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MEDITERRANEAN ACTION PLAN

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

Athens, 3-7 December 1990

REPORT

OF THE XXIV MEETING OF THE INTER-AGENCY
ADVISORY COMMITTEE (IAAC) FOR MED POL

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1. The XXIV IAAC Meeting was held in Athens, 3-7 December 1990. The list of participants appears as Annex I.

Agenda Item 1

2. Mr L. Jeftic opened the Meeting and welcomed the participants. As for previous IAAC Meetings, he acted as Chairman and Mr F.S. Civili as Secretary.

Agenda Item 2

3. The Agenda proposed was unanimously adopted (Annex II).

Agenda Item 3

4. The activities implemented in 1990 and those planned for 1991 were reviewed by the Meeting according to Agenda Items 3.1. to 3.11.

5. In reviewing the progress of the monitoring component of MED POL, concern was expressed that a number of laboratories participating in the monitoring component of MED POL were often looking at this as individual participation in an international exercise rather than as part of a national monitoring programme. Also, it was pointed out that any efforts should be made to present to Contracting Parties the results of the monitoring activities in the form of statistical analysis of the data received and maps. Mr Jeftic informed the Meeting of the launching of monitoring activities in Albania which had recently become a Contracting Party to the Barcelona Convention.

6. A table was circulated which summarizes the monitoring activities in all countries (Annex III). The Meeting agreed that the table, which would be presented at the 1991 Committee Meeting, should report the indication of how much, in percentage, the pollution data reported corresponded to the programme proposed in the monitoring agreement.

7. The Meeting also agreed that whenever pollution data and country reports were sent to the relevant Agencies, comments should be forwarded to the MED Unit more promptly.

8. It was noted that the four pilot projects on solid litter, organotin, organophosphorus and carcinogenic and mutagenic substances had been completed. A new pilot project on selected elements of item 1 of Annex II of the LBS Protocol would be launched in 1991 as well as the pilot projects on detergents and herbicides. The pilot project on fungicides would start in 1992.

9. The IAEA representative informed the Meeting that the Data Quality Assurance Programme continued in 1990 with good results in Morocco, Tunisia, Egypt, Malta, Syria and Yugoslavia, while activities were stopped in Algeria because of the unavailability of the laboratory participating in the programme. A sediment sample was also reported as ready for distribution for a new intercalibration exercise. The organotin intercalibration exercise had been concluded with scarce results as far as quantity and quality of response. Updated information were provided by the WHO representative on the running of the annual intercalibration exercises and training courses on microbial pollution.

10. It was unanimously agreed that the results of the intercalibration exercises should be used more promptly for the utilisation of the good data only and for the planning of possible interventions in the weaker laboratories through training.

11. A list describing the present status of preparation of data reporting forms was prepared and updated by the Meeting by including plans for future work (Annex IV).

12. The Meeting discussed the preparation of Reference Methods relevant to MED POL parameters and matrices. A new updated list which includes plans for future work appears as Annex V.

13. Mr A. AkseI informed the Meeting of the major developments of the data processing activities related to MED POL. He referred to the problems related to the computerization of MED POL data and the establishment of a new structure (Annex VI). He also informed that a manual for the computerized presentation of pollution data would be distributed in January 1991 to selected countries and that a new format of monitoring agreements would be prepared by February 1991 to allow proper data entry already as from 1991.

14. The problem related to the lack of a proper statistical analysis and the graphical presentation of the pollution data transmitted was considered very important and, as a result, the following actions were agreed upon:

Heavy metals and halogenated hydrocarbons:

- a) all available data related to heavy metals and halogenated hydrocarbons should be entered by the end of January 1991 (A. AkseI);
- b) all the necessary software should be purchased by January 1991 (A. AkseI);
- c) the computerized statistical analysis of the data should be fully operational by the end of March 1991 (A. AkseI, G.P. Gabrielides);
- d) a small consultation meeting of selected experts should be organized by March 1991, as soon as the software is acquired (G.P. Gabrielides, A. AkseI);
- e) analysis and presentation of data on maps should be made by May 1991 (A. AkseI, G.P. Gabrielides).

Microbial pollution:

- a) Italy, France, Monaco and Spain (National Co-ordinators and experts) should be provided as soon as possible with the software AQUAMARE and asked to process the microbial data accordingly (L.J. Saliba, F.S. Civili, A. Aksel);
- b) data from Yugoslavia, Israel, Malta and Cyprus (and from any other country who submitted good quality data) should be processed by using the same software by February 1991 (A. Aksel);
- c) analysis and presentation of data on maps should be made by April 1991, if not at the Unit in Athens, in France or in Italy, as appropriate (A. Aksel, L.J. Saliba, F.S. Civili).

15. All meetings held in 1990 and being organized in 1991 were reviewed. A list covering title, venue, date, number of participants and cost is attached as Annex VII.

16. The complete list of activities related to the implementation of the LBS Protocol (1985-1995) was reviewed and revised accordingly (Annex VIII).

17. The implementation of the MED POL research projects was discussed. Two summary lists were distributed covering the ongoing research project as at December 1990 and the newly submitted research projects for 1991 (Annex IX). It was also agreed that the distribution of funds among Agencies should be done according to the letters of understanding recently signed between UNEP and the relevant Agencies.

18. All the MAP Technical Report Series volumes issued during 1990 and planned for preparation in 1991 were discussed and their full list appears in Annex X. The Meeting agreed on the need of presenting on these Series good quality final reports of research projects as they become available.

19. Mr L. Jetic informed the Meeting of two important meetings which had been held in November 1990 on the subject of climatic changes, i.e. The Second World Climate Conference held in Geneva and the Meeting of Task Team Co-ordinators held in Singapore. He also informed the Meeting that a climatic change component was being inserted in the workplan of the implementation of coastal zone management projects, and that proposals for the second generation of site specific case studies (Izmir Bay, Syrian Coast, Island of Rhodes, Kastela Bay, Island of Malta, Cres/Losinj Islands) had been prepared and submitted to OCA/PAC for supplementary financing. The representative of WHO informed the Meeting that work was being carried out on the health aspects of climatic changes, and it was agreed that its aspect could be included in the relevant Mediterranean studies.

Agenda Item 4

20. In dealing with Agenda Items 4.1 to 4.13, in parallel to the activities proposed for 1992-1993, the respective budget was also agreed upon (see para 27.)

21. In discussing the monitoring activities for the new biennium, it was agreed that, while taking into account paragraphs 5 and 14 above, the monitoring activities, including Data Quality Assurance programme and intercalibration, should continue as in the past. However, preparations for the presentation of a newly structured monitoring programme should continue in order to have a new proposal by the end of 1992 (see Agenda Item 5) to allow formal adoption by Contracting Parties in 1993.

22. The Meeting felt that the discussion and the conclusions on Agenda Item 3 also covered the subjects of Agenda Items 4.4, 4.5, 4.6, 4.8, 4.10 and 4.11 and no further discussion was needed.

23. The Meeting agreed that three pilot projects should be implemented for the period 1992-1993, i.e. on monitoring of fungicides, on monitoring of Sb, Sn, Ba, Be, B, U, Tl and Te (final selection would be done in February 1991) and on monitoring of cyanides, fluorides and phenols in effluents.

24. The Meeting agreed on a number of meetings to be held in the biennium and a tentative list appears as Annex XI.

25. In discussing the research component, it was agreed that a new approach could be proposed to the 1991 Scientific and Technical Committee Meeting which would be implemented in the biennium 1992-1993. It was therefore suggested that fifty per cent of the budget earmarked for the research could be used for one priority research area (which could be eutrophication and plankton blooms for 1992-1993). All the research proposals sent through National Co-ordinators on this subject, in addition to proposals solicited by the Med Unit and approved by the National Co-ordinators, could form the basis for a regional programme, to be defined in detail by the Unit and the Agencies' staff involved and by a number of selected scientists and implemented by institutes selected from those who had submitted proposals. This system could allow for a higher financial contribution for participating institutes and could lead to multi-institutional- joint projects in the region which would enhance the geographical coverage of the research component of MED POL.

26. The preparation of the relevant documents to be presented to the Joint Committee Meeting was discussed. It was agreed that all assessment documents to be presented to the Meeting, specified in Item 5.2 of the draft Agenda for the Meeting (see Annex XII), the document related to the finalization of Annex IV to the LBS Protocol, the progress report on the 1990-1991 activities and the proposed activities for 1992-1993 should be sent to the unit not later than the end of January 1991 to allow the translation into French, reproduction and dispatch to be made in time. A short paper guiding the preparation of the progress report was distributed at the Meeting (Annex XIII).

27. Mr L. Jetic informed the Meeting that the budget to be proposed for the biennium 1992-1993 should be prepared in all components with zero growth. On this basis the MED POL budget was prepared and it appears as Annex XIV, which contains two parts, (a) budget at the level of that of 1990-1991 and (b) budget with 7 per cent increase.

Agenda Item 5

28. The Meeting agreed that the new MED POL programme should be presented for approval at the Contracting Parties Meeting in 1993. While the indications given by the recent ICSEM Workshop were being used, a small consultation should be organized by the end of 1991 at which the preparation of the new programme should be discussed. The consultation should also serve to identify a consultant who could prepare a preliminary draft of the new programme during 1992.

Agenda Item 6

29. The Meeting took note of the fact that the formal closure of project 5102-81-01, terminated in December 1989, could not be operated since not all terminal reports had been submitted. It was then considered necessary to establish the end of January 1991 as the definite deadline for the submission of terminal reports from the Agencies who had not yet sent the closing documents. It was also stressed that six-monthly progress reports for project 89-02 (Umbrella Project) should be sent regularly, the late submission of which was impeding the submission of the complete report. For the period June 1990-December 1990, the progress report should be submitted not later than the end of January 1991.

Agenda Item 7

30. It was agreed that the organization of next IAAC Meetings before the end of each calendar year could be repeated for a more efficient planning of the activities.

Agenda Item 8

31. The report of the XXIV IAAC was unanimously adopted on 6 December 1990.

Agenda Item 9

32. Mr L. Jeftic closed the Meeting at 13,30 hours of 6 December 1990.

ANNEX I

LIST OF PARTICIPANTS

FOOD AND AGRICULTURE
ORGANIZATION OF THE
UNITED NATIONS

Mr Gabriel P. Gabrielides
Senior Fishery Officer (Marine Pollution)
FAO Project Office
Co-ordinating Unit for the Mediterranean
Action Plan
Leoforos Vassileos Konstantinou 48
P.O. Box 18019
11610 Athens
Greece

Tel: 1 7236586, 1 7244536
Tlx: 222611, 222564 MEDU GR
Cable: UNITERRA ATHENS
Fax: 1 7291160

WORLD HEALTH
ORGANIZATION

Mr Louis J. Saliba
Senior Scientist
WHO/EURO Project Office
Co-ordinating Unit for the Mediterranean
Action Plan
Leoforos Vassileos Konstantinou 48
P.O. Box 18019
11610 Athens
Greece

Tel: 1 7236586, 1 7244536
Tlx: 222611, 222564 MEDU GR
Cable: UNITERRA ATHENS
Fax: 1 7291160

WORLD METEOROLOGICAL
ORGANIZATION

Mr Alexander Soudine
Senior Scientific Officer
World Meteorological Organization
41 avenue Giuseppe Motta
P.O. Box 5
1211 Geneva 20
Switzerland

Tel: 41 22 7308420
Tlx: 23260 OMM CH
Cable: METEOMOND GENEVA
Fax: 41 22 7340954, 41 22 7342326

INTERNATIONAL ATOMIC
ENERGY AGENCY

Mr Laurence D. Mee
Head
Marine Environmental Studies Laboratory
International Laboratory of Marine Radioactivity
International Atomic Energy Agency
19 avenue des Castellans
MC-98000 Monaco
Principauté de Monaco

Tel: 33 93 504488
Tlx: 479378 ILMR MC
Fax: 33 93 257346

INTERGOVERNMENTAL
OCEANOGRAPHIC COMMISSION

Mr Alexander Boussoulengas
IOC Consultant
Intergovernmental Oceanographic Commission
UNESCO
7 Place de Fontenoy
75700 Paris
France

Tel: 33 1 45683992, 33 1 45681000
Tlx: 204461 PARIS
Cable: UNESCO PARIS
Fax: 33 1 40569316

UNITED NATIONS
ENVIRONMENT PROGRAMME

Mr Adnan Aksef
Computer Operations Officer

Mr F. Saverio Civili
Marine Scientist

Mr Ljubomir Jeftic
Senior Marine Scientist

Co-ordinating Unit for the Mediterranean
Action Plan
Leoforos Vassileos Konstantinou 48
P.O. Box 18019
11610 Athens
Greece

Tel: 1 7236586, 1 7244536
Tlx: 222611, 222564 MEDU GR
Cable: UNITERRA ATHENS
Fax: 1 7291160
E. Mail: UNICEF NETWORK (ITT/DIALCOM)
UNET, UNEP.ATHENS (USER ID: UNC391)

ANNEX II

AGENDA

1. Opening of the meeting
2. Adoption of the Agenda
3. Review of 1990-1991 activities
 - 3.1. Monitoring
 - 3.2. Pilot monitoring exercises
 - 3.3. Data quality assurance, intercalibration and maintenance
 - 3.4. Reporting forms
 - 3.5. Reference methods
 - 3.6. Data processing
 - 3.7. Review of meetings
 - 3.8. Review of LBS implementation workplan including assessment documents
 - 3.9. Research projects
 - 3.10. MAP Technical Reports Series
 - 3.11. Climatic changes
4. Proposals for 1992-1993 activities including budget
 - 4.1. Monitoring
 - 4.2. Pilot monitoring exercises
 - 4.3. Data quality assurance, intercalibration and maintenance
 - 4.4. Reporting forms
 - 4.5. Reference methods
 - 4.6. Data processing
 - 4.7. Meetings
 - 4.8. LBS implementation workplan including assessment documents
 - 4.9. Research projects
 - 4.10. MAP Technical Reports Series
 - 4.11. Climatic changes
 - 4.12. Preparation of 1991 Scientific and Technical Committee Meeting
 - 4.13. Draft budget for the biennium 1992-1993
5. Preparation of the new phase of MED POL programme
6. Closing of project 5102-81-01 and implementation of 89-02 (umbrella)
7. Other business
8. Adoption of the report
9. Closure of the meeting

ANNEX III

**STATUS OF MED POL MONITORING PROGRAMMES
AS OF DECEMBER 1990**

Status of MEDPOL Monitoring Programmes as of December 1990

COUNTRY	YEAR	PROGRAMME COVERAGE										DATA SUBMISSION														
		SOURCES					COASTAL/REFERENCE					SOURCES					COASTAL/REFERENCE									
		MC	HH	HM	O	A	MC	HH	HM	O	A	MC	HH	HM	O	A	MC	HH	HM	O	A					
CYPRUS	1989	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
	1990	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
EGYPT	1986	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	1987																									
	1988																									
	1989	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
FRANCE	1990	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	1981																									
	1982																									
	1983																									
	1984																									
1985																										

The year in which the country submitted its first programme is in bold.

