

²⁶ Article 26 of the Barcelona Convention (1995); Articles 4, 5 and 6 of the Dumping Protocol (1995); and Article 13 of the LBS Protocol (1996).

- (b) compliance monitoring programmes²⁷ carried out by National MED POL Collaborating Institutions (see Section 4 and the Annex);
- (c) analysis and evaluation of data and information received through the National Coordinators for MED POL from national compliance monitoring programmes (see Section 4);
- (d) target-oriented research in support of national compliance monitoring programmes²⁸; and
- (e) preparation of consolidated reports for the Contracting Parties on the status of the implementation of the action plans, programmes and measures, including recommendations on the ways and means to improve the efficiency of their implementation.

6.16 The type of data and information that will be expected from the Contracting Parties, may include, *inter alia*:

- (a) the status of the adopted or recommended action plans, programmes and measures (paragraph 6.13(b)) in relation to the relevant national legislation and national administrative procedures and practices²⁹;
- (b) information on the permits issued for dumping of waste³⁰;
- (c) the experience gained with the implementation of the action plans, programmes and measures for the control of pollution and dumping permits, and the permits provided for by the LBS Protocol;
- (d) the results of the time series of measurements and observations (see Annex) regarding the levels and effects of contaminants in media directly affected by the measures (e.g. effluent waters, recipient waters);
- (e) the major marine and land-based sources of marine pollution (including airborne) on the national territories, including coastal waters, and estimates of the amounts of contaminants reaching the marine environment from these sources; and

²⁷ Article 12 of the Barcelona Convention (1995), and Article 8 of the LBS Protocol (1996).

²⁸ Article 13.2 of the Barcelona Convention (1995), and Article 9 of the LBS Protocol (1996).

²⁹ Article 27 of the Barcelona Convention (1995) and Article 13 of the LBS Protocol (1996).

³⁰ Articles 5 and 6 of the Dumping Protocol (1995).

- (f) with regard to land-based pollution, information relevant to the monitoring of the status of the biological diversity, and on threats to specially protected areas, which may come from sources of pollution outside their control³¹.

Means of implementation

6.17 The Secretariat will coordinate all activities envisaged under the programme element. Close cooperation with and among the Contracting Parties and their institutions designated to participate in the programme element is the basic prerequisite for its successful implementation.

6.18 Data and information on the status of the adopted or recommended action plans, programmes and measures, and on the experience gained with their application (paragraphs 6.16(a), (b) and (c)) will be provided to the Secretariat by the Parties to the Convention, or on their behalf by the designated National Coordinators for MED POL, without cost to the Trust Fund.

6.19 Data and information on the results of the time series of measurements and observations, and on the marine and land-based sources of pollution (paragraphs 6.16(d) and (e)) will be provided to the Secretariat by the Contracting Parties through the National Coordinators for MED POL. The costs involved are expected to be shared between the Trust Fund and the relevant national institutions on the basis of agreements between the Secretariat and the relevant national authorities (see Section 4).

6.20 Target-oriented research (paragraph 6.15(d)) will be based on research projects selected by the Secretariat in cooperation with the relevant United Nations specialized agency participating in the Programme. For such projects, research contracts will be signed by the Secretariat or agency and the National MED POL Collaborating Institutions, in consultation with the relevant National Coordinators for MED POL. The Collaborating Institutions may receive financial support from the Trust Fund to cover part of the cost of the research carried out by them.

6.21 Assistance shall be provided through the Secretariat to developing countries requesting training of their national experts, or technical advice or assistance (equipment, consumables and Data Quality Assurance³²) to their national institutions participating in monitoring the effectiveness of the implementation of pollution control measures and reporting on national compliance with these measures.

³¹ Article 21 of the SPA protocol.

³² See paragraph 7.7 and the Annex.

