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XIV Meeting of the Inter-Agency Advisory
Committee (IAAC) for MED POL

Athens, 18 - 22 October 1982

MINUTES

INTRODUCTION

1. The meeting was convened by the Co-ordinating Unit for the Mediterranean Action Plan. All the Co-operating Agencies (FAO, WHO, WMO, IOC, UNESCO and IAEA) were invited to attend the meeting.
2. The meeting was attended by nine representatives of the International Organizations, including UNEP. For the complete list of participants see annex I to these Minutes.

Agenda item 1 - Opening of the Meeting

3. On behalf of the Co-ordinator of the Mediterranean Action Plan, the meeting was opened by A. Cruzado, Senior Marine Scientist of the MAP, who welcomed the participants at the permanent location of the Co-ordinating Unit in Athens.
4. In addressing the meeting, S. Keckes, Director, UNEP Regional Seas Programme Activity Centre (RS/PAC), stressed that the Mediterranean Action Plan (MAP) is, and will remain, an integral part of the Regional Seas Programme. The MAP will continue to be co-ordinated by the MED UNIT in close co-operation and consultation with RS/PAC to ensure harmonious development of the Regional Seas Programme on a global scale. The co-operation with specialized agencies will be pursued if it is the most efficient and cost-effective way to achieve the goals set forth by the Contracting Parties to the Barcelona Convention. S. Keckes invited the representatives of the specialized agencies attending the meeting to continue to co-operate with the MED Unit in the spirit of true partnership.
5. A. Cruzado introduced the Agenda which was accepted by the meeting (See annex II).

Agenda item 2 - Report on the activities carried out by each Co-operating Agency up to September 1982

6. At the request of the secretariat to report on the activities implemented in 1982, the representatives of the Co-operating Agencies referred to appendix I of the project document ME/O503-81-01 containing the workplan and timetable for the implementation of MED POL - PHASE II and briefly reported on the actions implemented. All the activities were reviewed one by one and those still being implemented were reported in the new workplan and timetable covering the activities from October 1982 to December 1983. (See agenda item 6).
7. Written reports on the actions implemented were given by some of the Agencies' representatives and are attached as annex III to these Minutes.
8. It was noted that in general the Co-operating Agencies did not follow the reporting procedures required according to paragraphs 4.1 and 4.2 of project document ME/O503-81-01. In order to allow for an efficient co-ordination of MED POL, it was stressed that these formal reporting procedures should be regularly observed, and it was recommended that the reports according to paragraph 4.3 of the same project document should be copied to the MED Unit also.

Agenda item 3 - Report by the secretariat on the progress achieved in the implementation of the national monitoring programmes

9. A. Cruzado reported on the status of the national monitoring programmes. He informed the Committee that visits had been made by the Unit's staff to almost all Mediterranean countries to help the National Co-ordinators for MED POL define, and, in some cases, formulate the relevant national monitoring programmes. The main problems arising was reported to be the scarce financial availability of most countries for these activities. In spite of this, no request for funds had been made to the Co-ordinating Unit from any country. However, A. Cruzado informed the Committee that a programme had been prepared by France, Lebanon, Malta and Spain, and was close to being finalized in Israel, Monaco, Tunisia, Turkey and Yugoslavia. In the remaining countries the monitoring programme was reported as being in a less developed stage. The problem of the location of instruments distributed during MED POL - PHASE I and the participation of the laboratories which received them was discussed. In this connexion, the representatives of the Co-operating Agencies were requested to provide the Unit, wherever it had not been already done, with a detailed list of the instruments provided to the various research centres so that the secretariat could settle this problem with the relevant National Co-ordinators. A. Cruzado reported that no National Co-ordinator had yet been designated in Greece, Libya and Syria. A list of the designated National Co-ordinators was distributed and is attached as annex IV to these Minutes.

Agenda item 4 - Report of each Co-Operating Agency on the progress achieved in the implementation of the research activities

10. The secretariat distributed a list of all the research proposals which had been received from the research institutes. After a long discussion on each of the research proposals, clearance was granted by UNEP to those proposals which were found to be very relevant to the general objectives of the MED POL - PHASE II programme, scientifically-sound and requesting reasonable amounts of funds from the Mediterranean Trust Fund.
11. Clearance of all other proposals was postponed according to the following criteria:
- a) Proposals falling under activity 'A' (Development and testing of sampling and analytical techniques for monitoring of marine pollutants) were divided into three categories:
 - i) those proposing activities related to existing methods would be taken into account when organizing the testing exercises;
 - ii) those proposing activities leading to the revision of some of the microbiological methods should be re-considered in the light of the recommendations of the WHO/UNEP Consultation on methods for monitoring selected pollutants in sewage effluents and coastal recreational waters (Rome, 24-26 November 1982; and

- iii) those proposing development of new methods should be submitted to the Meeting of the Working Group for Scientific and Technical Co-operating for comments.
- b) All the proposals falling under activities 'H' (Eutrophication and concomittant plankton blooms) and 'I' (Pollution induced ecosystems modifications) should be reported to the Meeting of the Working Group for Scientific and Technical Co-operation with a plan which would include the views of the secretariat in the development of these kind of activities. In particular, common elements should be taken into account for the development of guidelines and methods for assessing the impact of pollution on Mediterranean ecosystems.
- c) All the proposals dealing with activity 'L' (iii) (Pollutant-transfer processes at air/sea interface) should be reviewed in the light of the recommendations of the GESAMP working group meeting relevant to this subject.
- d) All the research proposals submitted by Italian and Yugoslav scientists proposing studies in the North Adriatic, should be referred to the respective National Co-ordinators who should inform the MED Unit whether they could be considered part of the Italian-Yugoslav co-operation. If this is the case, a consolidated request for assistance should be formulated by the relevant National Co-ordinators.
- e) Research proposals involving relatively large amounts of funds should be reported to the Meeting of the Working Group for Scientific and Technical Co-operation.
12. As a result, a list of research proposals was prepared, identifying the proposals which should be funded in 1982, and amounts granted. Another list was prepared containing those proposals falling into the other categories whose clearance was postponed. The lists are attached as annex V to these Minutes.
13. The Committee felt that the criteria to be followed for the future selection of research proposals should be adequately and clearly delinated.

Agenda item 5 - Discussion on the activities to be implemented during the period October - December 1982

14. The Committee agreed to combine the discussion on agenda item 5 with agenda item 6 and, as a result, to prepare a consolidated workplan/timetable and budget for the activities to be implemented from October, 1982 to December, 1983.

Agenda item 6 - Preparation of the workplan/timetable and budget for 1983 activities

15. The secretariat distributed a draft workplan enumerating the activities to be carried out. Each activity was discussed in detail and budgeted accordingly. As a result, a workplan/timetable and budget was prepared and is attached as annex VI to these Minutes.

Agenda item 7 - Preparation of the Second Meeting of the Working Group for Scientific and Technical Co-operation for MED POL (January 1983)

16. A. Cruzado distributed the outline of four working documents which would be presented at the Second Meeting of the Working Group for Scientific and Technical Co-operation.
17. The following documents were distributed in outline form. (See annex VII).
 - i) Report on the Implementation of the Monitoring Activities in 1982 and Planned Activities for 1983;
 - ii) Report on the Implementation of the Research Activities in 1982 and Planned Activities in 1983;
 - iii) Assessment of the Present State of Pollution by Mercury in the Mediterranean Sea and Proposed Control Measures; and
 - iv) Assessment of the Present State of Microbial Pollution in the Mediterranean Sea and Proposed Control Measures.
18. It was agreed that the input of the Co-operating Agencies to the content of the documents would be requested as the draft documents become available.

