

ANNEX V

LONG-TERM PROGRAMME FOR POLLUTION MONITORING AND RESEARCH  
IN THE MEDITERRANEAN (MED POL - PHASE II) 1/

BACKGROUND

1. The pilot phase of the Co-ordinated Mediterranean Pollution Monitoring and Research Programme (MED POL - PHASE I) was initiated in 1974 and formally approved by the Intergovernmental Meeting on the Protection of the Mediterranean (Barcelona, 28 January - 4 February 1975) as the scientific/technical component of the Mediterranean Action Plan.

2. Initially it consisted of seven pilot projects (MED POL I-VII), which were later expanded by an additional six pilot projects (MED POL VIII-XIII), some of which remain in a conceptual stage only. It was based on the work of 83 national research centres designated by 16 Mediterranean States and the EEC as participants in co-operative networks and on the input of eight United Nations organizations (ECE, UNIDO, FAO, UNESCO, IOC of UNESCO, WHO, WMO, IAEA), IUCN and ICSEM. The over-all co-ordination and guidance for MED POL - PHASE I was provided by UNEP, acting as the secretariat of the Mediterranean Action Plan.

3. The general objectives of the MED POL - PHASE I, evolved through a series of expert and intergovernmental meetings, were

To formulate and carry out a co-ordinated pollution monitoring and research programme taking into account the goals of the Mediterranean Action Plan and the capabilities of the Mediterranean research centres to participate in it;

To assist national research centres in developing their capabilities to participate in the programme;

To analyse the sources, amounts, levels, pathways, trends and effects of pollutants relevant to the Mediterranean Sea;

To provide the scientific/technical information needed by the Governments of the Mediterranean States and the EEC for the negotiation and implementation of the Convention for the Protection of the Mediterranean Sea against Pollution and its related protocols;

To build up consistent time-series of data on the sources, pathways, levels and effects of pollutants in the Mediterranean Sea and thus to contribute to the scientific knowledge of the Mediterranean Sea.

4. The results of, and experience gained through MED POL - PHASE I are reflected in the documents listed in the appendix to this annex.

5. The Intergovernmental Review Meeting of Mediterranean Coastal States and First Meeting of the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution, and its related protocols (Geneva, 5-10 February 1979), having examined the status of MED POL - PHASE I, recommended that during the 1979/1980 biennium a long-term pollution monitoring and research programme should be formulated and the present document is a response to this request.

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1/ Revised version of annex IV to document UNEP/IG.23/INF.10, previously distributed as UNEP/WG.46/9.

6. The legal obligations of the Contracting Parties to the:

Convention for the Protection of the Mediterranean Sea against Pollution; adopted at Barcelona on 16 February 1976; entered into force on 12 February 1978;

Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft; adopted at Barcelona on 16 February 1975; entered into force on 12 February 1978;

Protocol Concerning Co-operation in Combating Pollution of the Mediterranean Sea by Oil and Other Harmful Substances in Cases of Emergency; adopted at Barcelona on 16 February 1976; entered into force on 12 February 1978;

Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources; adopted at Athens on 17 May 1980.

7. Based on the recommendations made at various expert and intergovernmental meetings, this draft long-term (10 years) programme for pollution monitoring and research (MED POL - PHASE II) was formulated by the secretariat of the Convention (UNEP) in co-operation with the organizations which supported the MED POL - PHASE I. Subsequently, it was formally approved by the Second Meeting of the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution and its related protocols and the Intergovernmental Review Meeting of Mediterranean Coastal States on the Action Plan held at Cannes, 2-7 March 1981.

#### OBJECTIVES

8. The general long-term objective of MED POL - PHASE II is to further the goals of the Barcelona Convention by assisting the Parties to prevent, abate and combat pollution of the Mediterranean Sea Area and to protect and enhance the marine environment of the Area. The specific objectives are designed to provide, on a continuous basis, the Parties to the Barcelona Convention and its related protocols with:

Information required for the implementation of the Convention and the protocols;

Indicators and evaluation of the effectiveness of the pollution prevention measures taken under the Convention and the protocols;

Scientific information which may lead to possible revisions and amendments of the relevant provisions of the Convention and the protocols and for the formulation of additional protocols;

Information which could be used in formulating environmentally-sound national, bilateral and multilateral management decisions essential for the continuous socio-economic development of the Mediterranean region on a sustainable basis;

Periodic assessment of the state of pollution of the Mediterranean Sea.