Abbreviations/Key:

- A = Airborne
- MC = Micro-Organisms, HH = Halogenated Hydrocarbons, HM = Heavy Metals, O = Other
- X = Programme proposed / Data received
- # = Limited data received

- *1. River pollution data submitted for 1981-1983.
- 2. Bathing water quality report submitted for 1986.

Status of MEDPOL Monitoring Programmes as of December 1990

COUNTRY	YEAR	PROGRAMME COVERAGE							DATA SUBMISSION										
		SOURCES							SOURCES										
		MC	HH	HM	O	MC	HH	HM	O	MC	HH	HM	HM	O					
FRANCE	1986																		
	1987																		
	1988																		
	1989																		
	1990																		
GREECE	1985																		
	1986																		
	1987																		
	1988																		
ISRAEL	1982																		

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- *1 River pollution data submitted for 1981-1983.
- 2. Bathing water quality report submitted for 1988.

Status of MEDPOL Monitoring Programmes as of December 1990

COUNTRY	YEAR	PROGRAMME COVERAGE								DATA SUBMISSION							
		SOURCES				COASTAL/REFERENCE				SOURCES				COASTAL/REFERENCE			
		MC	HH	HM	O	MC	HH	HM	O	MC	HH	HM	O	MC	HH	HM	O
ISRAEL	1983	-	-	-	-	X	-	X	X	-	-	-	-	X	-	X	-
	1984	-	-	-	-	X	-	X	X	-	-	-	-	X	-	X	-
	1985	-	-	-	-	X	-	X	X	-	-	-	-	X	-	X	-
	1986	-	-	-	-	X	-	X	X	-	-	-	-	X	-	X	-
	1987	-	-	-	-	X	-	X	X	-	-	-	-	X	-	X	-
	1988	-	-	-	-	X	-	X	X	-	-	-	-	X	-	X	-
	1989	-	-	-	-	X	-	X	X	-	-	-	-	X	-	X	-
	1990	-	-	-	-	X	-	X	X	-	-	-	-	X	-	X	-
	1987	-	-	-	-	X	-	X	X	-	-	-	-	X	-	X	-
1988	-	-	-	-	X	-	X	X	-	-	-	-	X	-	X	-	
1989	-	-	-	-	X	-	X	X	-	-	-	-	X	-	X	-	
1990	-	-	-	-	X	-	X	X	-	-	-	-	X	-	X	-	
ITALY																	

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COUNTRY	YEAR	PROGRAMME COVERAGE						DATA SUBMISSION										
		SOURCES			COASTAL/REFERENCE			SOURCES			COASTAL/REFERENCE							
		MC	HH	HM	O	MC	HH	HM	O	MC	HH	HM	O					
LEBANON	1983	-	-	-	-	X	X	X	-	-	-	-	-	-	-	-	-	-
	1984	-	-	-	-	X	X	X	-	-	-	-	-	X	X	X	-	-
	1985	-	-	-	-	X	X	X	-	-	-	-	-	X	X	X	-	-
	1986	-	-	-	-	X	X	X	-	-	-	-	-	X	X	X	-	-
	1987	-	-	-	-	X	X	X	-	-	-	-	-	X	X	X	-	-
	1988	-	-	-	-	X	X	X	-	-	-	-	-	X	X	X	-	-
	1989	-	-	-	-	X	X	X	-	-	-	-	-	X	X	X	-	-
	1990	-	-	-	-	X	X	X	-	-	-	-	-	X	X	X	-	-
	LIBYA	1986	X	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
	1987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1988	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1989	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1990	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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		SOURCES				COASTAL/REFERENCE				SOURCES				COASTAL/REFERENCE			
		MC	HH	HM	O	MC	HH	HM	O	MC	HH	HM	O	MC	HH	HM	O
MALTA	1982																
	1983																
	1984	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	1985	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	1986	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1988	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1989	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1990	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MOROCCO	1983																
	1984																
	1985																

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		SOURCES					COASTAL/REFERENCE					SOURCES			COASTAL/REFERENCE						
		MC	HH	HM	O		MC	HH	HM	O		MC	HH	HM	O	MC	HH	HM	O		
MOROCCO	1986	X	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	A	
	1987	X	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	A	
	1988	X	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	A	
	1989																				
	1990																				
SPAIN	1981																				
	1982																				
	1983																				
	1984																				
	1985																				
	1986																				
	1987																				

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COUNTRY	YEAR	PROGRAMME COVERAGE							DATA SUBMISSION															
		SOURCES							SOURCES															
		MC	HH	HM	O	MC	HH	HM	O	MC	HH	HM	O	MC	HH	HM	O							
SPAIN	1988																		X	X				
	1989																		X	X				
	1990																							
SYRIA	1986	X	-	X	X	X													X	#	#			
	1987	X	-	X	X	X													-	-	-			
	1988	X	-	X	X	X													-	-	#			
	1989	-	-	-	-	X	X	X											-	-	X			
	1990	-	-	-	-	X	X	X											-	-	-			
TUNISIA	1981																							
	1982																							
	1983																							
	1984																							

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COUNTRY	YEAR	PROGRAMME COVERAGE								DATA SUBMISSION							
		SOURCES				COASTAL/REFERENCE				SOURCES				COASTAL/REFERENCE			
		MC	HH	HM	O	MC	HH	HM	O	MC	HH	HM	O	MC	HH	HM	O
TUNISIA	1985																
	1986																
	1987																
	1988																
	1989	-		X		X											
	1990	X		X		X											
TURKEY	1983																
	1984																
	1985																
	1986																
	1987																
	1988																

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		SOURCES				COASTAL/REFERENCE				SOURCES				COASTAL/REFERENCE					
		MC	HH	HM	O	MC	HH	HM	O	MC	HH	HM	O	MC	HH	HM	O		
TURKEY	1990																		
YUGOSLAVIA	1983	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	1984	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	1985	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	1986	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	1987	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	1988	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	1989	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	1990																		

The year in which the country submitted its first programme is in bold.

Abbreviations/Key

- A = Airborne
- MC = Micro-Organisms, HH = Halogenated Hydrocarbons, HM = Heavy Metals, O = Other
- X = Programme proposed / Data received
- * = Limited data received

ANNEX IV

STATUS OF PREPARATION OF DATA REPORTING FORMS

Category	Matrix	Responsible	Ready by:
Heavy metals	Effluents	WHO	May 1991
Chlorinated hydrocarbons	Effluents	WHO	May 1991
Nutrients	Effluents	WHO	May 1991
Heavy metals	Sediments	IAEA	Existing
Chlorinated hydrocarbons	Sediments	IAEA	Existing
Heavy metals	Sea-water	IOC/ICES	Existing
Microbial contaminants	Sea-water	WHO	Existing
Petroleum hydrocarbons	Sediments	IOC/IAEA	April 1991
Petroleum hydrocarbons	Sea-water	IOC	Existing
Pelagic tar	Sea-water	IOC	Existing
Oil slicks	Sea-water	IOC	Existing
Tar on beaches	-	IOC	Existing
Petroleum hydrocarbons	Organisms	IOC/IAEA	Dec. 1991
Standard physical and chemical parameters	-	IOC/IAEA	Dec. 1991
Airborne pollution	-	WMO	Existing
Litter	Beach	IOC/FAO	Existing

ANNEX V

**PARAMETERS FOR THE MED POL MONITORING PROGRAMME
AND STATUS OF RELATED REFERENCE METHODS**

(as approved at IAAC XXIII, January 1990)

<u>PARAMETERS</u>	<u>Ref. Method</u>	<u>Resp. Org.</u>	<u>Target Date*</u>
A. EFFLUENTS			
<u>CATEGORY I</u>			
Total mercury	NA	WHO/IAEA	May 91
Total cadmium	NA	WHO/IAEA	May 91
Total suspended solids	NA	WHO/IAEA	May 91
Total phosphorus	NA	IAEA	Dec. 91
Total nitrogen	NA	IAEA	Dec. 91
Faecal coliforms	3,22	WHO	-
BOD/COD	NA	IAEA	Dec. 91
HMW HH	NA	IAEA	Dec. 91
<u>CATEGORY II</u>			
Petroleum hydrocarbons	NA	IAEA	Dec. 91
Detergents	NA	WHO/IAEA	Dec. 91
Phenols	NA	WHO/IAEA	Dec. 91
Total chromium	NA	WHO/IAEA	Oct. 91
Selected radionuclides	?	IAEA	Dec. 90
B. COASTAL WATERS AND REFERENCE AREA			
<u>CATEGORY I</u>			
Total mercury in organisms	8	FAO/IOC/IAEA	-
Total mercury in sediments	26	IAEA	-
Organic mercury in organisms	13	FAO/IAEA	-
Cadmium in organisms	11	FAO//IOC/IAEA	-
Cadmium in sediments	27	IAEA	-
HMW HH in organisms	14,40	FAO/IOC/IAEA	-
HMW HH in sediments	17	IAEA	-
Faecal coliforms in recreational waters	3,22	WHO	-
Faecal coliforms in bivalves	5	WHO	Jan. 91 (revision)

NA = Not Available

* = Subject to availability of funds

- = Available

<u>PARAMETERS</u>	<u>Ref. Method</u>	<u>Resp. Org.</u>	<u>Target Date*</u>
<u>CATEGORY II</u>			
Basic oceanographic parameters	NA	IOC/IAEA	Dec. 91
Basic meteorological parameters	49	IOC/IAEA	-
Standard chemical methods for marine environmental monitoring	50	IOC/IAEA	-
Floating tar	NA	IOC	Dec. 91
Tar balls on beaches	15	IOC/IAEA	-
Total arsenic in organisms	9	FAO/IAEA	-
Radionuclides in organisms	-	IAEA	Ready (IAEA doc.)
Pathogenic microorganisms ¹⁾	28,29,30	WHO/IAEA	-
Other Pathogenic organisms	n	WHO	Jan. 91
PAH's in organisms	AI	IAEA	Dec. 91

¹⁾ = Salmonella, Pseudomonas, Staphylococcus

C. ESTUARIES

CATEGORY I

Total mercury in organisms	8	FAO/IOC/IAEA	-
Total mercury in sediments	26	IAEA	-
Organic mercury in organisms	13	FAO/IAEA	-
Total cadmium in organisms	11	FAO/IOC/IAEA	-
Total cadmium in sediments	27	IAEA	-
HMW HH in organisms	14,40	FAO/IOC/IAEA	-
HMW HH in sediments	17	IAEA	-
Faecal coliforms in water and bivalves	3,5,22	WHO	-
Total phosphorus in water	NA	IAEA	Dec. 91
Total phosph. in suspended matter	52	IAEA	-
Total nitrogen in water	NA	IAEA	Dec. 91
Total nitrogen in suspended matter	53	IAEA	-
Total suspended matter	41	IAEA/IOC	-
BOD/COD	G	IAEA/IOC	-
Basic oceanographic parameters	NA	IOC/IAEA	Dec. 91
Basic meteorological parameters	49	IOC/IAEA	-
Standard chemical methods for marine environmental monitoring	50	IOC/IAEA	-

CATEGORY II

Radionuclides in organisms	-	IAEA	Ready (IAEA doc.)
PAH's in organisms	AI	IAEA	Jan. 91
Phenols in water	NA	IAEA	Dec. 91

<u>PARAMETERS</u>	<u>Ref. Method</u>	<u>Resp. Org.</u>	<u>Target Date*</u>
D. AIRBORNE			
<u>I. PRECIPITATION</u>			
Ph, Conductivity, Acidity, Alkalinity, SO ₄ ²⁻ -S, NH ₄ [*] , NO ₃ ⁻ -N, Na, K, Mg, Ca, Cl	24 ^(a)	WMO/IAEA	-
Cd, Pb, Cu, Zn	24 ^(a) , 42	WMO/IAEA	-
Radionuclides	?	IAEA	?
Organic compounds	NA	IAEA/WMO	1992
Precipitation amount	24	WMO/IAEA	-
<u>II. Particles</u>			
SO ₄ ²⁻ -S, Na, Al	23 ^(a)	WMO/IAEA	-
Cd, Pb, Cu, Zn	24, 42	WMO/IAEA	-
Radionuclides	?	IAEA	?
Organic compounds	NA	IAEA/WMO	1992
Total SPM	24	IAEA/WMO	-
Air volume	24	WMO/IAEA	-
<u>III. GAS</u>			
O ₃ ^(b)	NA	WMO	1992
<u>IV. METEOROLOGICAL PARAMETERS</u>			
Wind speed, Wind direction, Air temperature, Sea surface temperature, Dew point, Relative humidity, Barometric pressure	49	IOC/WMO/IAEA	-

