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MEDITERRANEAN ACTION PLAN

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

Cairo, 8-11 October 1991

**PROGRESS REPORT OF THE EXECUTIVE DIRECTOR ON THE
IMPLEMENTATION OF THE MEDITERRANEAN ACTION PLAN
in 1990 - 1991**

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INTRODUCTION

Since my last progress report two years ago on the activities of the Mediterranean Action Plan, positive developments have occurred in relation to the protection of the environment in the Mediterranean region. The Mediterranean Action Plan was geared towards the adaptation, through further development, and progressive concentration of MAP activities on priority issues crucial to environmentally sound integrated planning and management of the Mediterranean Basin.

The targets defined by the Genoa Declaration were fully integrated into the strategy and programme adopted by the Contracting Parties and the Coastal Areas Management Programme (CAMP) was developed for four selected areas in the Mediterranean basin.

Co-operation and co-ordination were strengthened with the World Bank and other financial institutions with a view to attracting financial resources and technical support.

However, a number of decisions of the Contracting Parties including the regular payment of agreed contributions were not implemented which handicapped the smooth implementation of the MAP programme. Timely implementation of the decisions of Contracting Parties would considerably promote the success of the Mediterranean Action Plan.

The present report illustrates in detail the main developments in relation to the various components of MAP during the last two years.

I. ACTIVITIES

1. PROGRAMME APPROVAL THROUGH DECISION-MAKING MEETINGS

1. The 1990/1991 biennium witnessed the actual implementation of the new re-focusing of the Mediterranean Action Plan activities towards a more integrated programme on coastal zone management and the application of solutions to the problems identified. The regular meetings of the national focal points for each component were discontinued and were replaced by the two standing committees (Scientific and Technical Committee and Socio-Economic Committee). The two Committees met twice in joint meetings in May/June 1990 and in May 1991. The meetings thoroughly reviewed jointly and separately, as appropriate, the MAP activities with a view to preparing concrete recommendations with their budgetary allocations for approval by the Seventh Ordinary Meeting of the Contracting Parties.

2. The experience of the last biennium has shown that, in order for the meetings of the two Standing Committees to be more effective, it is advisable to convene a separate meeting of the national focal points for each component in one year, and a joint meeting of the two standing committees in the second year, prior to the Contracting Parties meeting. The objective is to give enough time for each component to be reviewed thoroughly by their respective national focal points and then to convene a joint meeting of the standing committees to review, modify and finalize the work programme and budget of the whole MAP.

3. Under its President (Egypt), the Bureau of the Contracting Parties (Italy and EEC as Vice-presidents and Cyprus as Rapporteur) convened four meetings: in Cairo (February, 1990), Rome (September 1990), Brussels (April 1991) and Paphos, Cyprus (July 1991). During these meetings, the Bureau reviewed and took decisions on behalf of the Contracting Parties on specific MAP activities (administrative issues, evaluation of REMPEC communication system, Mediterranean Report to the 1992 UNCED Conference, the Offshore Protocol, post BP activities, SPA Centre in Tunis, the Black Sea issue, the 1992-1993 budget, etc).

4. The calendar of meetings organized in the framework of MAP during 1990/1991 is contained in Annex I to this report.

2. PROGRAMME CO-ORDINATION

5. In exercising its co-ordinating and catalytic role during 1990-1991 biennium, with a view to enhancing the human environment, the Co-ordinating Unit of the Mediterranean Action Plan implemented numerous activities most of which are described in the following sections of this report.

6. Two annual consultation meetings of the Co-ordinating Unit and the Directors of the Regional Activity Centres were convened in Athens at the beginning of 1990 and 1991. The objectives were to review and co-ordinate MAP activities, prior to the meetings of the Standing Committees.

7. The protection and development of the Mediterranean were placed in the agenda of bilateral and multilateral contacts involving Mediterranean countries. The discussion in the General Assembly of the United Nations in 1989 and 1990 has resulted in endorsing two resolutions (44/125) and (45/79), in which the General Assembly recognized the importance of intensifying and promoting peace, security and co-operation in the Mediterranean region and of strengthening further the economic, commercial and cultural links in the region.

8. The Nicosia Charter of April 1990 adopted by the Ministers in charge of the Environment of the countries of the Mediterranean basin and the Member of the Commission of the European Communities with respect for the environment, considered that the protection of the environment, at national, regional and global level, constitutes the intrinsic basis for balanced and sustainable development. The Ministers reiterated their full commitment to the objectives of the Barcelona Convention for the protection of the Mediterranean against pollution, of the Mediterranean Action Plan and of the Genoa Declaration on the Second Mediterranean Decade. The Ministers committed themselves to a fundamental objective, to achieve by the year 2025 at the latest, an environment in the Mediterranean basin compatible with sustainable development. To achieve these objectives, a specific programme is being prepared by the EEC and it will be presented to the Cairo Meeting.

9. Another illustration of the importance of protecting the Mediterranean Sea, relates to the World Bank Environment Programme for the Mediterranean (EPM). A Memorandum of Understanding was signed by the Executive Director of UNEP and the Vice-President for Europe, Middle East and North Africa of the Bank on 12 July 1989. This Agreement has paved the way for fruitful co-operation and co-ordination in relation to the Mediterranean. Further to the developments concerning the EPM and its Mediterranean Technical Assistance Programme (METAP), a Memorandum of Understanding between MAP and the Bank was signed on 5 November 1990. It concerns the Bank-assisted programme for the enhancement of institutional capabilities in the Mediterranean coastal States within the MED POL programme. Under the provisions of this agreement, the Bank is providing for the period 1990-1992 the amount of US \$ 517,000 for the services and facilities for the implementation of the activities in Arab countries (Algeria, Egypt, Morocco, Tunisia) and US \$ 321,500 for the services and facilities provided for the implementation of the activities in European countries (Cyprus, Turkey and Yugoslavia). A grant of US \$ 330,000 by the World Bank was approved for the Coastal Areas Management Programme for the Kastela Bay project. More contacts were conducted with the World Bank and the European Investment Bank (EIB) concerning the financing of some activities within the framework of the Coastal Areas Management Programme (CAMP). A meeting between representatives of the World Bank, UNEP-OCA/PAC, and the Co-ordinating Unit for MAP was held in Athens on 17 June 1991. The meeting reviewed existing cooperative projects and projects of WB/EIB as well as possible topics of future cooperation.

10. As the Mediterranean is connected with surrounding regions and seas, co-ordination of activities and enforcement of co-operation with relevant countries in these regions is imperative. For this, the Bureau of the Contracting Parties welcomed the wish of the Black Sea countries expressed during the CSCE Conference in Palma de Mallorca to establish relations with MAP and recommended that these countries should be invited to the Seventh Meeting of the Contracting Parties (Cairo, October 1991). The four coastal States of the Black Sea had prepared the draft of a Convention and of three protocols which were analogous to those applicable to the Mediterranean. It was envisaged that these instruments would be signed on behalf of the States concerned in Bucharest on 27 May 1991. The meeting was postponed for a later date. Meanwhile, OCA/PAC started preparation of an Action Plan for the protection of the Black Sea against pollution. A first meeting of national focal points and experts will be convened soon.

11. As regards the "Adriatic Initiative", another example of sub-regional co-operation, the representative of Italy informed the meeting of the Bureau of the Contracting Parties (Paphos, Cyprus, 16-17 July 1991) that on 13 July 1991 the Ministers of Foreign Affairs of Albania, Greece, Italy, Yugoslavia and the representative of the Commission of the European Communities signed in Ancona, Italy, the "Adriatic Sea Declaration", which establishes a scheme of environmental co-operation at a sub-regional level.

12. Co-operation with non-governmental organizations (NGOs) continued in a number of areas of common interest including the protection of endangered species in the Mediterranean, hazardous wastes, the Offshore Protocol, and the preparation for the United Nations 1992 Conference on Environment and Development.

13. A consultation meeting on Non-governmental Organizations (NGOs) was convened in Athens (May 1990). It was attended by representatives of nine non-governmental organizations. The meeting reviewed the principal activities, interests and programmes of these organizations, reviewed a document on education and environmental awareness in the Mediterranean, reviewed the ten objectives of the Genoa Declaration, in order to identify possible forms of participation and supporting action by NGOs, and finally considered the proposal to hold an open-ended Forum of NGOs, active in the protection of the Mediterranean, sometime in 1991. The advantages of such a Forum would be:

- to achieve a better exchange of information among NGOs;
- to disseminate information on the objective, mechanisms and achievements of MAP;
- to give legitimacy to NGOs efforts, that are in support of Government approved targets.

It was also suggested that preparations for the United Nations 1992 Conference on Environment and Development could provide a clear focus for the Forum.

14. In this connection and on the initiative of the President of the French Republic, a meeting of NGOs from all over the world will be hosted in Paris from 17 to 21 December 1991, with the object of preparing a policy position of the NGOs for the United Nations 1992 Conference on Environment and Development (UNCED). Moreover, the European Environment Bureau (EEB) informed the secretariat that a meeting of Mediterranean NGOs is going to be held in Athens in November 1991, to be organized by the EEB, in collaboration with UNEP, competent United Nations organizations and the EEC. The objectives of the meeting will be to prepare a Mediterranean input to the Paris meeting of 1991 and the UNCED Conference of 1992 and to identify areas for joint Mediterranean NGOs projects.

15. Taking into consideration the important role being played by the non-governmental organizations, the Contracting Parties to the Barcelona Convention amended their Rules of procedure of the meetings and conferences of the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution and its related Protocols in order to allow the relevant NGOs to attend the meetings of the technical committees.

16. As the Mediterranean Action Plan was a unique successful exercise in regional co-operation, a decision was taken by the Contracting Parties to prepare a report for the 1992 UNCED Conference on their experience as a contribution to the preparatory process of the Conference. The draft report prepared by the Secretariat was reviewed and finalized by a meeting of Mediterranean experts convened in Athens in January 1991 and the Brussels meeting of the Bureau in April 1991 and was transmitted to the UNCED secretariat.

17. The Conference on Security and Co-operation in Europe (CSCE) held in Palma de Mallorca (Spain) from 24 September to 19 October 1990 was an important element of support to the Mediterranean co-operation in the framework of the Barcelona Convention. Many participants expressed their support to MAP which was described as a well structured multinational system to be used and supported in the CSCE framework. In their final report, the participating states recognized the need to provide for ecological stability in the Mediterranean region and recognized the work underway to approach the major environmental problems facing the Mediterranean region since the adoption of the Mediterranean Action Plan of UNEP in 1975. They pointed out that these activities provide a solid platform for the proposals set out by the Conference on Security and Co-operation in Europe (CSCE) on the Mediterranean, which are intended to support and, where necessary, to augment them.

18. The ASPEN Institute Italia, organized a meeting in Marseille on 10-12 December 1989 on "A Medium Term Strategy for Mediterranean Co-operation". The meeting was convened by the Italian Minister of Foreign Affairs in his capacity as President of ASPEN Italia. It reviewed Mediterranean co-operation in the light of developments in Eastern Europe. The meeting adopted a final declaration. It recommended inter alia "to support the Mediterranean plan of Action, and in particular the Blue Plan, and is convinced that the present level of funding is largely inadequate to cope with the gravity of the issues at stake".

3. LEGAL COMPONENT

19. In the light of the growing concern about the pollution of the Mediterranean resulting from the exploration and exploitation of the Continental Shelf and the Sea-bed and its Subsoil and with a view to strengthening the legal foundation of the MAP by implementing Article 7 of the Convention, the Contracting Parties decided in 1985 to prepare a fifth protocol to the Barcelona Convention to deal with pollution resulting from offshore activities. A technical Consultation meeting was held in Athens (1986), and two meetings of Mediterranean experts were convened in Athens (May 1990 and January 1991). They thoroughly reviewed a draft offshore protocol prepared by the secretariat in close co-operation with an Italian non-governmental organization (The International Juridical Organization - IJO). After reviewing the work of the two meetings, the Brussels meeting of the Bureau (April 1991) decided to place the secretariat's proposal to convene a Conference of Plenipotentiaries on the Offshore Protocol on the agenda of the present meeting and to convene a third meeting of Mediterranean experts a few days before the Contracting Parties meeting (Cairo, October 1991), to review the annexes and the issues still pending in order to facilitate a decision at the Cairo meeting. It is the view of the Executive Director that the time is ripe for convening the Plenipotentiaries conference to review and approve the draft Offshore Protocol. A concrete proposal to that effect is placed before the present meeting.

20. Mindful of the growing threat to the human health and the environment posed by the transboundary movements of hazardous wastes in the Mediterranean and the need to ensure that these wastes are dealt with in an environmentally sound management way, the Mediterranean coastal States invited the secretariat to develop a proposal of legal measures on the control of hazardous wastes in the Mediterranean. The secretariat is in contact with the relevant section of UNEP as well as Greenpeace, to prepare such legal measures, taking into consideration the relevant existing international conventions, in particular the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal adopted on 22 March 1989. Two documents will be presented to the Cairo Meeting.

21. In accordance with the decisions of the Contracting Parties concerning assistance to coastal States in compiling their environmental legislation relevant to the implementation of the Barcelona Convention and its related protocols, Greece, Egypt, Israel, Malta and Yugoslavia received assistance from the secretariat in finalizing the compilation of their legislation. The intention is to assist two countries each year. The objective of the whole exercise is to:

- propose a functional analysis of the MAP offering the methodological tools for the understanding of the pragmatic dimensions of its inter-disciplinary components, highlighting the role of law in this process;
- emphasize the special legal nature of MAP as an effective instrument in the process of international co-operation aiming at the protection of the Mediterranean Sea from pollution;
- trace the interlinking between the goals of the Barcelona Convention and the relevant legislative portraits of the Contracting Parties;
- reveal, through analysis of national legislation, the true pace at which the objectives of the Barcelona Convention and its related protocols are being introduced into the day-to-day practice of national authorities at various levels. Absence of legislation will similarly reveal areas of special resistance to change and assist the Contracting Parties to clarify together their common will.

22. As regards the issue of liability and compensation for damages resulting from the pollution of the marine environment deriving from violations of the provisions of the Barcelona Convention and applicable protocols (Article 12 of the Barcelona Convention), it should be noted that this issue is the only legal commitment on which action has been delayed within the framework of MAP. The delay was related to the complexity of subject which would first be dealt with at the appropriate global fora. Concern was expressed about the creation of a precedent in the framework of the Barcelona Convention that could prejudice the issue elsewhere. As the Mediterranean Sea is unique in its characteristics, marine pollution is posing a threat to the ecological equilibrium of the marine environment and its resources. Therefore, neither of the above mentioned arguments can justify a further postponement of the adoption of procedures for the determination of liability and compensation for damages, as specifically called for by Article 12 of the Barcelona Convention. Consequently, the secretariat has repeatedly proposed the need to establish appropriate procedures for the determination of liability and compensation for damages resulting from the pollution of the marine environment. A concrete proposal to this effect was reviewed and agreed upon by the last Joint Meeting of the two standing committees of MAP (Athens, May 1991), and is placed before the Cairo meeting for its approval.