Agenda item 8 - Other matters

19. The Committee discussed the distribution of the travel grants to be provided to selected scientists attending the VI ICSEM/IOC/UNEP Workshop on Pollution of the Mediterranean. After preparing a priority list of scientists to be supported, the Agencies' representatives asked the Co-ordinating Unit of MAP to handle all the administrative procedure to provide the scientist with the travel grants directly at the Unit and not through the Agencies.
20. The FAO representative referred to the paper by C. Nauen and Cols. submitted as an FAO contribution to the VI ICSEM/IOC/UNEP Workshop, and informed that the paper had been submitted on the understanding that it would be selected for oral presentation, with no changes in the text. The secretariat stated that the technical evaluation of all the papers received was not the responsibility of the Co-ordinating Unit, but of the ICSEM/IOC/UNEP Advisory Panel appointed for that purpose.
21. It was understood that all meetings organized in the framework of activities sponsored through the Mediterranean Action Plan will be organized as joint meetings of the relevant specialized agencies and UNEP. Arrangements for such meetings, including documentation and invitations, will be mutually agreed by the co-organizers of the meeting.
22. It was also understood that the results obtained by the Co-operating Agencies through activities sponsored by the Mediterranean Action Plan cannot be used without prior consultation with UNEP (MED Unit).

Agenda item 9 - Closure of the Meeting

23. The meeting was closed by A. Cruzado at 13.00 on Friday, 22 October, 1982.

ANNEX I

List of Participants

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ANNEX II

Agenda

1. Opening of the Meeting.
2. Report on the activities carried out by each Co-operating Agency up to September 1982.
3. Report by the secretariat on the progress achieved in the implementation of the national monitoring programmes.
4. Report by each Collaborating Agency on the progress achieved in the implementation of the research activities.
5. Discussion on the activities to be implemented during the period October - December 1982.
6. Preparation of the workplan/timetable and budget for 1983 activities.
7. Preparation of the Second Working Group for Scientific and Technical Co-operation for MED POL (January 1983).
8. Other matters.
9. Adoption of the Minutes and closure of the Meeting.

ANNEX III

This annex contains reports, as submitted by the
Co-operating Agencies, on the activities carried out
up to September 1982

WHO

Outline Progress Report, 1.4.82 - 30.9.82

Monitoring

Preparations for formal initiation of the long-term monitoring programme were continued, and assistance in formulating the relevant aspects of national programmes given to National Co-ordinators, either through country visits or correspondence.

Reference methods

The final drafts of Reference Methods Nos: 2,3,4 and 5, being prepared jointly with UNEP's RS/PAC, were completed, and transmitted to laboratories. The first draft of Reference Method No.1 was nearly completed.

Intercalibration of methods

Nine Mediterranean laboratories are testing the latest version of Reference Methods Nos: 2, 3, 4 and 5 under local environmental conditions. Arrangements have been made for a joint testing and intercalibration exercise to be held in the laboratories of the Istituto Superiore di Sanità, Rome, on 22-23 November 1982, followed by a consultation meeting on 24-26 November 1982.

By arrangement with RS/PAC, experts and participants from non-Mediterranean countries will also be attending the intercalibration exercise and consultation meeting.

Research proposals

Fourteen research proposals from Mediterranean laboratories regarding projects falling under Activities A, D and K, were comprehensively evaluated, and formalities can now be initiated.

Four research proposals falling under Activities B, C and E have just been received, and will be evaluated shortly.

Methylmercury project

A project on Evaluation of methylmercury in Mediterranean populations and related health hazards was initiated. Institutions in France, Greece, Italy, Malta and Yugoslavia were identified as participants. A consultation meeting was held in Athens on 13 - 17 September 1982, as a result of which a project document was elaborated. The project is being held both as part of MED POL - PHASE II and as part of WHO/EURO's Chemical Safety programme.

Follow-up to MED POL VII

The results of MED POL VII are being processed and evaluated. The report is scheduled for completion late in 1982.

Study by I.S.S. on methods

The study conducted by the Istituto Superiore di Sanità, Rome, in which eight Mediterranean laboratories are participating, is progressing satisfactorily. The results will be reviewed by the Consultation Meeting in Rome on 24-26 November 1982.

I O C

1. Research proposals

With the exception of Orio (ITA-37) who is in the process of responding to second request for an ammendment and Vassiere (MON-01, 04) and Arnoux (FRA-04), all proposed draft agreements are in the hands of UNEP for clearance since beginning of September as a consequence of prior evaluations and negotiations with each principle investigator.

2. MED POL - Phase I

- a) MED VI can be closed and will be, if not already done so by final report submitted by IOC.

MED I has to be continued for producing report from DRIFTEX. Noted extension from Brough was never received and IOC has been waiting clarification of issue since Brough meeting last spring. US \$ 5,000 involved. Will act as soon as authorization received.

- b) Equipment - List given to UNEP in March. Further action depends on response from UNEP.

3. Status of Reference Methods

- | | |
|--|---|
| a) Petroleum Hydrocarbons in Water
Oil residues | - being typed but will have to be ammended with GEMSI input in spring |
| b) Petroleum Hydrocarbons
in Sodium | - in hands of UNEP; ready to go as far as IOC is concerned. |
| c) Basic meteorological conditions | - presently being reviewed by IOC |
| d) Standard oceanographic
parameters | - being typed |
| e) Hg in estuarine water and suspended
material | - in hands of UNEP but there are additional comments |
| f) Cd in water | - in hands of UNEP but considerable comments to follow |

IOC suggested that both e) and f) be held in abeyance until further comments are provided (i.e. within a month).

W M O

The WMO representative informed the Committee that a description of a preliminary computational method for monitoring the transfer of pollutants to the Mediterranean Sea via the atmosphere had been developed by the Meteorological Observatory of Brera (Milan, Italy). This computational model will be presented and considered at the session of the GESAMP Working Group on the Interchange of Pollutants between the Atmosphere and the Oceans (Monaco, 25-29, October 1982). It was also stated that a number of monitoring stations were required and their data could be used to both verify and calibrate the model. In this connexion, some WMO Background Air Pollution Monitoring (BAPMON) stations were approached for checking a transport model. Three stations will be provided with high volume air samples to collect air aerosols. As soon as a first version of an extended transport model is available, proposals for additional locations can be made.

The WMO representative noted that satisfactory emission data for the pollutants for the wider Mediterranean area are an absolutely essential requirement for good model estimates. To this end, the Contracting Parties should be asked to make serious efforts to provide such air emission data as model input.

The WMO representative informed the Committee of proposals on a workplan and budget for the activities to be carried out by his agency in 1983 on computational methods for monitoring the transport of pollutants to the Mediterranean Sea via the atmosphere. He stated that his Headquarters felt that at the present stage, the WMO Meteorological Synthesizing Centre (MSC-Oslo) should be involved in developing these methods. In this connexion it was proposed that UNEP should take steps for providing financial support to MSC-Oslo. The WMO representative noted with regret that without MSC involvement in MED POL - Phase II, WMO will not be in a position to continue its activities in the programmes.

IAEA

Maintenance service

Two visits were undertaken by T. Barisic: one to Cyprus for servicing of the AAS and GC, the other to Egypt. The visit to Egypt was terminated by customs difficulties at Cairo airport. A further trip to Lebanon was cancelled for political uncertainty. Further visits to research labs were delayed until after A. Cruzado visited the labs and sent notice of laboratory needs.

Intercalibration

Organics

a. Chlorinated hydrocarbons. Based on the results of the PHASE I programme, we estimate only 12 national labs have shown the ability to do chlorinated hydrocarbon analysis based on their completion of the first three intercalibration samples. Twelve other labs have been sent samples and standards, but have not submitted results. Four labs are in intermediate stages of participation. We have sent a letter to all the participating labs saying:

1. the MED POL programme will continue intercalibration programmes;
2. encouraging them to complete any outstanding samples or to ask for help in doing so, and
3. enquiring if they are interested in future participation.