(a) Sampling only

(b) At impact stations

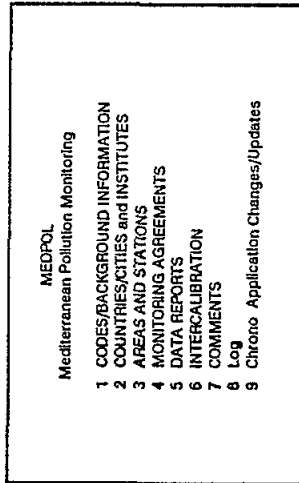
* = Subject to availability of funds

- = Available

ANNEX VI

OVERVIEW OF MED POL DATA BASE

MED POL DATA BASE



- CODES/BACKGROUND INFORMATION**
- 1 Matrices
 - 2 Effluent Sources
 - 3 Station Types
 - 4 Biota Codes
 - 5 Tissues
 - 6 Parameters (grouped)
 - 7 Industrial Activities
 - 8 Institute Classification Codes
 - 9 Monitoring Frequency Codes
 - 10 Monitoring Responsibility Codes
 - 11 Reference Methods

- COUNTRIES/CITIES and INSTITUTES**
- 1 Countries/Cities
 - 2 Institutes
 - 3 Comments on Country/City or Institute Data

- AREAS AND STATIONS**
- 1 Areas/Stations (General Characteristics)
 - 2 General Coastal Stations
 - 3 Estuarine Stations
 - 4 Bathing (Recreational) Stations
 - 5 Reference (Off-shore) Stations
 - 6 Atmos Trans Stations
 - 7 Hot Spot (Affected by Pollution) Stations
 - 8 Sources of Pollution (Effluent) Stations
 - 9 Comments on Areas/Stations Data

- MONITORING AGREEMENTS**
- 1 Institutes & Persons Participating MEDPOL
 - 2 Sampling Information
 - 3 Comments on Monitoring Agreements Data
 - 4 Persons on Institutes/Persons Participating MEDPOL

- DATA REPORTS**
- 1 Institutes and persons Participating MEDPOL
 - 2 AIRBORNE POLL. DATA
 - 3 BEACH DATA
 - 4 BIOTA DATA
 - 5 EFFLUENT DATA
 - 6 FLANKTON DATA
 - 7 SEA WATER DATA
 - 8 SEDIMENT DATA
 - 9 SUSPENDED MATTER DATA
 - 10 Comments on Reported Data
 - 11 Persons Participating MEDPOL

- INTERCALIBRATION**
- 1 Exercises
 - 2 Institutes and persons Participating Exercises
 - 3 Exercise Data

- COMMENTS**
- 1 Comments on Country, City, or Institute Data
 - 2 Comments on Stations and Areas Data
 - 3 Comments on Monitoring Agreements Data
 - 4 Comments on Reported Data
 - 5 Comments on Institutes/Persons Participating MEDPOL

DATA REPORTS

- Airborne Pollution Data**
- 1 Monthly Precipitation
 - 2 Weekly Precipitation
 - 3 Daily Particles
 - 4 Hourly Gas Data
 - 5 Event Data
 - 6 Grab Sample Data
 - 7 Turbidity Data

- Beach Data**
- 1 Litter
 - 2 Micro-Organisms
 - 3 Tar

- Biota Data**
- 1 Halogenated HCs
 - 2 Heavy Metals
 - 3 Micro-Organisms
 - 4 Petroleum HCs
 - 5 Radionuclides
 - 6 Unclassified Data

- Effluent Data**
- 1 BOD/COD
 - 2 Detergents
 - 3 Halogenated HCs
 - 4 Heavy Metals
 - 5 Micro-Organisms
 - 6 Nutrients
 - 7 Petroleum HCs
 - 8 Unclassified Data

- Flankton Data**
- 1 Halogenated HCs
 - 2 Heavy Metals
 - 3 Unclassified Data

- Sea Water Data**
- 1 Floating Tar
 - 2 Halogenated HCs
 - 3 Heavy Metals
 - 4 Litter
 - 5 Micro-Organisms
 - 6 Nutrients
 - 7 Oil Slicks
 - 8 Petroleum HCs
 - 9 Radionuclides
 - 10 Unclassified Data

- Sediment Data**
- 1 Halogenated HCs
 - 2 Heavy Metals
 - 3 Micro-Organisms
 - 4 Nutrients
 - 5 Petroleum HCs
 - 6 Radionuclides
 - 7 Unclassified Data

- Suspended Matter**
- 1 Halogenated HCs
 - 2 Heavy Metals
 - 3 Micro-Organisms
 - 4 Unclassified Data

ANNEX VII

MED POL MEETINGS

1990 - 1991

MED POL MEETINGS HELD IN 1990

Meeting	Place	Date	Responsible Agency	No. of Partic.	Report (issued by)	Project Doc. (budget line)	Amount Alloc.
1. XXIII Meeting of the Inter-Agency Advisory Committee (IAAC) for MED POL	Athens	8-11 January	UNEP	8	UNEP(OCA)/MED.WG.11/12	1601 of 81-01	4,000
2. Consultation meeting on data quality and utilization	Athens	12-13 January	UNEP/FAO	7	UNEP(OCA)/MED.WG.14/1	1214 of 84-04	4,000
3. Consultation meeting for the preparation of the X ICSEM/IOC/UNEP Workshop on Pollution of the Mediterranean	Athens	27-28 February	UNEP	7	UNEP (Note for the file)	3102 of 84-04 (1989)	2,700
4. Consultation meeting on measures related to organophosphorus compounds	Athens	7-8 March	FAO/UNEP	5	FIR/MED POL/ROP/1	3102 of 84-04 (1989)	3,230
5. International conference on marine eutrophication	Bologna	19-23 March	Regione Emilia Romagna	250	RER	3205 of 98-02	4,600
6. International organotin symposium	Monaco	17-20 April	IAEA	70	IAEA	2121(3205) of 89-02	4,000
7. Intercalibration and training workshop on determination of organotin compounds	Monaco	17-21 April	IAEA/FAO	15	IAEA	3204 of 89-02	15,000
8. Joint meeting of the Scientific and Technical Committee and the Socio-Economic Committee	Athens	28 May 1 June	UNEP	50	UNEP(OCA)/MED WG.12/6	3303 of 89-02	37,000
9. Training workshop on the statistical treatment and interpretation of marine community data	Split	26 June 6 July	FAO/IOC/UNEP	30	FIR/MEDPOL SPW/1	1210 of 84-04 3101 of 84-04 3205 of 89-02	8,000 5,000 4,000
10. Intercalibration and training course on determination of microbiological pollution	Malta	3-8 September	WHO	20	ICP.CH 094	3201 of 89-02	20,000

Meeting	Place	Date	Responsible Agency	No. of Partic.	Report (issued by)	Project Doc. (budget line)	Amount Alloc.
11. Consultation meeting on environmental transformation of chemical contaminants	La Spezia	24-28 September	FAO/IAEA	30	FIR/MEDPOL SP/25	2111(3204) of 89-02	15,000
12. Consultation on guidelines for Monitoring land-based pollution sources	Istanbul	27-29 September	WHO	7	ICP/CEH 092	2101 of 81-01 (1987)	5,000
13. XXXIX ICSEM Meeting workshop	Perpignan	15- 20 October	UNEP	30	UNEP	3205 and 2138 of 89-02	25,000
14. Consultation meeting on assessment of pollution by herbicides and fungicides	Monaco	30 October 1 November	IAEA/FAO	8	IAEA	2121(3210) of 89-02	8,000
15. XXIV Meeting of the Inter-Agency Advisory Committee (IAAC) for MED POL	Athens	3-7 December	UNEP	8	UNEP(OCA)/MED.WG.24/1	1601 of 89-02	
16. Training workshop on the analyses of physical oceanographic data	Athens	11-15 December	IOC	16	IOC	2117(3212) of 89-02	15,000

MED POL MEETINGS TO BE HELD IN 1991

Meeting	Place	Date	Responsible Agency	No. of Partic.	Report issued by	Project Document (budget line)	Amount Alloc.
1. Consultation meeting on assessment of pollution by chemical elements and their compounds listed in item I of Annex II of the LBS Protocol	Athens	12-14 February	FAO/IAEA	10	FAO	2111(3210) of 89-02	8,000
2. Workshop on evaluation of airborne pollution measurements	Monaco	8-12 April	WMO	15	WMO	2118(3206) of 89-02	15,000
3. Joint meeting of the Scientific and Technical Committee and the Socio-Economic Committee	Athens	6-11 May	UNEP	50	UNEP	3303 of 89-02	37,000
4. Training workshop on statistical treatment and interpretation of marine community data	Alexandria	3-13 June	FAO/IOC	20	FAO	2110(3202) of 89-02	20,000
5. Workshop on the biological effects of pollutants on marine organisms, communities and ecosystems	Malta	10-14 September	FAO/IOC	15	FAO	2110(3203) of 89-02	15,000
6. Workshop on guidelines and reference method on sample work-up for organic contaminants analysis	Monaco	September	IAEA	15	IAEA	2120(3205) of 89-02	15,000
7. Consultation meeting on guidelines on data quality assurance	Monaco	September	IAEA	15	IAEA	2120(3301) of 89-02	15,000
8. Intercalibration and training course on determination of microbiological pollution	Morocco	September	WHO	20	WHO	2113(3201) of 89-02	20,000
9. Consultation meeting on the evaluation of monitoring	Athens	October	UNEP	8	UNEP	3308 of 89-02	8,000

Meeting	Place	Date	Responsible Agency	No. of partic.	Report issued by	Project Document (budget line)	Amount Alloc.
10. Consultation meeting on health effects of chemical contaminants in Mediterranean seafood	Padova	October	WHO	15	WHO	2113(3207) of 89-02	15,000
11. Consultation meeting on MED POL data processing programme and guidance for future work	Athens	November	UNEP	8	UNEP	3306 of 89-02	8,000
12. Consultation meeting on updated survey on pollution from LBS (MED X bis)	Athens	November	WHO	15	WHO	Financed by WHO	

ANNEX VIII

COMPLETE CALENDAR OF LBS IMPLEMENTATION: 1988-1995

Indicative Workplan and timetable for the formulation of programme
and measures in terms of Articles 4, 5, 6, 7 and 13
of the LBS Protocol from 1988 to 1995

(based on the calendar adopted by the Contracting Parties
in 1985)

Actions	Relevance to the Protocol	Responsible Agencies	Original target date	Present status
1. Assessment of the state of pollution in the Mediterranean Sea by persistent synthetic materials which may float, sink or remain in suspension, and proposed measures	Article 5; Annex I	UNEP/MEDU, IOC, FAO	Dec. 1988	Ready by January 1991. To be presented at STC 1991
2. Assessment of the state of pollution in the Mediterranean Sea by organophosphorus compounds and proposed measures	Article 5; Annex I	UNEP/MEDU, FAO	Dec. 1988	To be resubmitted at STC 1991
3. Assessment of the state of pollution in the Mediterranean Sea by organotin compounds and proposed measures	Article 5; Annex I	UNEP/MEDU, FAO	Dec. 1988	Done. UNEP(OCA) MED WG.1/7
4. Completion and revision of the list of substances included in the groups contained in annexes I and II to the Protocol	Annexes I, & II	UNEP/MEDU, All Agencies	Dec. 1988	Continuously covered in the assessments
5. Evaluation of <u>in situ</u> investigations on selected submarine outfalls to determine their efficiency and cost-effectiveness	Article 7, para 1(a)	UNEP/MEDU, WHO	Dec. 1988	Document prepared as part of the guidelines (see 21.) and being edited. To be presented at STC 1991
6. Survey of the situation currently existing with regard to products, installations and other processes within the region actually or potentially causing significant pollution of the marine environment	Article 7, para 1(d)	UNEP/MEDU, WHO, UNIDO	Dec. 1988	Pending results of MED X bis

Actions	Relevance to the Protocol	Responsible Agencies	Original target date	Present status
7. Preparation of draft Annex IV Protocol concerning pollution from land-based sources transported by the atmosphere	Article 4	UNEP/MEDU, WHO	Dec. 1988	Presented at STC 1990. New draft for STC 1991
8. Assessment of the state of pollution in the Mediterranean Sea by radioactive substances and proposed measures	Article 5; Annex I	UNEP/MEDU, IAEA	Dec. 1989	To be presented at STC 1991
9. Assessment of the state of pollution in the Mediterranean Sea by substances proven carcinogenic, teratogenic or mutagenic and proposed measures	Article 5; Annex I	UNEP/MEDU, WHO	Dec. 1989	Ready by end Jan. 91 for STC 1991
10. Assessment of the present state of pollution in the Mediterranean Sea by pathogenic microorganisms and proposed measures	Article 6; Annex II	UNEP/MEDU, WHO	Dec. 1989	Ready by end Jan. 91 for STC 1991
11. Compilation and evaluation of already existing international experience of use of alternative products and processes. In this regard, experiences on recycling and re-use of solid and liquid wastes will be taken into account	Article 7; para 1(d)	UNEP/MEDU, WHO, UNIDO	Dec. 1989	Activity postponed to 1992-1993
12. Assessment of the state of pollution by crude oils and hydrocarbons of any origin and proposed measures	Article 6; Annex II	UNEP/MEDU, IOC	Dec. 1990	Consult. in 1991. Ass. to be prepared for STC 1992
13. Assessment of the state of pollution in the Mediterranean Sea by zinc and copper with proposed measures	Article 6; para 1(a)	UNEP/MEDU, FAO	Dec. 1990	Consult. in 90. Ass. to be prepared for STC 1992
14. Assessment of the present state of pollution in the Mediterranean Sea by nickel and chromium with proposed measures	Article 6, para II	UNEP/MEDU, FAO	Dec. 1990	Consult. in 90. Ass. to be prepared for STC 1992
15. Assessment of the present state of pollution in the Mediterranean Sea by arsenic and lead with proposed measures	Article 6, Annex II	UNEP/MEDU, FAO	Dec. 1990	Consult. in 90. Ass. to be prepared for STC 1992
16. Identification and categorisation of alternative products, installations and other processes capable of reducing pollution of the Mediterranean marine environment	Article 7, para 1(d)	UNEP/MEDU, WHO, UNIDO	Dec. 1990	Activity postponed to 1992-1993