7. SUPPORTING MEASURES

7.1 References have been made in Sections 5 and 6 of the present document to some of the measures supporting the substantive MED POL activities, but in view of their importance for the MAP as a whole, they are described in these sections of the document in a more comprehensive way.

A. Assistance (capacity-building)

Basis for action

7.2 MED POL-Phase III cannot be implemented in a meaningful way without a strong national institutional basis supported with adequate financial resources, equipment and experts. While the situation in developed countries of the Mediterranean region seems adequate to deal with the implementation of the MED POL Programme, the capacity of the developing countries will need further strengthening.

Objective

7.3 The objective of the programme element is:

- to facilitate the full participation of all Contracting Parties in MED POL, including the implementation of the action plans, programmes and measures for the control of pollution and the recommendations adopted by the Contracting Parties³³.

Activities³⁴

7.4 The stated objective shall be achieved by providing countries requesting assistance with:

- (a) technical advice on the most suitable institutional arrangements that may be needed for the implementation of the MED POL programme;
- (b) advice and technical assistance in all aspects of design and implementation of national MED POL programmes;

³³ Paragraphs 17.6 (k), 17.9, 17.14, 17.17, 17.23, 17.35 (f), 17.38 (f), 17.40 and 17.104 of Agenda 21.

³⁴ References to the legislative authority for specific assistance measures are given in the relevant paragraphs of Sections 5 and 6 of the present document.

- (c) advice on legal³⁵, technical³⁶ and fiscal³⁷ policies, strategies, and practices that may contribute to the implementation of the action plans, programmes and measures for the control of pollution and targets adopted by the Contracting Parties;
- (d) individual and group training (e.g. seminars, workshops) of national experts (administrators, technicians, scientists) in all subjects related to the MED POL Programme;
- (e) equipment and material donated to the National MED POL Collaborating Institutions;
- (f) guidelines, manuals, documents and reference publications relevant to the implementation of the MED POL Programme; and
- (g) assistance in maintaining the analytical equipment used in national pollution monitoring programmes.

Means of implementation

7.5 Provision of the assistance shall be coordinated by the Secretariat, involving as necessary the relevant RACs of MAP, the specialized agencies of the United Nations system, as well as other international and intergovernmental organizations and programmes ready to offer or provide such assistance. The cost of the assistance will normally be at the expense of the Trust Fund, but the Secretariat will also solicit direct bilateral assistance (without cost to the Trust Fund) from countries and financial institutions ready to provide such assistance.

7.6 Assistance may also be provided by the Secretariat to the MED POL National Coordinators needed to fulfil their role as defined in Section 4.

7.7 Activities related to Data Quality Assurance (DQA)³⁸ will continue to be provided to MED POL Collaborating Institutions through the appropriate United Nations specialized agencies. The DQA programme will include all the elements necessary to achieve good quality data. Such elements cover all aspects of the monitoring programme ranging from sampling to data interpretation. The DQA programme should be mandatory and form an integral part of each national monitoring programme (see Annex, paragraphs 10 and 11).

³⁵ E.g., review of the adequacy of existing national legislation, proposals for adjustments in national legislation, proposals for new legislation.

³⁶ E.g., clean production technologies, minimization of waste.

³⁷ E.g., user fees, charges for violating pollution control measures, pricing policies and practices, fiscal incentives, possible loans and grants from international financial institutions.

³⁸ Data Quality Assurance is a mechanism for ensuring that the quality of the data is sufficiently reliable for its intended application.

7.8 The implementation of MED POL may be eligible for financial support (loans or grants) from international or regional financial institutions and mechanisms on a regional or country basis. The Secretariat will explore the possibilities for such support and will assist interested and potentially eligible countries to formulate project proposals aimed at accessing these resources³⁹.

B. Data and information management⁴⁰

Basis for action

7.9 The nature and quality of data and information provided through MED POL is of crucial importance for the soundness of the scientific and technical rationale underlying the decisions of the Contracting Parties. Therefore, great emphasis should be placed on appropriate data and information management procedures and techniques.