9. These objectives will be achieved through the evaluation of the information on the sources, amounts, levels, trends, pathways and effects of pollutants in the Mediterranean, which will be collected, analysed and reported on a systematic basis using commonly agreed methods and taking into account data available from other sources.

PRINCIPLES

10. The basic principles used in the development of MED POL - PHASE II are listed below:

(a) Mechanisms which will be used for MED POL - PHASE II related to policy making:

Periodic meetings of Contracting Parties to decide on the programme, approve its budget, review its progress and evaluate its results;

Periodic meetings of the Working Group for Scientific and Technical Co-operation which will consist of national MED POL co-ordinators designate by the relevant national authorities to assist the Contracting Parties in reviewing the progress of the programme and in evaluating the results thereof and to prepare relevant recommendations for submission, through UNEP as the secretariat of the Convention, to the meetings of the Contracting Parties.

(b) The monitoring of, and research on, pollutants affecting the Mediterranean marine environment will reflect primarily the immediate and long-term requirements of the Barcelona Convention and its protocols (including those protocols which are in their formative stage) but will also take into account factors needed for the understanding of the relationship between the socio-economic development of the region and the pollution of the Mediterranean Sea.

(c) The strategy of the programme will be such as to provide information on pollution trends within the Mediterranean, recognizing that the dynamics of the system are such that pollution in one area can cause detrimental effects in other areas.

(d) For this purpose, monitoring will be organized on several levels:

Monitoring of sources of pollution providing information on the type and amount of pollutants released directly into the environment;

Monitoring of nearshore areas, including estuaries, under the direct influence of pollutants from identifiable primary (outfalls, discharge and coastal dumping points) or secondary (rivers) sources;

Monitoring of offshore areas (reference areas) providing information on the general trends in the level of pollution in the Mediterranean;

Monitoring of the transport of pollutants to the Mediterranean through the atmosphere, providing additional information on the pollution load reaching the Mediterranean Sea.

(e) Studies and research undertaken in the framework of the programme will be directly relevant to the achievement of the objectives of the programme.

(f) PHASE II will be based primarily on the experience and results obtained during PHASE I but will also take into account the experience gained through other large-scale national, bilateral or multilateral research and monitoring programmes carried out in the Mediterranean and in other regions of the world.

(g) The work will be carried out by national research centres which will not necessarily have to carry out all the aspects of the programme, in particular those which actively participated in PHASE I, taking into account the need for adequate

geographic coverage. These centres will be designated by the relevant national authorities and will be named "collaborating UNEP MED POL centres" after demonstrating their relevant technical competence. Participation of national institutions in the work will be formalized through contracts based on proposals submitted to the Mediterranean Action Plan Co-ordinating Unit in response to requests.

(h) The results of PHASE II will be collated, processed and disseminated by the unit co-ordinating the Mediterranean Action Plan, in co-operation with the relevant specialized organizations of the United Nations system. The International Computing Centre (ICC) at Geneva will be used for data processing according to agreed standard practices, making full use of existing mechanisms for data exchange.

(i) Data generated in PHASE II will be comparable, to the largest extent feasible, with those obtained during PHASE I and with those generated through UNEP-sponsored regional seas programmes in other regions, thus contributing to the Global Environment Monitoring System (GEMS), and furthering the concept of integrated monitoring of the environment. The interregional comparability of data will be assured through UNEP's Regional Seas Programme Activity Centre.

(j) The over-all co-ordination of MED POL - PHASE II will be vested in the Mediterranean Action Plan Co-ordinating Unit, acting on behalf of UNEP (the secretariat of the Barcelona Convention).

(k) The day-to-day co-ordination of the work carried out by national institutions participating in MED POL - PHASE II will be achieved through the relevant international organizations, under the responsibility of the Co-ordinating Unit.

(l) Mechanisms which will be used, as appropriate, for the analysis of data and their initial evaluation are:

The unit co-ordinating the Mediterranean Action Plan in co-operation with the international organizations;

The Working Group for Scientific and Technical Co-operation;

Experts, selected by the Co-ordinating Unit in consultation with the international organizations. These experts will act in their personal capacity;

Periodic meetings of scientists participating in the programme to discuss the progress made in the projects and the future programme.