Actions	Relevance to the Protocol	Responsible Agencies	Original target date	Present status
17. Assessment of the present state of pollution in the Mediterranean Sea by inorganic compounds of phosphorus and elemental phosphorus and proposed measures	Article 6; Annex II	UNEP/MEDU, FAO	Dec. 1991	Ass. as part of 26.
18. Assessment of the state of pollution in the Mediterranean Sea by non-biodegradable detergents and other surface-active substances and proposed measures	Article 6; Annex II	UNEP/MEDU, WHO	Dec. 1991	Consult. in 1991. Ass. to be prepared for STC 1992
19. Assessment of the present state of pollution in the Mediterranean Sea by thermal discharges and proposed measures	Article 6; Annex II	UNEP/MEDU, FAO	Dec. 1991	Consult. in 1991. Ass. to be prepared for STC 1992
20. Common guidelines for the determination of the length, depth and position of pipelines for coastal outfalls, taking into account, in particular, the methods used for pre-treatment of effluents	Article 7, para 1(a)	UNEP/MEDU, WHO, UNIDO	Dec. 1991	Document ready and being edited. Document to be presented at STC 1991 (includes 5.)
21. Compilation of a Mediterranean inventory of effluents requiring special and/or separate treatment including type, category, amount, locality and existing treatment, if any, together with, wherever possible, those local characteristics influencing the effects of such effluents on the marine environment and the feasibility of separate and/or special treatment	Article 7, para 1(b)	UNEP/MEDU, WHO, UNIDO	Dec. 1991	Pending results of MED X bis
22. Formulation of draft common guidelines, standards and criteria for special requirements for effluents necessitating separate treatment	Article 7, para 1(b)	UNEP/MEDU, WHO	Dec. 1991	For Annex I substances doc. ready for STC 1991. For Annex II doc. being prepared for STC 1992
23. Survey on the yield and the cost/benefit of the application of alternative products and processes	Article 7, para 1(d)	UNEP/MEDU, WHO	Dec. 1991	Document to be prepared for STC 1992
24. Assessment of the present state of pollution in the Mediterranean Sea by acid or alkaline compounds of such composition and in such quantity that they may impair the quality of seawater and proposed measures	Article 6, Annex II	UNEP/MEDU, WHO	Dec. 1992	Consult. in 1992. Ass. to be prepared for STC 1993

Actions	Relevance to the Protocol	Responsible Agencies	Original target date	Present status
25. Assessment of the present state of pollution in the Mediterranean Sea by substances which have, directly or indirectly, an adverse effect on the oxygen content of the marine environment, especially those which may cause eutrophication and proposed measures	Article 6; Annex II	UNEP/MEDU, FAO	Dec. 1992	Consult. in 1991. Ass. to be prepared for STC 1992 (will cover 18.)
26. Assessment of the present state of pollution in the Mediterranean Sea by molybdenum, titanium, selenium, vanadium, cobalt and silver with proposed measures	Article 6; Annex II	UNEP/MEDU, FAO/IAEA	Dec. 1992	Consult. in 1992. Ass. to be prepared for STC 1993
27. Assessment of the present state of pollution in the Mediterranean Sea by cyanides and fluorides and proposed measures	Article 6; Annex II	UNEP/MEDU, WHO	Dec. 1993	Consult. in 1992. Ass. to be prepared for STC 1994
28. Assessment of the present state of pollution in the Mediterranean Sea by substances which, though of a non-toxic nature, may become harmful to the marine environment or may interfere with any legitimate use of the sea owing to the quantities in which they are discharged and proposed measures	Article 6; Annex II	UNEP/MEDU, IMO	Dec. 1993	Consult. in 1994. Ass. to be prepared for STC 1995
29. Assessment of the present state of pollution in the Mediterranean Sea by organosilicon compounds and substances which may form such compounds in the marine environment, excluding those which are biologically harmless or are rapidly converted into biologically harmless substances and proposed measures	Article 6; Annex II	UNEP/MEDU, FAO	Dec. 1993	Deleted from Annex II
30. Assessment of the present state of pollution in the Mediterranean Sea by antimony, tin, boron, beryllium, barium, uranium, tellurium and thallium with proposed measures	Article 6; Annex II	UNEP/MEDU, FAO	Dec. 1994	Consult. in 1993. Ass. to be prepared for STC 1994
31. Assessment of the present state of pollution in the Mediterranean Sea by substances which have a deleterious effect on the taste and/or smell of products for human consumption derived from the aquatic environment, and compounds liable to give rise to such substances in the marine environment and proposed measures	Article 6; Annex II	UNEP/MEDU, WHO	Dec. 1994	Consult. in 1994. Ass. to be prepared for STC 1995

Actions	Relevance to the Protocol	Responsible Agencies	Original target date	Present status
32. Assessment of the present state of pollution in the Mediterranean Sea by herbicides and their derivatives not covered in Annex I and proposed Measures	Article 6; Annex II	UNEP/MEDU, FAO	Dec. 1994	Consult. in 1992. Ass. to be prepared for STC 1993
33. Assessment of the present state of pollution in the Mediterranean Sea by fungicides and their derivatives not covered in Annex I and proposed Measures	Article 6; Annex II	UNEP/MEDU, FAO	Dec. 1994	Consult. in 1993. Ass. to be prepared for STC 1994
34. Assessment of the present state of pollution in the Mediterranean Sea by other biocides other than fungides and herbicides and their derivatives not covered in Annex I and proposed Measures	Article 6; Annex II	UNEP/MEDU, FAO	Dec. 1994	Consult. in 1994. Ass. to be prepared for STC 1995

IMPLEMENTATION OF THE LAND-BASED SOURCES PROTOCOL DURING 1986-1987

Actions	Relevance to the Protocol	Responsible Agencies	Original target date	Present status
1. Assessment of the state of microbial pollution in the Mediterranean Sea and proposed measures	Article 6; Annex II	UNEP/MEDU, WHO	Dec. 1985	To be revised in 1993
2. Completion an revision of the Glossary	Protocol and annexes	UNEP/MEDU, WHO	Dec. 1986	Prepared: UNEP/WG.125/9
3. List of substances falling within each of the groups in Annex I to the Protocol	Annex I	UNEP/MEDU, IRPTC, IAEA	Dec. 1986	Continuously covered in the assessments
4. List of substances falling within each of the groups in Annex II to the Protocol	Annex II	UNEP/MEDU, IRPTC	Dec. 1986	Continuously covered in the assessments
5. Assessment of the state of pollution in the Mediterranean Sea by used lubricating oils and proposed measures	Article 5; Annex I	UNEP/MEDU, UNIDO	Dec. 1986	Done: WG.3/Inf.4
6. Survey of land-based sources and amounts of pollutants reaching the Mediterranean Sea	Article 5 & 6; Annex I and II	UNEP/MEDU, WHO	Dec. 1986	Questionnaire ready. Sent to N.C. in June 1989
7. Assessment of the state of microbial pollution in the Mediterranean Sea and proposed measures for shellfish and shellfish-growing waters	Article 6; Annex II	UNEP/MEDU, WHO	Dec. 1986	Done: UNEP/WG.160/10
8. An evaluation of the benefits limitations of submarine pipelines, whether or not associated with treatment plants, for discharge of liquid effluents	Article 7; para.1 (a)	UNEP/MEDU, WHO	Dec. 1986	See guidelines and MED X-bis
9. Formulation of the procedure for the collection and submission of information from the parties on measures taken, results achieved and difficulties encountered in the application of the Protocol	Article 13	UNEP/MEDU, WHO	Dec. 1986	Formats in preparation. Other aspects ongoing.

Actions	Relevance to the Protocol	Responsible Agencies	Original target date	Present status
10. Draft guidelines for the issue of authorization for the discharge of liquid wastes into the Mediterranean	Article 6	UNEP/MEDU, WHO	Dec. 1987	Done: ICP/CEH 082/6
11. Assessment of the state of pollution in the Mediterranean Sea by cadmium and cadmium compounds and proposed measures	Article 5; Annex I	UNEP/MEDU, FAO	Dec. 1987	Done: MTS No 34
12. Assessment of the state of pollution in the Mediterranean Sea by organohalogen compounds and proposed measures	Article 5; Annex I	UNEP/MEDU, FAO	Dec. 1987	Done: MTS No 39. Consult. in 1990. Ass. for additional compounds in 1992
13. Assessment of the state of pollution in the Mediterranean Sea by mercury and mercury compounds and proposed measures	Article 5; Annex I	UNEP/MEDU, FAO	Dec. 1987	Done: MTS No 18
14. A comparative review of the various types of treatment existing in the Mediterranean area for wastewaters, with the view to their re-use or their discharge into the sea	Article 7; para 1(a)	UNEP/MEDU, WHO	Dec. 1987	Part of MED X Bis
15. Compilation of detailed information on existing legislative measures regarding the discharge of wastes through submarine outfalls in Mediterranean countries together with similar information from selected countries outside the region, to enable comparison and evaluation of applicability and proposed measures	Article 7; para 1(a)	UNEP/MEDU, WHO	Dec. 1987	See 8.
16. Identification and categorisation of effluents requiring special and/or separate treatment and listing of such treatment and/or other requirements normally associated with or advisable for such effluents	Article 7; para 1(b)	UNEP/MEDU, WHO, UNIDO	Dec. 1987	Annex I ready (guidelines). Annex II in preparation

ANNEX IX

**1) LIST OF ON-GOING PROJECTS
(as of December 1990)**

**2) LIST OF 1991 RESEARCH PROJECTS
(as of December 1990)**

1) LIST OF ON-GOING PROJECTS
(as of December 1990)

FAO

FAO ALG-8 -i SEMROUD, R. MODIFICATIONS DES ECOSYSTEMES PAR LA POLLUTION	1988: 4000 1989: 2000 1990: Nil
Universite des sciences et de technologie "Houari Boumedienne" - Institut des sciences de la nature (USTHB), Alger, Algeria	Total (USD): 6000
FAO ALG-9 -h SAMSON, F. L. EUTROPHISATION ET FLORAISONS CONCOMITANTES DE PLANCTON	1988: 4000 1989: 3000 1990: Nil
Universite des sciences et de technologie "Houari Boumedienne" - Institut des sciences de la nature (USTHB), Alger, Algeria	Total (USD): 7000
FAO CYP-3 -i DEMETROPOULOS, A. RESEARCH ON POLLUTION INPUT, DISPERSION OF POLLUTANTS, AND THEIR EFFECTS ON THE MARINE LIFE IN THE VASSILIKO AREA.	1989: 3000 1990: 4000
Ministry of Agriculture and Natural Resources - Department of Fisheries, Nicosia, Cyprus	Total (USD): 7000
FAO EGY-20 -g F.T.R. TAYEL, F. T. EFFECT OF POLLUTION BY HYDROGEN SULFIDES ON THE HYDROBIONS IN BOTH ABU QIR BAY AND WESTERN HARBOUR	1989: 3000 1990: 4000
National Institute of Oceanography and Fisheries - National Institute of Oceanography and Fisheries (Alexandria Branch), Alexandria, Egypt	Total (USD): 7000
FAO FRA-24 -g CHASSARD-BOUCHAUD, C. TOXICITE, PERSISTANCE ET BIOACCUMULATION DU CHROME DANS UNE CHAINE TROPHIQUE D'ORGANISMES MARINS COMESTIBLES.ASPECTS STRUCTURAUX ULTRASTRUCTURAUX ET MICROANALYTIQUES	1986: 3000 1987: Nil 1988: 4000 1989: 3000 1990: Nil
Universite de Paris VI "Pierre et Marie Curie" - Laboratoire de biologie et physiologie des organismes marine, Paris, France	Total (USD): 10000
FAO FRA-37 -i GOY, J. EVOLUTION DE L'ECOSYSTEME PELAGIQUE DEPUIS LE DEBUT DU SIECLE EN MER LIGURE, MODELISATION DE SON FONCTIONNEMENT EN MILIEUX NATUREL ET PERTURBE	1987: 3500 1988: 4000 1989: 3000 1990: Nil
Museum national d'histoire naturelle (MNHM) - Ichtyologie generale et appliquee, Paris, France	Total (USD): 10500
FAO FRA-39 -g CHASSARD-BOUCHAUD, C. ETUDE DE LA BIOACCUMULATION, DE LA PERSISTANCE ET DE LA TOXICITE DE L'URANIUM ET DU PLUTONIUM CHEZ DES ORGANISMES MARINS MEDITERRANEENS CONSOMMES PAR L'HOMME	1988: 4000 1989: 3000 1990: 3000
Universite de Paris VI "Pierre et Marie Curie" - Laboratoire de biologie et physiologie des organismes marine, Paris, France	Total (USD): 10000
FAO FRA-42 -g LAFaurIE, M. ACTIVITES DE SYSTEMES DE BIOPROTECTION D'ORGANISMES MARINS REPRESENTATIFS D'ECOSYSTEMES COTIERS EN MER MEDITERRANEE	1988: 4000 1989: 3000 1990: 3500
Universite de Nice - Faculte de medecine, Nice, France	Total (USD): 10500
FAO FRA-48 -g ROMEO, M. ETUDE DES EFFETS TOXIQUES ET PROTECTEURS DU SELENIUM CHEZ DES ALGUES MARINES	1989: 3000 1990: Nil
Institut national de la sante et de la recherche medicale (INSERM) - Institut national de la sante et de la recherche medicale (INSERM), Unite 303, Villefranche-sur-Mer, France	Total (USD): 3000
FAO GRE-55 -g HARITOS, A. A. STUDY OF QUALITATIVE AND QUANTITATIVE EFFECTS OF SELENIUM, ARSENIC AND CHROMIUM ON PEPTIDES AND PROTEINS OF CRUSTACEANS BY HIGH PERFORMANCE LIQUID CHROMATO- GRAPHY AND ELECTROPHORETIC TECHNIQUES	1988: 3500 1989: Nil 1990: 3500
University of Athens - Department of Biology, Zoological Laboratory and Museum, Athens, Greece	Total (USD): 7000