Objectives

7.10 The management of MED POL data and information shall have a twofold objective:

- (a) to make available to the Contracting Parties on a continuous basis reliable data and the information required for the development and effective implementation of action plans, programmes and measures for the control of pollution; and
- (b) to assist all components of MAP, and the Coastal Area Management Programmes (CAMPs) in particular, with data and information on the sources, levels (concentrations), trends and effects of contaminants in the Mediterranean region.

Activities

7.11 The stated objectives shall be achieved through the following activities of the Secretariat:

- (a) collection of data and information resulting from MED POL activities;
- (b) quality control (validation) of collected data and information;
- (c) storage of validated data and information in appropriate databases maintained at the Secretariat or in the country concerned;
- (d) analysis and reduction, if appropriate, of the validated data at a national or regional level;

³⁹ The Global Environment Facility (GEF), the European Union and the World Bank's Mediterranean Environment Programme are at present the three most promising mechanisms that may support MED POL-related activities.

⁴⁰ Data and information management in the context of this document is understood as involving acquisition, quality control, analysis, evaluation, storage, retrieval and exchange (dissemination) of data and information.

- (e) preparation of synthesis reports (evaluations) on general and specific MED POL related issues; and
- (f) distribution (exchange) of data, information and synthesis reports to the Contracting Parties and their subsidiary bodies, RACs, National Coordinators for MED POL, National MED POL Collaborating Institutions, meetings organized within the framework of MAP, and other individuals and organizations, as appropriate, and in accordance with the policy that will be adopted by the Contracting Parties (see paragraph 7.14).

Means of implementation

7.12 The National Coordinators for MED POL and the National MED POL Collaborating Institutions shall be the primary source of data and information supporting the development and implementation of MED POL.

7.13 The collection, quality control, analysis and evaluation of the data and information will be carried out nationally with the help of the Secretariat if needed, or by the Secretariat (with the help of the relevant organizations of the United Nations system, outside experts, and *ad hoc* meetings of experts, as necessary), for data stored at the Coordinating Unit.

7.14 The Secretariat's databank will include only data useful for the establishment of trends. The Secretariat, with the assistance of relevant experts, will develop a proposal for data and information distribution policy to be submitted for adoption to the Contracting Parties. The guiding principle of that policy should be that access to the data and information received by the Secretariat will normally be free for the parties involved in MED POL.

7.15 The reports of the Secretariat to the Contracting Parties will be transmitted through the subsidiary bodies of the Contracting Parties.

C. Coordination and cooperation

Basis for action

7.16 MED POL, as one of the basic and most complex MAP activities, linked with virtually all other MAP activities, requires a well-coordinated approach in order to ensure the harmonious cooperation and interaction of, and inputs from, the various actors contributing to its implementation.

Objective

7.17 The objective to be achieved through the coordination of MED POL activities is:

- to ensure the full implementation of Contracting Parties' decisions relevant to MED POL through the highest degree of efficient cooperation among the Secretariat, national structures, international organizations, and individuals participating in the implementation of MED POL⁴¹.

⁴¹ Paragraph 17.10 of Agenda 21.

Activities

7.18 The stated objective shall be achieved by:

- guidance provided directly or indirectly by the Secretariat to all parties involved in MED POL; and
- close cooperation among all parties involved in MED POL.

Means of implementation

7.19 The Secretariat shall coordinate all MED POL activities, in close cooperation with the National Coordinators for MED POL⁴², the national MED POL Collaborating Institutions, the specialized agencies of the United Nations system, as well as other international and intergovernmental organizations ready to offer or provide support.

7.20 The Meeting of the MED POL National Coordinators, as the subsidiary body of the Contracting Parties, will continue to review periodically the progress of MED POL, evaluate its results and advise the Contracting Parties on the strategies to be followed for its implementation.