(m) Financial resources for the implementation of PHASE II are:

(i) Cash from:

Mediterranean Trust Fund;  
UNEP's Fund;  
Voluntary contributions.

(ii) Contributions in kind, services and activities related to the Mediterranean Action Plan from:

Collaborating national centres;  
Governments of the Mediterranean States and the IEC;  
Specialized organizations participating in the programme.

Radionuclides in organisms;

Faecal coliforms in sediments;

Pathogens in waters, sediments and bivalves;

Ecological parameters, such as productivity and community structure.

19. Taking into account the specificity of estuaries, the parameters (indicators) to be monitored will initially include:

Total mercury in water and suspended matter;

Cadmium in water and suspended matter;

High-molecular weight halogenated hydrocarbons in water and suspended matter;

Faecal coliforms in water and suspended matter;

Phosphorus in water and suspended matter;

Nitrogen in water and suspended matter;

BOD<sub>5</sub> in water;

COD in water.

20. It is envisaged that, after three years, the following additional parameters (indicators) for monitoring of estuaries will be added to the list:

Total arsenic in water and suspended matter;

Organic mercury in water and suspended matter;

Selenium in water and suspended matter;

Lead in water and suspended matter;

Polynuclear aromatic hydrocarbons in water and suspended matter;

Radionuclides in water and suspended matter;

Oil residues in water and suspended matter;

Pathogens in water;

Phenols in water.

C. Monitoring of reference areas, as defined by article I of the Convention, which are not under direct influence of pollutants from identifiable primary or secondary sources

21. The purpose of this monitoring is to provide information on the general trends in the level (concentration) of pollutants in the Mediterranean Sea.

22. The monitoring will be based on the work of governmentally-selected national research centres which will monitor areas falling within their jurisdiction. Monitoring of areas outside national jurisdiction will be agreed upon jointly by the Governments concerned.

23. The selection of reference areas will take into account the present knowledge of the prevailing conditions and other relevant regional programmes in the Mediterranean Sea.

24. Parameters (indicators) recommended to be monitored in the reference areas are primarily those listed in paragraph 17, with the exception of micro-organisms.

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

25. The purpose of this monitoring is to establish the input (flux) of pollutants into the Mediterranean Sea through the atmosphere and thus to provide additional information on the pollution load reaching the Mediterranean Sea.

26. The monitoring will be based on the work of national research centres designated by their Governments.

27. The monitoring areas will include (i) areas directly influenced by identifiable sources of air pollution and (ii) reference areas not directly influenced by identifiable sources of air pollution.

28. Monitoring of areas outside national jurisdiction, or under shared jurisdiction by two States, will be agreed upon jointly by the Governments concerned.

29. Parameters (indicators) to be monitored will be selected on the basis of their relevance to annex I and annex II to the Land-Based Sources Protocol and of a feasibility study and research which will be carried out.

E. Sampling and analytical techniques

30. Sampling and analytical techniques used in the monitoring will be based on mandatory reference methods. Other methods could also be used, including remote sensing, subject to a satisfactory intercomparison.

31. Reference methods developed and tested during MED POL - PHASE I include:

(a) Determination of total mercury in edible tissue of fish by flameless atomic absorption spectrophotometry after liquid pressure decomposition of the organic material;

(b) Determination of total mercury in edible tissue of mussels by flameless atomic absorption spectrophotometry after liquid pressure decomposition of the organic material;

(c) Determination of EDTs in edible tissues of shrimps and fish by gas-liquid chromatography;

(d) Determination of DDTs in edible tissue of mussels by gas-liquid chromatography;

(e) Determination of total coliforms in sea-water by the membrane filtration culture method;

(f) Determination of faecal coliforms in sea-water by the membrane filtration culture method;

(g) Determination of faecal streptococci in sea-water by the membrane filtration culture method;

MONITORING

11. Several types of monitoring will be undertaken, all contributing to the fulfilment of the principles contained in paragraph 10.