We have reanalyzed the first three samples (oyster, fish, capepod) and found the levels of chlorinated hydrocarbons have not significantly changed. Thus they remain fit for continued distribution. We have a fourth sample (Mediterranean sediment) ready for distribution. This could be combined with a methods testing exercise.

b. Petroleum hydrocarbons. We have made preliminary analysis of the Mediterranean oyster and sediment samples to assess their suitability for use as intercalibration samples for petroleum analysis. We found both samples would be useful for GC analysis. If there is a need to implement such a programme the samples would need further characterization of the aromatic hydrocarbons. We would have to commence such a programme at the information gathering stage.

Metals. One sediment sample is ready for distribution as soon as UNEP sends the list of laboratories. A second sediment sample will be ready early 1983.

Both. A new sample of biological material (mussel tissue) is being prepared. Six hundred Kg. of mussels were purchased from a distributor in Sete. These are being opened, freeze-dried and powdered by a subcontractor in Paris at a rate of 100 Kg./week. ILMR will sieve, homogenize and package this material. We will do the homogeneity tests. The preparation should be complete by the end of the year. We estimate that about 60 Kg. of dry material will be equally divided for use for both organics and metal analysis.

Methods development

Organics. We have submitted proposed methods for analysis of hydrocarbons in open-ocean sea-water, suspended matter and sediments. We are now in a position to arrange testing. As the analysis of sea-water is the most difficult, we sent letters to labs who performed well in the IOC inter-calibration exercises enquiring if they would test the methods. We have so far received positive replies from Fossato:Italy, Gaul:Germany and Matas-Gassiot :Spain. We will also test these methods in ILMR. We continue to expand the classes of pollutants for which we can specify methods through our own research efforts. Note the inclusion of PCC's and petroleum hydrocarbons in our proposed methods. We continue to participate in international inter-calibration programmes to continually increase our own precision (IOC, NRC, etc.). To prevent overlap with IOC we recommend our methods be distributed to IOC and tested by both agencies when possible.

Metals

- a. Mercury in sediments. Analytical work is complete but staff commitments to Agency priorities have prevented write-up. We hope to finish before the end of the year and will clear with UNEP before distribution to national labs.
- b. Cadmium in suspended matter. Analysis is similar to biological material. Sampling and extraction are the major difficulties and this testing is not complete. Write-up should be ready before the end of the year.

Air/Sea exchange

We have made preliminary contact with Ros of Spain who is involved in the organization of an air/sea exchange programme in the context of the Spanish-American research agreement. We suggest that this programme should be co-ordinated with any programme implemented by WMO/UNEP. IAEA is co-sponsoring a GESAMP meeting in Monaco in October to organize the scientific aspects of the proposals for a Mediterranean programme. IAEA has assessed our analytical capacity to participate in an air/sea exchange programme and estimate we could handle a limited number of samples for both metals and organics. Details of our participation will be decided in conjunction with WMO after the Monaco GESAMP meeting.

ANNEX IV

Updated List of National Co-ordinators
as at October 1982

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ANNEX V

I. Research Proposals which have been cleared for funding
in 1982 or are accepted as contributions

ACTIVITY 'A'

NONE

ACTIVITY 'D'

IS 6 (H.I. SHUVAL)	: WHO	\$10,000
SP 3 (G. PIERA)	: WHO	\$ 3,000

ACTIVITY 'F'

GR 1 (J. GANOULIS)	: IOC	\$ 3,400
I 23 (E. SALUSTI)	: IOC	\$ 3,600
TR 1 (U. UNLUATA) and TR 2 (E. OZSOY)	: IOC	\$ 7,000

ACTIVITY 'G'

E 4 (A.K.H. EL-SEBAE)	: FAO	\$ 4,000
F 1 (R. KAIM-MALKA)	: FAO	Free
GR 2 (M. MORAITOU-APOSTOLOPOULOU)	: FAO	None
IS 7 (E. NEVO)	: FAO	\$ 4,000
I 21 (L. DALLA VENEZIA)	: FAO	\$ 1,500
I 31 (A. VIARENGO)	: FAO	\$ 3,000
MA 1 (V. AXIAK)	: FAO	\$ 3,000
YU 21 (M. OZRETIC)	: FAO	\$ 3,000

ACTIVITY 'J'

CY 1 (A. DEMETROPOULOS)	: FAO	\$ 4,500
I 13 (E. TARAMELLI-RIVOSECCHI)	: FAO	\$ 500

ACTIVITY 'K'

I 30 (G.P. DE RENZI)	: WHO	None
I 6 (S. DE FLORE)	: WHO	\$ 3,000
I 28 (G. BRONZETTI)	: WHO	\$ 3,000
E 3 (F. EL-SHARKAWA)	: WHO	\$ 5,000

ACTIVITY 'K' (Cont'd)

IS 3 (B. CAVARI)	: WHO	\$ 3,000
TN 3 (S. JEKOV)	: WHO	\$ 2,000
YU 20 (D. FUKS)	: WHO	\$ 3,000
F 6 (N. VICENTE)	: FAO	\$ 1,000
I 1 (M. BERNHARD)	: FAO	None
I 25 (A. RENZONI) and I 36 (A. RENZONE) combined	: FAO	\$ 2,500
TR 3 (I. SALIHOGLU)	: FAO	\$ 2,000

ACTIVITY 'L'

GR 4 (M. SCULLOS)	: IOC	\$ 6,800
I 16 (T. LA NOCE)	: IOC	Free
F 5 (P. BUAT-MENARD)	: IAEA/WHO	Free

II. Research Proposals whose Funding should be Postponed

ACTIVITY 'A'

Proposals which should be taken into account for the testing of existing methods

IS 5 (B. KRUMGALZ)	: FAO
I 10 (R. CAPELLI)	: FAO
IS 2 (B. KRUMGALZ)	: IAEA
SP 1 (M. GASSIOT-MATAS)	: IAEA
SP 5 (J. OBIOLS)	: IAEA
YU 16 (M. PICER)	: IOC

Proposals which should be reconsidered in the light of the recommendations of the Consultation meeting on methods for monitoring selected pollutants in sewage effluents and coastal recreational waters : WHO/UNEP joint project, Rome, November 1982

SP 2 (F. LUCENA-GUTIERREZ)	: WHO
TN 2 (A. CHADLI)	: WHO
SP 4 (F. LUCENA- GUTIERREZ)	: WHO

Research proposals to be submitted to the WGSTC for comments

YU 17 (M. BRANICA)	: IOC
I 18 (G.C. PAPPALARDO)	: IOC
YU 18 (B. COSOVIC)	: IOC
GR 5 (G.P. GABIRELIDES)	: WHO
I 29 (L. VILLA)	: WHO
YU 14 (B. KURELEC)	: WHO
I 19 (M. GALLORINI)	: IAEA
TR 4 (I. SALIHOGLU)	: IAEA
YU 9 (MAKJANIC)	: IAEA

ACTIVITY 'F'

Research proposals which should be further discussed with relevant National Co-ordinators and submitted to the WGSTC for comments

I 5 (F. STRAVISI)	: IOC
I 12 (P. MALANOTTE-RIZZOLI)	: IOC
YU 6 (M. GASIC)	: IOC
YU 15 (M. KUZMIC)	: IOC
YU 23 (J. FAGANELI)	: IOC

ACTIVITY 'F' (Cont'd)

Research proposals to be submitted to the WGSTC for comments

GR 6 (A. LASCARATOS) : IOC
I 33 (R. SANTAGELO) : IOC

Research proposals returned

I 2 (M. ASTRALDI) : IOC

ACTIVITY 'G'

Research proposals to be submitted to the WGSTC for comments

I 27 (B. ALBERGONI) : FAO
TR 5 (H. BAGGI) : FAO
YU 5 (M. TUDOR) : FAO
YU 25 (M. GASIC) : FAO

Research proposals returned

A 3 (K. BENSALAH) : FAO

ACTIVITY 'H'