7.21 The Advisory Group of Experts for MED POL will advise the Secretariat and the Meeting of National Coordinators on the scientific and technical aspects of the design, development and implementation of the MED POL programme, as well as on the review of its accomplishments. The Group could be assisted, for specific subjects, by additional specialists.

7.22 The MED POL National Coordinators may establish *ad hoc* expert groups to advise them on specialized topics.

7.23 The coordination of the inputs from the specialized organizations of the United Nations system into MED POL will continue to be ensured through direct working level contacts with these organizations and periodic Inter-Agency Advisory Committee (IAAC) Meetings on MED POL.

7.24 The periodic meetings of the heads of RACs with the Secretariat will continue to be used to ensure: (a) the coordination between complementary activities of MAP implemented by the Secretariat and the respective RACs; and (b) the inputs of MED POL into activities carried out by RACs.

⁴² The modalities of cooperation are described in Section 4.

8. IMMEDIATE PRIORITIES FOR THE IMPLEMENTATION OF MED POL-PHASE III

8.1 In view of the fact that MED POL-Phase III encompasses a wide range of important activities that require urgent implementation, the MED POL budget should be increased substantially. However, since such an increase does not appear feasible through the MED Trust Fund, it is considered necessary to seek outside funding (see paragraph 7.8). Until such outside assistance is possible, it is recommended that, during the initial stage of its implementation, the MED POL Programme concentrate on a number of priority activities.

8.2 The following activities (not in order of priority), which are in line with the Priority Fields of Activities adopted by the Contracting Parties (Barcelona, 1995), are recommended:

- (a) Formulation, including the setting of priorities, and implementation of regional, subregional and national action plans, programmes and measures for the control of land-based pollution.

The implementation of the LBS Protocol will be the cornerstone of MED POL-Phase III. This implementation will be based on national and regional action plans, programmes and measures. In order to formulate such action plans, programmes and measures, MED POL-Phase III will establish the priorities in accordance with those set out in the annexes to the LBS Protocol, taking into account the characteristics of substances provided in Annex I to the Protocol.

- (b) Formulation and implementation of a programme of coastal zone trend monitoring on a regional basis.

On the basis of the experience gained through MED POL-Phases I and II and in view of the objectives of MED POL-Phase III, national monitoring programmes will have to be designed or redesigned in order to satisfy national needs and enable the results of the programme to be used as a management tool for controlling marine pollution. A number of fixed coastal stations from the national programmes will be selected for inclusion in a regional monitoring network for the establishment of trends in the Mediterranean. This programme will provide information that can be used for the assessment of the overall quality status of the Mediterranean Sea, as well as for the effectiveness of control measures taken.

- (c) Identification of sources (especially major "hot spots") and assessment of loads of pollution.

The preparation of inventories of point and non-point sources of pollution, particularly the land-based sources, and the monitoring of the pollution loads reaching the Mediterranean from these sources, is considered a high priority since such information is necessary for making management decisions. Within this context, a list of major pollution "hot spots" in the Mediterranean will be prepared and relevant action plans (with economic aspects and timetables) for reduction and elimination of pollution will be developed and implemented.

- (d) Assistance to countries for the formulation, development and implementation of national monitoring programmes.

Although considerable progress was achieved during MED POL-Phase II, in many cases, national monitoring programmes have not yet produced the expected results, either because the programme was not designed properly or was not implemented fully (temporal and spatial gaps) and the data were not of the required quality. Through MED POL-Phase III, assistance will be provided for the formulation of appropriate monitoring programmes to developing countries requesting it, as defined in paragraph 7.4.

- (e) Assistance to countries (including capacity-building) for the implementation and enforcement of adopted pollution control measures.

It is clear that without the proper implementation of the control measures the success of the programme will be jeopardized. In accordance with paragraph 6.12, assistance will be provided to facilitate the implementation and enforcement of measures to developing countries requesting it as defined in paragraph 7.4.

- (f) Eutrophication and biological effects to be considered as priority subjects for research.