23. As regards the status of signatures and ratifications of the Convention and its related protocols, it is a welcomed development to note that Albania has become the newest Contracting Party to the Barcelona Convention. It ratified the Convention and all its protocols on 30 May 1990. Moreover, Morocco ratified the SPA Protocol on 22 June 1990, Yugoslavia ratified the LBS Protocol on 16 April 1990 and Israel ratified the LBS Protocol on 21 February 1991. With this development, all 18 Mediterranean Coastal States and the EEC are now Contracting Parties to the Barcelona Convention. Only two Coastal States (Lebanon and Syria) have not yet ratified the LBS and the SPA Protocols as can be seen from the Status of Signatures and Ratifications of the Convention and its related protocols as at 1 July 1991 (Annex II to this report).

4. MONITORING OF MARINE POLLUTION IN THE MEDITERRANEAN

a) Monitoring Programmes and supporting activities

24. By the end of May 1991, national Monitoring Programmes relative to the year 1991 had been sent by Albania, Cyprus, Egypt, Israel, Malta, Syria and Tunisia and Yugoslavia. Pollution data relative to the implementation of the monitoring activities in 1989 or 1990 were sent by Algeria, Egypt, Cyprus, Israel, Italy, Malta, Morocco, Spain, Syria, Tunisia and Yugoslavia.

25. During 1990 the Secretariat, directly or indirectly through the Cooperating Agencies, provided assistance either in cash or in equipment and material to the countries that had finalized the monitoring agreements. The assistance was distributed as follows: Albania: US\$ 35,000, Cyprus: US\$ 30,000, Egypt: US\$ 60,000, Israel: US\$ 55,000, Malta: US\$ 25,000, Syria: US\$ 30,000, Tunisia: US\$ 35,000 and Yugoslavia: US\$ 60,000. However, in some cases the above figures represent only funds committed, which may bring minor changes when final invoices are paid.

26. As to the activities related to the monitoring of transport of pollutants through the atmosphere, during 1990 three countries (Cyprus, Israel and Yugoslavia) started this type of monitoring as part of the national monitoring agreements. As a result, part of the overall monitoring assistance for Israel (12,000 US\$) was used for purchasing chemicals, spare parts and other material and part of the overall monitoring assistance for Yugoslavia (10,000 US\$) was used to purchase laboratory equipment.

27. The Second Workshop on Airborne Pollution of the Mediterranean Sea was held in Monaco from 8 to 12 April 1991 to evaluate the on-going research, monitoring and modelling activities and to elaborate recommendations for future actions. The report of the workshop will be published in autumn 1991.

28. The X ICSEM/IOC/UNEP Workshop on Pollution of the Mediterranean Sea (Perpignan, 18-19 October 1990) was held in the framework of the Congress-General Assembly of ICSEM (15-20 October 1990). Only two topics were selected for presentation and discussion: a) pollution problems and research priorities and b) monitoring strategies of marine pollution. The subjects were introduced by two key-note speakers and an extensive discussion at which 140 scientists were present followed the presentations. The results and the conclusions of the discussion will be used for preparation of the new phase of MED POL due in 1995.

29. An agreement for the period 1990-1992 was signed between the World Bank and UNEP according to which a sum of US\$ 838,500 was granted by the Bank to MAP for MED POL supporting activities and in particular for the purchase of equipment and organization of training and the enhancement of the Data Quality Assurance Programme.

a. MED POL Data Processing

30. Computerized MED POL Monitoring Agreements and Data Reports have been transferred into PC/ORACLE relational database management system. Data entry continued and the overall system has been extensively reviewed. Efforts were continued to establish a standard for the computerized database structure for distribution to the region for acquiring data in magnetic media.

31. Two computerized bibliographic databases were compiled with financial assistance of OCA/PAC through surveying the world scientific literature (manual and computerized literature searches): Aquatic Pollution by Organophosphorus Compounds, published as MAP Technical Reports Series No. 44 (with 870 references), and the Bibliography on Marine Litter, published as MAP Technical Reports Series No. 50 (with 440 references).

32. Computerized Adriatic Bibliography (ADRIA) is being prepared, with financial assistance of OCA/PAC, by the Centre for Marine Research, "Rudjer Boskovic" Institute, Zagreb.

33. Computerized "Directory of Mediterranean Marine Environment Institutions" is being prepared by the Co-ordinating Unit, with financial assistance of OCA/PAC.

b. Maintenance

34. In the period January 1990 - June 1991 the MED POL/UNEP maintenance engineer (based in Monaco) carried out visits to 20 institutions in 8 countries. Apart from his duties in equipment installation and service, he carried out a detailed survey of instrument manufacturers for re-equipping the MED POL monitoring network (and assuring continued supplies of spare parts and accessories in the future).

c. Training and Fellowships

35. As in the past, assistance was provided to MED POL participants in the form of individual group training courses, visits of experts to less experienced laboratories, support for participation at MED POL meetings (workshops, intercalibration exercises and quality assurance meetings) and travel grants for attendance at meetings related to the MED POL programme.

36. During the period January 1990 - June 1991, a total of 154 Mediterranean scientists benefitted from this support programme for a total expenditure of US\$ 185,456.

37. The third training course and intercalibration exercise in microbiological methods for marine pollution monitoring was convened by WHO and UNEP in Malta from 3 to 8 September 1990, in collaboration with the Council of Europe's EURO-Mediterranean Centre for Marine Contamination Hazards. It was attended by 22 participants from Cyprus, Egypt, Greece, Israel, Libya, Malta, Syria, Turkey and Yugoslavia. The local organizers contributed by financing two participants and two lecturers.

38. The third training workshop on the statistical treatment and interpretation of marine community data was convened by FAO, IOC and UNEP in Split (Yugoslavia) from 26 June to 6 July 1990, in collaboration with the Institute of Oceanography and Fisheries, Split. It was attended by 20 participants.

39. Preparations were made to hold the fourth course and intercalibration exercise in microbiological methods during the last quarter of 1991 at the Institut National d'Hygiène, Rabat, Morocco, for French-speaking participants.

40. A training workshop on Oceanographic Data and Time Series Analysis was held in Athens, 11-15 December 1990. The aim of the workshop was to train participants in oceanographic time series analysis and particularly in the use of a specially prepared PC software package.

b) Data Quality Assurance

41. The data quality assurance programme, implemented by the Marine Environmental Studies Laboratory of IAEA in Monaco, continued and developed throughout 1990-1991. The work included 2-3 week practical training courses on chlorinated hydrocarbons (participants from Tunisia (1), Egypt (2), Yugoslavia (2)), petroleum hydrocarbons (Egypt (2), Yugoslavia (2)) and trace metals (Egypt (3), Morocco (3), Libya (1)). Experts from the Monaco Laboratory carried out five extended technical missions to Tunisia (trace metals and trace organics), Egypt (trace organics), Yugoslavia (trace organics), and Albania (preparatory mission). In these missions additional training was given as well as practical support for setting-up national data quality assurance programmes. Additionally, close contact was maintained with all laboratories previously participating in this scheme.

42. Several other activities were developed within the scope of the quality assurance programme. These included organization of the participation of MED POL laboratories from EEC countries in the EEC workshop on quality assurance for marine monitoring in Noordwijkerhout,

Netherlands (21-23 May 1990). Two new intercalibration exercises (trace metals and trace organics) were started using a contaminated Mediterranean Coastal Sediment. The reference materials and standards bank in Monaco was further expanded (more than 600 standards available). An arrangement was made between IAEA, the US National Institute of Standards and Technology (NIST) and the Canadian National Research Council (NRC) to produce a series of international reference materials (within the framework of the UNEP/IOC/IAEA Group of Experts in Standards and Reference materials -GESREM) which will be available free of charge to all monitoring laboratories for quality control purposes. The first of these standards GESREM-I (a mussel from the Mediterranean coast of France) will be available in the course of 1991.

43. The Monaco Laboratory continued to develop, test and edit the UNEP Reference Methods for Marine Pollution Studies series including both methods and guidelines covering a wide range of contaminants. A full catalogue of the methods is available. Many of these methods are developed on the basis of the workshops and Seminars hosted by WHO, FAO, IAEA, WMO and IOC on behalf of MED POL.

44. The results of the improved quality assurance programme will be reviewed in 1991 but are already encouraging. It must be stressed however, that a continuous data quality assurance programme will be necessary in order to validate the data obtained. The full support of MED POL National Coordinators will be necessary to ensure that laboratories participate in the intercomparison programme which is a key element in this work.

c) Research projects

45. Between September 1990 and May 1991, a total of 26 projects from 7 countries were submitted to the Secretariat for implementation in 1991. Negotiations with the relevant principal investigators are under way.

46. During 1990, a total of 116 projects were on-going and 43 were completed with a total expenditure of US\$ 232,500 Under this chapter, only the research activities more directly linked to the monitoring programme are considered. Other research activities are described in chapter 6 e):

Activity A

Projects completed in 1990: 3
Projects ongoing on 31 December 1990:20
Total 1990 contribution:US\$ 42,000

Microbiological projects either continued to be linked with the revision of existing reference methods, or dealt with relationships between different bacterial concentrations in order to eventually establish indicator organisms for viruses and pathogens.

Activity F

Projects completed in 1990: 4
Projects ongoing on 31 December 1990: 6
Total 1990 contribution: US\$ 6,000

On-going projects dealt with modelling of circulation, modelling of vertical and non-stationary transport of pollutants and the study of climatic changes in the Mediterranean based on historic data.

Activity H

Projects completed in 1990: 1
Projects ongoing on 31 December 1990:13
Total 1990 contribution:US\$ 36,100

Research projects under this activity normally study the composition of the plankton communities in eutrophied areas or the presence of toxic species. Recently, a number of projects have been initiated attempting to interpret long-term series of eutrophication data. Final reports of research projects implemented under activity H were published in the MAP Technical Report Series No.37 and 40.

Activity I

Projects completed in 1990: 2
Projects ongoing on 31 December 1990: 8
Total 1990 contribution:US\$ 18,000

Research projects under this activity cover the effects of pollution on the structure of planktonic or benthic communities and the data are being treated statistically using computer software for better interpretation. The FAO/IOC/UNEP Training Workshop on the statistical treatment and interpretation of marine community data will be organized (Alexandria, 9-19 December 1991) for the scientists that have not been able to benefit from it yet.

The MAP Technical Report Series No.40 also includes final reports implemented under this activity.

Activity J

Projects completed in 1990: 1
Projects ongoing on 31 December 1990: 0
Total 1990 contribution:US\$ 0

This activity has been given low priority and only 3 projects have so far been implemented studying the effects of thermal discharges on marine communities in Algeria, Cyprus and Italy.

Activity K

Projects completed in 1990: 7
Projects ongoing on 31 December 1990:13
Total 1990 contribution:US\$ 26,500

In this activity, the emphasis has so far been on mercury and cadmium biogeochemical cycles. An effort is now made to divert research to other chemical elements listed in the annexes of the LBS protocol and two new proposals are now dealing with chromium.

A consultation meeting on the accumulation and transformation of chemical contaminants by biotic and abiotic processes in the marine environment was convened by FAO, UNEP and IAEA (La Spezia, Italy, 24-28 September 1990) and was attended by 32 participants.

Activity L

Projects completed in 1990: 6
Projects ongoing on 31 December 1990:15
Total 1990 contribution:US\$ 16,000

A number of on-going projects deal with studying, modelling and estimating atmospheric transport and deposition of heavy metals, nutrients and mineral aerosol into the various regions of the Mediterranean Sea from land-based sources, as well as with comparing the atmospheric and riverine inputs of these substances. Other projects deal with the study of biogeochemical cycles of CO₂ in the Mediterranean, research in the transport of pollutants by sedimentation and the study on the applicability of remote sensing for the survey of water quality parameters.

d) Climatic changes

47. A document entitled "Progress report on the activity concerning implications of climatic changes in the Mediterranean region" reviewing projects and actions carried out by national and international bodies, as well as by the Mediterranean Co-ordinating Unit was prepared and it is available as reference document UNEP(OCA)/MED WG. 25/Inf.9.

48. The main findings and the future plans of the Mediterranean Task Team on Implications of Climatic Changes were presented at the Joint Meeting of the Co-ordinators of the Regional Task Teams, Singapore, 12-16 November 1990.

49. A book on Implications of Climatic Changes in the Mediterranean is planned to be published by Arnolds Publishers by October 1991.

50. A regional scenario on climate changes in the Mediterranean Basin due to Global Greenhouse warming was developed by the Climatic Research Unit of the University of East Anglia.

51. Task Teams were established and work started on Implications of Climatic Changes on the Island of Rhodes and on the Kastela Bay. Preparations are under way to establish similar Task Teams for the Syrian Coastal region and for the Bay of Izmir.

e) Remote sensing and other new techniques relevant to monitoring

52. At the Bureau meeting (Pahpos, Cyprus, 16-17 July 1991) the Italian representative announced the establishment in Palermo of a "Remote Sensing Centre for the Mediterranean" connected with a network of other operative centres in Italy, proposing to consider further co-operation with MAP as well as with the Contracting Parties. In this connection, the representative of Egypt informed the Bureau on the "Egyptian Centre for Remote Sensing" and he proposed to establish a close co-operation between the Italian and the Egyptian Centres in implementing regional projects in this regard.

f) Coordination

53. As in the past, the monitoring activities of MED POL were coordinated by the MAP Coordinating Unit through contacts with the MED POL National Coordinators and with the full participation of the relevant Cooperating Agencies (FAO, UNESCO, WHO, WMO, IAEA, IOC).

54. As to the coordination of the research activities of MED POL, as in the past, the relevant Cooperating Agencies were directly responsible for the technical implementation of the various research projects through direct contacts with the national research centres.

55. The active participation of the Cooperating Agencies remained an important factor contributing very significantly to the implementation of MED POL. In addition to the regular and frequent contacts between UNEP and the Cooperating Agencies, the following meetings of the Inter-Agency Advisory Committee (IAAC) for MED POL took place in order to ensure the harmonious cooperation and implementation of the MED POL activities during 1990 and 1991:

- XXIII Meeting of IAAC (Athens, 8-11 January 1990); it reviewed the activities carried out in 1989 and prepared a workplan for the 1990-1991 MED POL activities (document UNEP(OCA)/MED WG.11/12);
- XXIV Meeting of IAAC (Athens, 3-7 December 1990); it reviewed the 1990-1991 programme and prepared a workplan and budget for the 1992-1993 MED POL activities (document UNEP(OCA)/MED WG.24/1). In particular, the meeting discussed the monitoring programme, the research component - in view of a new approach proposed (see document UNEP(OCA)/MED IG.2/3) - the meetings and the documents to be prepared.

5. INFORMATION

56. Conscious of the fact that providing environmental information both to the general public and to special publics is a crucial element in creating environmental awareness and spreading an understanding of sustainable development, the Secretariat has embarked on a programme of communicating environmental information relevant to the Mediterranean basin, directly and indirectly to the public, governments and organizations that influence public awareness and response.

57. Two general training courses at the Co-ordinating Unit were arranged during 1990 and 1991 for Egyptian and Albanian government officials. Participants were briefed on MAP activities and the methodology of day to day work.

58. Financial support and information material were provided to Mediterranean coastal States to assist their efforts in celebrating the World Environment Day and the Mediterranean Environment Week.

59. As a follow up of the decision of the last meeting of the Contracting Parties to incorporate all existing information bulletins published by MAP and the Regional Centres, the new issues of the unified MAP Bulletin (MEDWAVES Nos: 19, 20, 21 and 22) were published from the beginning of 1990 in three languages (Arabic, English and French) and were widely distributed.