Research proposals to be submitted to the WGSTC for comments

AL 4 (F. AID) : FAO
E 1 (H.A. SULTAN) : FAO
TN 4 (M.S. HADJ ALI) : FAO
TU 8 (S. BASOGLU) : FAO

ACTIVITY 'I'

Research proposals to be submitted to the WGSTC for comments

F 2	(D. BELLAN-SANTINI)	: FAO
F 3	(G. STORA)	: FAO
GR 3	(A.J. ZARKANELLAS)	: FAO
I 7	(G. ZURLINI)	: FAO
I 24	(G. COGNETTI)	: FAO
TR 7	(A. KOCATAS)	: FAO

ACTIVITY 'J'

Research proposals returned

YU 12	(V. PRAVDIC)	: FAO
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ACTIVITY 'K'

Research proposals which should be further discussed with relevant National Co-ordinators

YU 11	(M. BRANICA)	: IAEA
YU 22	(N. AJDACIC)	: IAEA

ACTIVITY 'L'

Research proposals which should be further discussed with relevant National Co-ordinators

F 7	(A. MONACO)	: IOC
IS 1	(A. GOLIK)	: IOC
I 35	(F. COSTA)	: IOC
I 14	(L. TASSI-PELATI)	: IAEA
I 32	(R. FRACHE)	: IAEA
YU 10	(V. PRAVDIC)	: IAEA

Research proposals which should be taken into account only
as a follow-up to the GESAMP decision

I 4	(L. SANTOMAURO)	: WMO
I 17	(A. PALUMBO)	: WMO
I 20	(I. DAGNINO)	: WMO
I 34	(R. CECCHI)	: WMO

ANNEX VI

Proposed Workplan and Timetable
for the Implementation of MED POL - PHASE II
(October 1982 - December 1983)

<u>ACTIVITY</u>	<u>RESPONSIBILITY</u>
1. Inter-Agency Advisory Committee Meetings (4) (XV) January 1983 (XVI) June 1983 (XVII) December 1983	MED UNIT in collaboration with all Co-operating Agencies
2. Meeting of Working Group for Scientific and Technical Co-operation (2nd) Mid '83	MED UNIT in collaboration with all Co-operating Agencies
3. Meeting of experts on the LBS Protocol to review matters related to the technical implementation of the Protocol November 1983	MED UNIT in collaboration with all Co-operating Agencies
4. Continuing processing and quality control of MED POL data Ongoing (i) meeting on MED POL data processing and quality control including intercalibration	MED UNIT and all Co-operating Agencies
5. Development and testing analytical and compu- tational methods for monitoring the transport of pollutants to the Mediterranean Sea through the atmosphere (i) development of conceptual model through XIV GESAMP Working Group - October 1982 (ii) development and testing of computational model through sub-contract - by June 1983 and September 1983 respectively	WMO and IAEA in consultation with MED UNIT WMO and UNEP WMO

<u>ACTIVITY</u>	<u>RESPONSIBILITY</u>
(iii) development and testing of analytical methods for monitoring of selected pollutants recommended by XIV GESAMP Working Group - by June 1983	IAEA
(iv) selection of national institutions for the monitoring network - by March 1983	WMO in consultation with MED UNIT
(v) installation of sampling equipment in institutions participating in the network - by June 1983	WMO in consultation with MED UNIT
(vi) collection of environmental samples and their analysis at national institutions and using ILMR as central analytical facility - second half of 1983	WMO and IAEA
6. Continued support to national research centres through common maintenance services for their analytical equipment	IAEA under guidance of MED UNIT
(i) regular maintenance - ongoing with a visit early 1983 to all research centres which received capital equipment through MED POL	
(ii) ad hoc emergency visits - ongoing	
7. Support to national research centres in intercalibration of physical, chemical and microbiological methods and quality control of data	IAEA, WHO and IOC in consultation with MED UNIT and IOC/GEMSI as appropriate
(i) intercalibration of analytical methods for petroleum hydrocarbons involving 15 - 20 national laboratories - mid 1983	IOC in consultation with MED UNIT
(ii) preparation and testing of reference material (sediment) for metals and organics - by September 1982	IAEA

<u>ACTIVITY</u>	<u>RESPONSIBILITY</u>
(iii) preparation and testing of reference material (mussels) for metals and organics - by December 1982	IAEA
(iv) preparation and testing of reference material (fish) for metals and organics - by December 1983	IAEA
(v) preparation of reference material (shrimp) for metals and organics - by December 1983	IAEA
(vi) intercalibration of analytical methods for metals and organics - ongoing	IAEA
(vii) intercalibration of bacteriological and related methods used in monitoring of recreational and shellfish growing waters - November 1982 and mid 1983	WHO in consultation with MED UNIT
8. Assistance to national research centres through National Co-ordinators for the organization and implementation of the national monitoring programmes (i) relevant agencies will assist in the purchase of instruments and in the organization of training	MED UNIT in collaboration with all Co-operating Agencies
9. Compilation and printing of the Proceedings of VI ICSEM/IOC/UNEP Workshop on Pollution of the Mediterranean - December 1982 - March 1983	MED UNIT in co-operation with ICSEM and IOC
10. Development and testing sampling and analytical techniques for pollution monitoring and research and their formulation as reference methods for marine pollution studies (Ref. to Appendix I to this Workplan) (i) development of reference method No A - by December 1982	MED UNIT under the guidance of RS/PAC and in co-operation with relevant specialized agencies and selected national research centres WHO

<u>ACTIVITY</u>	<u>RESPONSIBILITY</u>
(ii) development of reference method No M - by November 1982	WHO
(iii) review and revision of reference method No 1-5 through a WHO/UNEP consultation - by November 1982	WHO
(iv) development of reference method No 6 - by April 1983	FAO
(v) development of reference method No 9 - by November 1982	FAO
(vi) development of reference method No 10 - by November 1982	FAO
(vii) testing and intercalibration of reference method Nos 7 - 11 - January-March 1983	FAO
(viii) review and revision of reference method Nos 6 - 11 through FAO/IAEA/ UNEP consultation - March 1983	FAO
(ix) development of reference method No 13 - by December 1982	FAO
(x) testing of reference method Nos 12-14 - January-March 1983	IAEA
(xi) intercalibration of reference method No 14 - January-March 1983	IAEA
(xii) review and revision of reference method No 6 and Nos 12 - 14 through IAEA/FAO/ UNEP consultation - end of 1983	IAEA
(xiii) development of reference method No 15 - June 1983	IOC

<u>ACTIVITY</u>	<u>RESPONSIBILITY</u>
(xiv) development of reference method No 20 - June 1983	IOC
(xv) development of reference method No B - second half 1983	IOC
(xvi) testing and intercalibration of reference method Nos 20 and B - second half 1983	IOC
(xvii) testing of reference method No 15 - second half 1983	IOC
(xviii) review and revision of reference method Nos 15, 20 and B through IOC (GEMSI)/UNEP consultation - second half of 1983	IOC
(xix) development of reference method No C - April 1983	UNESCO in consultation with WHO
(xx) development of reference method No D - March 1983	WHO
(xxi) development of reference method No E - March 1983	WHO
(xxii) development of reference method No F - March 1983	WHO
(xxiii) development of reference method No G - March 1983	WHO
(xxiv) development of reference method No I - March 1983	IAEA and IOC
(xxv) development of reference method No K - December 1982	IOC
(xxvi) development of reference method No L - December 1982	IOC