A. Monitoring of sources of pollution to provide information on the type and amount of pollutants reaching the marine environment from coastal sources

12. The purpose of this monitoring is to establish the pollution load reaching the Mediterranean Sea and to contribute to the understanding of biogeochemical cycles of pollutants relevant to the Mediterranean Sea. It will cover the:

- (a) Survey of the type and amount of pollutants discharged directly into the coastal waters from land-based (coastal) sources;
- (b) Survey of the type and amount of pollutants dumped directly into the sea;
- (c) Survey of the type and amount of pollutants dumped in emergency or released accidentally into the sea;
- (d) Assessment of the type and amount of selected substances reaching the sea directly through natural (weathering, hydrothermal, etc.) processes from land-based (coastal) or maritime sources.

13. Pollutants to be monitored include:

- (a) Pollutants listed in annexes I and II to the Land-Based Sources Protocol (paragraph 12 (a));
- (b) Pollutants listed in annexes I and II to the Dumping Protocol (paragraph 12 (b));
- (c) Pollutants referred to in article 8 and article 9 of the Dumping Protocol (paragraph 12 (c));
- (d) Pollutants referred to in article 8 of the Emergency Protocol (paragraph 12 (c));
- (e) Substances which may contribute significantly to the over-all level (concentration) of pollutants in the sea (paragraph 12 (d)).

14. The monitoring will be based on:

- (a) Reports to be submitted by the Contracting Parties according to article 7 article 8 and article 9 of the Dumping Protocol;
- (b) Reports to be submitted by the Contracting Parties according to article 8 and article 9 of the Emergency Protocol;
- (c) Reports to be submitted by the Contracting Parties according to article 6 and article 13 of the Land-Based Sources Protocol;
- (d) Reports to be submitted by the Contracting Parties on monitoring of sources for substances which may contribute substantially to the over-all level (concentration) of pollutants in the sea (paragraphs 12 (d) and 13 (c)). Data will be generated by national research centres designated by their Governments to participate in the programme.

B. Monitoring of the coastal waters, including estuaries, within the limits defined by article 1 of the Barcelona Convention and by article 3 of the Land-Based Sources Protocol, under the direct influence of pollutants from identifiable primary (e.g. outfalls, discharge or coastal dumping points) or secondary (rivers and other watercourses) sources

15. The purpose of this monitoring is to establish the effects of measures taken by Contracting Parties under the Land-Based Sources Protocol (article 8 (b)).

16. The monitoring will be carried out by governmentally-selected national research centres to monitor areas within their national jurisdiction for the following parameters (indicators) selected on the basis of:

(a) Scientific and economic feasibility;

(b) Specific needs of the Mediterranean, i.e. relevance to annexes I and II to the Land-Based Sources Protocol;

(c) Identifiable cause-effect relationship.

17. For general monitoring purposes of coastal waters (i.e. not in the heavily polluted areas in the vicinity of point sources), the following priority parameters (indicators) will be taken into account initially:

Total mercury in organisms and sediments;

Cadmium in organisms;

High-molecular weight halogenated hydrocarbons in organisms and sediments;

Petroleum hydrocarbons in water, sediments and oil residues (tar-balls) on sea-shores;

Faecal coliforms in recreational waters and edible bivalves;

Basic oceanographic and meteorological conditions.

In addition, standard physical and chemical parameters (salinity, oxygen, temperature, etc.) which may contribute to the interpretation of the results, will be monitored.

18. It is envisaged that, after three years, the following additional parameters (indicators) for monitoring of coastal waters will be added to the list:

Cadmium in sediments;

Organic mercury in organisms and sediments;

Total arsenic in organisms;

Selenium in organisms;

Lead in organisms;

Polynuclear aromatic hydrocarbons in organisms;

Additional organics (such as carcinogenic compounds) in organisms;



(h) Determination of faecal coliforms in shellfish (bivalves) by the multiple-test-tube method (MPN).

32. Additional reference methods will be developed and tested during MED POL - PHASE II (see paragraph 42 (a)).

33. Sampling frequency will depend on the purpose of monitoring.

34. All national research centres will participate in the continuing intercalibration of sampling and analytical techniques or in data quality control programmes.

#### F. Data analysis and dissemination

35. Data will be subjected to a preliminary quality control and analysis by the national research centres or other organizations collecting them.