60. MAP Technical Reports Series Nos. 34 to 48 were published and distributed. A list of all publications is contained in Annex IV to this report.

6. IMPLEMENTATION OF THE LAND-BASED SOURCES (LBS) AND DUMPING PROTOCOLS

a) Implementation of the LBS Protocol and Dumping Protocol

a. Progress report on the implementation of the LBS Protocol

61. The Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources was ratified by Yugoslavia on 16 April 1990, by Albania on 30 May 1990 and by Israel on 21 February 1991, bringing to seventeen the total number of Contracting Parties who have ratified, acceded or approved the Protocol (see annex II to this document).

62. No answers were received from Contracting Parties to a letter sent by the Med Unit to all MED POL National Co-ordinators in July 1990 asking for information on implementation of on-going legislation or new legislation related to the Environmental Quality Criteria adopted by the Contracting Parties since 1985. The letter was accompanied by the MAP Technical Reports Series No.38, in four languages, with all eight Environmental Quality Criteria adopted since 1985.

63. Assistance is still offered by the Secretariat to Contracting Parties that may need it, towards the application of the Environmental Quality Criteria or Emission Standards adopted.

b. Progress report on the implementation of the Dumping Protocol

64. At the request of the 1990 Meeting of the Joint Committees, the Secretariat prepared a document (UNEP(OCA)/MED WG. 25/Inf.8) which summarized all the information received from Contracting Parties, including those transmitted in previous years, on a) national reports on permits issued, b) national reports on actual dumping and c) competent national authorities for issuing of permits. As a conclusion, the document stressed that most Contracting Parties do not comply with the obligation to report to the Secretariat on a) issuance of dumping permits, b) non-issuance of permits, c) actual dumping, including "nil" reports and d) competent national authorities for the issuance of permits.

65. As a follow-up to the decision of the Sixth Ordinary Meeting of the Contracting Parties (Athens, 1989) to ask the Secretariat to review the Dumping Protocol in the light of the principle of precautionary approach, the Secretariat contacted IMO that had been working on the same issue in the framework of the London Dumping Convention. In this connection, a study is being carried out by IMO and the results will be submitted to the LDC Consultative Meeting in November 1991. A close contact with IMO will be maintained which will enable the MAP Secretariat to use the experience of IMO on the subject.

66. With a view to banning incineration activities in the Mediterranean Sea, the Sixth Ordinary Meeting of the Contracting Parties (Athens, 3-6 October 1989) decided to amend the Dumping Protocol in order to ban specifically ocean incineration activities in the Convention area and asked the Secretariat to start the necessary procedures. In consultation with IMO, the Secretariat is proposing to the present meeting concrete amendments to the Dumping Protocol to cover this issue (document UNEP(OCA)/MED IG. 2/3).

c. Implementation of LBS workplan activities

67. Partial responses to the questionnaires for the survey of pollutants from land-based sources were received only from France, Greece (Rhodes), Monaco and Spain. Expert assistance was provided in 1990 to Cyprus, Greece (Rhodes), Yugoslavia (Kastela Bay), Morocco and Tunisia. Arrangements are being made for similar assistance to Algeria and Egypt to be effected during the second half of 1991.

68. Work was completed on a document on guidelines for submarine outfall structures for small and medium-sized Mediterranean communities. This documents will now be merged with (a) already-existing documentation and (b) other aspects of the activity scheduled for 1991, to produce comprehensive guidelines, as planned, by late 1991 or early 1992.

69. Preparation of the part of the guidelines for effluents requiring separate treatment dealing with Annex I substances was completed in 1990, and the other part, dealing with Annex II substances, was completed in May 1991. The final comprehensive version of the guidelines will be completed by late 1991 or early 1992.

70. To meet the needs caused by recent developments regarding pollution by pathogenic organisms and those on environmental quality criteria for bathing waters, a small expert consultation on health risks from bathing in marine waters was convened by WHO and UNEP in Athens from 15 to 18 May 1991 to review the situation on the basis of results of past studies and to make appropriate recommendations. The Meeting was attended by 14 participants from 5 countries, and made a comprehensive revision of the guidelines on the basis of which further studies will be carried out.

71. The preliminary draft version of the document on assessment of the state of pollution of the Mediterranean Sea by carcinogenic/mutagenic/teratogenic substances was completed on schedule by the end of 1990. A review was held in early June 1991, and took into account recent GESAMP work on the subject. The document will now be submitted to the 1992 Meeting of the Joint Committees.

72. A small expert consultation on guidelines for monitoring land-based sources of marine pollution was convened by WHO and UNEP in Istanbul from 27 to 29 September 1990. The meeting agreed on new material to be incorporated in the final version of the guidelines, work on which is ongoing and scheduled for completion by late 1991.

73. Preparation of the pollution assessment document on eutrophication and plankton blooms was initiated in July 1991. The first draft of the document is expected to be ready by the end of 1991.

74. The assessment of the state of pollution in the Mediterranean Sea by organotin compounds and relevant proposed measures were first discussed at the First Meeting of the Scientific and Technical Committee (Athens, 23-27 May 1988). One of the decisions of the Committee was that the Secretariat, in cooperation with IMO, should study the feasibility of a complete ban on the application of free association TBT paints for all vessels (including sea-going vessels) and report to the Committee (para. 36 of document UNEP(OCA)/MED WG.1/12). It was agreed with IMO that the matter should be brought up at the Marine Environment Protection Committee of IMO where a resolution was adopted which includes the elimination of antifouling paints containing TBT which have an average release rate of more than $4 \mu\text{g}/\text{cm}^2/\text{day}$ for use on all vessels and leaves the door open for total prohibition of TBT paints.

75. Questionnaires were sent to the National Co-ordinators asking them to provide information useful for the preparation of the assessment documents on organophosphorus compounds, lead, arsenic, chromium and nickel. The responses were limited.

76. A circular letter was sent to the National Co-ordinators in March 1991 requesting them to provide information on dumping sites for TiO_2 and fly ash and relevant reports and studies.

77. The Assessment of the State of Pollution in the Mediterranean Sea by organohalogen compounds was published as MAP Technical Reports Series No.39.

Pilot monitoring survey

78. The pilot project on monitoring of carcinogenic, teratogenic and mutagenic marine pollutants in selected "hot spot" localities in Italy, Spain and Yugoslavia was completed, and results incorporated into the relevant draft assessment document.

79. Preparations for the launching of the pilot project on monitoring non-biodegradable detergents were completed in 1990. The actual monitoring itself is expected to start in 1991.

80. Following the recommendation of the IAEA/FAO/UNEP MEDPOL Workshop on the assessment of pollution by herbicides and fungicides (Monaco, 30 October - 1 November 1990), a pilot survey was initiated to establish the levels of herbicides in hot-spot areas. The survey is primarily conducted in the mouths (estuaries) of major rivers (e.g. Po, Rhône, Ebro) and includes water and sediment samples.

81. The FAO/UNEP/IAEA Consultation meeting on the assessment of pollution by the chemical elements listed in Item 1 of Annex II to the LBS protocol which took place in Athens, from 13 to 15 February 1991 (document FIR/MEDPOL/LBS/3) recommended that further monitoring work was necessary especially in hot-spot areas. The dumping sites for titanium dioxide were considered as hot-spot areas for titanium while fly-ash dumping grounds were considered as hot-spot areas for beryllium, cobalt, thallium, silver, antimony, molybdenum, uranium and vanadium. Before initiating this pilot survey, an effort is made to collect information on such dumping sites in the Mediterranean and elsewhere.

d. Annex IV to the Protocol concerning Pollution from Land-Based Sources transported by the atmosphere

82. A draft text for annex IV to the LBS Protocol was presented as document UNEP(OCA)/MED WG.12/5 to the 1991 Meeting of the Joint Committees by the Secretariat in May 1990. Having discussed the document, the meeting agreed that a revised text of annex IV with due regard for comments received from Contracting Parties should be prepared for the 1991 Meeting of the Joint Committees so that it could then be submitted to the Contracting Parties' meeting for adoption. The revised draft, which was prepared by WHO, WMO and UNEP taking into account comments of Contracting Parties, was submitted to the 1991 Meeting of the Joint Committees as document UNEP(OCA)/MED WG.25/3 and after discussion, the text of the annex IV to the LBS protocol was approved and it is now presented to the Seventh Meeting of the Contracting Parties for adoption (document UNEP(OCA)/MED IG. 2/3).

e. Research projects directly relevant to the LBS Protocol

83. Between September 1990 and May 1991, a total of 26 projects from 7 countries were submitted to the Secretariat for implementation in 1991. Negotiations with the relevant principal investigators are under way.

84. During 1990, a total of 116 projects were on-going and 43 were completed with a total expenditure of US\$ 232,500. Under this chapter, only the research activities more directly linked to the implementation of the LBS Protocol are considered. Other research activities are described in chapter 4.c):

Activity B

Projects completed in 1990: 0
Projects ongoing on 31 December 1990: 0
Total 1990 contribution:US\$ 0

Activity C

Projects completed in 1990: 3
Projects ongoing on 31 December 1990: 1
Total 1990 contribution:US\$ 0

Projects in this field dealt with various aspects of pathogen identification and pathogen/indicator relationships with the object of verifying the validity of the relevant quality criteria.

Activity D

Projects completed in 1990: 4
Projects ongoing on 31 December 1990:13
Total 1990 contribution:US\$ 23,000

Projects dealt with two distinct fields: (a) health effects associated with microbiologically-contaminated coastal seawater or shellfish, and (b) health effects associated with chemically-contaminated seafood. A number of projects under this activity were also supported by considerable grants from local and regional authorities (following recommendations by WHO) in addition to the catalytic MED POL assistance.

The report on jellyfish blooms in the Mediterranean was published as MAP Technical Reports Series No.47 and the final report on project on relationship between microbial quality of coastal sea-water and rotavirus-induced gastroenteritis among bathers was published as MAP Technical Report Series no.46.

Activity E

Projects completed in 1990: 2
Projects ongoing on 31 December 1990: 2
Total 1990 contribution:US\$ 3,000

The two completed projects dealt with submarine outfall design, used lubricating oils in effluents and health-related environmental impact assessment of selected developmental projects. The ongoing ones, scheduled for completion in 1991, deal with coastal pollution by solid wastes.

Activity G

Projects completed in 1990:10
Projects ongoing on 31 December 1990:25
Total 1990 contribution:US\$61,900

The on-going projects cover a fairly wide range of topics in the following fields: (a) the relationship between levels and effects of selected substances vis-a-vis man and marine biota, (b) environmental factors affecting carcinogenicity/mutagenicity of selected substances, (c) study of toxicity effects of copper, zinc, lead, chromium, cadmium and selenium on various marine organisms, (d) study of bioprotection mechanisms in organisms, (e) bioaccumulation of organotins, cadmium, mercury, and organophosphorus compounds in marine organisms, (f) in situ toxicity of oil dispersants, (g) effect of carbonate and organophosphorus pesticides on marine invertebrates and (h) metallothioneins.

On-going projects also deal with the development of criteria for distinguishing land-based from marine-based coastal litter and the development of analytical techniques for the determination of surface active substances and detergents in sea-water. In this activity, the emphasis has been diverted from acute toxicity testing to sublethal techniques which are now becoming important in marine pollution assessment work. New projects include studies on blood chemistry, peptides and proteins, cytochrome P-450, AChE as well as physiological responses.

In addition, in the framework of this activity, a FAO/IOC/UNEP Workshop on the biological effects of pollutants on marine organisms is being organized (Malta, 10-14 September 1991) which will concentrate on the techniques studying the sublethal toxic effects at the level of the individual organism or below. One of the aims of the workshop is to discuss the applicability of the techniques in field studies on a routine basis and their significance and interpretation vis-à-vis marine pollution risk assessment.

b) Assessment of the state of pollution and common measures

a. Assessment of the state of pollution in the Mediterranean Sea by Organophosphorus compounds and proposed measures

85. Under this subject, a separate document was submitted to the 1991 Meeting of Joint Committees as document UNEP(OCA)/MED WG.25/Inf.4. Relevant assessment and proposed measures were approved, as amended by the 1991 Meeting of the Joint Committees and are submitted for adoption to the present Meeting (document UNEP(OCA)/MED IG. 2/3).

b. Assessment of the state of pollution in the Mediterranean Sea by persistent synthetic materials which may float, sink or remain in suspension and proposed measures

86. Under this subject, a separate document was submitted to the 1991 Meeting of the Joint Committees as document UNEP(OCA)/MED WG.25/Inf. 5. Relevant assessment and proposed measures were approved, as amended by the 1991 Meeting of the Joint Committees and are submitted for adoption to the present Meeting (document UNEP(OCA)/MED IG. 2/3).

c. Assessment of the state of pollution in the Mediterranean Sea by radioactive substances and proposed measures

87. Under this subject, a separate document was submitted to the 1991 Meeting Joint Committees as document UNEP(OCA)/MED WG. 25/Inf. 6. Relevant assessment and proposed measures were approved, as amended by the 1991 Meeting of the Joint Committees and are submitted for adoption to the present Meeting (document UNEP(OCA)/MED IG. 2/3).

d. Assessment of the state of pollution in the Mediterranean Sea by pathogenic micro-organisms and proposed measures

88. Under this subject, a separate document was submitted to the 1991 Meeting of the Joint Committees as document UNEP(OCA)/MED WG. 25/Inf. 7. Relevant assessment and proposed measures were approved, as amended by the 1991 Meeting of the Joint Committees and are submitted for adoption to the present Meeting (document UNEP(OCA)/MED IG. 2/3).

7. PREVENTION AND COMBATING POLLUTION FROM SHIPS

a) Implementation of the Emergency Protocol

89. Following the decisions of the Sixth Ordinary Meeting of the Contracting Parties which approved new objectives and functions of the Centre together with a medium term programme of activities related to preparedness and response to marine pollution by oil and other harmful substances, REMPEC, during the 90-91 biennium, concentrated principally its activities on two themes which are considered essential:

- the development and updating of a Regional Information System including a partly computerized data base of chemicals, simulation models and computerized decision support systems;
- the preparation of Recommendations, Principles and Guidelines concerning accidental marine pollution preparedness, response and mutual assistance.

However, the Centre continues to carry out activities on the two other main areas which are:

- the assistance to the country which so requests in the development of their own national organisation;
- the training of personnel.

a. Management of the Centre

90. The Headquarters Agreement in respect of the Centre was signed on 27 April 1990 in Malta by the Prime Minister of the Government of Malta and by the Secretary General of the International Maritime Organization (IMO).

91. Important change of personnel during 1990 and the fact that the post of Chemical Expert which ought to have been filled in July 1989 had eventually been filled in July 1990 created delay in the implementation of the programme approved by the Contracting Parties in October 1989. However, thanks to the quality of the Chemical Expert and the work done, it has been possible to make up for some of the delay.

92. Effort has been made to improve the Centre capacities in word processing and data processing. Improvement should continue in order to handle simulation models and computerize decision support system in the near future.