	<u>ACTIVITY</u>	<u>RESPONSIBILITY</u>
	(xxvii) sampling of aerosols and wet precipitation for analysis of chemical pollutants, reference method No N - end of 1982	WMO
	(xxviii) development of reference method No O - late 1983	IAEA
	(xxix) development of reference method No P - late 1983	IAEA
	(xxx) development of reference method No Q - end of 1983	WMO
11.	Development of reporting formats required according to the Dumping, Emergency and Land-Based Sources Protocols	MED UNIT in collaboration with relevant co-operating agencies
	(i) development of draft formats on the authorizations granted in accordance with article 6 of the LBS Protocol - July 1983	WHO/FAO/IAEA
	(ii) development of draft formats for reporting the amounts of substances discharged in accordance with LBS Protocol as requested by article 13 - July 1983	WHO/FAO/IAEA
	(iii) meeting of experts on LBS Protocol (See activity 3. above) - November 1983	
12.	Formulation of scientific rationale for environmental quality criteria to be used in the development of emission standards, standards of use and of guidelines for the application for substances listed in Annexes I and II of the LBS Protocol	MED UNIT in collaboration with relevant co-operating agencies and in co-operation with selected national research centres
	(i) draft definition of substances listed in Annexes I and II of LBS Protocol - July 1983	WHO
	(ii) draft definition of substances listed in Annexes I and II of Dumping Protocol - July 1983	WHO

<u>ACTIVITY</u>	<u>RESPONSIBILITY</u>
(iii) development of proposals for emission standards for selected substances listed in Annex II of LBS Protocol and for selected standards of use as requested by article 7 of the Protocol. Specifically: - guidelines and criteria for sanitary quality of recreational waters, for shellfish growing waters and for quality of seafood/mercury - July 1983	WHO/FAO/IOC
13. Epidemiological studies related to the confirmation/revision of the proposed environmental quality criteria for bathing water, shellfish-growing waters and edible marine organisms (i) implementation of research proposals approved - October 1982 - December 1983 (ii) submission to the WGSTC of the other proposals - early 1983	WHO and FAO in co-operation with selected national research centres
14. Development of proposals for guidelines governing the application of the LBS Protocol as requested in article 7 of the Protocol (i) formulation of draft guidelines and criteria for the length, depth and position of pipelines for coastal outfalls - July 1983 (ii) formulation of draft guidelines for the issuance of authorizations for the discharge of wastes containing substances referred to in Annex II or in section B of Annex I to the LBS Protocol - July 1983 (iii) formulation of draft guidelines for special requirements for effluents necessitating separate treatment - July 1983	MED UNIT in collaboration with relevant Co-operating Agencies and in co-operation with selected national research centres WHO WHO WHO/UNIDO

<u>ACTIVITY</u>	<u>RESPONSIBILITY</u>
(iv) formulation of draft guidelines for the control and progressive replacement of products, installations and industrial and other processes causing significant pollution of the marine environment - July 1983	WHO/UNIDO
15. Research on oceanographic processes, with particular emphasis on surface circulation and vertical transport - October 1982 - December 1983	IOC in co-operation with selected national research centres
(i) gather information on ongoing work relevant to oceanographic processes playing a leading role in surface circulation and vertical transport of water masses	
(ii) harmonization of the various national and international efforts in the field	
(iii) development of field measurements required for the continual upgrading of numerical models developed for the purpose of assessing pollutant-receiving capacity of coastal environment through the implementation of research proposals.	
16. Research on toxicity, persistence, bioaccumulation, carcinogenicity and mutagenicity of selected substances listed in the Annexes of the LBS and Dumping Protocols	FAO and WHO in co-operation with selected national research centres
(i) implementation of research proposals approved - October 1982 - December 1983	
(ii) submission to the WGSTC of the other proposals - early 1983	
17. Research on eutrophication and concomitant plankton blooms	FAO and UNESCO in co-operation with selected national research centres
(i) submission to the WGSTC of the proposals received - early 1983	FAO

<u>ACTIVITY</u>	<u>RESPONSIBILITY</u>
(ii) development of draft guidelines for assessment of receiving capacity for eutrophication substances and of monitoring of long-term trends of eutrophication - mid 1983	UNESCO
(iii) implementation of research proposals as case studies following the above guidelines - early 1983 - December 1983	FAO in co-operation with selected national research centres
(iv) consultation to review the methodology used in the case studies and relevance of the latter to the guidelines - end 1983	FAO/UNESCO
18. 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	FAO in co-operation with selected national research centres
(i) submission to the Working Group of the research proposals - early 1983	
(ii) implementation of research proposals as case studies following guidelines already developed by FAO - early 1983 - December 1983	
19. Study on the effects of thermal discharges	FAO in co-operation with selected national research centres
(i) implementation of research proposals approved as case studies relevant to the guidelines for the assessment of the environmental impact of thermal effluents on the marine and coastal environment being developed through GESAMP XV - October 1982 - December 1983	
20. Study of biogeochemical cycles of specific pollutants, particularly those relevant to human health :	FAO, IAEA and WHO in co-operation with selected national research centres
a) mass balance of mercury	FAO
b) mass balance of lead	IAEA
c) survival of pathogens	WHO

<u>ACTIVITY</u>	<u>RESPONSIBILITY</u>
(i) implementation of research proposals approved - October 1982 - December 1983	FAO and WHO in co-operation with selected national research centres
(ii) submission to the WGSTC of the other proposals - early 1983	
(iii) co-sponsoring of a consultation on Biogeochemical Cycles of Mercury in the Mediterranean - early 1983	FAO in collaboration with the national research centre ENEA
21. Study of pollutant transfer processes :	UNESCO, WMO and IAEA in co-operation with selected national research centres
a) at river/sea interface	UNESCO
(i) implementation of research proposals approved	
b) at air/sea interface	WMO
(i) implementation of research proposals approved	
c) by sedimentation	IAEA
(i) implementation of research proposals approved	
d) through the straits	IOC
(i) implementation of research proposals approved - October 1982 - December 1983	

MED POL Summary Budget for 1983
(Figures in brackets are not included in total)

	FAO	WHO	UNESCO	IOC	WMO	IAEA	MED UNIT	TOTAL
S	119,000	121,000	5,000	5,000	5,000	5,000	-	260,000
1	n.c.	n.c.	2,000	2,500	4,500	4,500	n.c.	13,500
2	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	35,000 (30,000)	35,000 (30,000)
3	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	(35,000)	(35,000)
4	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.
	-	-	-	-	17,000	13,000	n.c.	30,000
6	-	-	-	-	-	95,000	n.c.	95,000
7	-	17,000	-	10,000	-	33,000	n.c.	60,000
8	n.c.	n.c.	n.c.	n.c.	n.c.	n.c.	(1) 381,500	381,000

(1) Transfer of funds to the appropriate agency will take place upon implementation of this activity in order to organize purchase of equipment, training, etc. for national institutes.

	FAO	WHO	UNESCO	IOC	WMO	IAEA	MED UNIT	TOTAL
9	-	-	-	-	-	-	25,000	25,000
10	13,000	5,000	-	-	5,000	19,000	-	42,000
11	5,000	8,000	-	-	-	5,000	-	18,000
12	9,000	18,000	-	9,000	-	-	-	36,000
13	-	41,000	-	-	-	-	-	41,000
14	-	18,000	-	-	-	-	-	18,000
15	-	-	-	18,000	-	-	-	18,000
16	9,000	9,000	-	-	-	-	-	18,000
17	14,000	-	9,000	-	-	-	-	23,000

	FAO	WHO	UNESCO	IOC	WMO	IAEA	MED UNIT	TOTAL
18	10,000	-	-	-	-	-	-	10,000
19	10,000	-	-	-	-	-	-	10,000
20	10,000	10,000	-	-	-	13,000	-	33,000
21	-	-	-	11,000	10,000	12,000	-	33,000
R	80,000	109,000	9,000	38,000	15,000	49,000	-	300,000
M	119,000	138,000	7,000	17,500	26,500	150,500	441,500	900,000
R+M	199,000	247,000	16,000	55,500	41,500	199,500	441,500	1200,000
Agency con- tri- bution	53,000	75,000	6,000	35,000	16,500	86,000	n.c.	