From MED POL-Phase II results it appears that eutrophication is becoming a major problem at regional level. As a result, special attention should be given to this problem and extra efforts are required for its solution. Being very complex and involving a number of processes, more research is required to understand its causes, effects, geographical distribution and trends and eventually propose remedial action.

The Contracting Parties (Antalya, 1993) have decided to introduce monitoring of biological effects in the MED POL Programme. This is not possible unless reliable techniques that can be used routinely are developed. Research is required to assist in the final selection of the techniques and in developing and testing the methodologies.

ANNEX

MONITORING OF THE LEVELS AND EFFECTS OF CONTAMINANTS IN THE CONTEXT OF MED POL-PHASE III

1. Two basic types of monitoring are identified within the framework of the MED POL-Phase III Programme: compliance and trend monitoring. Surveys will also be carried out in order to complement the monitoring data and facilitate decision-making for management purposes.
2. Compliance monitoring is defined as the collection of data through surveillance programmes to verify that the regulatory conditions for a given activity are being met e.g. concentration of mercury in effluents. In the case of identifying an instance of non-compliance, appropriate enforcement can be established which can be escalated until compliance is achieved.
3. Trend monitoring is defined as the repeated measurement of concentrations or effects over a period of time to detect possible changes with time. This type of monitoring will provide information that can be used for the assessment of the state of the environment and the effectiveness of pollution control measures taken. If the effectiveness of measures is deemed inadequate, additional activities may be initiated such as the formulation of new measures or the revision of existing ones, etc.
4. Depending on the matrices and parameters included in the programme, monitoring will be carried out for the following purposes:

Compliance monitoring

- **Compliance monitoring of health-related conditions** (e.g. sanitary quality of bathing areas and waters used for aquaculture, quality of seafood). This type of monitoring has a national significance, but data may also be used for regional assessments;
- **Compliance monitoring of effluents** to determine whether the adopted common measures concerning concentrations of contaminants in effluents (e.g. mercury, cadmium) are complied with; and
- **Compliance monitoring in "hot spot" areas** to determine whether the environmental quality objectives or limit values set are complied with (e.g. DDT in water).

Trend monitoring

- **Coastal zone trend monitoring**, through a regional network of selected fixed coastal stations, of parameters that contribute to the assessment of trends and the overall quality status of the Mediterranean Sea. As explained under Section 8, this type of monitoring will be carried out on a regional basis;
- **Trend monitoring in "hot spot" areas** (intensively polluted areas) and high risk areas that are likely to become heavily polluted, are subject to harmful seasonal phenomena such as algal blooms, or where control measures have been taken. This type of monitoring will be designed as necessary at the subregional level, and will be carried out on a national basis, and the data will be utilized for taking management

decisions at a local level, including the assessment of the effectiveness of the control measures taken;

- **Trend monitoring of loads** (e.g. from land-based sources of pollution in general or from identified sources, pollutants transported by atmosphere, pollutants carried by rivers) and assessment of loads originating from non-point sources. Data from this type of monitoring will be utilized locally but also for regional assessments; and
- **Trend monitoring of biological effects** at different organizational levels, including molecular, cellular, physiological, behavioural, community and ecosystem levels, can also be used as an early warning system. This type of monitoring can be included in national monitoring programmes as well as in the regional trend programme.

5. In addition, surveys will be carried out to complement the monitoring data:

- surveys of health-related effects (e.g. occurrence of illnesses in bathers exposed to contaminated waters and sand and in consumers of seafood) will be carried out on a routine basis;
- surveys of point and non-point land-based sources of pollution needed for the development, compilation and maintenance of inventories, will be carried out; and
- baseline and trend surveys through international and multinational cruises of the whole Mediterranean Sea will be conducted at periodic intervals (once every five or ten years) in order to contribute to the assessment of the overall quality status of the Mediterranean Sea.