93. The accident of the Khark 5 revealed the difficulties for the Centre to communicate efficiently using the means available at present. The Bureau meeting, following the proposal made by a consultant, who visited the Centre in June 1990 to evaluate its communications facilities, decided to upgrade the communication facilities of the Centre using the INMARSAT satellite system of communication. The market for adequate equipment was investigated and the scientific and technical Committee meeting (Athens, 6-10 May 1991 - UNEP(OCA)/MED WG.25/5) already indicated that the Centre ought to acquire an INMARSAT standard A system and proposed to allocate to the REMPEC budget the funds needed for that purpose.

Preparation of recommendations, principles and guidelines concerning accidental marine pollution preparedness, response and mutual assistance

94. The Centre organized in Malta from 8 to 12 October 1990 a Regional Seminar on financial questions, liability and compensation for consequences of accidents causing pollution by oil and other harmful substances (REMPEC/WG.2/5) which:

- provided the participants with an overall view of financial questions, liability and compensation for consequences of accidents causing pollution by oil and other harmful substances;
- discussed and approved conclusions and proposed recommendations concerning legal, administrative and financial aspects of mutual assistance.
- examined and approved draft Principles and Guidelines concerning co-operation and mutual assistance in case of emergency.

with a view to finalize the draft Principles and Guidelines which were not approved by the October Seminar, the Centre organized in Malta 21-22 March 1991 a Meeting of a Drafting Group (REMPEC/WG.3/5).

The full set of "Recommendations, Principles and Guidelines concerning co-operation and mutual assistance in case of emergency", essential for facilitating co-operation among Mediterranean Coastal States and obtaining international assistance have already been presented to the Joint Meeting of the Scientific and Technical Committee and the Socio-Economic Committee held in May 1991 in Athens (UNEP(OCA)/MED WG.25/5/Annex 5) and are submitted to the Seventh Ordinary Meeting of the Contracting Parties for their final approval.

b. Development of a regional information system

95. Regional co-operation in case of an emergency situation cannot be really effective unless the necessary information to initiate operations of mutual assistance and the knowledge on the nature of the problems, methods, techniques and means of coping, have been widely distributed to the Parties of the regional agreement and unless this information is regularly brought up to date.

96. The Regional Information System which the Centre is developing and keeping up-to-date is in line with its functions (Annex to Resolution 7 - UNEP(OCA)/MED IG.1/5, Appendix 2) as well as in keeping with decisions made by the Contracting Parties (UNEP(OCA)/MED IG.1/5, Annex V), and its objective is to respond to these needs.

This system is made up of four parts;

- Basic documents;
- Lists and inventories;
- Databanks, simulation models and decision support Systems;
- Operational guides and technical documents.

Basic documents/Part A

97. This Part groups together the provisions regarding accidental marine pollution preparedness, response and mutual assistance in case of an emergency situation adopted by the Conference of Plenipotentiaries of the Coastal States of the Mediterranean region and by the successive meetings of the Contracting Parties to the Barcelona Convention. It is regularly brought up to date in keeping with the decisions of the Meetings of the Contracting Parties.

98. A preliminary version of this Part has already been circulated. A final one will be published after this Contracting Parties meeting.

Lists and Inventories/Part B

99. This Part contains a directory of competent national authorities, the inventory of companies offering services in the Mediterranean in cases of emergency; and a catalogue of spill response equipment and products. In addition an inventory of experts, equipment and products, which might, under certain conditions be put at the disposal of the state which so requests, in case of emergency, will soon be published and disseminated along with a Directory of Mediterranean Port Authorities.

100. At the beginning of next year the Competent National Authorities will have at their disposal, with Part A and Part B of the IS, a full range of documents containing the necessary information for marine pollution preparedness, response and mutual assistance.

Databanks, Simulation Models and Decision Support System/Part C

101. In case of an accident involving hazardous substances, the gathering of information is essential for taking a final decision. To resort to a database, to risk-prediction models, and to decision support systems which help decision-making, is therefore important; of particularly importance is to know the physical, chemical and toxicological properties of the substances in question, the risks which they present to human life and to the marine environment, as well as the response techniques and the possible methods of combating them.

102. A consultant was hired to assist the Centre in the establishment of a partially computerized database on hazardous substances. Based on the recommendations made by the consultant the Centre undertook actions leading to the establishment of a partially computerized database and supporting simulation models on chemicals. A document (RIS/Part C/Section 1) describing the Centre's databank on chemicals (which includes inter-alia: computerized database with the CAMEO package; and predictive models with CHEMSPEL, ACTOR and ELBA models) and the information services the Centre should provide has been distributed.

103. The Centre developed and distributed an advance copy of a maritime transport oriented database (TROCB) incorporating data on the physical and chemical properties, method of transport, marine hazards associated with the chemicals and the behaviour of about 400 chemicals. This databank has to be used together with the document already published (RIS/Part C/Section 6) describing the various standardized classification systems for chemicals accidentally spilled at sea.

Operational guides and technical documents/Part D

104. This part contains documents of a technical nature such as: "A Guide for Combating Accidental Marine Pollution" (RIS/Part D/Section 1) "the Significance of a Material Safety Data Sheet" (RIS/Part D/Section 4); other technical documentation will also be incorporated as soon as it is available. This will be a "Code of practice on the use of dispersants in the Mediterranean" currently under preparation.

105. The Regional Information System is intended for the use of national authorities of the Parties to the Protocol, not only in an emergency situation but also to develop and adapt their national contingency plans notably as concerns regional cooperation and mutual assistance.

c. Assistance to countries which so request in the development of their own National organization

106. The existence of national contingency plans is a prerequisite for organizing proper response to accidental marine pollution and adequate regional cooperation. The Centre has provided and will continue to provide, to those countries which so request, assistance in the preparation of contingency plan, bilateral agreement or joint response exercise.

107. However, during the period under consideration the involvement of the Centre in that connection was not at the level it should have been. This is not only due to the limited financial resources of the Centre for that activity but mainly because very few specific requests were addressed to the Centre.

108. Given the importance of building up and maintaining a national organization, the countries should consider making better use of the Centre giving to it a more active role as suggested in one of the proposed recommendations (UNEP(OCA)/MED WG.25/5, Annex V).

d. Training of personnel

109. The role of the Centre in the field of training has always been considered as essential. In 1990 the Centre tried to organise, with external technical support, a general training course on Combating Accidental Pollution by Harmful substances. Due to financial and technical limitations (the Chemical Expert took his post only during the end of July 1990) the Centre was not successful in this area. The cost of such a course organized out of Malta exceeded the funds available for this activity and the Centre was not technically in a position to organize the course in its premises without important external contributions.

110. Due to the Gulf crisis and to the tanker Haven accident, the training activities plan originally scheduled for the beginning of 1991 has been postponed to the end of this year. A regional training course on crisis management and another one on harmful substances will be organized in November in Malta.

111. During the 1990-1991 biennium the Centre has continued to provide assistance to countries, who so requested in organizing national training courses. The Centre provided assistance to Egypt (Alexandria, 10-19 February 1990), Yugoslavia (Opatija, 11-13 June 1991) and will do so again in September (Egypt) and in October (Israel) of this year.

112. The communication exercise Alertex 91 which was scheduled for the end of April 1991 was also cancelled due to the Livorno and Genoa accidents.

e. Accidents in the Mediterranean region

113. During 1990, thirteen accidents were reported to the Regional Centre, among them eleven were likely to cause oil pollution (oil was actually spilled in 8 cases) and in 2 cases, chemicals were involved. Between 1 January and 30 June 1991, eight accidents were reported among which 3 were major accidents: the sinking of the "Alessandro Primo"; the collision between the ferry Moby Prince and the tanker Agip Abruzzo and the explosion of the tanker Haven.

114. Assistance in the form of exchange and transmission of information as well as providing data and technical advice was given to the national authorities in the case of 4 accidents in 1990 and 3 accidents in 1991. The Centre played an important role in facilitating assistance and coordination in the case of the tanker Haven accident.

115. The accident of the Khark 5 off the Atlantic coast of Morocco on 19 December 1989 in which the Centre had been involved as well, should also be recalled.

116. These accidents and the density of the maritime traffic in the Mediterranean Sea lead to consider the Mediterranean as a risky area, where the threat of a major accident is always present.

117. In the case of a major pollution accident, regional cooperation is indispensable. To be effective this cooperation must have been prepared beforehand notably: by developing and maintaining a national organisation; by disseminating appropriate information; by developing contacts between national competent authorities, by preparing these to cooperate among themselves, and by determining beforehand the conditions under which this cooperation can take place. It is principally the role of the Centre to work in this perspective and its role is essential in this respect.

118. But the success of regional cooperation closely depends on the States keeping their commitment to the Protocol and implementing the relevant decisions taken by the Contracting Parties as well as cooperating actively within the activities programme of the Centre. The Regional Centre is a useful instrument for Governments that is justified only as long as Governments are prepared to use it.

b) Port reception facilities

119. Pursuant to a decision of the Bureau meeting the Centre is currently preparing a meeting of national experts on port reception facilities in the Mediterranean scheduled to be held in Egypt 14-19 December 1991.

120. The International Maritime Organization and REMPEC are carrying out the preparatory activities in cooperation with MEDU/UNEP Athens, and with the Organizations participating in the Mediterranean Environment Technical Assistance Programme - METAP - (the World Bank, the European Investment Bank, United Nations Development Programme and the EEC).

- the main purposes of the meeting will be:

- a) to recall reception facilities requirements under the Barcelona Convention and its related protocols and MARPOL 73/78 and to present technological development in this field.
- b) To review the current situation concerning provision of adequate reception facilities in Mediterranean ports and the problems faced by Mediterranean countries in the provision of such facilities.
- c) to discuss and approve an "Action Plan on Port Reception Facilities for the Mediterranean Region" leading to compliance by Mediterranean Coastal States with MARPOL 73/78 Annex I, II and V "Special Area" requirements.

8. PROTECTION OF THE COMMON MEDITERRANEAN HERITAGE

a) Implementation of the Protocol on Specially Protected Areas

121. The main problem encountered in the implementation of the 1990-1991 activities of Specially Protected Areas Regional Activity Centre (SPA/RAC), was the long delay in signing of the Agreement between UNEP and the Tunisian Government concerning the legal status of the SPA Centre. This delay has dramatically affected the smooth implementation of the SPA programme. Nevertheless, and in order to implement the minimum activities approved by the Contracting Parties, a Memorandum of Understanding was signed between the Co-ordinating Unit of MAP and IUCN to implement essential activities. Meanwhile, and upon a recommendation by the Bureau of the Contracting Parties to the Barcelona Convention, the Centre's expert was stationed at the Co-ordinating Unit's Office in Athens for this purpose.

122. The Agreement between UNEP and the Tunisian Government was finally signed on 29 April 1991, by the Co-ordinator of MAP on behalf of UNEP and by Mr. N. Mejdoub, Secretary of State for Foreign Affairs, on behalf of the Tunisian Government. As a follow-up to this Agreement, it is expected that the Tunisian authorities will appoint a full-time director of the Centre. Two international experts' vacancies will be distributed to all Contracting Parties. The matter appears to be moving quickly to a satisfactory conclusion. Relations with Tunisia, that were somewhat strained by the protracted dispute that paralyzed the activities of an important component of MAP, can again be described as very good.

a. The following essential activities described below were implemented during the 1990/1991 biennium:

123. Assistance to countries in their endeavour to promote activities relevant to the identification, protection, and management of marine and coastal protected sites of Mediterranean interest:

- a. A workshop on the management of protected areas, with the view of creating a network of Mediterranean SPA was held in Monaco, on 5 and 6 October 1990, and was attended by 31 participants. Following agreements with different organizations, the meeting was co-sponsored and organized jointly by UNEP/MEDU/SPA, IUCN, World Bank, Monaco Scientific Centre and Port Cros National Park (France);

- b. A meeting took place in Sophia Antipolis from 16 to 19 July 1990 with Blue Plan and World Bank in order to define possible co-operation for the management of protected areas in the Mediterranean, taking into account the future problems which the Mediterranean countries will have to face;
 - c. Support was given to a field study in Algeria in order to define the marine boundaries of El Kala National Park. A field study mission was carried out in November 1990 in order to visit El Kala National Park, to evaluate the quality of the marine environment and define the suitable limits for the marine part of the Park. A visit of the SPA expert took place from 14 to 20 December 1990 in cooperation with World Bank (METAP), in order to discuss the actual and possible further developments of the management of the El Kala National Park, in a regional context;
 - d. A visit to Mallorca for the management and monitoring programme (SPA-IUCN-Earthwatch collaboration) took place between 8 and 10 October 1990;
 - e. A Meeting was convened between 23 and 26 July 1990 in Madrid with the national Focal Point for SPA in order to review the Spanish list of existing protected areas;
 - f. A field study in Libya was carried out from 15 to 22 June 1990 in co-operation with Libyan and international experts covering the area from the Syrte Gulf to the Libyan-Egyptian boundary. Recommendations were put forward for the protection of some areas.
124. Assistance to countries to develop their activities for the protection of endangered species and ecosystems (monk seal, marine turtle, marine vegetation):
- a. Meeting in Turkey on the national strategy for the conservation of Mediterranean monk seal. A preparatory meeting for the national strategy has been realized (21-24 October 1990). A contract has been prepared between IUCN and the Undersecretariat for Environment in order to assist in the evaluation of the monk seal population along the Turkish coast.
 - b. Field study in Turkey on the problems of marine turtles nesting loss. As a follow-up of an earlier meeting, a field study was carried out from 25 to 30 October 1990 on the south shore of Turkey, between Antalya and Adana;
 - c. Preparation with Algerian authorities and assistance in the realization of a general survey of the status of the monk seal along the Algerian coast. Following the visit of the expert (March 1990), a contract was given to Port Cros National Park in order to carry out in collaboration with the Research Centre of Bou Ismail (Algeria), a general survey of the status of Mediterranean Monk Seal along the Algerian coast;
 - d. Training in the Port Cros National Park Monk Seal Rescue Centre: A Turkish and a Greek representative will be selected and sponsored. Due to some delay in the designation of the participants, the training will take place end 1991;
 - e. Training in July-August 1990 in Cyprus on Mediterranean marine turtles conservation techniques and management of turtle nesting beaches. This was undertaken by the Fisheries Department for the second year. Of the four candidates nominated by the countries, three participated in this course (Algeria, Yugoslavia and Israel). This course will be repeated in 1991;

- f. In accordance with the decision of the Joint Meeting of the Contracting parties (Athens, 28 May - 1 June 1990) and in co-operation with the Secretariats of the Bern and Bonn Conventions and with the support of Greenpeace International, documents and meetings have been realized for the protection of Mediterranean small cetaceans. A meeting organized by the Bern Convention for the review of the draft agreement was held in Palma de Mallorca on 25-26 February 1991. The SPA expert participated in the meeting. A draft agreement on possible co-operation between the Secretariats of Bern, Bonn and Barcelona Conventions was reviewed. A draft action plan for the conservation of small cetaceans in the Mediterranean was prepared by Greenpeace International. It will be reviewed at a meeting of Mediterranean experts to be hosted by an Italian NGO (Associazione Europea Arte Scienza Spettacolo) on 25-26 August 1991;
- g. Documents have been prepared and published as MAP Technical Reports Series No. 42: "Red data book on Mediterranean endangered marine flora" (species, associations and landscapes, in French only) and No. 43: "Status of Mediterranean Marine Turtles" (English and French).