APPENDIX I

Guidelines and Reference Methods for Marine
Pollution Studies

General Note:

The development, intercalibration, testing and revision of guidelines and reference methods will be co-ordinated by the MED Unit under the guidance of RS/PAC and in co-operation with the relevant specialized agency. RS/PAC will issue the guidelines and reference methods (draft and final versions) and will ensure the participation of analysts from outside the Mediterranean region. RS/PAC, through IOC, will ensure that reference methods are scrutinized by GEMSI.

A. Monitoring of coastal recreational and shellfish-growing waters

- No: 1 Guidelines for monitoring the quality of coastal recreational waters (being developed).
- No: 2 Determination of total coliforms in sea-water by the membrane filtration culture method (issued).
- No: 3 Determination of faecal coliforms in sea-water by the membrane filtration culture method (issued).
- No: 4 Determination of faecal streptococci in sea-water by the membrane filtration culture method (issued).
- No: 5 Determination of faecal coliforms in bivalves by multiple test tube method (issued).
- No: A Guidelines for monitoring the quality of coastal shellfish-growing waters (to be developed).
- No: M Statistical methods for the evaluation of results from monitoring the quality of coastal recreational and shellfish-growing waters

Note: Methods 2 - 5 will be tested and intercalibrated in November 1982. Methods 1 - 5 and M will be reviewed and revised, as appropriate, through a WHO/UNEP consultation (November 1982).

B. Monitoring of chemical contaminants (metals) in marine organisms

- No: 6 Guidelines for monitoring chemical contaminants in marine organisms (to be developed).
- No: 7 Sampling of selected marine organisms and sample preparation for trace metal analysis (issued).
- No: 8 Determination of total mercury in selected marine organisms by flameless atomic absorption spectrophotometry (issued).

- No: 9 Determination of total arsenic in selected marine organisms by flameless atomic adsorption spectrophotometry (being developed).
- No: 10 Determination of total selenium in selected marine organisms by flameless atomic absorption spectrophotometry (being developed).
- No: 11 Determination of total cadmium, zinc, lead and copper in selected marine organisms by flameless atomic absorption spectrophotometry (issued).
- Note: Methods 7 - 11 will be tested and intercalibrated using mussel as reference material during January - March 1983. Methods 6 - 11 will be reviewed and revised, as appropriate, through a FAO/IAEA/UNEP consultation in mid 1983. Selection of analysts participating in testing, intercalibration and consultation will be done by FAO in consultation with IAEA and MED Unit.

C. Monitoring of chemical contaminants (organics other than petroleum hydrocarbons) in marine organisms

- No: 6 Guidelines for monitoring chemical contaminants in marine organisms (to be developed).
- No: 12 Sampling of selected marine organisms and sample preparation for the analysis of chlorinated hydrocarbons (issued).
- No: 13 Determination of methylmercury in selected marine organisms by gas-liquid chromatography (being developed).
- No: 14 Determination of DDTs and PCBs in selected marine organisms by gas-liquid chromatography (issued).
- Note: Methods 12 - 14 will be tested and method 14 intercalibrated using mussel as reference material during January - March 1983. Methods 6 and 12 - 14 will be reviewed and revised, as appropriate, through an IAEA/FAO/UNEP consultation in mid 1983. Selection of analysts participating in testing, intercalibration and consultation will be done by IAEA in consultation with FAO and MED Unit.

D. Monitoring of marine surface waters and beaches for contamination by petroleum hydrocarbons

- No: 15 Monitoring of tar on marine beaches (being developed).
- No: 20 Monitoring of petroleum hydrocarbons in sediments (being developed).
- No: B Monitoring of petroleum hydrocarbons in sea-water (being developed).
- Note: Method 15 will be tested and Methods 20 and B will be tested and intercalibrated using sediment as reference material (IAEA) and reference material to be defined by GEMSI during second half of 1983. Methods 15, 20 and B will be reviewed and revised, as appropriate, through an IOC(GEMSI)/UNEP consultation in late 1983. Selection of analysts participating in testing, intercalibration and consultation will be done by IOC in consultation with IAEA and MED Unit.

E. Monitoring of estuaries

No: C Guidelines for monitoring of estuarine waters and suspended matter.

No: D Determination of faecal coliforms in estuarine waters and suspended matter.

No: E Determination of phosphorus in suspended matter.

No: F Determination of nitrogen in suspended matter.

No: G Determination of BOD₅ and COD in estuarine waters.

No: 19 Determination of total mercury in estuarine waters and suspended matter by cold vapour atomic absorption spectrophotometry (being developed).

No: I Determination of total cadmium in estuarine waters and suspended matter (to be developed).

Note: The testing of the methods will be carried out during 1984.

F. Monitoring of chemical contaminants in sea-water and marine sediments

No: 16 Determination of DDTs, PCBs, PCCs and other hydrocarbons in sea-water, estuarine water and suspended matter by gas chromatography (being developed).

No: 17 Determination of DDTs, PCBs, PCCs and other hydrocarbons in marine sediments by gas chromatography (being developed).

No: 18 Determination of total dissolved cadmium in sea-water by differential pulse anodic stripping voltammetry (being developed).

Note: The testing of the methods will be carried out during 1984.

G. Monitoring of basic oceanographic and meteorological conditions

No: K Determination of basic oceanographic and meteorological conditions (to be developed).

No: L Determination of standard physical and chemical parametry (to be developed).

Note: Method Nos: K - L to be developed by the end of 1982, reviewed by GEMSI in early 1983 and subsequently recommended to be used.

H. Monitoring of pollutants in the atmosphere

- No: N Sampling of aerosols and wet precipitation for analysis of chemical pollutants (to be developed).
- No: O Determination of selected trace metals in aerosols and in wet precipitation (to be developed).
- No: P Determination of halogenated hydrocarbons in aerosols and in wet precipitation (to be developed).
- No: Q Sampling of dry deposition (to be developed).

Note: Method N to be developed by end of 1982. Methods O - Q to be developed by late 1983.



United Nations Environment Programme



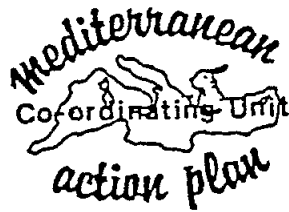
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D R A F T

Athens, 31 January - 4 February 1983



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

Report on the Implementation of the Monitoring Activities in 1982 and
Planned Activities for 1983

In Co-operation with:



FAO



UNESCO



WHO



WMO



IOC



IAEA

C O N T E N T S

1. BACKGROUND

2. PROGRESS REPORT ON ACTIVITIES IMPLEMENTED IN 1982

Definition of National Monitoring Programmes

Development of reference methods

Intercalibration

Maintenance of equipment

Direct assistance

Data processing

Cost of activities

3. PLANNED ACTIVITIES FOR 1983

Implementation of National Monitoring Programmes

Development of reference methods

Intercalibration

Maintenance of equipment

Direct assistance

Data processing

Cost of activities

BACKGROUND

1. The Co-ordinated Mediterranean Pollution Monitoring and Research Programme (MED POL) was initiated in 1974 and formally approved by the Intergovernmental Meeting on the Protection of the Mediterranean Sea (Barcelona, 28 January - 4 February 1975) as the scientific and technical component of the Mediterranean Action Plan.
2. The general objectives of MED POL initially formulated, evolved through the six years over which the implementation of the pilot phase took place and 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.
3. The Intergovernmental Review Meeting of the Mediterranean coastal States and the 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 in pursuance of the legal obligations of the Contracting Parties to the:

- Convention for the Protection of the Mediterranean Sea against Pollution; adopted at Barcelona, 16 February 1976; 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, 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, 17 May 1980.
4. Based on the recommendations made at various experts and intergovernmental meetings, the Long-term (10 years) Programme for Pollution Monitoring and Research in the Mediterranean (MED POL - PHASE II) was formulated by the secretariat of the Convention (UNEP) in co-operation with FAO, WHO, WMO, UNESCO, IOC and IAEA. Subsequently, it was formally approved (UNEP/IG.23/11 Annex V) 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 Intergovernmental Review Meeting of Mediterranean coastal States on the Action Plan (Cannes, 2 - 7 March 1981).
5. The general long-term objective of MED POL - PHASE II was 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 were 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.
6. These objectives were to be achieved through the evaluation of the information on the sources, amounts, levels, trends, pathways and effects of pollutants in the Mediterranean to be collected, analysed and reported on a systematic basis using commonly agreed methods, and taking into account data available from other sources.
7. The programme laid down the basic principles to be used in the development of MED POL - PHASE II, and specifically stated that the work would be carried out by the "collaborating UNEP MED POL centres" designated by the relevant national authorities after demonstrating their technical competence, in particular, those which actively participated in the pilot phase, and taking into account the need for adequate geographic coverage.
8. The mechanisms to be used related to policy making were:
- Periodic meetings of the 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 designated 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.

9. The results of the work were to be collated, processed and disseminated by the Co-ordinating Unit for the Mediterranean Action Plan, in co-operation with the relevant specialized organizations of the United Nations system and should be comparable, to the largest extent feasible, with those obtained during the pilot phase, and those generated through UNEP-sponsored Regional Seas Programmes in other regions.
10. The overall co-ordination of the programme was vested in the Co-ordinating Unit for the Mediterranean Action Plan, acting on behalf of UNEP (the secretariat of the Barcelona Convention), while the day-to-day co-ordination of the work carried out by collaborating centres would be achieved through the relevant international organizations, under the responsibility of the Co-ordinating Unit for the Mediterranean Action Plan.
11. In the early stages of the implementation of MED POL - PHASE II the First Meeting of the Working Group for Scientific and Technical Co-operation (Athens, 28 September - 2 October 1981) was convened and, among other things, reviewed the basic criteria for the implementation of the national monitoring programmes.
12. This document contains some basic information on the progress achieved in the implementation of the monitoring activities since the First Meeting of the Working Group for Scientific and Technical Co-operation, and it is now brought to the attention of the members of the Group for their comments and advice.

PROGRESS REPORT ON MONITORING ACTIVITIES

Definition of National Monitoring Programmes

13. As a result of the First Meeting of the Working Group for Scientific and Technical Co-operation (UNEP/WG.62/7) a document containing a set of forms and guidelines was prepared (UNEP/WG.62/3/Rev.1) to provide guidance to the national authorities responsible for implementing the monitoring activities in each of the coastal States, parties to the Barcelons Convention and related protocols, in defining their respective National Monitoring Programme.
14. The document was distributed to all National Co-ordinators for MED POL with the request to submit to UNEP within the shortest possible delay the national programmes which would then be attached as the Technical Annex to the corresponding Agreement to be established between the respective Government and UNEP.
15. The process of definition of the programmes was expected to take some time since the complexity of the mechanisms to be set at the national level, including the funding of the collaborating centres by the national authorities, was such that only a small number of countries having national networks would be in a position to fulfil most of the requirements of the new programme.
16. Assistance from the Co-ordinating Unit and the relevant Co-operating Agencies was given to the National Co-ordinators for MED POL in order to better identify the gaps in infrastructure and organization at the national level. Staff from the Unit visited practically all the countries around the Mediterranean and exchanged a large amount of correspondence, both with National Co-ordinators and individual scientists.
17. As a result, some countries have already submitted national monitoring programmes and others are in the process of preparing them. A few other countries have encountered important difficulties in formulating their programmes, often due to the late designation of the National Co-ordinator for MED POL, or to the lack of funds (see Table I).

Table I

Status of National Monitoring Programme

C O U N T R Y	D A T E	S T A T U S
ALBANIA		
ALGERIA		
CYPRUS		
EEC		
EGYPT		
FRANCE		
GREECE		
ISRAEL		
ITALY		
LEBANON		
LIBYA		
MALTA		
MONACO		
MOROCCO		
SPAIN		
SYRIA		
TUNISIA		
TURKEY		
YUGOSLAVIA		

PR = Programme received

PF = Programme finalized but Agreement not signed

AS = Agreement signed

Development of Reference Methods

18. The MED POL - PHASE II programme establishes that "sampling and analytical techniques used in the monitoring will be based on mandatory reference methods", (UNEP/IG.23/11 Annex V, paragraph 30).
19. As a consequence, the Co-ordinating Unit for the Mediterranean Action Plan was held responsible for providing collaborating MED POL centres with methods for sampling and analysis of all the parameters and matrices described in the programme (UNEP/WG.62/3/Rev.1).
20. In order to fulfil the principle that "data generated in MED POL - PHASE II will be comparable, to the largest extent feasible, with those obtained during the pilot phase, and those generated through UNEP-sponsored Regional Seas Programmes in other regions", the Regional Seas Programme Activity Centre of UNEP, in close co-operation with the Co-ordinating Unit and the relevant Co-operating Agencies, carried out the task of developing such methods as were necessary.
21. Some of the methods and guidelines developed have been submitted for testing to a number of experts, mostly Mediterranean, competent in the field relevant to each of the methods. In the description of the methods and guidelines, the style used by the International Standard Organization (ISO) was followed as closely as possible.
22. The methods and guidelines, as published in UNEP's series of Reference Methods for Marine Pollution Studies, are not to be considered as final. They are planned to be periodically revised, taking into account the development of our understanding of the problems, of analytical instrumentation and the actual need of the users.
23. Table II shows the methods so far developed and their status.

Table II

Methods and Guidelines Developed and Status

NO.	T I T L E	S T A T U S
1	Guidelines for monitoring the quality of coastal recreational waters. UNEP/WHO.	
2	Determination of total coliforms in sea-water by the membrane filtration culture method. UNEP/WHO.	
3	Determination of faecal coliforms in sea-water by the membrane filtration culture method. UNEP/WHO.	
4	Determination of faecal streptococci in sea-water by the membrane filtration culture method. UNEP/WHO.	
5	Determination of faecal coliforms in bivalves by multiple test tube method. UNEP/WHO.	
6	Guidelines for monitoring chemical contaminants in marine organisms. UNEP/FAO/IAEA.	
7	Sampling of selected marine organisms and sample preparation for trace metal analysis. UNEP/FAO/IAEA	
8	Determination of total mercury in selected marine organisms by flameless atomic absorption spectrophotometry. UNEP/FAO/IAEA.	
9	Determination of total arsenic in selected marine organisms by flameless atomic adsorption spectrophotometry. UNEP/FAO/IAEA.	
10	Determination of total selenium in selected marine organisms by flameless atomic absorption spectrophotometry. UNEP/FAO/IAEA.	
11	Determination of total cadmium, zinc, lead and copper in selected marine organisms by flameless atomic absorption spectrophotometry. UNEP/FAO/IAEA.	