FAO GRE-63 -g PAPATHANASSIOU, E. IN SITU TOXICITY OF DISPERSANTS. CONTROLLED ENVIRONMENTAL POLLUTION EXPERIMENTS.	1989: 3000 1990: 4400
National Centre for Marine Research, Athens, Greece	Total (USD): 7400
FAO GRE-65 -i PAGOU, K. POLLUTION EFFECTS ON PLANKTON COMPOSITION AND SPATIAL DISTRIBUTION NEAR THE SEWAGE OUTFALL OF ATHENS (SARONIKOS GULF)	1989: 3000 1990: Nil
National Centre for Marine Research, Athens, Greece	Total (USD): 3000
FAO GRE-68 -h KARYDIS, M. EUTHROPHICATION ASSESSMENT BASED ON MULTIVARIATE PROCEDURES: CRITERIA DEVELOPMENT FOR THE MANAGEMENT OF COASTAL WATERS	1989: 3000 1990: 3600
University of the Aegean - Department of the Environment, Kos, Greece	Total (USD): 6600
FAO GRE-72 -i ZENETOS, A. EFFECTS OF SEWERAGE ON THE DISTRIBUTION OF BENTHIC FAUNA IN SARONIKOS GULF.	1990: 3500
National Centre for Marine Research, Athens, Greece	Total (USD): 3500
FAO ISR-24 -i GALIL, B. S. POLLUTION INDUCED MODIFICATIONS IN THE COMPOSITION AND DIVERSITY OF PLANKTONIC LARVAL DECAPODA OFF THE MEDITERRANEAN COAST OF ISRAEL	1987: 3000 1988: 4000 1989: Nil 1990: 3500
Institute for Nature Conservation Research - Faculty of Life Sciences, Tel Aviv-Jaffa (Yafa), Israel	Total (USD): 10500
FAO ISR-34 -g ACHITUV, Y. BIOACCUMULATION AND ULTRASTRUCTURE CHANGES IN DONAX TRUNCULUS EXPOSED TO HEAVY METALS IONS	1989: 3000 1990: Nil
Bar-Ilan University - Department of Life Sciences, Ramat-Gan, Israel	Total (USD): 3000
FAO ISR-38 -g NEVO, E. BIOCHEMICAL DETOXIFICATION AS AN ADAPTATION TO POLLUTED MARINE ENVIRONMENTS	1990: 4000
University of Haifa - Institute of Evolution, Haifa, Israel	Total (USD): 4000
FAO ISR-40 -g FISHELSON L.& YAMETZ, A. ECOLOGY, ENZYMOLOGY AND POPULATION DYNAMICS OF SOME SELECTED LITTORAL MARINE MOLLUSCS NEAR THE HADERA POWER PLANT INFLUENCED BY THERMAL POLLUTION AND INDUSTRIAL ORIGIN POLLUTION.	1990: 4000
University of Tel-Aviv - Department of Zoology, Tel Aviv-Jaffa (Yafa), Israel	Total (USD): 4000
FAO ISR-41 -h LOYA, J. SWARMING OF JELLYFISH IN SPECIFIC LOCALITIES ALONG THE MEDITERRANEAN COAST OF ISRAEL: AN ENVIRONMENTAL APPROACH	1990: 4000
University of Tel-Aviv - Department of Zoology, Tel Aviv-Jaffa (Yafa), Israel	Total (USD): 4000
FAO ITA-64 -g ALBERGONI, V. BIOACCUMULATION STUDIES AND PHYSIOLOGICAL AND BIOCHEMICAL RESPONSES IN MARINE ORGANISMS EXPOSED TO HEAVY METALS AND POLYCHLORINATED BIPHENYLS	1986: 3000 1987: 3000 1988: Nil 1989: 3000 1990: Nil
Universita degli Studi di Padova - Istituto di Igiene, Padua (Padova), Italy	Total (USD): 9000
FAO ITA-65 -g DALLA VENEZIA, L. STUDY OF OSMOREGULATION MECHANISMS IN MARINE INVERTEBRATES UNDER POLLUTION CONDITIONS	1986: Nil 1987: 2500 1988: 4000 1989: 3000 1990: Nil
Consiglio Nazionale delle Ricerche (CNR) - Istituto di Biologia del Mare, Venice (Venezia), Italy	Total (USD): 9500

FAO ITA-93 -h	BOERO, F.	1987: 3000
ACTIVITY, BEHAVIOUR AND DIET OF JELLYFISH		1988: 4000
		1989: 3000
Universita degli Studi di Lecce - Dipartimento di Biologia, Lecce, Italy		1990: Nil
		Total (USD): 10000
FAO ITA-94 -i	BRESSAN, G.	1987: 3000
MONITORAGE DES PHANEROGAMES MARINES DU GOLFE DE TRIESTE: ANALYSE DES VARIATIONS DE L'ECOSYSTEME		1988: Nil
		1989: Nil
		1990: 3000
Centro Internazionale Mediterraneo Ambiente Meduse (CIMAM), Trieste, Italy		Total (USD): 6000
FAO ITA-111 -h	CARLI, A.	1988: 3500
STUDY OF PLANKTONIC POPULATIONS IN RELATION TO THE EUTROPHICATION STATE OF WATER IN A LIGURIAN SEA ZONE		1989: Nil
		1990: 2500
Universita degli Studi di Genova - Istituto Policattedra di Scienze Ambientali Marine (ISAM), Genoa (Genova), Italy		Total (USD): 6000
FAO ITA-117 -i	SARA, M.	1989: Nil
EVALUATION OF THE INFLUENCE OF SUSPENDED MATTER DUE TO CIVIL AND INDUSTRIAL DISCHARGES ON BENTHIC ROCKY COMMUNITIES OF A CLIFF NEAR THE PORTOFINO PROMONTORY (RIVIERA LIGURE DI LEVANTE)		1990: 4000
Universita degli Studi di Genova - Istituto di Zoologia, Genoa (Genova), Italy		Total (USD): 4000
FAO LEB-5 -h	ABBOUD-ABI SAAB, M.	1989: 2000
INFLUENCE DES RIVIERES SAISONNIERES SUR LA DYNAMIQUE DES POPULATIONS PLANCTONIQUES (PRODUCTION LAIRE.) - CAS TYPIQUE DE LA COTE CENTRALE DU LIBAN		1990: 5000
Centre for Marine Research, Beirut, Lebanon		Total (USD): 7000
FAO SPA-34 -g	MEDINA ESCRICHE, J. M.	1989: Nil
STUDY OF SEVERAL HEAVY METALS ACCUMULATION AND THEIR RELATION TO INDUCED METAL- BINDING PROTEINS IN MEDITERRANEAN MARINE INVERTEBRATES		1990: 3000
University of Valencia - University College of Castellon, Valencia, Spain		Total (USD): 3000
FAO TUR-22 -g	ARINC, E.	1989: Nil
DEVELOPMENT OF AN ENZYMATIC ASSAY SYSTEM FOR DETERMINATION OF BIOACTIVATION OF TOXIC ORGANIC CHEMICALS		1990: 4000
Middle East Technical University - Department of Biological Sciences, Ankara, Turkey		Total (USD): 4000
FAO TUR-24 -h	KORAY, T.	1990: 3000
RESEARCH ON EUTROPHICATION PROCESSES AND TOXIC ALGAL BLOOMS (RED-TIDES) IN IZMIR BAY (AEGEAN SEA).		
Aegean University - Faculty of Science, Department of Biology, Izmir, Turkey		Total (USD): 3000
FAO YUG-64 -k	BRANICA, M.	1986: 3000
BIOGEOCHEMICAL CYCLE OF MERCURY SPECIES IN THE MARINE ENVIRONMENT		1987: 4000
		1988: Nil
Rudjer Boskovic Institute - Centre for Marine Research, Zagreb, Yugoslavia		1989: 3000
		1990: Nil
		Total (USD): 10000
FAO YUG-70 -g	OZRETIC, B.	1986: 3000
DEVELOPMENT OF SHORT-TERM TOXICITY TESTS: THE USE OF SEA URCHIN GAMETES AND THEIR DEVELOPMENTAL STAGES		1987: 3000
		1988: Nil
		1989: Nil
Rudjer Boskovic Institute - Centre for Marine Research, Rovinj, Yugoslavia		1990: 3000
		Total (USD): 9000
FAO YUG-82 -h	LEGOVIC, T.	1988: 4000
LONG-TERM EUTROPHICATION OF THE NORTHERN ADRIATIC SEA: EVIDENCE AND CONTROL		1989: 3000
		1990: 4000
Rudjer Boskovic Institute - Centre for Marine Research, Zagreb, Yugoslavia		Total (USD): 11000

FAO YUG-86 -h	DEGOBBIS, D.	1988: 4000
EUTROPHICATION TRENDS IN THE NORTHERN ADRIATIC SEA		1989: Nil
		1990: 3000
Rudjer Boskovic Institute - Centre for Marine Research, Rovinj, Yugoslavia		Total (USD): 7000

FAO YUG-87 -h	ZUTIC, V.	1988: 4000
EUTROPHICATION PROCESSES IN THE KRKA ESTUARY (ADRIATIC SEA)		1989: 3000
		1990: 3500
Rudjer Boskovic Institute - Centre for Marine Research, Zagreb, Yugoslavia		Total (USD): 10500

FAO YUG-93 -h	ZAVODNIK, D.	1989: 3000
PHYTOPLANKTON BLOOM CONSEQUENCES ON BENTHIC ORGANISMS		1990: Nil
Rudjer Boskovic Institute - Centre for Marine Research, Rovinj, Yugoslavia		Total (USD): 3000

FAO YUG-100 -g	OZRETIC, M.	1989: 3000
EFFECT OF ORGANOPHOSPHATE AND CARBAMATE PESTICIDES ON MUSSEL (MYTILUS GALLOPROVINCIALIS L.) ESTERASES		1990: Nil
Rudjer Boskovic Institute - Centre for Marine Research, Zagreb, Yugoslavia		Total (USD): 3000

FAO YUG-101 -h	MARASOVIC, I.	1990: 4000
MECHANISMS OF INITIATION AND PERSISTENCE OF RED TIDE IN SOME POLLUTED AREAS.		
Institute of Oceanography and Fisheries, Split, Yugoslavia		Total (USD): 4000

IAEA

IAEA FRA-18 -l	MARTIN, J. M.	1985: Nil
MECANISMES DE TRANSFERT DE RADIONUCLEIDES ARTIFICIELS ENTRE LE RHONE ET LA MEDITERRANEE. APPORTS DE RADIOELEMENTS ARTIFICIELS PAR LE RHONE A LA MEDITERRANEE		1986: Nil
		1987: Nil
		1988: 3000
[COMBINED WITH FRA-23/L]		1989: 3000
Ecole normale superieure, Paris, France		1990: Extended
Total (USD):		6000
IAEA FRA-49 -k	GARRIGUES, P.	1989: 2400
LES HYDROCARBURES AROMATIQUES POLYCYCLIQUES DANS L'ENVIRONNEMENT MARIN COTIER : ASPECTS PHYSICO-CHIMIQUES ET BIOCHIMIQUES		1990: Extended
Talence, France		Total (USD): 2400
IAEA GRE-20 -l	VARNAVAS, S.	1989: 4000
DISPERSION AND TRANSPORT PROCESSES OF HEAVY METALS IN A CHROMITE WATER DUMPING SITE IN A SEMI-ENCLOSED EMBAYMENT OF LOW CURRENT AND WAVE ENERGY		1990: Extended
University of Patras - Department of Geology, Patras, Greece		Total (USD): 4000
IAEA GRE-36 -l	VARNAVAS, S.	1987: 3000
A STUDY OF THE BEHAVIOUR OF HEAVY METALS IN RELATION TO SEDIMENTATION AND HYDRAULIC PROCESSES IN A SEMI-ENCLOSED INDUSTRIALIZED EMBAYMENT, PATRAIKOS BAY, WESTERN GREECE		1988: 4000
		1989: Nil
		1990: Extended
University of Patras - Department of Geology, Patras, Greece		Total (USD): 7000
IAEA GRE-51 -l	KOUTSOUKOS, P.	1987: 4000
THE INTERACTION OF POLLUTANTS AT THE AIR/WATER/SEDIMENT INTERFACES		1988: 4000
		1989: Nil
University of Patras - Physical Chemistry Laboratory, Patras, Greece		1990: Extended
Total (USD):		8000
IAEA GRE-71 -a	STEPHANOU, E.	1989: 4500
POLYNUCLEAR AROMATIC HYDROCARBONS (PAH) AND FUEL OIL DERIVED COMPOUNDS IN AIR, SEDIMENT AND MARINE ORGANISMS OF A MARINE ENVIRONMENT. STUDY OF THEIR INCIDENCE AND FATE		1990: Extended
University of Crete - Department of Biology, Laboratory for Marine Biology, Iraklion, Greece		Total (USD): 4500
IAEA ISR-30 -l	KROM, M. D.	1988: 4000
DETERMINATION OF THE TOTAL INVENTORY AND SPATIAL DISTRIBUTION OF POLLUTANT TRACE METALS FROM LAND-BASED SOURCES IN THE SEDIMENTS FROM HAIFA BAY, ISRAEL		1989: 4000
		1990: Extended
Israel Oceanographic and Limnological Research Ltd. (IOLR), Haifa, Israel		Total (USD): 8000
IAEA ITA-76 -k	TASSI PELATI, L.	1984: Nil
BIOLOGICAL TRANSFER OF RADIONUCLIDES IN THE SEA		1985: Nil
[SEE ALSO ITA/14-L]		1986: Nil
Universita degli Studi di Parma - Facolta di Scienze, Istituto di Zoologia, Parma, Italy		1987: Nil
		1988: Nil
		1989: Nil
		1990: Extended
IAEA TUR-21 -a	HENDEN, E.	1989: 4000
LONG TERM CONTROL OF TIN POLLUTION OF THE SEAWATER IN ALIAGA, ISMIR		1990: Extended
Aegean University - Faculty of Science, Department of Biology, Izmir, Turkey		Total (USD): 4000
IAEA YUG-74 -k	HORVAT, M.	1987: Nil
ESTABLISHMENT OF MERCURY LEVELS IN THE ADRIATIC SEA		1988: Nil
		1989: 4500
Edvard Kardelj University (University of Ljubljana) - Institute Josef Stefan, Ljubljana, Yugoslavia		1990: Extended
Total (USD):		4500