125. Directory of environmental legislation in the Mediterranean:

- a. The second draft has been prepared, partly in French, partly in English. Before distribution to NFP, a third version in English only, with new additions is under preparation and will be available soon;
- b. The second draft of the Directory on Mediterranean legislation concerning submarine archaeology has been prepared and will be reviewed by experts. A third draft is scheduled for the end of the year and will be sent for correction to the NFP of the Mediterranean coastal States and the EEC.

b) Preservation of Historic Sites

126. A Memorandum of Understanding was signed in September 1990 between MAP and the Association Méditerranéenne des Patrimoines Historiques Internationaux (A.M.P.H.I.) of Marseille concerning MAP activity "Measures for protection of common Mediterranean Heritage". The Association was provided with US \$ 50,000 to cover expenses for the implementation of the agreed workplan. The Association was to provide a matching counterpart contribution. The agreement specified the workplan and timetable for the implementation of activities approved by the Contracting Parties relative to the promotion of co-operation on the 100 historic sites and development of a work programme.

127. In 1990, the activities of the Marseille Centre responsible for the implementation of the "100 historic sites" focused on the promotion of co-operation regarding the historic sites and a work programme on the development of the co-operation programme in three areas: stone degradation, the protection of underwater archaeological sites and assistance and training courses on the protection of historic sites.

128. Missions carried out to the sites made it possible to evaluate the specific reports concerning the co-operation programme in the area of stone degradation and the protection of underwater archaeological sites, including shipwrecks.

The main points examined during the visits carried out by an archaeologist and an architect are the following:

- the need for material for sketching and measuring;
- the absence of a topographical plan for the sites on an adequate scale;
- the existing urban plans only partially take account of the historic sites;
- the existence of a large number of studies which are often adopted but not applied.

The above points will be developed within the framework of 1992-1993 programme.

129. The Centre's activity during 1991 concentrated on training and the expansion of the network of technical experts responsible for historic sites in the Mediterranean. These activities, carried out in conformity with the objectives approved by the Contracting Parties in 1989, were concerned essentially with co-operation for the preservation of the stone of the sites in question, the protection of underwater archaeological sites, including wrecks, and training courses for the protection of the sites. In the immediate future the activities to be envisaged, in the light of the inspection of the sites with the responsible technical experts and administrative officers, would concern in particular the use of material in the surveys of architecture and town planning (topography, land survey, buildings), taking into account in urban planning the protection of historic sites, and a far-ranging inventory of materials (specially stone) to be used by study and research centres, experimental centres and centres responsible for the dissemination of the results.

130. During the Joint Meeting of the two standing Committees of MAP (May 1991), it was agreed that there was a need to establish official channels of communication relevant to the historic sites as was the case for all other components.

131. The 1989 Sixth Ordinary Meeting of the Contracting Parties accepted the offers of the cities of Salonica and Naples to host respectively the second and third meetings on the subject of historic sites during the 1990-1991 biennium. The first meeting was held in Marseille during 1989. The Mayor of Salonica offered to host the second meeting on historic sites in his City during November 1991.

9. ENVIRONMENTALLY SOUND MANAGEMENT OF THE MEDITERRANEAN COASTAL ZONE

(a) Prospective analysis of the relationship between Environment and Development - The Blue Plan

132. The 1990-1991 activities are based on the recommendations and budgetary provisions approved by the Contracting Parties in October 1989. In short, Blue Plan is given the following assignments:

- pursue the prospective reflexions on the basin and coastal zones, by acting as Mediterranean observatory;
- assist interested countries and CAMPs;
- train local specialists;
- update and improve the Information and Data base;
- develop a co-operation network for prospective studies (Genoa - Barcelona);
- disseminate Blue Plan documentation.

The review of 1990-1991 activities includes the mandate assigned to the Blue Plan by the Contracting Parties, their evaluation and orientation for 1991.

a. Valorization of the "Mediterranean scenarios"

Publications

133. -Main Report:

- distribution in French and English
- Arab translation currently awaiting publication
- Turkish, Spanish and Italian versions underway
- publication of the Serbo-Croatian Executive Summary
- re-issue of the French Executive Summary.

-French and English BP/RAC technical information sheets

-Thematic fascicles:

- published by ECONOMICA (31/03/91):
 1. Fishing and Aquaculture in the Mediterranean
 2. Mediterranean Forests
 3. Protection of Mediterranean Ecosystems
- awaiting publication in the coming months: The Islands, Industry, Water
- under study: The Hinterlands, Town Planning, Energy
- currently being drafted: Tourism, The Coast, Transportation, Intensive Agriculture, Major Risks, Health

134. It is taking longer than planned to complete this collection, entrusted to Mr. Batisse, due to the principle of consulting with co-authors in different countries. However, the impact of these "sectorial" publications mainly resides in their being distributed to other more highly specialized actors on the Mediterranean coast.

Public awareness, information, training

135. Communications of general interest are ensured by the Co-ordinating Unit (Medwaves). BP/RAC accounts for its activities by distributing its publications, as well as by its participation in local and international conferences and manifestations. As an indication, in 1990 and 1991, the Blue Plan presented its work to twenty different international audiences. Conversely, a slight flaw is to be acknowledged in the field of training as, since the Technical Workshop held in May 1989 with 30 participants, only one Experts' Workshop was held in January 1991, with approximately 15 participants. This relative weakness is due both to the fact that the local prospective studies which were undertaken in 1990 have not yet yielded significant results or specialized teams prepared for interactive training and adapted pedagogical methods, and that the identity of local development authorities has not yet been clearly established within MAP.

Experts' contribution to local and national scenarios

136. Within the framework of CAMPs experts have contributed in the field of systemic and prospective approaches. More specifically, the work performed in the Bay of Iskenderun (Turkey) and on the Island of Rhodes (Greece), leads to the hope that local, multi-disciplinary teams will be set up and will produce tools adapted to on-site conditions and availability. The Blue Plan's role consists in advising team leaders and in supplying international experts' contributions to local approaches, if necessary.

137. BP/RAC worked in close collaboration with PAP/RAC on the Kastela Bay project; it also cooperated with a group of Yugoslav experts, on perfecting an approach based on a relatively sophisticated model. At the end of 1990, the Blue Plan dispatched one of its experts, Mr. Scicluna, to Libya, during the first preparatory phase of this country's national scenarios. This trip was preliminary to the expertise mission to Tripoli in June 1991, which involved the exploration of scenarios.

Data Base Management and Improvement

138. The Blue Plan Data Base contains socio-economic and environmental information and data on the Mediterranean Basin. This data base was created to obtain a coherent statistical framework during phase 1 of the Blue Plan. It was updated and developed while Blue Plan scenarios were being formulated. During phases 1 and 2, a Vax (DEC) computer was used for data base management. During phase 3, data were transferred to an IBM-compatible PC, requiring a management system under dbase III Plus, one advantage of which is better portability.

To date, the Data Base contains 110,000 data classified according to 600 criteria.

One of the characteristics of the Blue Plan Data Base is that it is divided into five geographical levels:

- the national and international level constituted by the 18 Mediterranean countries, several countries taken as reference as well as aggregates of countries;
- the Mediterranean watersheds of the coastal countries;
- the 220 coastal Mediterranean regions of the 18 coastal countries (divisions not definitive);
- the local level constituted by cities, harbours, industries, mines, etc, located on the Mediterranean coastal zone;
- the maritime zones defined by MED POL (10 Mediterranean and 3 adjacent).

The current update is based on a critical analysis of the Data Base contents; environmental data are being added to the Data Base and the Blue Plan is currently working on the definition of environmental indicators. "Littoralization" of the Blue Plan Data Base in fact involves the reinforcement of two levels: "Mediterranean coastal zones" and the local level. First and foremost, treating the coastal zone level raises the problem of the definition of such zones. In order to find an appropriate solution acceptable to all, the Blue Plan has prepared a paper describing the main problems encountered and suggesting a list of coastal zones for each Mediterranean country. In January 1991, the Blue Plan asked the Focal Points for their opinions and suggestions. The majority of the countries and the EEC have supported the Blue Plan selection and provided very useful information. Within the framework of local projects Blue Plan has started the development of local data bases involving the regions of Iskenderun and Rhodes.

Prospective methodology adapted to coastal zones

139. Based on past experience a new approach of exploration scenarios intended to contribute to the integrated management of Mediterranean coastal zones is being analyzed in 1991. The elaboration of Development/Environment scenarios remains the keystone and stems largely from the approach used for the global Mediterranean scenarios of the Blue Plan. The Blue Plan proposed an upstream module linked to in-depth analysis of the 'system' to be dynamized by the scenarios and an interactive interface downstream, for decision-makers or other users, to assess the impact on the environment.

140. In order to elaborate on the scenarios intended to clarify the development and management of the coastal zones the followings must be kept in mind:

- not only the change of scale, but also the necessity of working simultaneously on a number of scales or levels (with perhaps divergent strategies);
- institutional mechanisms and the participation of local or regional parties who are directly involved;
- the necessity of supplying the decision-makers with simple and practical tools to help them in their decisions.

141. Depending on the circumstances or the pilot project considered, the three modules (system-scenarios-information) will be developed differently in terms of scope. Similarly, the role of the team, or local teams, may vary. It must be emphasized from the outset, however, that regardless of circumstances, this role will be essential and that the success of this method will depend largely on the involvement of the local teams and their overall presence in the global decision-making process.

b. Detailed review of current projects

Local approaches

142. Six local projects are presently underway within the framework of the adaptation of prospective methods to small coastal areas: four are relevant to the CAMP (MAP) and two are directly implemented by BP/RAC.

CAMPs involve the following areas:

- Izmir Bay (Turkey)
- Kastela Bay (Yugoslavia)
- Island of Rhodes (Greece)
- Syrian coastal regions (Syria)

The two projects directly implemented are related to:

- Iskenderun Bay (Turkey)
- the area of the master plan Cannes-Grasse-Antibes (France)

The objectives are slightly different from one project to another and include in particular:

- the selection of a management plan for the environment allowing sustainable development;
- the rational choice of a development project in accordance with local environmental conditions;
- the awareness of decision-makers of the need to protect the natural resources through the analysis of gaps and problems generated by development policy.

143. In this context, prospective methods are linked to the exploration of socio-economic development, environment and management. Prospective studies related to Kastela Bay project consisted in working sessions with Yugoslav experts (September 1989, February and October 1990) devoted to formulating scenarios for Kastela area and their relative methodological aspects, as well as the dynamic regional model for Croatia which has to be adapted to Kastela Bay. A contract between the Blue Plan (through PAP/RAC) and the Yugoslav team was signed in order to achieve this last part of the study. In July 1991, the Blue Plan selected the experts to examine the adaptation of the model and its results.

144. As regards the prospective studies involving the Island of Rhodes, the period January-September 1990 was used to formulate the programme of studies and to constitute the local team. Further to a contract signed between the Blue Plan and the Greek local team (October 1990), a working group (January 1991) enabled the definition of innovative studies to be undertaken and the exchange of information concerning the studies in progress. From January to April 1991, the information needed for structural analysis was collected and preliminary studies concerning experts systems were started. The first results relate to the definition of the geopolitical spaces operating on the Island of Rhodes as well as to internal and external relations of the area. Two lists of variables of the Rhodes system were also established. A joint on-site mission of the Blue Plan-Greek Team took place in the beginning of June 1991.

145. The projects regarding Izmir Bay and the Syrian coast have generated a series of first contacts. They have benefited from the progress achieved within the framework of the other projects.

The Iskenderun project was developed as follows:

- February 1990: data collection and preliminary analysis;
- 27 February-2 March 1990 first on-site mission of the Blue Plan;
- 18-19 June 1990: working meeting with the Turkish team, the Blue Plan team and three experts;
- October 1990: methodological material elaborated by the experts was sent to the Turkish team;
- 12-19 November 1990: on-site mission of two experts;
- December 1990/January 1991: reports from the Turkish team concerning the national economy and the regional socio-economic system.

Due to regional events the studies were slowed down (since January 1991), but the Ministry of the Environment is officially in-charge again as from July 1991.

The master plan Cannes-Grasse-Antibes study essentially involved the critical analysis of the mechanism of preparing a land planning document, and a brief analysis of the local actors. This study has pointed out misfunctions in the elaborating phase resulting in inconsistencies in the planning choice.

Complementary projects (World Bank, EEC, DATAR)

146. Since the beginning of 1991, BP/RAC has collaborated on three projects in its field of competence within the strategy for the "Development-Environment" of the Mediterranean Basin. These projects will serve to highlight the work achieved, by avoiding overlaps and will associate the Blue Plan to important institutional partners with Mediterranean vision, such as the World Bank and EIB (METAP), EEC and the "Délégation à l'Aménagement du Territoire et à l'Action Régionale (DATAR, France), (Delegation to Land Development and Regional Projects).

c. Evaluation of activities - Orientation for 1991

147. The Blue Plan activities, carried out by a team of five persons can be evaluated as follows:

- The Blue Plan favours scientific reflexion and the adaptation of expert's capabilities to the problem of Development-Environment. With the assistance of Michel Grenon, its scientific key-man, it carries out studies and represents considerable expertise and know-how. Its originality resides precisely in the uniqueness of a prospective and systemic approach in such a small area of the world, involving 18 countries likely to face difficulties which can be made worse by delaying systematic environmental evaluation and international cooperation.
- It is indispensable that Data Base design be permanently connected to its use in the field of Blue Plan activities.
- Passing from global to local, from reflexion to action, particularly at the level of coastal planning and development decision-makers appears more difficult to achieve, and is taking longer than planned because of practical and conceptual reasons.

148. The following orientation for 1991 will result it is hoped in dynamizing the Blue Plan:

- On the one hand, by focusing the interest of the countries involved on its activities and by developing collaboration with such international institutions as the World Bank, the EEC, the OECD;

- On the other, by strengthening the administrative staff, reactivating contacts with Focal Points and Experts and by recruiting in September 1991 a specialist (Economics/Development) from the Southern/Eastern countries;
- By reactivating studies of high scientific quality while researching their possible applications on site, according to the local realities of planning processes;
- by a reflexion on the form of communication best-adapted to coastal partners.

b) **Coastal planning and management - The Priority Actions Programme**

149. In 1990-91, the activities of PAP were focused on the following:

- a. drafting, formulation and signing of four ongoing MAP Coastal Areas Management Programme (CAMP), and preparations for the implementation of various PAP-related activities within the framework of the programmes signed;
- b. identification, evaluation and development of environmentally sound planning and management tools applicable to the Mediterranean coastal areas;
- c. implementation of co-operative projects and activities organized jointly with national authorities, institutions and/or programme centres;
- d. implementation of activities in various individual priority fields;
- e. strengthening the PAP network of experts and institutions, as well as cooperation with other MAP centres, UN agencies and international organizations.

150. The most important achievements in 1990-91 were the following:

- a. Jointly with MEDU, relevant agreements for MAP CAMPs (Bay of Izmir, Island of Rhodes, Coastal Region of Syria, and Bay of Kastela) were prepared, discussed with national authorities and signed. During the preparation of these agreements PAP/RAC produced a number of supporting documents concerning various PAP-related activities.

Some basic preliminary arrangements were completed with regard to Fuka (Egypt) and Sfax (Tunisia) CAMPs which were scheduled for implementation in the 1992-93 biennium.