Matrices to be monitored

6. The matrices (one or several) included in monitoring programmes will depend on the objective and purpose of the monitoring. The most common matrices which could be included in monitoring programmes are:

- (a) effluents reaching the marine environment from industrial plants, municipal sewerage systems and agriculture drainage channels;
- (b) waters, sediments and biota (which also include individuals, populations and communities of marine mammals and sea birds) of marine coastal zones and estuaries which are, or are likely to be, under the direct impact of identifiable point or non-point source(s) of pollution;
- (c) atmosphere through which pollutants may enter the marine environment and thus affect its quality; and
- (d) humans who may be affected by pollutants through direct or indirect exposure to polluted marine media, or products (e.g. food) derived from such media.

Parameters or indicators to be monitored

7. Parameters or indicators to be monitored will vary from case to case, i.e. will be site and problem specific. They may include one or several of the following types of physical, chemical or biological parameters or health-related indicators:

- physical and chemical properties of the monitored abiotic media;
- the concentration of a specific chemical compound or group of compounds in a given matrix;
- marine ecosystem health on molecular, cellular, individual organism, community and ecosystem levels (e.g. bioassays, teratogenic or genetic changes if appropriate, biomarkers, histopathology, physiology, population structure);
- sanitary quality of media used by people (e.g. microbiological quality of bathing waters), or for food production (e.g. quality of waters used for and by aquaculture);
- ecological effects of coastal aquaculture (land-based and marine facilities);
- health effects on humans exposed to contaminated media (e.g. bathers) or products (e.g. contaminated shellfish) derived from such media;
- marine litter.

8. In case of compliance monitoring, the selection of the parameter(s) to be monitored is determined by the pollution control measure whose compliance is being monitored.

Programme design⁴³

9. For both compliance and trend monitoring, it is essential that the question being posed is both testable and specific, i.e. within a statistical context. The question must relate to a specific environmental compartment, i.e. water, suspended material, sediment or biota. The sequence then is:

- to identify meaningful levels of change and the confidence limits of that change that are to be detected (e.g. with what precision can a 20 per cent loss in number of species of a benthic sediment-living community be detected?);
- to obtain knowledge of spatial and temporal variability of the element being sampled from a desk study or pilot study;
- application of power analyses is essential in order to rationalize the programme⁴⁴;
- selection of elements of the programme taking into account logistic constraints⁴⁵;
- define data quality objectives and decide *a priori* on the statistical methods to be applied in analysing the data; and

⁴³ See Guidelines for monitoring chemical contaminants in the sea using marine organisms. UNEP Reference Methods for Marine Pollution Studies No. 6.

⁴⁴ See Peterman, R.M. and M'Gonigle, M., Statistical Power Analysis and the Precautionary Principle, Marine Pollution Bulletin, Vol. 24, No. 5, pp. 231-234, 1992.

⁴⁵ See also new experimental designs (Underwood, Aust. J. Mar. Sci. 1993).

- to select sampling sites and sampling frequency based on the foregoing information.

Data Quality Assurance Programme

10. Following the design of a scientifically-based national monitoring programme, a Data Quality Assurance (DQA) programme is required to ensure data reliability. The required quality assurance must address all aspects of the programme, including:

- trained staff;
- appropriate facilities, sampling and measurement equipment and other consumables;
- regular calibration, maintenance, and servicing of the equipment;
- sampling that conforms to sampling design (see paragraph 9);
- sample handling procedures, including, for example, transportation, preservation, storage, tissue dissection, bone grinder, homogenization, sub-sampling (sub-sampling includes all steps up to the measurement);
- regular checks of accuracy and precision of routine measurements, by analyses of appropriate reference materials (when available) and the documentation of the results on control charts;
- external quality assessment (e.g. participation in intercomparison exercises);
- standard operating procedures (written protocols with precise descriptions of all elements of the measurements and quality control procedures);
- record of all calculations such as data translation and transcriptions prior to final documentation (record books and/or computers);
- data evaluation procedures (e.g. converting data into a report).