36. Depending on their nature, the data will be reported through the national MED POL co-ordinators, (or directly, if so decided by the latter) in an agreed format and according to an agreed schedule, to UNEP's Mediterranean Action Plan Co-ordinating Unit, through the Regional Oil Combating Centre or through the relevant international organizations. On this level, using the computer facilities of the International Computing Center at Geneva, the second analysis of data will be carried out, including the control of their quality, (data validation), and the first integration of data will be achieved on a Mediterranean scale.

37. The Co-ordinating Unit, in consultation with the specialized organizations, may convene groups of experts, either periodically or on an ad hoc basis, to assist in the analysis, integration and interpretation of data, after consideration is given to the possibility of convening meetings of the Working Group for Scientific and Technical Co-operation.

38. Before submitting the data and the reports prepared by UNEP on the basis of these data to the Contracting Parties and other users, they will be reviewed by the Working Group for Scientific and Technical Co-operation.

39. The type of regular reports to be submitted to the Contracting Parties in connection with MED POL - PHASE II are:

(a) Type and amount of pollutants directly entering the Mediterranean Sea from land-based sources. The report will be based on the analysis and evaluation of data reported according to the provisions contained in paragraph 14 of this document. It will be submitted to the regular (biennial) meetings of the Contracting Parties.

(b) Quality of the marine environment in the areas monitored under MED POL - PHASE II. The report will consist of:

Collated reports on the quality of the areas monitored according to paragraphs 15-29 of this document, as submitted to the Co-ordinating Unit of the Mediterranean Action Plan from the national MED POL focal points in a commonly agreed format;

Analysis, evaluation and interpretation of the results contained in the reports on the areas monitored according to paragraphs 15-29 of this document.

The report will be submitted to the regular (biennial) meetings of the Contracting Parties.

(c) Results of selected research and study topics as defined in paragraph 42 of this document.

(d) Periodically updated report on the state of pollution of the Mediterranean Sea, indicating the major environmental problems, general trends in the pollution of the Mediterranean as well as the environmental problems which may face the Mediterranean basin in the future.

#### RESEARCH AND STUDY TOPICS

40. Only research and studies directly relevant to the achievement of the objectives of MED POL - PHASE II are envisaged.

41. Research and studies will be carried out by Mediterranean research centres and organizations primarily on a direct contractual basis or as a contribution from centres and organizations offered by the Contracting Parties.

42. Research and study topics included initially in the MED POL - PHASE II (sequence does not imply order of priority):

(a) Development of sampling and analytical techniques for monitoring the sources and levels of pollutants. Testing and harmonization of these methods on the Mediterranean scale and their formulation as reference methods. Substances listed in Dumping and Land-Based Sources Protocol priorities.

(b) Development of reporting formats required according to the Dumping, Emergency and Land-Based Sources Protocols.

(c) Formulation of the scientific rationale for the environmental quality criteria to be used in the development of emission standards, standards of use or guidelines for substances listed in annexes I and II of the Land-Based Sources Protocol in accordance with articles 5, 6 and 7 of that Protocol.

(d) Epidemiological studies related to the confirmation (or possible revision) of the proposed environmental quality criteria (standards of use) for bathing waters, shellfish-growing waters and edible marine organisms.

(e) Development of proposals for guidelines and criteria governing the application of the Land-Based Sources Protocol, as requested in article 7 of that Protocol.

(f) Research on oceanographic processes, with particular emphasis on surface circulation and vertical transport. Needed for the understanding of the distribution of pollutants through the Mediterranean and for the development of contingency plans for cases of emergency.

(g) Research on the toxicity, persistence, bioaccumulation, carcinogenicity and mutagenicity of selected substances listed in annexes of the Land-Based Sources Protocol and the Dumping Protocol.

(h) Research on eutrophication and concomittant planlton blooms. Needed to assess the feasibility of alleviating the consequences and damage from such recurring blooms.

(i) Study of ecosystem modifications in areas influenced by pollutants, and in areas where ecosystem modifications are caused by large-scale coastal or inland engineering activity.

(j) Effects of thermal discharges on marine and coastal ecosystems, including the study of associated effects.

(k) Biogeochemical cycle of specific pollutants, particularly those relevant to human health (mercury, lead, survival of pathogens in the Mediterranean Sea, etc.).

(l) Study of pollutant-transfer processes (i) at river/sea and air/sea interfaces, (ii) by sedimentation and (iii) through the straits linking the Mediterranean with other seas.