IAEA YUG-85 -k	COSOVIC, B.	1988: 5000
OCCURRENCE, FATE AND EFFECTS OF SYNTHETIC SURFACTANTS IN THE MARINE ENVIRONMENT		1989: 5000
		1990: Extended

Rudjer Boskovic Institute - Centre for Marine Research, Zagreb, Yugoslavia

Total (USD): 10000

IAEA YUG-90 -a	RASPOR, B.	1989: 4000
DEVELOPMENT OF NEW METHOD FOR THE ESTIMATION OF SEAWATER POLLUTION WITH TRACE METALS		1990: Extended

Rudjer Boskovic Institute - Centre for Marine Research, Zagreb, Yugoslavia

Total (USD): 4000

IOC

IOC ALG-7 -a ABDEDDAIM, K. RECHERCHE ET DEVELOPPEMENT DE TECHNIQUES D'ECHANTILLONNAGE ET D'ANALYSE D'HYDROCARBURES PETROLIERS ET DERIVES DE L'INDUSTRIE PETROCHIMIQUE DISSOUS OU DISPENSES EN MILIEU MARIN	1988: 4000 1989: Nil 1990: Extended
Universite des sciences et de technologie "Houari Boumediene" - Institut des sciences de la nature (USTHB), Alger, Algeria	Total (USD): 4000
IOC FRA-20 -f LEHUCHER, P. M. MEDMODEL (MODELISATION HYDRODYNAMIQUE DU BASSIN OCCIDENTAL DE LA MEDITERRANEE)	1985: Nil 1986: 4000 1987: 3000 1988: Nil 1989: Nil 1990: Extended
Centre d'etudes techniques de l'equipement Mediterranee - Service Hydraulique, Les Milles, France	Total (USD): 7000
IOC GRE-10 -f BONAZUNTAS, M. MODELLING POLLUTANT CIRCULATION IN COASTAL WATERS	1985: 5000 1986: Nil 1987: Nil 1988: Nil 1989: Nil 1990: Extended
National Technical University - Department of Civil Engineering, Athens, Greece	Total (USD): 5000
IOC GRE-35 -l BONAZUNTAS, M. OPTIMIZATION OF POLLUTANT TRANSFER REDUCTION TO THE MEDITERRANEAN FROM LAND-BASED AND RIVER SOURCES	1986: 4000 1987: Nil 1988: Nil 1989: Nil 1990: Extended
National Technical University - Department of Civil Engineering, Athens, Greece	Total (USD): 4000
IOC GRE-50 -f KOUTITAS, C. PHYSICAL INVESTIGATION AND MODELLING OF CIRCULATION AND POLLUTANTS TRANSPORT IN AEGEAN SEA	1987: 2000 1988: 4000 1989: Nil 1990: Extended
Aristotelian University of Thessaloniki - Department of Civil Engineering, Thessaloniki, Greece	Total (USD): 6000
IOC GRE-75 -l PANAGOPOULOS, P. RESEARCH ON THE APPLICABILITY OF REMOTE SENSING FOR SURVEY OF WATER QUALITY PARAMETERS IN THE MEDITERRANEAN.	1989: 3000 1990: Nil
Hydro-Systems Analysis, Athens, Greece	Total (USD): 3000
IOC GRE-80 -f KRESTENITIS, Y. N. DEVELOPMENT OF A QUASI DEPTH-VARYING MATHEMATICAL MODEL FOR SIMULATING WIND- INDUCED COASTAL CIRCULATION.	1989: 5000 1990: Nil
Aristotelian University of Thessaloniki - Department of Civil Engineering, Thessaloniki, Greece	Total (USD): 5000
IOC GRE-84 -l SOUVERMEZOGLOU, E. ETUDE DU CYCLE BIOGEOCHIMIQUE DU GAZ CARBONIQUE EN MEDITERRANEE ORIENTALE.	1989: 5500 1990: Nil
National Centre for Marine Research, Athens, Greece	Total (USD): 5500
IOC ISR-39 -a GOLIK, A. DEVELOPMENT OF CRITERIA FOR DISTINGUISHING LAND-BASED FROM MARINE-BASED COASTAL LITTER	1989: 5500 1990: Nil
Israel Oceanographic and Limnological Research Ltd. (IOLR), Haifa, Israel	Total (USD): 5500
IOC ITA-23 -f IUCCI, M. VERTICAL TRANSPORT PROCESSES OF MARINE WATER NEAR THE ITALIAN COASTS [UNTIL 89: S. CUNSOLO]	1985: 6000 1986: Nil 1987: 3000 1988: Nil 1989: 4000 1990: Extended
Universita degli Studi di Roma - Dipartimento di Fisica, Rome (Roma), Italy	Total (USD): 13000

IOC	ITA-86 -f	SANTANGELO, R.	1987: 3000
CIRCULATION EFFECTS OF RIVERS IN THE OCEAN			1988: 5000
Universita degli Studi di Modena - Osservatorio Geofisico (OG), Modena, Italy			1989: Nil
			1990: Extended
			Total (USD): 8000
IOC	ITA-89 -f	PIERINI, S.	1987: 3000
LOW FREQUENCY OSCILLATIONS IN THE MEDITERRANEAN SEA			1988: Nil
Istituto Universitario Navale - Istituto di Oceanologia, Naples (Napoli), Italy			1989: Nil
			1990: Extended
			Total (USD): 3000
IOC	ITA-103 -l	GUERZONI, S.	1987: 2000
TRANSPORT OF POLLUTANTS BY SEDIMENTATION			1988: 3000
Consiglio Nazionale delle Ricerche (CNR) - Istituto di Geologia Marina (IGM), Bologna, Italy			1989: Nil
			1990: Extended
			Total (USD): 5000
IOC	YUG-18 -a	COSOVIC, B.	1985: 3500
DEVELOPMENT OF NEW ELECTROANALYTICAL TECHNIQUES FOR DETERMINATION OF SURFACE ACTIVE SUBSTANCES AND DETERGENTS IN SEAWATER AND SEA SURFACE MICROLAYER			1986: 3000
Rudjer Boskovic Institute - Centre for Marine Research, Zagreb, Yugoslavia			1987: Nil
			1988: Nil
			1989: 4000
			1990: Nil
			Total (USD): 10500
IOC	YUG-81 -l	ZUTIC, V.	1988: 4000
POLLUTANT ACCUMULATION AT THE HALOCLINE OF MEDITERRANEAN STRATIFIED ESTUARIES			1989: 3000
Rudjer Boskovic Institute - Centre for Marine Research, Zagreb, Yugoslavia			1990: Nil
			Total (USD): 7000
IOC	YUG-97 -f	LIMIC, N.	1989: 3000
MODELLING NON-STATIONARY TRANSPORT OF POLLUTANTS IN COASTAL SEAS.			1990: Nil
University of Zagreb - Department of Physics, Zagreb, Yugoslavia			Total (USD): 3000
IOC	YUG-98 -f	LEGOVIC, T.	1989: 3000
ESTIMATION OF DIFFUSE INPUT OF A POLLUTANT INTO A COASTAL SEA.			1990: Nil
Rudjer Boskovic Institute - Centre for Marine Research, Zagreb, Yugoslavia			Total (USD): 3000
IOC	YUG-104 -f	GACIC, M.	1989: 6000
CLIMATIC CHANGES IN THE EASTERN MEDITERRANEAN AND BLACK SEA			1990: Nil
Institute of Oceanography and Fisheries, Split, Yugoslavia			Total (USD): 6000

WHO

WHO FRA-46 -k GAUTHIER, M. J.	1989: 3500
INFLUENCE DES MECANISMES D'OSMOREGULATION SUR LA SURVIE ET L'ADAPTATION DES BACTERIES ENTERIQUES DANS L'ENVIRONNEMENT MARIN	1990: 3500
Institut national de la sante et de la recherche medicale (INSERM) - Institut national de la sante et de la recherche medicale (INSERM), Nice, France	Total (USD): 7000
WHO FRA-47 -k GAUTHIER, M. J.	1989: 4000
ETUDE EXPERIMENTALE DU TRANSFERT DE GENES PLASMIDIQUES ENTRE LES ENTEROBACTERIES DANS L'EAU DE MER, LES SEDIMENTS ET LE TRACTUS DIGESTIF DES INVERTEBRES MARINS	1990: Extended
Institut national de la sante et de la recherche medicale (INSERM) - Institut national de la sante et de la recherche medicale (INSERM), Nice, France	Total (USD): 4000
WHO GRE-53 -a PAPADAKIS, J. A.	1987: 4000
A STUDY ON THE COMPARATIVE DISTRIBUTION OF MICROBIAL AND YEAST POPULATIONS IN SAND AND SEAWATER	1988: 3500 1989: 3000 1990: Nil
Ministry of Health & Welfare - Athens School of Hygiene, Athens, Greece	Total (USD): 10500
WHO GRE-57 -k KRIKELIS, V.	1988: 3000
TRANSFER OF MICROBIAL AND CHEMICAL POLLUTANTS FROM THE RIVER OF PINEOS TO COASTAL WATERS OF STOMION	1989: Nil 1990: 3000
Institut Pasteur, Athens, Greece	Total (USD): 6000
WHO GRE-58 -d PAPAPETROPOULOU, M.	1988: 4000
EFFECTS OF BATHING ON HUMAN SKIN FLORA	1989: 3000 1990: Extended
University of Patras - Faculty of Health Science, Laboratory of Public Health, Patras, Greece	Total (USD): 7000
WHO GRE-66 -d PAPADAKIS, J. A.	1989: 6000
INVESTIGATION OF THE DERMATOLOGICAL DISEASES AFTER BATHING AND THEIR POSSIBLE RELATION TO THE BACTERIOLOGICAL AND FUNGAL FLORA OF SEA WATER AND SAND AND FREQUENCY OF BATHING.	1990: Extended
Ministry of Health & Welfare - Athens School of Hygiene, Athens, Greece	Total (USD): 6000
WHO GRE-69 -k KOSTOPOULOU-KARADANELLI, M.	1989: Undecided
INFLUENCE SUR LA SURVIVANCE DE LA FLORE MICROBIENNE DANS DES MILIEUX PRESENTANT DE GRANDES CONCENTRATIONS (DE CONCENTRATIONS ELEVEES) EN PHOSPHORE ET AZOTE ORGANIQUE	1990: 3000
Departement de l'environnement - Laboratoire prefectoral de Lesbos (Mytilini), Mytilini, Greece	Total (USD): 3000
WHO GRE-79 -a STATHOPOULOS, G. A.	1990: 4000
DETECTION OF ENTERIC PATHOGENS IN SHELLFISH AND THEIR RELATION TO THE PRESENCE OF INDICATOR MICROORGANISMS.	
Aristotelian University of Thessaloniki - School of Medicine, Laboratory of Hygiene, Thessaloniki, Greece	Total (USD): 4000
WHO GRE-83 -k PAPAPETROPOULOU, M.	1990: 3000
STRUCTURAL AND PHYSIOLOGICAL CHANGES IN E-COLI CELLS STARVED IN SEAWATER.	
University of Patras - Faculty of Health Science, Laboratory of Public Health, Patras, Greece	Total (USD): 3000
WHO ISR-19 -g RAV-ACHA, H.	1986: 3000
MUTAGENICITY OF CHLORINATED SEAWATER FROM POWER PLANTS COOLING SYSTEMS	1987: 3000 1988: Nil 1989: Nil 1990: 3000
Hebrew University of Jerusalem - Faculty of Mathematics & Nat. Sciences, School of Applied Sciences & Technology, Jerusalem, Israel	Total (USD): 9000

WHO	ISR-33 -a	GHINSBERG, R.	1989: 3000
STUDY OF THE PREVALENCE OF PATHOGENIC BACTERIA IN THE SAND OF POPULATED BEACHES IN THE TEL AVIV AREA (MEDITERRANEAN SEA)			1990: 4000
Ministry of Health - Dr. A. Felix Public Health Laboratory, Tel Aviv-Jaffa (Yafo), Israel			Total (USD): 7000
WHO	ISR-36 -a	MATES, A.	1990: 3000
QUANTITATIVE DETERMINATION OF CANDIDA ALBICANS IN SEA WATER			
Ministry of Health - Dr. A. Felix Public Health Laboratory, Tel Aviv-Jaffa (Yafo), Israel			Total (USD): 3000
WHO	ITA-88 -e	ZAPPONI, G. A.	1987: 5000
THE HEALTH COMPONENT OF ENVIRONMENTAL IMPACT ASSESSMENT - EIA OF SELECTED PROJECTS AND DEVELOPMENTS IN THE MEDITERRANEAN COASTAL AREAS			1988: Nil
			1989: Nil
			1990: Extended
Ministero della Sanita - Istituto Superiore di Sanita, Rome (Roma), Italy			Total (USD): 5000
WHO	ITA-107 -d	MARIN, V.	1988: 4000
STUDIES ON THE WATER QUALITY OF THE NORTH ADRIATIC SEA AND ITS EFFECT ON PUBLIC HEALTH			1989: 3000
			1990: Extended
Universita degli Studi di Padova - Istituto di Igiene, Padua (Padova), Italy			Total (USD): 7000
WHO	ITA-113 -g	PAGANO, G.	1988: 3500
IDENTIFICATION AND BIOLOGICAL MONITORING OF SUB-LETHAL RISK FACTORS IN WATER AND SEDIMENTS OF TWO RIVERS IN CAMPANIA REGION, ITALY			1989: 3000
			1990: Extended
Istituto Nazionale Tumori, Naples (Napoli), Italy			Total (USD): 6500
WHO	ITA-114 -d	PACCAGNELLA, B.	1988: 6000
HEALTH EFFECTS OF FOETAL AND NEONATAL EXPOSURE TO METHYLMERCURY VIA BREAST-FEEDING			1989: 4000
			1990: Extended
Universita degli Studi di Padova - Dipartimento Pediatrico, Padua (Padova), Italy			Total (USD): 10000
WHO	ITA-115 -d	MORETTI, G.	1988: 6000
STUDY ON THE MERCURY, METHYLMERCURY AND SELENIUM LEVELS IN THE NORTH-EAST ITALIAN COASTAL POPULATIONS			1989: 4000
			1990: Extended
Universita degli Studi di Padova - Istituto di Igiene, Padua (Padova), Italy			Total (USD): 10000
WHO	ITA-116 -g	BOLOGNESI, C.	1988: 3500
INVESTIGATION ON TOPOGRAPHICAL DISTRIBUTION OF FISH TUMORS AS INDICATORS OF ENVIRONMENTAL PATHOLOGY			1989: 3000
			1990: 3000
Istituto Nazionale per la Ricerca sul Cancro, Genoa (Genova), Italy			Total (USD): 9500
WHO	ITA-122 -d	PACCAGNELLA, B.	1989: 5000
EPIDEMIOLOGICAL STUDIES ON CADMIUM AND OTHER HEAVY METALS (PB, CR, NI, ZN, SN) IN FISH AND HUMAN HEALTH IN THE MEDITERRANEAN AREA			1990: Extended
Universita degli Studi di Padova - Dipartimento Pediatrico, Padua (Padova), Italy			Total (USD): 5000
WHO	ITA-123 -d	SCARPA, C.	1989: Undecided
A TOXICOLOGIC STUDY OF JELLYFISH ENVENOMATION			1990: 2000
Universita degli Studi di Trieste - Istituto di Clinica Dermatologica, Trieste, Italy			Total (USD): 2000
WHO	ITA-124 -d	RENZONI, A.	1989: 4000
EVALUATION OF GENOTOXICITY OF METHYL-MERCURY BY EXAMINATION OF SISTER CHROMATID EXCHANGES IN FISHERMEN AT RISK IN THE TYRRHENIAN SEA			1990: 3000
Universita degli Studi di Siena - Dipartimento di Biologia Ambientale, Siena, Italy			Total (USD): 7000