Table II/Cont'd

Methods and Guidelines Developed and Status

NO.	T I T L E	S T A T U S
12	Sampling of selected marine organisms and sample preparation for the analysis of chlorinated hydrocarbons. UNEP/FAO/IAEA.	
13	Determination of methylmercury in selected marine organisms. UNEP/FAO/IAEA.	
14	Determination of DDTs and PCBs in selected marine organisms. UNEP/FAO/IAEA.	
15	Monitoring of tar on marine beaches. UNEP/IOC/IAEA.	
16	Determination of DDTs, PCBs, PCCs and other hydrocarbons in sea-water by gas chromatography. UNEP/IAEA	
17	Determination of DDTs, PCBs, PCCs and other hydrocarbons in marine sediments by gas chromatography. UNEP/IAEA	
18	Determination of total dissolved cadmium in sea-water by differential pulse anodic stripping voltammetry. UNEP/IOC	
19	Determination of mercury in estuarine waters and suspended sediments by cold vapour atomic absorption spectrophotometry. UNEP/IOC	
20	Determination of petroleum hydrocarbons in sediments. UNEP/IOC	

D = Draft

P = Proposed

T = Tested

A = Adopted

2.7 Cost of activitiesTable 1

Budgetary provisions for MED POL monitoring activities during 1982 as approved by the Extraordinary Meeting of the Contracting Parties Geneva, 29 March - 1 April 1982

	<u>Approved</u> in US \$	<u>Committed</u> in US \$
Support to Co-operating Agencies, meetings and travel to assist in the co-ordination of the programme	168,800	
Meeting of Working Group for Scientific and Technical Co-operation	30,000	
Development of methods for monitoring transport of pollutants through the atmosphere	30,000	
Maintenance service for scientific equipment ^{1/}	88,000	
Intercalibration and quality control of data ^{1/}	53,000	
Assistance to National Institutions through National Co-ordinators	216,000	
VI ICSEM/IOC/UNEP Workshop on Pollution of the Mediterranean ^{1/ 2/}	38,500	
Preparation and testing of sampling and analytical techniques to be used in the monitoring activities	125,500	
TOTAL	750,000	=====

1/ Activity considered as part of the assistance component

2/ Assistance to participants and ICSEM/IOC/UNEP Advisory Panel

3.7 Cost of activities

Budgetary provisions for MED POL monitoring activities planned for 1983 as approved by the Extraordinary Meeting of the Contracting Parties, Geneva, 29 March - 1 April 1982

	<u>Approved</u> in US \$	<u>Committed</u> in US \$
Support to Co-operating Agencies, meetings and travel to assist in the co-ordination of the programme	230,000	
Meeting of Working Group for Scientific and Technical Co-operation	35,000	
Development of methods for monitoring transport of pollutants through the atmosphere	30,000	
Maintenance service for scientific equipment ^{1/}	95,000	
Intercalibration and quality control of data ^{1/}	60,000	
Assistance to National Institutions through National Co-ordinators	425,000	
VI ICSEM/IOC/UNEP Workshop on Pollution of the Mediterranean ^{1/} _{2/}	25,000	
TOTAL	900,000	

1/ Activity considered as part of the assistance component

2/ Editing and Printing of Proceedings



United Nations Environment Programme



Distr.
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UNEP/WG.
8 October 1982

Original:
ENGLISH

Second Meeting of the Working Group for
Scientific and Technical Co-operation

D R A F T

Athens, 31 January - 4 February 1983



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

Report on the Implementation of the Research Activities in 1982 and
Planned Activities for 1983

In Co-operation with:



FAO



UNESCO



WHO



WMO



IOC



IAEA

C O N T E N T S

1. BACKGROUND
2. PROGRESS REPORT
3. PROJECTS APPROVED
(See attached form and table)
4. PROJECTS PENDING APPROVAL
(See attached)
5. PLANNED ACTIVITIES FOR 1983

SUMMARY OF INDIVIDUAL RESEARCH PROPOSALS ^{1/}
 (MID POL PHASE - II)

1. Title of project :	
2. Name of Principal Investigator:	3. Activity ^{1/}
4. Name and full address of Institute and Department:	
Tel. and Telex No:	Name of Director:
5. Workplan for the first year:	
6. Total cost of project \$..... Duration of project	7. First-year activities (19.....) a) Cost of project \$..... b) Cost to MTF \$.....

^{1/} Refer to document UNEP/WG.62/4 Rev. 1

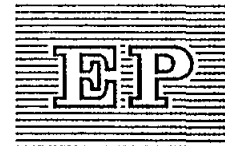
5. PLANNED ACTIVITIES

- ACTIVITY "A" - Development and testing of sampling and analytical techniques for monitoring of marine pollutants
- ACTIVITY "B" - Development of reporting formats required according to the Dumping, Emergency and Land-Based Sources Protocols.
- ACTIVITY "C" - Formulation of the scientific rationale for Mediterranean Environmental Quality Criteria.
- ACTIVITY "D" - Epidemiological studies related to Environmental Quality Criteria.
- ACTIVITY "E" - Guidelines and criteria for the application of the Land-Based Sources Protocol.
- ACTIVITY "F" - Research on oceanographic processes
- ACTIVITY "G" - Research on the toxicity, persistence, bioaccumulation, carcinogenicity and mutagenicity.
- ACTIVITY "H" - Eutrophication and concomittant plankton blooms
- ACTIVITY "I" - Pollution-induced ecosystems modifications
- ACTIVITY "J" - Effects of thermal discharges on coastal organisms and ecosystems
- ACTIVITY "K" - Biogeochemical cycles of specific pollutants
- ACTIVITY "L" - Pollutant-transfer processes

Table 1
(By country and Institution)

TITLE OF PROJECT	COST TO M.T.F.	CONTRIBUTIONS FROM OTHER SOURCES	TOTAL COST OF PROJECT





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

Assessment of the Present State of Pollution By
Mercury in the Mediterranean Sea and Proposed Control Measures

In Co-operation with:



FAO



WHO

C O N T E N T S

1. BACKGROUND
 2. ASSESSMENT OF MERCURY IN THE MEDITERRANEAN SEA
 - 2.1 Introduction
 - 2.2 Sources and inputs of mercury in the Mediterranean
 - 2.3 Fate of mercury in the Mediterranean
 - 2.4 Levels of mercury in:
 - sea-water (dissolved and in particulate matter)
 - sediments
 - organisms
 - 2.5 Conclusions
 3. MEASURES TO PREVENT, ABATE AND COMBAT POLLUTION BY MERCURY IN THE MEDITERRANEAN SEA AREA
 - 3.1 Existing national provisions and international arrangements and agreements relevant to the Mediterranean Sea
 - 3.2 Environmental quality criteria for mercury in the Mediterranean Sea
 - 3.3 Proposed measures to be adopted by the Contracting Parties at their Third Meeting.
- Annex I: Summary of MED POL data from monitoring of mercury levels in organisms
- Annex II: Summary of MED POL results of research on the effects of mercury in organisms



United Nations
Environment
Programme

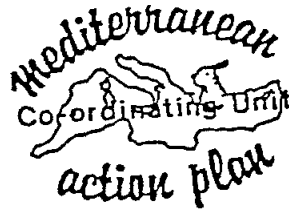


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Athens, 31 January - 4 February 1983



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

Assessment of the Present State of Microbial
Pollution in the Mediterranean Sea and Proposed Control Measures

In Co-operation with:



WHO

C O N T E N T S

1. BACKGROUND
 2. ASSESSMENT OF MICROBIAL POLLUTION IN THE MEDITERRANEAN
 - 2.1 Introduction
 - 2.2 Sources and inputs of domestic sewage into the Mediterranean
 - 2.3 Fate of microbial pollution in the Mediterranean
 - 2.4 Microbiological quality of recreational waters
 - 2.5 Microbiological quality of shellfish-growing waters
 - 2.6 Conclusions
 3. MEASURES TO PREVENT, ABATE AND COMBAT MICROBIAL POLLUTION IN THE MEDITERRANEAN SEA AREA
 - 3.1 Existing national provisions and international arrangements and agreements relevant to the Mediterranean Sea
 - 3.2 Environmental quality criteria for recreational waters in the Mediterranean Sea
 - 3.3 Environmental quality criteria for shellfish growing waters in the Mediterranean Sea
 - 3.4 Proposed measures to be adopted by the Contracting Parties at their Third Meeting
- Annex I: Summary of MED POL VII data