- b. As part of the activities geared to the development and application of planning and management tools:

- At the invitation of the Executive Director of UNEP, the practical approach to EIA and the relevant case studies were presented in Nairobi in March 1990. The preparation of a document followed; it was finalized jointly with MEDU and UNEP-OCA/PAC, as was a number of general guidelines for the preparation of EIA for selected projects affecting the marine environment. The document was published as UNEP Regional Seas Reports and Studies No. 122. The texts of 3 pilot case studies were also finalized and published as UNEP Regional Seas Reports and Studies (RSRS). Furthermore, two EIAs were drafted for two projects in Morocco and finalized in April 1991. Finally, a national seminar, held in English was convened in Yugoslavia in 1990 on the application of the EIA practical procedure and legal aspects of EIA as a compulsory tool in making development and investment decisions; another seminar was organized in May 1991 in Malta. An expert meeting in French is also envisaged for December 1991 in Morocco.

- A draft methodology for carrying out capacity assessments of tourist establishments was prepared, presented at a meeting organized by UNEP - Industry and Environment Office (IEO) and the World Tourism Organization (WTO) in Paris (June 1990) and accepted as the basis for the preparation of pilot studies. A project outline for two such pilot studies was prepared, and the implementation of the first one was finalized in September, while the second one is scheduled for the period September-December 1991. Finally, an expert meeting to evaluate the results of the two studies is scheduled for December 1991.
- A draft methodology for using the multicriterion analysis in selecting sites suitable for development projects was prepared in 1990. The preparation of a major pilot case study started following a positive reaction of UNEP-Nairobi on that proposal, and was completed and disseminated by July 1991.
- Documents were prepared for the initial training course on the application of GIS on pcARC/INFO (September, 1990) which was organized for team leaders, future trainers in GIS within ongoing CAMPs. With support from Global Resource Information Database (GRID)-Nairobi and United Nations Institute for Training and Research (UNITAR) - Geneva, an evaluation of the 1989 Kastela Bay GIS related programme was made, the basis was set for the 1990-1991 programme, and the hardware and software support to these activities were strengthened and completed. An advanced training course for the core group of PAP trainers was organized in January 1991 by UNITAR, Geneva, and conducted by an expert of the Environmental Systems Research Institute (ESRI-USA). Further activities on strengthening PAP capabilities for this training will be implemented by the end of 1991 in cooperation with GRID - Nairobi, UNITAR and ESRI (USA), while individual training programmes are being implemented within CAMPs. In cooperation with UNEP/IEO, Paris, a training course on hazard assessment and risk management (APELL) will be organized in December 1991.
- A methodology was developed within CAMP "The Bay of Kastela" for hazard assessment and risk management for industrial, energy, transport and other activities, and the implementation of a related pilot study was launched to be finalized by the end of the year.
- c. In cooperation with various national authorities, institutions and/or programme centres, the following activities were completed:
 - Within the cooperative project on soil erosion the implementation of the project was launched in Spain (the host country) with Instituto Nacional para la Conservación de la Naturaleza (ICONA) - Madrid as the implementing institution, and the participation of Spain, Turkey and Tunisia. In 1990, PAP-FAO-ICONA missions were sent to Turkey and Tunisia. In 1990, PAP-FAO-ICONA missions were sent to Turkey (2), Tunisia and Morocco to select the pilot areas for erosion mapping; an expert meeting was held to develop the mapping programme, and a training course organized on the methodology of mapping. The mapping programme started in 1991 in three countries. In the first quarter of 1991, an expert meeting was organized in order to define a methodology of monitoring rainfall induced erosion. By the end of 1991, a training course on monitoring will be organized, as well as missions to two countries (2 to each country) and a meeting to evaluate the results of the programme.
 - Within the activities of the co-operative project on seismic risk reduction (now implemented as UNDP project in Italy which is the host country), two workshops and two meetings of the Steering Committee were organized where PAP/RAC was represented and documents on hazard and vulnerability assessment were completed.

- Within the activities on the use of renewable sources of energy in the Mediterranean region, carried out with Spain as the host country and "The Centro de Investigaciones Energeticas, Medioambientales y Technologicas" (CIEMAT) Madrid as the host institution, a training course was organized in 1990 on the practical application of renewable energies with the participation of 26 trainees from 11 countries; a programme was prepared on environmentally sound energy planning for the island of Rhodes (part of CAMP "The Island of Rhodes") in co-operation and with the support of DPCu-Energy Unit, UNEP-Nairobi; a training course was organized, with the support of the Stockholm Environment Institute - Boston (USA) Office, on the application of long-term energy-environment alternatives of planning (LEAP); 10 trainees from three countries attended.
By December 1991, a training course will be organized on the application of photovoltaic conversion of solar energy.
 - In the field of liquid waste management, a training course was held on the planning and design of urban liquid waste treatment plants for big Mediterranean cities, with the support of the City of Marseille and MAP Co-ordinating Unit and the participation of 14 trainees from 8 countries. Another training course was organized with the support of the "Centre de Formation International à la Gestion des Ressources en Eau" (CEFIGRE- Sophia Antipolis, France) on the management and maintenance of urban liquid waste treatment plants, with the participation of 16 trainees from 7 countries.
 - In the field of water resources management, implementation started on the Water Resources Management Project of the Island of Malta developed by PAP/RAC and the Maltese authorities, financially supported by the European Community. The implementation of the project was entrusted to the "Bureau de Recherches Géologiques et Minières" (BRGM) - Orleans, France. In this phase of the project, PAP/RAC acts as consultant to the Maltese Government. In this context, two consultant missions were organized in 1990. A PAP document on the methods and techniques of water conservation has been prepared and evaluated in an expert meeting (May 1991). A training course on data base for water conservation will be organized in Malta in November 1991.
 - After the signing of the Barcelona Convention by the Government of Albania, a visit was organized of the representatives of the Albanian Committee for the Protection of the Environment - Council of Ministers to PAP/RAC. In February 1991, a PAP mission visited Tirana, and on that occasion, a basis of a programme for 1991 and the following biennium was defined.
- d. The following was achieved in individual priority actions:
- Water resources management: in addition to activities under c., a workshop on the experience of the Mediterranean countries in the reuse of treated urban wastewater was organized with 24 participants from 11 countries. As a result of that workshop the document "Wastewater reuse for irrigation in the Mediterranean region" was published as MAP Technical Reports Series No.41. Finally, "Environmental Guidelines for Municipal Waste Water Reuse in the Mediterranean Region" were prepared in cooperation with FAO.
 - Rehabilitation and reconstruction of Mediterranean historic settlements: a set of methodological documents was completed; a preparatory meeting and a workshop on the methodology of planning, designing and implementation of rehabilitation projects in Mediterranean historic areas were organized in Barcelona in 1990. In 1991, documents were prepared for evaluating the methodology adopted, based on the experience of seven countries. A seminar on the application of the methodology adopted in the Arab historic settlements will be organized in Libya in October 1991. Preparations will be made for the conference on the methodology adopted, scheduled for the beginning of 1992.

- Solid and liquid waste management: Code of Practice for Environmentally Sound Management of Liquid Waste Discharge in the Mediterranean Sea was prepared in English and French and disseminated. Code of Practice for the Management of Urban Solid Waste in Mediterranean Coastal States was redrafted and disseminated.
- A training course on management and maintenance of wastewater treatment plants for towns of 10,000 - 100,000 inhabitants will be organized in November 1991 jointly with CEFIGRE, Sophia Antipolis. Training documents will be prepared for a seminar on solid waste management envisaged for 1992.
- Tourism harmonized with the environment: see para b. referring to carrying capacity assessment.
- Aquaculture: In 1990, "An Approach to the Inventory of Sites Suitable for Aquaculture in Mediterranean Coastal Areas" was completed; initiative was taken to secure resources for the implementation of the co-operative project "Environmentally Sound Planning and management of Aquaculture Activities in the Mediterranean Region", but without success. A contact was made with the renewed UNDP project MEDRAP II, and these documents will be used in the coastal zone planning and management activities.
- With the support of MAP Co-ordinating Unit, PAP/RAC maintained a fruitful cooperation with other MAP components, particularly with the Blue Plan (a harmonization meeting was held in November 1990). The Director of PAP/RAC took part in the meeting of the Directors of RACs in January 1990. The cooperation with UNEP-Nairobi (OCA/PAC, DPCU, GRID) was strengthened with regard to the activities in the fields of EIA, presentation of experiences in integrated planning, and renewable sources of energy. Also, PAP was granted equipment worth approximately 25,000 US \$ (by GRID) and 3 software packages worth 7,000 US \$ each (UNITAR), and for 1991 a grant is expected, of equipment for training lines for pcARC/INFO and the ARC/INFO software for main frame computer applications of GIS. Cooperation was established with UNEP - IEO (Paris); and joint activities for 1991 (training course on APELL, and cooperation in carrying capacity assessment for tourist complexes) as well as the basis of cooperation in 1992-1993 were determined.
- Cooperation with UNESCO (in the field of historic settlements and integrated planning) and FAO (soil erosion) continued; cooperation with OECD (coastal management) established, as well as with IAEA - Vienna, Dutch Ministry of Environment, Rijnmond (Holland) Environmental Protection Agency, The Safety and Reliability Directorate (England) on hazard assessment and risk management (HARM).
- The meeting of RAC directors in the Co-ordinating Unit held in January 1991 discussed, among others, PAP implementation in the period 1990-91 and made suggestions relevant to the solution of certain problems of practical nature.
- On the basis of the host-country federal law on PAP/RAC, the Centre was constituted in 1990 as an independent institution, which definitively resolved the problem of its status.

Problems encountered during the implementation of the Programme

151. Most of the problems encountered during the implementation of PAP in 1990-91 involved the following:

- financial difficulties in programme implementation, due to the depreciation of US \$ in the period 1989-91 and a successive, often delayed delivery of funds approved by the Contracting Parties;

- increase of all office costs and all other costs in the host country, and a drop of the real value of PAP/RAC staff salaries due to the internal inflation while maintaining fixed the rate of exchange Yu din/US \$.

c) Coastal Areas Management Programme (CAMP)

152. Four agreements concerning the four CAMP's programme were signed by UNEP/MAP and the respective governments:

- The Agreement concerning the Syrian coast (Syria) was signed in 18 June 1990;
- The Agreement concerning the Bay of Izmir (Turkey) was signed in 20 June 1990;
- The Agreement concerning the Island of Rhodes (Greece) was signed in November 1990;
- The Agreement concerning the Bay of Kastela (Yugoslavia) was signed in December 1990.

153. The Coastal Region of Syria. An integrated planning study prepared by PAP/RAC in 1989 was presented to the Government of Syria together with a set of recommendations for immediate action. A PAP mission was organized in 1990 to assess the possibilities, develop detailed programmes and lay the ground for the preparation of the Coastal Resources Management Plan (CRMP), training on Geographic Information System (GIS) on the pcARC/INFO, and an EIA for a tourist complex. The first and second phases of GIS training and CRMP were completed in the first half of 1991. Groups of national experts were formed in both actions and are working in cooperation with PAP consultants. The basic EIA document was prepared for the tourist complex of Amrit. It is envisaged that by the end of 1991 the training on GIS will be completed, as well as the CRMP, and the basic document for the EIA of the tourist complex of Amrit. The National monitoring programme of Syria, which has been implemented since 1989 is an integral part of the CAMP on the Coastal Region of Syria. A Task Team on the implications of expected climatic changes on the Coastal Region of Syria is being established.

154. The Bay of Izmir. Two expert meetings were organized, a synthesis of available data completed, contracts for additional data collection signed. A PAP mission was organized to define the necessary conditions, and the programmes of activities related to the Integrated Planning Study and training on GIS were developed. The Turkish side organized a programme of additional monitoring. An expert meeting was organized to evaluate the available data and to agree on the start of the activities on "Assimilative Capacity", "EIA of Submarine Outfall" and "Recovery of the Inner Bay". The first and second phases of the training course on GIS were also completed, as well as the preparations for the work on the integrated planning study which should start in September. Full implementation of all PAP related activities is envisaged to start in September 1991. The completion of those activities, however, is directly dependant on a timely provision of the financial support of the World Bank and collection of data necessary for the assessment of the assimilative capacity of the bay. Consultation meeting of Turkish experts and representatives of UNEP/MEDU and PAP/RAC was held in Athens in 1990 on the definition of the monitoring programme of the Bay of Izmir. The implementation of the programme started in 1990.

155. The Island of Rhodes. Since the agreement for this particular programme was signed at the end of 1990, only preparatory activities were completed in that year. In the beginning of 1991, a meeting with the Greek authorities was held. During a mission to Rhodes, organized in the same period, conditions were defined for starting the activities. By the end of September 1991, the first and second phases of work on the planning study were completed, as well as the first phase of the training course on GIS. However, as the financial support by the European Investment Bank has not yet been obtained and the implementation started with a considerable delay, a part of the programme will be completed in the first part of 1992. A Task Team on implications of expected climatic changes on the Island of Rhodes was established and held two meetings (December 1990, June 1991). At the first meeting objectives, assumptions, outputs, outline of report and detailed calendar of activities were agreed upon. At the second meeting progress in the implementation of the programme was reviewed. Two meetings were held with Greek experts on the monitoring

programme for the Island of Rhodes which is being developed. Survey of land-based sources of pollution for the Island of Rhodes is under way and it should be completed by September 1991. As regards the Blue Plan scenario for the Island of Rhodes, a working group was established (July 1991) which enabled the definition of innovative studies to be undertaken and of the planning information exchange relative to the progress of the studies. A joint mission of Blue Plan-Greek team to the island took place in June 1991.

156. The Bay of Kastela. Documents presenting the model of wind-driven exchange of sea water, mechanism of red tide phenomena, assessment of pollution by mercury, pilot application of GIS, and definition of criteria for waste water disposal in the Bay were completed and submitted to local authorities concerned, as well as to the management of the national project. Terms of reference for all PAP-related activities scheduled for 1991-92 were prepared and commitments of local teams regulated by contracts. The full implementation of all activities started in the end of December 1990. By the end of September 1991, the following activities will be completed: Development-environment scenarios covering the period until the Year 2025 (prepared together with the Blue Plan); survey of water resources of the western part of the area; survey of water resources of the islands of Veliki and Mali Drvenik; and Survey of land-based polluters. Majority of other activities will be completed by the end of 1991. Task Team on implications of expected climatic changes on the Kastela Bay coastal area was established and held its first meeting at Split, April 1991 at which objectives, assumptions, outputs, outline of the report and detailed calendar of activities were agreed upon. Monitoring programme for the Kastela Bay, developed in the framework of MED POL, is being implemented with financial support of the World Bank. Survey of land-based sources of pollution in the Bay of Kastela coastal area is being prepared.

157. Fuka Region and Sfax Region. Preparatory activities were also completed for Fuka (one MAP/PAP mission and another mission of one PAP expert, collection and synthesis of available data) and Sfax (a proposal of preliminary activities and training of national and local experts on GIS) and a PAP/MED POL preparatory mission was also carried out.

158. Problems encountered during the implementation of the CAMP Programme. Delays in signing some CAMPs, the need for a stronger and more intensive cooperation between all MAP components in some CAMPs, delays in securing financial support of the World Bank and the European Investment Bank for 2 CAMPs, need for strengthening national and local structures implementing the CAMPs.