WHO	ITA-125 -d	DELLA LOGGIA, R.	1989: 3000
THE CUTANEOUS TOXICITY OF BLOOMS IN RELATION TO THEIR HEALTH HAZARD			1990: 3000
Universita degli Studi di Trieste - Istituto di Farmacologia e Farmacognosia, Trieste, Italy			Total (USD): 6000
WHO	ITA-126 -a	VOLTERRA, L.	1989: 3000
ENTEROVIRUSES INDICATORS IN MARINE COASTAL ENVIRONMENTS			1990: 3000
Ministero della Sanita - Istituto Superiore di Sanita, Rome (Roma), Italy			Total (USD): 6000
WHO	ITA-127 -g	MELLUSO, G.	1989: 3000
CHEMICAL AND MICROBIOLOGICAL EVALUATION OF POLLUTION IN WATER AND SEDIMENTS OF TWO RIVERS IN CAMPANIA REGION, ITALY			1990: Extended
Universita degli Studi di Napoli - Cattedra di Igiene, Naples (Napoli), Italy			Total (USD): 3000
WHO	MOR-4 -c	BELEMLIH, A.	1987: 3000
BILAN DES POLLUTIONS MICROBIENNES DES EAUX ET COQUILLAGES EN PARALLELE AVEC L'EUTROPHISATION ET LES FLORAISONS DU PLANCTON			1988: Nil
			1989: 3000
			1990: Extended
Institut agronomique et veterinaire Hassan II, Rabat, Morocco			Total (USD): 6000
WHO	SPA-25 -d	MARINO, M. G.	1987: 4000
ASSESSMENT OF SANITARY RISKS ASSOCIATED WITH TBT'S IN THE MARINE ENVIRONMENT			1988: 4000
			1989: Nil
			1990: Extended
Universidad Complutense de Madrid - Escuela Nacional de Sanidad, Madrid, Spain			Total (USD): 8000
WHO	SPA-26 -d	ROMERO RAYA/J.J. BORREGO GARCI, P.	1988: 5000
EPIDEMIOLOGICAL STUDY ON BATHER FROM SEVERAL BEACHES IN MALAGA (SPAIN), ITA RELATIONSHIP TO THE DETECTION AND ENUMERATION OF PATHOGENIC MICROORGANISMS			1989: 3000
			1990: Extended
Universidad de Malaga - Faculta de Ciencias, Departamento de Microbiologia, Malaga, Spain			Total (USD): 8000
WHO	SPA-30 -k	BOSCH NAVARRO, A.	1989: 3000
THE SURVIVAL OF HUMAN ENTERIC VIRUSES IN SEAWATER			1990: 3000
Universidad de Barcelona - Facultad de Biologia, Barcelona, Spain			Total (USD): 6000
WHO	SPA-31 -a	ALONSO MOLINA, J. L.	1989: 3000
CONTROL OF NEW INTESTINAL PATHOGENS: CAMPYLOBACTER AND MOTILE AEROMONAS FROM MARINE RECREATIONAL WATERS OF VALENCIA (SPAIN)			1990: Extended
Polytechnical University - Institute of Hydrology and Environment, Valencia, Spain			Total (USD): 3000
WHO	SPA-32 -a	JOFRE TORROELLA, J.	1990: 3000
EVALUATION OF VIRAL CONTAMINATION OF SHELLFISH THROUGH ENUMERATION OF PHAGES INFECTING B. FRAGILIS.			
Universidad de Barcelona - Facultad de Biologia, Barcelona, Spain			Total (USD): 3000
WHO	TUR-19 -e	CURI, K.	1987: 3500
COASTAL POLLUTION DUE TO SOLID WASTES AND ITS CONTROL BY PROPER DISPOSAL, RECYCLING AND REUSE			1988: Nil
			1989: Nil
			1990: 3000
University of the Bosphorus - Department of Chemical Engineering, Pollution Control Research Group, Istanbul, Turkey			Total (USD): 6500
WHO	YUG-91 -a	PRESECKI, V.	1989: 3500
LABORATORY PROCEDURES FOR ENTEROVIRUSES, ROTA VIRUS AND HEPATITIS A VIRUS PRESENCE DETERMINATION IN SEAWATER, SEDIMENT AND SHELFISH (MUSSEL)			1990: 3000
Institute of Public Health of SR Croatia, Zagreb, Yugoslavia			Total (USD): 6500

WHO YUG-105 -g KURELEC, B. 1990: 3000
ANALYSIS OF DNA ADDUCTS AND OTHER BIOMARKERS AS A POSSIBLE TOOL FOR
GENOTOXIC RISK ASSESSMENT IN THE AQUATIC ENVIRONMENT

Rudjer Boskovic Institute - Centre for Marine Research, Zagreb,
Yugoslavia Total (USD): 3000

WMO

WMO FRA-15 -I MORELLI & C. MIGON, J. CONTRIBUTION A L'ETUDE DU CYCLE DE METAUX POTENTIELLEMENT TOXIQUES DANS L'ENVIRONNEMENT ATMOSPHERIQUE MEDITERRANEEN. ORIGINES ET EVALUATION DE L'APPORT AU MILIEU MARIN	1986: Nil 1987: 1000 1988: 3000 1989: Nil 1990: 3000
Ecole normale superieure, Paris, France	Total (USD): 7000
WMO FRA-32 -I BUAT-MENARD, P. DYNAMIQUE DU TRANSPORT ET DE LA RETOMBEE ATMOSPHERIQUEDES POLLUANTS METALLIQUES (CD, PB, ZN, CU) EN MER LIGURE: REPONSE DE LA COLONNE D'EAU AUX PERTURBATIONS INDIUTES	1986: Nil 1987: 3000 1988: 4000 1989: Nil 1990: 3000
Centre National de la Recherche Scientific (CNRS) - Centre des faibles radioactivites, Laboratoire mixte (CNRS-CEA), Gif-sur-Yvette, France	Total (USD): 10000
WMO ISR-21 -I MAHRER, Y. THREE DIMENSIONAL MODELLING OF THE EFFECTS OF SEA AND LAND BREEZES ON POLLUTION TRANSPORT IN THE EASTERN MEDITERRANEAN SEA	1987: 3000 1988: Nil 1989: Nil 1990: 3000
Hebrew University of Jerusalem - Faculty of Agriculture, Jerusalem, Israel	Total (USD): 6000
WMO ISR-22 -I WAKSHAL, E. CHEMICAL COMPOSITION OF MAJOR ELEMENTS AND CADMIUM CONTENT OF RAINWATER AND SUSPENDED PARTICULATE MATTER ALONG THE CENTRAL COASTAL PLAIN OF ISRAEL	1987: 4500 1988: 3500 1989: Nil 1990: Nil
Hebrew University of Jerusalem, Jerusalem, Israel	Total (USD): 8000
WMO ITA-63 -I GUERZONI, S. RIVERINE AND ATMOSPHERIC TRANSPORT OF DUSTS AND CONTAMINANTS INTO THE MEDITERRANEAN REGION	1986: Nil 1987: 3500 1988: 3000 1989: Nil 1990: 4000
Consiglio Nazionale delle Ricerche (CNR) - Istituto di Geologia Marina (IGM), Bologna, Italy	Total (USD): 10500
WMO MOR-3 -I NEJJAR, M. CONTRIBUTION A L'ETUDE DES MECANISMES DE TRANSFERTS DES POLLUANTS AUX POINTS DE CONTACT ENTRE LES COURS D'EAU ET LA MER ET A L'INTERFACE AIR/MER	1987: 1500 1988: Nil 1989: 5000 1990: Nil
Universite Mohammed V - Ecole Mohammadia d'Ingenieurs, Laboratoire de Pollution Atmospheric et Marine, Rabat, Morocco	Total (USD): 6500
WMO SPA-8 -I CRUZADO, A. STUDY OF LONG AND MEDIUM RANGE ATMOSPHERIC POLLUTANT TRANSPORT INTO THE NORTH WEST MEDITERRANEAN SEA	1985: 5000 1986: Nil 1987: Nil 1988: 3000 1989: Nil 1990: 3000
Consejo Superior de Investigaciones Cientificas - Centre de estudios avanzados de Blanes, Gerona, Spain	Total (USD): 11000
WMO YUG-29 -I JANJIC, Z. I. DEFINITION OF SYNOPTIC SCALE DRIVING PARAMETERS FOR A MODEL OF ATMOSPHERIC POLLUTION TRANSPORT TOWARDS AND INTO THE MEDITERRANEAN SEA	1988: 8500 1989: Nil 1990: Nil
Federal Hydrometeorological Institute, Belgrade, Yugoslavia	Total (USD): 8500
WMO YUG-73 -I KLASINC, L. PHOTOCHEMICAL OXIDANTS IN THE TROPOSPHERE - SIGNIFICANCE OF LAND TO SEA TRANSPORT IN THE MEDITERRANEAN	1987: 3500 1988: Nil 1989: 5000 1990: Nil
University of Zagreb - Department of Physical Chemistry, Zagreb, Yugoslavia	Total (USD): 8500

2) LIST OF 1991 RESEARCH PROJECTS
(as of December 1990)

FAO

FAO GRE-85 -III PAPATHANASSIOU, E. 1991: Undecided
PHYSIOLOGICAL RESPONSES OF MARINE INDICATOR ORGANISMS TO GLOBAL
POLLUTION

National Centre for Marine Research, Athens, Greece

FAO GRE-86 -III PANCUCCI, MARIA-ANTONETTE 1991: Undecided
IMPACT DE L'EUTROPHICATION SUR LES PEUPELEMENTS D'OURSINS DU GOLFE
AMVRAKIKOS (MER IONIENNE, GRECE)

National Centre for Marine Research, Athens, Greece

FAO GRE-87 -IV SCOULLOS, M. J. 1991: Undecided
FATES OF CARCINOGENIC AND MUTAGENIC METALS. TRANSFER FROM WATER TO
SEDIMENT THROUGH BIOACCUMULATION IN GREEN ALGAE (ULVA LACTUCA)

University of Athens - Department of Inorganic and Environmental
Chemistry, Athens, Greece

FAO GRE-88 -III VERRIPOULOS, G. 1991: Undecided
THE INFLUENCE OF POLLUTION ON THE PHYSIOLOGY OF CERTAIN ZOOPLANTONIC
AND BENTHIC ORGANISMS FROM THE SARONICUS GULF

University of Athens - Department of Biology, Zoological Laboratory
and Museum, Athens, Greece

FAO GRE-89 -III NICOLAIDOU, ARTEMIS 1991: Undecided
EFFECTS OF DUMPING OF SOLID WASTES ON MARINE BENTHIC COMMUNITIES

University of Athens - Department of Biology, Zoological Laboratory
and Museum, Athens, Greece

FAO GRE-90 -III PAPOUSOGLOU, SOFRONIOS E. 1991: Undecided
EFFECT OF WATER POLLUTION ON THE PHYSIOLOGY AND BODY CHEMICAL
COMPOSITION OF COMMERCIALY CULTURED (OR NOT) MARINE AND BRACKISH
WATER FISH OF THE MEDITERRANEAN

Agricultural University College - Department of Applied Hydrobiology,
Athens, Greece

FAO GRE-96 -III CASTRITSI-CATHARIOS, J. 1991: Undecided
ETUDE DE LA TOXICITE AIGUE ET DES EFFETS SUBLETAUX DES SUBSTANCES
ORGANOSTANNIQUES A LA CHAINE ANIMENTAIRE

University of Athens - Department of Biology, Zoological Laboratory
and Museum, Athens, Greece

FAO ISR-46 -IV GOLANI, D 1991: Undecided
DETERMINATION OF MERCURY CONCENTRATION IN TWO INDIGENOUS AND TWO
COLONIZERS MULLID IN THE EASTERN MEDITERRANEAN

Israel Oceanographic and Limnological Research Ltd. (IOLR), Haifa,
Israel

FAO ISR-51 -III SPANIER E. & GALIL B.S., 1991: Undecided
ECOLOGICAL ASSESSMENT OF THE RECENT MASSIVE BLOOM OF THE SCYPHOMEDUSA
'RHOPILEMA NOMADICA' IN THE SOUTHEASTERN MEDITERRANEAN