#### ASSISTANCE COMPONENT

43. In addition to the assistance envisaged through the activities of the Regional Oil Combating Centre, direct assistance in the fields of science, education and technology related to MED POL - PHASE II will be provided as described in the following paragraphs.

44. Individual and collective training will be provided for scientists and technicians in techniques (methods) required for their effective participation in monitoring and research envisaged in the framework of MED POL - PHASE II. This assistance will be in the form of fellowships, experts, workshops, seminars, study tours, grants for attendance at meetings, etc., and will cover training in analytical and sampling techniques, data processing, interpretation of results and various research topics.

45. Training for technicians and administrators will be organized in order to facilitate the application of the Land-Based Sources and the Dumping Protocols. The forms of training will be similar to those mentioned in the preceding paragraph.

46. A quality control programme will be a part of MED POL - PHASE II to ensure the highest degree of quality and of comparability of data. The national research centres participating in monitoring will receive standards and reference substances enabling them to participate in the continuing Mediterranean and global intercalibration exercise. Weaknesses detected through the quality control programme will be corrected through additional training and technical assistance, whenever necessary.

47. The common maintenance services for the sophisticated analytical equipment (atomic absorption spectrophotometers, gas chromatographs, etc.), developed during MED POL - PHASE I, will remain at the disposal of participants in PHASE II thus enabling the equipment used by national research centres to function properly.

48. As required and to the extent possible, standardized material and some equipment will be put at the disposal of national centres participating in MED POL - PHASE II to make it possible for them to participate fully in the monitoring and/or research programme.

#### CO-ORDINATION

49. The periodic meetings of the Contracting Parties will decide on the programme, approve its budget, review its progress and evaluate its results.

50. The over-all co-ordination and day-to-day organization of MED POL - PHASE II will be ensured by UNEP through the Co-ordinating Unit for the Mediterranean Action Plan, with the assistance of the international organizations. Such co-ordination shall be achieved as economically as possible.

51. A standing Working Group for Scientific and Technical Co-operation will be established by the Contracting Parties to assist them in their review of the progress of the programme and the evaluation of the results. It will advise UNEP on technical and policy matters related to the programme and prepare recommendations for submission through UNEP, as the secretariat of the Convention, to the meetings of Contracting Parties. The Group will consist of national MED POL co-ordinators designated by the relevant national authorities and will meet at least once a year.

52. The data quality control programme (paragraph 46) and maintenance services (paragraph 47) will be organized and carried out by competent international organizations or selected national institutions, including those carrying out these programmes on a global level, under the over-all guidance of the Mediterranean Action Plan Co-ordinating Unit.

53. In addition to the organizations belonging to the United Nations system, the collaboration with other competent international, regional and intergovernmental organizations in the implementation of MED POL - PHASE II will be actively pursued.

#### BUDGETARY CONSIDERATIONS

54. The financial resources needed for the work envisaged in the framework of MED POL - PHASE II will come from:

(a) Contracting parties to the Barcelona Convention (cash contributions through the Mediterranean Trust Fund and contributions in kind through participation of their national institutions);

(b) UNEP (cash contributions on a project-funding basis and contributions in kind through certain services);

(c) National institutions participating in the programme (contributions in kind through services, staff time, etc.);

(d) International organizations participating in and supporting the programme (contributions in kind through services, staff time, and activities related to the Mediterranean Action Plan);

(e) Voluntary contributions.

APPENDIX

List of selected documents relevant to the development  
and results of the Co-ordinated Mediterranean  
Pollution Monitoring and Research Programme  
(MED POL - PHASE I)

Report of the IOC/GFCM/ICEM International Workshop on Marine Pollution in the Mediterranean (Monte Carlo, 9-14 September 1974), UNESCO 1974.

Project on Pollution in the Mediterranean (Msida 8-13 September 1975) IOC/MPPP/3, UNESCO 1975.

Report of the FAO(GFCM)/UNEP Expert Consultation on the Joint Co-ordinated Project on Pollution in the Mediterranean (Rome, 23 June - 4 July 1975), FAO 1975.

Report of the WHO/UNEP Expert Consultation on Coastal Water Quality Control Programme in the Mediterranean (Geneva, 15-19 December 1975). EHE/76.1, WHO 1976.