II. FINANCIAL MATTERS

159. The programmes financed by the Mediterranean Trust Fund (MTF) during 1990-1991 biennium were delayed due to the fact that the contributions agreed by the Contracting Parties were not paid by 30 April of each year, which was the date fixed by the Contracting Parties for the payment of their contributions and several were in arrears for previous years. The collection of contributions outstanding for the MTF became an increasing problem in spite of repeated reminders sent to Contracting Parties to secure payment. The delayed payment of contributions, combined with the impact of inflation rates and exchange rate fluctuations, led to a situation in which there were insufficient funds to renew the contracts of the Co-ordinating Unit's staff and those of the Regional Centres. Moreover, the lack of funds had seriously affected the operations of the Mediterranean Action Plan and of the Regional Centers.

160. The Bureau of the Contracting Parties, at its meeting held in Paphos, Cyprus (16-17 July 1991) requested the secretariat to urge the Contracting Parties to fulfill their financial commitments before the Cairo meeting of the Contracting Parties.

161. During the last Joint Meeting of the Scientific and Technical Committee and the Socio-Economic Committee (Athens, 6-10 May 1991) it was decided (UNEP(OCA)/MED WG.25/5) that the secretariat produces a study "on the actual impact of inflation rates and exchange rate fluctuations on the MAP budget", requesting the assistance of two independent financial experts, using the experience of a UN Agency familiar with similar subjects. Pursuant to the decision of the meeting, the secretariat requested the assistance of UNESCO and UNCTAD in selecting a financial expert to undertake this assignment. UNCTAD agreed to designate one of its officials to assist the secretariat. The expert from UNCTAD and another from the South of the Mediterranean prepared a report (UNEP/BUR/39/4) which was submitted to the meeting of the Bureau (Paphos, Cyprus, 16-17 July 1991).

162. The Meeting of the Bureau of the Contracting Parties (Paphos, Cyprus, 16-17 July 1991) after an in-depth discussion of the report of financial experts considered it appropriate to suggest that the next Ordinary Meeting of the Contracting Parties (Cairo, 8-11 October 1991) establishes in due time an ad hoc working group with a view to reporting to the Plenary on this subject.

163. As regards the outstanding contributions of Lebanon, the Bureau unanimously decided to recommend to the October meeting of the Contracting Parties to waive Lebanon from paying its outstanding arrears up to the end of 1990.

164. The Status of Contributions to the MTF as at 19 July 1991 is contained in Annex III to this report.

165. In reviewing the Trust Funds administered by UNEP, the 16th Session of the Governing Council of UNEP (Nairobi, 20-31 May 1991), decided to extend the MTF through 31 December 1993.

III. ADMINISTRATIVE MATTERS

166. In the light of financial constraints, the Executive Director has continued to require a high standard of performance from the staff of the Co-ordinating Unit as a condition for extending appointments. As at 31 July 1991, seven professional staff and 15 General staff were stationed at the Co-ordinating Unit of MAP in Athens.

167. A new simplified administrative procedure for the approval of project revisions was implemented. The new system implied the termination of the seven MED projects by 31 December 1989, and a new internal project (Umbrella project), covering all MAP activities for the 1990/1991 biennium was approved accordingly. Disbursement of funds for activities to be handled by the Regional Centres of MAP (e.g. PAP/RAC, BP/RAC, SPA/RAC, REMPEC, 100 historic sites) or agencies (e.g. IMO, FAO, WHO, WMO, IAEA, IOC) was accomplished by memoranda of understanding under the main umbrella project between MED Unit and these Centres or agencies.

The new arrangement has:

- strengthened the co-ordinating function of MAP by MEDU and its control over the implementation of MAP's programme and use of the available funds;
- simplified the administrative procedures of the Headquarters in approving and revising the project document supporting all MAP activities, and

- provided a higher degree of responsibility and flexibility for MEDU to manage the programme and funds relevant to MAP.

168. As regards the Headquarters of the Co-ordinating Unit of MAP in Athens, the Bureau of the Contracting Parties to the Barcelona Convention and the focal point of Greece to MAP, were informed that the lease of the Athens Office might not be renewed at the end of 1991. The Bureau invited the host country to provide the necessary accommodations.

169. H.E. Mr. S. Manos, Minister of Environment, Public Works and Physical Planning of Greece paid a visit to the Co-ordinating Unit on 2 April 1991, in the course of which a number of issues were discussed, including the question of premises. The Minister expressed the wish to upgrade the co-operation between his Ministry and the Co-ordinating Unit of MAP. Moreover, the representative of Greece to the last joint meeting of the two standing Committees (Athens, 6-10 May 1991), informed the meeting that the Greek authorities were aware of the situation and were making efforts to find suitable alternative accommodations in case the lease on the existing premises was not renewed.

170. As at 31 May 1991, the post of the Co-ordinator of the Mediterranean Action Plan became vacant due to the retirement of Mr. Aldo Manos. Arrangements for his replacement are underway.

ANNEX I

CALENDAR OF MEETINGS ORGANIZED DURING 1990-1991
IN THE FRAMEWORK OF THE MEDITERRANEAN ACTION PLAN
as at July 1991

Meeting	Date, place	Organizer & co-sponsor (co-sponsor in brackets)	Responsible Officer. Travel marked with *	Report Status
1990				
● XXIII Meeting of the Inter-Agency Advisory Committee (IAAC) for MED POL	8-11 Jan. Athens	UNEP-MEDU	L. Jeftic F.S. Civili	UNEP(OCA)/MED WG.11/12
Consultation Meeting on data quality and utilization	12-13 Jan. Athens	UNEP-MEDU/ FAO	L. Jeftic G. Gabrielides	UNEP(OCA)/MED WG 14/1
Meeting of Directors of Regional Centres	17-19 Jan. Athens	UNEP-MEDU	A.Manos I. Dharat	UNEP(OCA)/MED WG.13/2
● Expert Meeting for the preparation of workshop on historic settlements	5-6 Feb. Split	PAP/RAC UNESCO (UNEP-MEDU)	A. Pavasovic	Issued by PAP/RAC
Training course on Marine Pollution Prevention, Control and Response	10-19 Feb. Alexandria	REMPEC (UNEP-MEDU)	D. Domovic*	Issued by Malta Centre
Meeting of the Bureau of the Contracting Parties (BUR 36)	19-20 Feb. Cairo	UNEP-MEDU	A. Manos* I.Dharat*	UNEP/BUR/36/4

Meeting	Date, place	Organizer & co-sponsor (co-sponsor in brackets)	Responsible Officer. Travel marked with *	Report Status
Consultation meeting for the preparation of the X ICSEM/IOC/UNEP Workshop on pollution of the Mediterranean	27-28 Feb. Athens	UNEP-MEDU	L. Jetic F.S. Civili	note for file
Expert Meeting on Methodology and Programme for Hazard Assessment and Risk Management for Kastella Bay pilot project	5-6 Mar. Split	PAP/RAC (UNEP-MEDU)	A. Pavasovic	Issued by PAP/RAC
Consultation Meeting on measures related to organophosphorus compounds	7-8 Mar. Athens	FAO UNEP-MEDU	G. Gabrielides L. Jetic	FIR/MEDPOL/ ROP/1
Training course of Maltese experts on water resources management	5-17 Mar. Valetta	PAP/RAC Maltese authorities	J. Margeta*	PAP-3/MT/ 90/TC.1
International Conference on Marine Eutrophication	21-24 Mar. Bologna	Regione Emilia-Romagna (UNEP-MEDU)	G.Gabrielides* F.S.Civili*	to be issued by Regione Emilia-Romagna
Training course on Environmental Approach to Energy Planning (pilot projects for Kastella and Rhodes)	2-6 April Split	PAP/RAC	A. Pavasovic	Issued by PAP/RAC
Training course on operation and maintenance of liquid waste treatment plants in Mediterranean conditions	9-18 April Sophia Antipolis	CEFRIGE PAP/RAC	S. Tedeschi*	Issued by PAP/RAC

Meeting	Date, place	Organizer & co-sponsor (co-sponsor in brackets)	Responsible Officer. Travel marked with *	Report Status
International organotin Symposium	17-20 Apr. Monaco	IAEA/ICSEM (FAO/WHO/UNEP-MEDU)	L. Mee G. Gabrielides*	to be issued by IAEA
Intercalibration and training workshop on determination of organotin compounds	17-21 Apr. Monaco	IAEA (FAO/UNEP-MEDU)	L. Mee G. Gabrielides*	to be issued by IAEA
Consultation on N.G.O.s	2-3 May Athens	UNEP-MEDU	A. Manos I. Dharat	UNEP(OCA)/MED WG.16/3
Expert Meeting on GIS sea-land interactive model	7-8 May Split	PAP/RAC GRID (UNEP-MEDU)	I. Trumbic	Issued by PAP/RAC
Expert Group on Offshore Protocol	7-11 May Athens	UNEP-MEDU IJO	A. Manos I. Dharat	UNEP(OCA)/MED WG.15/4
Training course on the environmental approach to planning and designing of sewage treatment plants in large Mediterranean coastal cities	9-17 May Marseille	PAP/RAC City of Marseille (UNEP-MEDU)	S. Tedeschi*	Issued by PAP/RAC
Joint Meeting of the Scientific and Technical Committee and the Socio-Economic Committee	28 May-1 June Athens	UNEP-MEDU	A. Manos L. Jetic I. Dharat F. S. Civili	UNEP(OCA)/MED WG.12/6
Workshop on carrying capacity for tourist complexes	7-8 June Paris	PAP/RAC IEO/WTO (UNEP-MEDU)	J. Dragicevic*	to be issued by IEO/WTO

Meeting	Date, place	Organizer & co-sponsor (co-sponsor in brackets)	Responsible Officer. Travel marked with *	Report Status
Workshop on Environmental Guidelines for municipal waste water reuse in the Mediterranean Region	11-13 June Split	PAP/RAC (UNEP-MEDU)	A. Pavasovic I. Dharat*	PAP-7/W.2/1
Training workshop on the statistical treatment and interpretation of marine community data	26 Jun-6 Jul. Split	FAO/IOC/ (UNEP-MEDU)	G. Gabrielides*	to be issued by FAO
Consultation on the preparation of the Monitoring Programme of Izmir Bay	2-3 July Athens	UNEP-MEDU (PAP/RAC)	L. Jetic	UNEP(OCA) MED WG.17/1
Two training courses on protection of Mediterranean Turtles	18-31 July 1-15 Aug Cyprus	SPA/RAC (UNEP-MEDU)	A. de Grissac	Issued by SPA/RAC
Intercalibration and training course on determination of microbiological pollution	3-8 Sept. Malta	WHO (UNEP-MEDU)	L.J. Saliba*	to be issued by WHO
Meeting of the Bureau of the Contracting Parties (BUR 37)	6-7 Sept. Rome	UNEP-MEDU	A. Manos* I. Dharat*	UNEP/BUR/37/6
Training course on the PCARC/INFO	11 Sept. Split	PAP/RAC (UNEP-MEDU)	A. Pavasovic	to be issued by PAP/RAC
Consultation meeting on environmental transformation of chemical contaminants	24-28 Sept. La Spezia	FAO (IAEA/ UNEP-MEDU)	G. Gabrielides*	to be issued by FAO

Meeting	Date, place	Organizer & co-sponsor (co-sponsor in brackets)	Responsible Officer. Travel marked with *	Report Status
Training course on Sewage Treatment Plants	17-22 Sept. Sophia Antipolis	CEFRIGE PAP/RAC	S. Tedeschi*	to be issued by PAP/RAC
Consultation on guidelines for Monitoring of land-based marine pollution sources	27-29 Sept. Istanbul	WHO (UNEP-MEDU)	L.J. Saliba*	to be issued by WHO
Meeting of managers of Mediterranean Specially Protected Areas (Network)	5-6 October Monaco	SPA/RAC (UNEP-MEDU) (IUCN) (France)	A. de Grissac*	to be issued SPA/RAC-IUCN
Regional Seminar on Liabilities and Compensation	8-12 Oct. Malta	REMPEC IMO (UNEP-MEDU)	J.C. Sainlos I. Dharat*	REMPEC/WG.2/5
XXXII ICSEM Meeting X Workshop on pollution on the Mediterranean	15-20 Oct. Perpignan	UNEP-MEDU	L. Jetic* F.S. Civili*	to be issued by ICSEM
Workshop on the Planning, Designing and Implementation of Conservation Projects in Historic Sites	22-25 Oct. Barcelona	PAP/RAC (UNEP-MEDU)	A. Pavasovic* I. Dharat*	to be issued by PAP/RAC
Consultation Meeting on assessment of pollution by herbicides and fungicides	30 Oct-1 Nov. Monaco	IAEA/FAO (UNEP-MEDU)	L. Mee G.Gabrielides*	to be issued by IAEA
Training course on Erosion Mapping	19-23 Nov. Malaga	PAP/RAC ICONA (Spain)	A. Pavasovic*	Issued by PAP/RAC

Meeting	Date, place	Organizer & co-sponsor (co-sponsor in brackets)	Responsible Officer. Travel marked with *	Report Status
Training course on Practical Application of Renewable Energy Sources in the Mediterranean	19-28 Nov. Madrid	PAP/RAC CIEMAT(Spain) (UNEP-MEDU)	A. Pavasovic*	to be issued by PAP/RAC
XXIV Meeting of the Inter-Agency Advisory Committee (IAAC)	3-7 Dec. Athens	UNEP-MEDU	L. Jetic F.S. Civili	UNEP(OCA) WG.24/1
Training Workshop on the analysis of physical oceanographic data and time-series	11-15 Dec. Athens	IOC (UNEP-MEDU)	A.Bousoulengas*	to be issued by IOC

Meeting	Date, place	Organizer & co-sponsor (co-sponsor in brackets)	Responsible Officer. Travel marked with *	Report Status
1991				
Expert Group on Offshore Protocol	8-11 Jan. Athens	UNEP-MEDU IJO	A. Manos I. Dharat	UNEP(OCA)/MED WG.18/4
Working Group on prospective methods for small coastal areas	9-10 Jan. Sophia Antipolis	BP/RAC (UNEP-MEDU)	M. Batisse M. Glass	to be issued by BP/RAC
Meeting of RAC Directors	14-15 Jan. Athens	UNEP-MEDU	A. Manos L. Jetic I. Dharat F.S. Civili	UNEP(OCA)/MED WG.20/2
Review Meeting for adoption of the final version of Mediterranean Report to the 1992 Conference on Environment and Development	16-18 Jan. Athens	UNEP-MEDU	A. Manos I. Dharat	UNEP(OCA)/MED WG.19/4
Expert Meeting on historic settlements	21-22 Jan. Split	PAP/RAC (UNEP-MEDU)	A. Pavasovic	Issued by PAP/RAC
Consultation Meeting on assessment of pollution by 14 chemical elements listed in item 1 of Annex II of the LBS Protocol	12-14 Feb. Athens	FAO/IAEA (UNEP-MEDU)	G.Gabrielides	FIR/MEDPOL/ LBS/3
Drafting Group on Principles and Guidelines concerning co-operation and mutual assistance in cases of emergency	21-22 Mar. Malta	REMPEC (UNEP-MEDU)	J.C. Sainlos I. Dharat*	REMPEC/WG.3/5