11. The results obtained by sampling, measurement and observation must be of adequate quality not only analytical (accuracy and precision) but also meet the requirements of the objectives⁴⁶ and be comparable on a Mediterranean-wide basis. Failure to include DQA information with the submission of monitoring data will mean that the data may not be included in the MED POL database and therefore will not be considered in the overall evaluation. The results must be reported to the Secretariat according to agreed formats and schedules, in order to satisfy the reporting requirements. The Secretariat will assist countries in the interpretation of data.

⁴⁶ The experience with quality assurance programmes, largely based on the practices of MED POL, is described in *Contaminant Monitoring Programmes using Marine Organisms: Quality Assurance and Good Laboratory Practice* (Reference Methods for Marine Pollution Studies No.57, UNEP, 1990).

ANNEX V

**DRAFT TERMS OF REFERENCE
OF THE
MEDITERRANEAN COMMISSION ON SUSTAINABLE
DEVELOPMENT
(MCSD)**

MEDITERRANEAN COMMISSION ON SUSTAINABLE DEVELOPMENT
(MCSD)

DRAFT TERMS OF REFERENCE

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MEDITERRANEAN COMMISSION ON SUSTAINABLE DEVELOPMENT
DRAFT TERMS OF REFERENCE

A. Status and purpose of the Commission

1. In accordance with the recommendation of the Tunis Ministerial Conference as approved by the Conference of Plenipotentiaries meeting in Barcelona in June 1995, a Mediterranean Commission on Sustainable Development (MCSD) is hereby established as an advisory body to make proposals within the framework of the Mediterranean Action Plan (UNEP/MAP).
2. The purpose of the Commission is:
 - (a) to identify, evaluate and assess major economic, ecological and social problems stipulated in Agenda MED 21, make the appropriate proposals thereon to the meetings of the Contracting Parties, evaluate the effectiveness of the follow-up to the decisions of the Contracting Parties and facilitate the exchange of information between the institutions implementing activities related to sustainable development in the Mediterranean;
 - (b) to enhance regional cooperation and rationalize the inter-governmental decision-making capacity in the Mediterranean basin for the integration of environment and development issues.

B. Functions

3. The functions of the Commission shall be:

- (a) to assist in the formulation and implementation of a regional strategy of sustainable development in the Mediterranean, taking into consideration the resolutions of the Tunis and Barcelona Conferences and the context of Agenda MED 21 and MAP Phase II;
- (b) to consider and review information provided by the Contracting Parties, in accordance with Article 20 of the Barcelona Convention, including periodic communications or reports regarding the activities they undertake to implement Agenda MED 21, and the problems they encounter, such as problems related to the integration of environment into national policies, capacity building, financial resources, technology transfer, and other relevant environment and development issues;

- (c) to review at regular intervals the cooperation of MAP with the World Bank and other international financial institutions, as well as the European Union, and to explore ways and means for the strengthening of such cooperation, and particularly to reach the objectives of Chapter 33 of Agenda MED 21;
 - (d) to consider information regarding the progress made in the implementation of relevant environmental conventions, which could be made available by the relevant conferences or by the parties;
 - (e) to identify technologies and knowledge of an innovative nature for sustainable development in the Mediterranean region and to provide advice on the various means for their most effective use, in order to facilitate exchanges among the Contracting Parties and to enhance capacities for national development;
 - (f) to provide reports and appropriate recommendations to the meetings of the Contracting Parties, through the MAP Secretariat, on the basis of a comprehensive analysis of reports and issues related to the implementation of a regional strategy related to MAP Phase II and Agenda MED 21;
 - (g) to undertake a four-year strategic assessment and evaluation of the implementation by the Contracting Parties of Agenda MED 21 and decisions of the meetings of the Contracting Parties and of actions by the Contracting Parties relevant to sustainable development in the Mediterranean region and propose relevant recommendations thereon; the first strategic review should be undertaken for the year 2000 (with ministerial participation), with the objective of achieving an integrated overview of the implementation of Agenda MED 21, examining emerging policy issues and providing the necessary political impetus. The Commission shall make the best use of the main results of MAP activity centres in the field of sustainable development, and in particular those of the MAP Mediterranean Environment and Development Observatory, as well as those of national environmental observatories;
 - (h) to assume such other functions as are entrusted to it by the meetings of the Contracting Parties, to further the purposes of the Barcelona Convention, MAP Phase II and Agenda MED 21.
4. The rules of procedure of the Commission shall be the Rules of procedure of the meetings and Conferences of the Contracting Parties to the Barcelona Convention, until the rules of procedure of the Commission are proposed by the Commission and adopted by the meeting of the Contracting Parties, considering that the Commission shall have no voting system.