Directory of Mediterranean Marine Research Centres. First Edition UNEP 1976.

Manual of Methods in Aquatic Environment Research. Part 2: Guidelines for the Use of Biological Accumulators in Marine Pollution Monitoring. FAO Fisheries Technical Paper No. 150. FAO 1976.

Manual of Methods in Aquatic Environment Research. Part 3: Sampling and Analysis of Biological Material. FAO Fisheries Technical Paper No. 158. FAO 1976.

Guidelines for Health Related Monitoring of Coastal Water Quality. Report of a meeting of WHO/UNEP Joint Group of Experts (Rovinj, Yugoslavia, 23-25 February 1977). WHO 1977.

Health Criteria and Epidemiological Studies Related to Coastal Water Pollution. Report of a meeting of WHO/UNEP Joint Group of Experts (Athens, 1-4 March 1977). WHO 1977.

Co-ordinated Mediterranean Pollution Monitoring and Research Programme (MED POL). Summary Report of the Mid-term Review Meeting on IOC/WMO/UNEP and IOC/UNEP Pilot Projects, (Barcelona, 23-27 May 1977). IOC-WMO-UNEP/MED-MRM/3. UNESCO 1977.

Guidelines for the Implementation of Pilot Projects MED I and MED VI. Supplements 1 and 3 to IOC-WMO-UNEP/MED-MRM/3. UNESCO 1977.

Manual for Monitoring Oil and Petroleum Hydrocarbons in Marine Waters and on Beaches. Supplement to manuals and guides No. 7. UNESCO 1977.

Mid-term Review of the Joint WHO/UNEP Co-ordinated Pilot Project on Coastal Water Quality Control in the Mediterranean. Report of the meeting of principal investigators of collaborating laboratories (Rome, 30 May - 1 June 1977). WHO 1977.

Coastal Water Pollution Control. Report of a joint WHO/UNEP Workshop (Athens, 27 June - 1 July 1977). WHO 1977.

Manual of Methods in Aquatic Environment Research. Part 4: Bases for Selected Biological Tests to Evaluate Marine Pollution, FAO Fisheries Technical Paper No. 164. FAO 1977.

Selected Bibliography on Studies and Research Relevant to Pollution in the Mediterranean. FAO Fisheries Technical Paper No. 165. FAO 1977.

Directory of Mediterranean Marine Research Centres. Second Edition, UNEP 1977.

Preliminary Report on the State of Pollution of the Mediterranean Sea. UNEP/IG.11/INF.4. UNEP 1978.

Monitoring of Recreational Coastal Water Quality and Shellfish Culture Areas. Report of a joint WHO/UNEP Seminar (Rome, 4-7 April 1978). WHO 1978.

Coastal Quality Monitoring of Recreational and Shellfish Areas (MED VII). Report of a Workshop convened jointly by WHO and UNEP. (Rome, 17-19 January 1979). WHO 1979.

Pollutants from Land-Based Sources in the Mediterranean. (Report prepared in collaboration with ECE, UNIDO, FAO, UNESCO, WHO, IAEA). UNEP/WG.18/INF.4. UNEP 1979.

Manual of Methods in Aquatic Environment Research. Part 5: Statistical Tests. FAO Fisheries Technical Paper No. 182. FAO 1979.

Principles and Guidelines for Discharge of Wastes into the Marine Environment. WHO 1979.

Data Profiles for Chemicals for the Evaluation of their Hazards to the Environment of the Mediterranean Sea. Vols. I and II. IRPIC/UNEP 1979.

Co-ordinated Mediterranean Pollution Monitoring and Research Programme (MED POL). Programme description, UNEP/IG.14/INF.3. UNEP 1979.

Summary Reports on the Scientific Results of MED POL. Parts I, II and III. UNEP/IG.18/INF.3. UNEP 1980.

Selected Bibliography on the Pollution of the Mediterranean Sea (prepared in collaboration with FAO, WHO, IOC, WHO, IAEA and UNEP). (In preparation)

Reference Methods for Marine Pollution Studies in the Mediterranean (prepared in collaboration with FAO, WHO, IOC, IAEA and UNEP). (In preparation)

The State of Pollution of the Mediterranean Sea. Pergamon Press/UNEP (in preparation).