Meeting	Date, place	Organizer & co-sponsor (co-sponsor in brackets)	Responsible Officer. Travel marked with *	Report Status
Meeting of the Bureau of the Contracting Parties	9-10 Apr. Brussels	UNEP-MEDU	A.Manos* I.Dharat*	UNEP/BUR/38/5 (BUR 38)
Workshop on evaluation of airborne pollution measurements	8-12 Apr. Monaco	WMO (UNEP-MEDU)	A. Soudine*	to be issued by WMO
Working Group for the orientation of the activities of the Blue Plan	10-11 Apr. Sophia Antipolis	BP/RAC (UNEP-MEDU)	M. Batisse B. Glass	UNEP(OCA)/MED WG.26/2
First Meeting of the task team on the implications of Climatic Changes on the Kastela Bay coastal area	25-26 Apr. Split	UNEP-MEDU	L. Jetic*	UNEP(OCA)/MED WG.26/2
Alert exercise (ALERTEX 91)	April Malta	REMPEC (UNEP-MEDU)	J.C. Sainlos	to be issued by REMPEC
Joint Meeting of the Scientific and Technical Committee and the Socio-Economic Committee	6-10 May Athens	UNEP-MEDU	A. Manos L. Jetic I. Dharat F.S. Civili	UNEP(OCA)/MED WG.25/5
Consultation on health effects from bathing in marine waters	15-18 May Athens	WHO (UNEP-MEDU)	L. Saliba	to be issued by WHO EUR/ICP/ CEH 103
Workshop on guidelines and reference method on sample work-up for organic contaminants analysis	May Monaco	IAEA (UNEP-MEDU)	L.Mee	to be issued by IAEA

Meeting	Date, place	Organizer & co-sponsor (co-sponsor in brackets)	Responsible Officer. Travel marked with *	Report Status
Training Course on oil pollution	10-15 June Malta	REMPEC (UNEP-MEDU)	J.C. Sainlos	to be issued by REMPEC
Training course on crisis management	17-21 June Malta	REMPEC (UNEP-MEDU)	J.C. Sainlos D. Domovic S. Micallef	to be issued by REMPEC
Meeting of the Bureau of the Contracting Parties	16-17 July Paphos Cyprus	UNEP-MEDU	L. Jeftic* I.Dharat*	to be issued by MEDU(BUR 39)
Expert Group on an action plan for the protection of Mediterranean small cetaceans	22-23 Aug. Italy	UNEP-MEDU ASSOCIAZIONE EUROPA ARTE SCIENZA SPETTACOLO GREENPEACE WWF	I. Dharat*	to be issued by MEDU
Workshop on the biological effects of pollutants on marine organisms	10-14 Sept. Malta	FAO/IOC EUROMED CENTRE OF MARINE CONTAMINATION HAZARDS (UNEP-MEDU)	G.Gabrielides*	to be issued by FAO
Training course on marine oil pollution prevention, control and response	23 Sept-3 Oct. Alexandria	EGYPT/REMPEC/ EEC (UNEP-MEDU)	D. Domovic*	to be issued by REMPEC
Consultation Meeting on guidelines on data quality assurance	September Monaco	IAEA (UNEP-MEDU)	L. Mee	to be issued by IAEA
Meeting of Experts on Offshore Protocol	4-5 Oct. Cairo	UNEP-MEDU	L. Jeftic* I. Dharat*	to be issued by MEDU

Meeting	Date, place	Organizer & co-sponsor (co-sponsor in brackets)	Responsible Officer. Travel marked with *	Report Status
Seventh Ordinary Meeting of the Contracting Parties to the Convention for the the Protection of the Mediterranean Sea against Pollution and its related Protocols	8-11 October Cairo	UNEP-MEDU	L. Jeftic*	to be issued by MEDU
Intercalibration and training course on microbiological methods for marine pollution monitoring	21-26 Oct. Rabat	WHO (UNEP-MEDU)	L.J. Saliba*	to be issued by WHO EUR/ICP/ CEH 105
Training course on Harmful Substances	21-26 Oct. (tentative) Malta	REMPEC (UNEP-MEDU)	J.C. Sainlos S. Micallef	to be issued REMPEC
Meeting of Arab Experts on Methodology of rehabilitation of historic Settlements	27-30 Oct. Tripoli	PAP/RAC (UNEP-MEDU)	A. Pavasovic* I. Dharat*	to be issued by PAP/RAC
Consultation Meeting on MEDPOL data processing programme and guidance for future work	November Athens	UNEP-MEDU	L. Jeftic A. Aksel	to be issued by MEDU
Meeting of Mediterranean NGO's	November Athens (tentative)	EUROPEAN ENVIRONMENT BUREAU (EIB)	I. Dharat	to be issued EIB
Consultation on health effects of contaminants in Mediterranean seafood	19-23 Nov. Athens	WHO (UNEP-MEDU)	L.J. Saliba	to be issued by WHO EUR/ICP CEH 110

Meeting	Date, place	Organizer & co-sponsor (co-sponsor in brackets)	Responsible Officer. Travel marked with *	Report Status
Meeting of Mediterranean Experts on the effects on Mediterranean Environment of the burning of oil fields in the Gulf	Nov./Dec. Cairo (tentative)	UNEP-MEDU (EEC/EGYPT)	L. Jeftic* I. Dharat*	to be issued by MEDU
Training workshop on statistical treatment and interpretation of marine community data	9-19 Dec. Alexandria	FAO/IOC (UNEP-MEDU)	G. Gabrielides*	to be issued by FAO
Meeting of national experts on port reception facilities in the Mediterranean	14-19 Dec. Cairo	REMPEC (UNEP-MEDU)	I. Dharat*	to be issued by REMPEC
Meeting of Global NGO's	17-21 Dec. Paris	France (UNEP-MEDU)	I. Dharat	to be issued by FRANCE
Consultation meeting on the evaluation of monitoring programmes	December Athens	UNEP-MEDU	L. Jeftic F.S. Civili	to be issued by MEDU

ANNEX II

STATUS OF SIGNATURES AND RATIFICATIONS OF THE
CONVENTION AND ITS RELATED PROTOCOLS
as at 1 July 1991

	Convention(1)		Dumping(2)		Emergency(3)		Land-Based Sources(4)		Specially Protected Areas(5)	
	Signature	Ratification	Signature	Ratification	Signature	Ratification	Signature	Ratification	Signature	Ratification
Albania	--	30 May 90/AC	--	30 May 90/AC	--	30 May 90/AC	--	30 May 90/AC	--	30 May 90/AC
Algeria	--	16 Feb 81/AC	--	16 Mar 81/AC	--	16 Mar 81/AC	--	2 May 83/AC	--	16 May 85/AC
Cyprus	16 Feb 76	19 Nov 79	16 Feb 76	19 Nov 79	16 Feb 76	19 Nov 79	17 May 80	28 Jun 88/AC	--	28 Jun 88/AC
Egypt	16 Feb 76	24 Aug 78/AP	16 Feb 76	24 Aug 78/AP	16 Feb 76	24 Aug 78/AP	--	18 May 83/AC	16 Feb 83	8 Jul 83
France	16 Feb 76	11 Mar 78/AP-R	16 Feb 76	11 Mar 78/AP-R	16 Feb 76	11 Mar 78/AP-R	17 May 80	13 Jul 82/AP-R	3 Apr 82	2 Sep 86/AP-R
Greece	16 Feb 76	3 Jan 79	11 Feb 77	3 Jan 79	16 Feb 76	3 Jan 79	17 May 80	26 Jan 87	3 Apr 82	26 Jan 87
Israel	16 Feb 76	3 Mar 78	16 Feb 76	1 Mar 84	16 Feb 76	3 Mar 78	17 May 80	21 Feb 91	3 Apr 82	28 Oct 87
Italy	16 Feb 76	3 Feb 79	16 Feb 76	3 Feb 79	16 Feb 76	3 Feb 79	17 May 80	4 Jul 85	3 Apr 82	4 Jul 85
Lebanon	16 Feb 76	8 Nov 77/AC	16 Feb 76	8 Nov 77/AC	16 Feb 76	8 Nov 77/AC	17 May 80	--	--	--
Libya	31 Jan 77	31 Jan 79	31 Jan 77	31 Jan 79	31 Jan 77	31 Jan 79	17 May 80	6 Jun 89/AP	--	6 Jun 89/AP
Malta	16 Feb 76	30 Dec 77	16 Feb 76	30 Dec 77	16 Feb 76	30 Dec 77	17 May 80	2 Mar 89	3 Apr 82	11 Jan 88
Monaco	16 Feb 76	20 Sep 77	16 Feb 76	20 Sep 77	16 Feb 76	20 Sep 77	17 May 80	12 Jan 83	3 Apr 82	29 May 89/R
Morocco	16 Feb 76	15 Jan 80	16 Feb 76	15 Jan 80	16 Feb 76	15 Jan 80	17 May 80	9 Feb 87	2 Apr 83	22 Jun 90
Spain	16 Feb 76	17 Dec 76	16 Feb 76	17 Dec 76	16 Feb 76	17 Dec 76	17 May 80	6 Jun 84	3 Apr 82	22 Dec 87
Syria	--	26 Dec 78/AC-R	--	26 Dec 78/AC	--	26 Dec 78/AC	--	--	--	--
Tunisia	25 May 76	30 Jul 77	25 May 76	30 Jul 77	25 May 76	30 Jul 77	17 May 80	29 Oct 81	3 Apr 82	26 May 83/R
Turkey	16 Feb 76	6 Apr 81	16 Feb 76	6 Apr 81	16 Feb 76	6 Apr 81	--	21 Feb 83/AC	--	6 Nov 86/AC-R
Yugoslavia	15 Sep 76	13 Jan 78	15 Sep 76	13 Jan 78	15 Sep 76	13 Jan 78	--	16 Apr 90	30 Mar 83	21 Feb 86
EEC	13 Sep 76	16 Mar 78/AP	13 Sep 76	16 Mar 78/AP	13 Sep 76	12 Aug 81/AP	17 May 80	7 Oct 83/AP	30 Mar 83	30 Jun 84/AP

- 1- Convention for the protection of the Mediterranean sea against pollution Adopted (Barcelona): 16 February 1976 Entry into force: 12 February 1978
- 2- The Protocol for the prevention of pollution of the Mediterranean Sea by dumping from ships and aircraft
Adopted (Barcelona): 16 February 1976
Entry into force: 12 February 1978
- 3- The Protocol concerning co-operation in combating pollution of the Mediterranean Sea by oil and other harmful substances in cases of emergency
Adopted (Barcelona): 16 February 1976
Entry into force: 12 February 1978
- 4- The Protocol for the protection of the Mediterranean Sea against pollution from land-based sources
Adopted (Athens): 17 May 1980
Entry into force: 17 June 1983
- 5- The Protocol concerning Mediterranean Specially Protected Areas
Adopted (Geneva): 3 April 1982
Entry into force: 23 March 1986

Accession - AC Approval - AP Reservation - R

ANNEX III
STATUS OF CONTRIBUTIONS TO THE MEDITERRANEAN TRUST FUND (MTF)
AS AT 19 JULY 1991

(in U.S. dollars)

COUNTRIES	Unpaid pledges as at 31 Dec. 1990	Adjustments for prior years	Pledges for 1991	Collections during 1991 for prior years	Collections during 1991 for 1991 and future years	Unpaid pledges for 1991 and prior years
Albania	--	--	2,459.00	--	2,459.00	--
Algeria	50,963.02	--	36,872.00	50,963.02	--	36,872.00
Cyprus	--	--	4,917.00	--	4,917.00	--
Egypt	16,389.00	--	17,208.00	16,389.00	--	17,208.00
France	--	--	1,330,140.00	--	--	1,330,140.00
Greece	--	--	98,322.00	--	--	98,322.00
Israel	--	--	51,621.00	--	25,500.00	26,121.00
Italy	979,081.00	--	1,053,612.00	--	--	2,032,693.00
Lebanon	26,695.29	--	2,459.00	--	--	29,154.29
Libya	174,559.80	--	68,826.00	61,947.80	--	181,438.00
Malta	--	--	2,459.00	--	2,447.00	12.00
Monaco	10.00	--	2,459.00	--	--	2,469.00
Morocco	--	--	9,833.00	--	--	9,833.00
Spain	--	--	525,057.00	--	--	525,057.00
Syria	13,127.31	--	9,833.00	9,365.00	--	13,595.31
Tunisia	7,116.65	--	7,376.00	7,116.65	7,376.00	--
Turkey	--	--	78,662.00	--	--	78,662.00
Yugoslavia	108,190.40	--	113,075.00	--	--	221,265.40
EEC	--	--	87,507.00	--	--	87,507.00
Total	1,376,132.47	--	3,502,697.00	145,781.47	42,699.00	4,690,349.00
EEC Voluntary contribution	--	--	582,541.00	--	--	582,541.00
Total	1,376,132.47	--	4,085,238.00	145,781.47	42,699.00	5,272,890.00

ANNEX IV

LIST OF MAP TECHNICAL REPORTS SERIES PUBLISHED
SINCE THE SIXTH MEETING OF THE CONTRACTING PARTIES

34. UNEP/FAO/WHO: Assessment of the state of pollution of the Mediterranean sea by cadmium and cadmium compounds. MAP Technical Reports Series No. 34. UNEP, Athens, 1989 (175 pages) (English and French).
35. UNEP: Bibliography on marine pollution by organotin compounds. MAP Technical Reports Series No. 35. UNEP, Athens, 1989 (92 pages) (English only).
36. UNEP/IUCN: Directory of marine and coastal protected areas in the Mediterranean region. Part I - Sites of biological and ecological value. MAP Technical Reports Series No. 36. UNEP, Athens, 1990 (198 pages) (French only).
37. UNEP/FAO: Final reports on research projects dealing with eutrophication and plankton blooms (Activity H). MAP Technical Reports Series No. 37. UNEP, Athens, 1990 (74 pages) (parts in English or French only).
38. UNEP: Common Measures adopted by the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution. MAP Technical Reports Series No. 38. UNEP, Athens, 1990 (100 pages) (English, French, Spanish and Arabic).
39. UNEP/FAO/WHO/IAEA: Assessment of the state of pollution of the Mediterranean sea by organohalogen compounds. MAP Technical Reports Series No. 39. UNEP, Athens, 1990 (224 pages) (English and French).
40. UNEP/FAO: Final reports on research projects (Activities H,I and J). MAP Technical Reports Series No. 40. UNEP, Athens, 1990 (125 pages) (English and French).
41. UNEP: Wastewater reuse for irrigation in the Mediterranean region. MAP Technical Reports Series No. 41. UNEP, Priority Actions Programme, Regional Activity Centre, Split, 1990 (330 pages) (English and French).
42. UNEP/IUCN: Report on the status of Mediterranean marine turtles. MAP Technical Reports Series No. 42. UNEP, Athens, 1990 (204 pages) (English and French).
43. UNEP/IUCN/GIS Posidonie: Livre rouge "Gérard Vuignier" des végétaux, peuplements et paysages marins menacés de Méditerranée. MAP Technical Reports Series No. 43. UNEP, Athens, 1990 (250 pages) (French only).
44. UNEP: Bibliography on Aquatic Pollution by Organophosphorus Compounds. MAP Technical Reports Series No. 44. UNEP, Athens, 1990 (98 pages) (English only).
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