C. Composition

5. The Commission shall be composed of a maximum of 35 members, consisting of representatives from each Contracting Party to the Barcelona Convention and representatives of local authorities, socio-economic actors and non-governmental organizations working in the fields of environment and of sustainable development. All representatives shall participate in the Commission on an equal footing. (The Secretariat shall submit to the meeting of the Contracting Parties a proposal covering the respective numbers of representatives, the method of their nomination, the selection criteria and the duration of their mandate).

D. Observers

6. In accordance with the Rules of procedure adopted by the Contracting Parties to the Barcelona Convention, any State which is a member of the United Nations and the specialized agencies, and any other inter-governmental organizations the activities of which are related to the functions of the Commission, may participate in the Commission's work as an observer.

E. Meetings of the Commission and responsibilities of the Secretariat

7. The Mediterranean Commission on Sustainable Development shall have an annual meeting up to the year 2000, then shall meet every two years. The meetings shall be convened at the premises of the Coordinating Unit of MAP, without prejudice to the convening of its meetings in other Mediterranean venues upon a recommendation of the Commission approved by the Meeting of the Contracting Parties.
8. At the opening of each session, the Commission shall elect a Bureau composed of a President, four Vice-Presidents and a Rapporteur, from among its members on the basis of an equitable geographical distribution and among the various groups.
9. The Coordinating Unit of MAP, serving as the Secretariat of the Commission, shall provide for each session of the Commission an analytical report containing information on relevant activities to implement Agenda MED 21 and other sustainable development activities recommended by the meetings of the Contracting Parties, the progress achieved and emerging issues to be addressed.

F. Relationship with the United Nations Commission on Sustainable Development and with national and regional commissions on sustainable development

10. The Commission shall maintain relations with the United Nations Commission on Sustainable Development, and shall facilitate the exchange of information and experience amongst national and regional commissions on sustainable development.
11. The Commission, in discharging its functions, shall take into account the experience and expertise of the United Nations Commission on Sustainable Development, and shall submit relevant reports to the UN Commission through the Contracting Parties' meetings on any issues that may be of its interest regarding sustainable development in the Mediterranean region.
12. The Commission and the Contracting Parties shall, as far as possible and taking into account the particular needs of the Mediterranean countries, utilize the existing reporting system of the United Nations Commission on Sustainable Development, with a view to streamlining and avoiding duplication of work.

G. Relations with the specialized agencies, intergovernmental organizations and non-governmental organizations

13. The Commission shall, through the Secretariat, strengthen its activities with the relevant United Nations specialized agencies and other inter-governmental bodies within the United Nations System, including international, regional and sub-regional financial and development institutions, in particular regarding projects for the implementation of the regional Mediterranean strategy related to Agenda MED 21 and the decisions of the Contracting Parties.
14. The Commission shall, through the Secretariat, enhance the dialogue with, and the participation of, relevant non-governmental organizations (NGOs) and the independent sector, and receive and analyse their inputs within the context of the overall implementation of the Mediterranean regional strategy for sustainable development.