[GALIL C/O ISR HAI 1]

University of Haifa - Centre for Maritime Studies, Haifa, Israel

FAO ITA-128 -IV BALDI, F. 1991: Undecided
IMPORTANCE OF MICROORGANISMS ON CHROMIUM ACCUMULATION AND
TRANSFORMATION

Universita degli Studi di Siena - Dipartimento di Biologia
Ambientale, Siena, Italy

FAO YUG-108 -IV BRANICA, M. 1991: Undecided
UPTAKE, RELEASE AND TRANSPORTATION OF MERCURY SPECIES BY MUSSELS
MYTILUS GALLOPROVINCIALIS
Rudjer Boskovic Institute - Centre for Marine Research, Zagreb,
Yugoslavia

IAEA

IAEA GRE-92 -IV VASILIKIOTIS, GEORGE
DISTRIBUTION AND FATE OF CARBAMATE PESTICIDES IN SEAWATER OF THE
THERMAIKOS GULF-GREECE

1991: Undecided

Aristotelian University of Thessaloniki - Chemistry Department,
Thessaloniki, Greece

IAEA ISR-48 -IV KRUMGALZ, BORIS
SOME ASPECTS OF GEOCHEMICAL CYCLES OF HEAVY METALS IN ESTUARINE
SEDIMENTS CONTAINING LARGE AMOUNTS OF ANTHROPOGENIC FLUORITE

1991: Undecided

Israel Oceanographic and Limnological Research Ltd. (IOLR), Haifa,
Israel

IAEA SYR-1 -IV NOUREDDIN, SEIF EDDINE
INVESTIGATIONS ON THE BEHAVIOUR OF Hg, Pb, Cu & Cd IN THE ALKABIR
ALSHIMALI RIVER ESTUARY: - THEIR INPUT TO THE SYRIAN COASTAL WATERS, -
THEIR ACCUMULATION AND SPECIATION IN THE ESTUARINE RECENT SEDIMENTS

1991: Undecided

Tishreen University - Marine Research Centre (MRC), Lattakia, Syrian
Arab Republic

IOC

IOC GRE-93 -II KRESTENITIS, YANNIS N. 1991: Not accepted
DEVELOPMENT OF A DEPTH-VARYING (3-D) MATHEMATICAL MODEL FOR PREDICTING
COASTAL CIRCULATION AND DENSITY DISTRIBUTION.

Aristotelian University of Thessaloniki, Thessaloniki, Greece

IOC GRE-94 -II LASCARATOS, A. 1991: Undecided
DEVELOPMENT OF AN OCEANOGRAPHIC TIME-SERIES ANALYSIS SOFTWARE PACKAGE
FOR PERSONAL COMPUTERS.

University of Athens - Department of Applied Physics, Laboratory of
Meteorology, Athens, Greece

IOC GRE-95 -I GEORGOPOULOS, D. 1991: Undecided
REMOTE SENSING OVER THE AEGEAN SEA USING AVHRR, CZCS AND SPACE SHUTTLE
IMAGERY

National Centre for Marine Research, Athens, Greece

IOC ISR-44 -II BOWMAN, DAN 1991: Undecided
THREE DIMENSIONAL TRANSFER OF LITTER ACROSS WIDE BEACHES - TOWARDS
POTENTIAL SINK AREAS FOR THE COASTAL WASTE?

Ben Gurion University of the Negev - Department of Geography,
Beersheba, Israel

IOC ISR-45 -I GITELSON, ANATOLY 1991: Not accepted
DEVELOPMENT OF REMOTE SENSING METHODS FOR MONITORING COASTAL WATER
POLLUTION FROM LAND-BASED SOURCES

Ben Gurion University of the Negev - The Jacop Blaustein Institute for
Desert Research, Beersheba, Israel

IOC ISR-50 -II RUBIN, HILLEL 1991: Undecided
NUMERICAL SIMULATION OF CIRCULATION AND POLLUTANTS MIGRATION IN
EASTERN MEDITERRANEAN

CAMERI - Coastal and Marine Engineering Research Institute, Technion,
Haifa, Israel

WHO

WHO ISR-49 -I PLATZNER, NIZHIA 1991: Undecided
DETECTION OF PATHOGENIC FUNGI AT ISRAELI BEACHES ON THE MEDITERRANEAN
SEA

Ministry of Health - District Public Health Laboratory, Beersheba,
Israel

WHO ISR-52 -I SHEINMAN & BERDICEVSKY, Rivka & Israella 1991: Undecided
CORRELATION BETWEEN BACTERIAL INDICATORS AND POTENTIAL PATHOGENIC
FUNGI, IN SEA WATER (ACTIVITY A & C)

[BERDICEVSKY C/O TECHNION FACULTY MED.HAII]
Ministry of Health - District Public Health Laboratory, Haifa, Israel

WHO ITA-129 -III TORREGROSSA, M. V. 1991: Undecided
MUTAGENIC MARINE POLLUTANTS

Universita degli Studi di Palermo - Istituto di Igiene, Palermo
(Sicily), Italy

WHO ITA-130 -III VALENTINO, L. 1991: Undecided
HEALTH EFFECTS OF MERCURY INGESTED THROUGH CONSUMPTION OF SEAFOODS. A
SURVEY ON COASTAL POPULATION OF SICILY.

Universita degli Studi di Palermo - Istituto di Igiene, Palermo
(Sicily), Italy

WHO MOR-8 -III HASSAR, M. 1991: Undecided
EVALUATION DE LA POLLUTION MICROBIENNE ET TOXICOLOGIQUE DES EAUX
CONTIERES DE LA MEDITERRANEE

Ministry of Health - National Institute of Hygiene, Rabat, Morocco

WMO

WMO SPA-37 -II ALARCON, MARTA
AIR MASSES TRAJECTORIES IN THE NORTH WESTERN MEDITERRANEAN

1991: Undecided

Consejo Superior de Investigaciones Cientificas - Centre de estudios
avanzados de Blanes, Gerona, Spain

WMO YUG-107 -II ALEKSIC, N.
FEASIBILITY STUDY OF THE REAL TIME FORECASTING OF THE SO2 TRANSPORT
AND DEPOSITION IN THE MEDITERRANEAN AREA

1991: Undecided

Institute of Physics, Zemun, Yugoslavia

PROJECTS NOT ACCEPTED

UNEP GRE-91 - VLACHOS, PAVLOS 1991: Not accepted
STUDY OF CONDITIONS THAT CONTRIBUTE TO THE SEA-POLLUTION DURING THE
AGRICULTURAL AGENTS USE

[RESEARCH AREA: ?]
Children's Hospital "P.A. Kyriakou" - Poison Control Centre, Athens,
Greece

UNEP ISR-47 -m KRESS, N. 1991: Not accepted
TRACE METALS DISTRIBUTION ALONG COASTAL: RIVERS AND ESTUARIES,
MEDITERRANEAN COAST, ISRAEL

[MONITORING]
Israel Oceanographic and Limnological Research Ltd. (IOLR), Haifa,
Israel

UNEP ISR-53 -I KRESS, NURIT 1991: Not accepted
DATABASE OF TRACE METAL LEVELS IN TRAWL AND SHORE FISHES COLLECTED OFF
THE MEDITERRANEAN COAST OF ISRAEL

Israel Oceanographic and Limnological Research Ltd. (IOLR), Haifa,
Israel

UNEP SPA-36 -I VELASQUEZ, ZOILA 1991: Not accepted
EXPERT SYSTEM FOR PHYTOPLANKTON CLASSIFICATION

Consejo Superior de Investigaciones Cientificas - Centre de estudios
avanzados de Blanes, Gerona, Spain

UNEP TUR-25 -m UYSAL, H. 1990: Not accepted
THE CONCENTRATION OF HEAVY METALS AND THEIR EFFECTS IN SOME INDICATOR
BIVALVES OF DIFFERENT BIOTOPS FROM THE RIVER MOUTH AND BEACHES OF
AEGEAN COASTS.

Aegean University, Izmir, Turkey

ANNEX X

**MAP TECHNICAL REPORT SERIES VOLUMES
SCHEDULED FOR 1990-1991**

Title	Pages	Target date	Agency	MTS No.
1. Common measures adopted by C.P.	70 pp	Feb. 90	UNEP	38
2. Organophosphorus bibliography	100 pp	Nov. 90	UNEP	44
3. Solid litter bibliography	60 pp	March 91	UNEP	
4. Jellyfish. Final report	200 pp	Jan. 91	UNEP	
5. Activity A. Reports	100 pp	Jan. 91	WHO	
6. Activity D. Reports	100 pp	Dec. 90	WHO	46
7. Activity D. Reports	100 pp	Jan. 91	WHO	
8. Activity K. Reports	100 pp	Dec. 91	WHO	
9. Activity L. Reports and Workshop	150 pp	Sept. 91	WMO	
10. Activity F. Reports	150 PP	Oct. 91	IOC	
11. Physical processes	150 pp	March 91	IOC	
12. IAEA/UNEP/IOC/FAO MED POL Organohalogen Workshop	100 pp	Jan. 91	IAEA	
13. Workshop on transport of pollutants by Sedimentation	300 pp	Dec. 90	IAEA	45
14. Activity A+K+L. Final reports	150 pp	June 91	IAEA	
15. Organohalogen assessment	250 pp	March 90	FAO	39
16. Solid litter assessment	100 pp	Sept. 91	IOC	
17. Organophosphorus assessment	200 pp	Sept. 91	FAO	
18. Research FAO. Reports (H)	100 pp	Feb. 90	FAO	37
19. Research FAO. Reports (H,I,J)	100 pp	June 90	FAO	40
20. Research FAO. Reports	100 pp	March 91	FAO	

MAP TECHNICAL REPORT SERIES VOLUMES PUBLISHED IN 1990

- No. 36 UNEP/IUCN: Directory of marine and coastal protected areas in the Mediterranean region. Part I - Sites of biological and ecological value. MAP Technical Reports Series No. 36. UNEP, Athens, 1990 (198 pages) (French only).
- No. 37 UNEP/FAO: Final reports on research projects dealing with eutrophication and plankton blooms (Activity H). MAP Technical Reports Series No. 37. UNEP, Athens, 1990 (74 pages) (parts in English or French only).
- No. 38 UNEP: Common Measures adopted by the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution. MAP Technical Reports Series No. 38. UNEP, Athens, 1990 (100 pages) (English, French, Spanish and Arabic).
- No. 39 UNEP/FAO/WHO/IAEA: Assessment of the state of pollution of the Mediterranean by organohalogen compounds. MAP technical reports Series No. 39. UNEP, Athens, 1990 (224 pages) (English and French).
- No. 40 UNEP/FAO: Final reports on research projects (Activities H, I and J). MAP Technical Reports Series No. 40. UNEP, Athens, 1990 (125 pages) (English and French).
- No. 41 UNEP: Wastewater reuse for irrigation in the Mediterranean region. MAP Technical Reports Series No. 41. UNEP, Priority Actions Programme, Regional Activity Centre, Split, 1990 (330 pages) (English and French).
- No. 42 UNEP/IUCN: Report on the status of Mediterranean marine turtles. MAP Technical Reports Series No. 42. UNEP, Athens, 1990 (204 pages) (English and French).
- No. 43 UNEP/IUCN/GIS Posidonie: Livre rouge "Gérard Vuignier" des végétaux, peuplements et paysages marins menacés de Méditerranée. MAP Technical Report Series No. 43. UNEP, Athens, 1990 (250 pages) (French only).
- No. 44 UNEP: Bibliography on aquatic pollution by organophosphorus compounds. MAP Technical Report Series No. 44. UNEP, Athens, 1990 (98 pages) (English only).
- No. 45 UNEP/IAEA: Transport of pollutants by sedimentation. MAP Technical Report Series No 45. UNEP, Athens, 1990 (302 pages) (English only).

ANNEX XI

**MED POL MEETINGS TO BE HELD
IN 1992 AND 1993**

MED POL MEETINGS TO BE HELD IN 1992

Meeting	Place	Date	Responsible Agency	No. of Partic.	Report issued by	Project Document (budget line)	Amount Alloc.
1. XXV IAAC Meeting	Athens	January	UNEP	8	UNEP		-
2. Joint Committees' Meeting	Athens	May	UNEP	50	UNEP		-
3. Training workshop on the monitoring of chemical contaminants using marine organisms	Athens	May	FAO	25	FAO		35,000
4. Training workshop on the monitoring and assessment of airborne pollution			WMO	15	WMO		20,000
5. Consultation meeting on MED POL data processing programme and guidance for future work			UNEP	8	UNEP		10,000
6. Consultation meeting on the evaluation of monitoring programme			UNEP	8	UNEP		15,000
7. Training and intercalibration exercise on the determination of microbiological pollution			WHO	20	WHO		20,000
8. Training workshop on the monitoring of biological effects of pollutants on marine organisms	Nice	September	FAO/IOC	15	FAO		35,000
9. Consultation meeting on the determination of pathogenic micro-organisms in coastal marine waters			WHO	15	WHO		20,000
10. Consultation meeting on the application of chemical tracers of domestic contaminants for marine pollution surveys			IAEA	6	IAEA		10,000

MED POL MEETINGS TO BE HELD IN 1993

Meeting	Place	Date	Responsible Agency	No. of Partic.	Report issued by	Project Document (budget line)	Amount Alloc.
1. XXVI IAAC Meeting	Athens	January	UNEP	8	UNEP		-
2. Joint Committees' Meeting	Athens	May	UNEP	50	UNEP		-
3. Consultation meeting on MED POL data processing programme and guidance for future work			UNEP	8	UNEP		10,000
4. Training and intercalibration exercise on the determination of microbiological pollution			WHO	15	WHO		20,000
5. Consultation meeting on the treatment and discharge of toxic wastes			WHO	15	WHO		20,000
6. Training workshop on the monitoring of chemical contaminants using marine sediments			IAEA/IOC	15	IAEA		20,000
7. Training workshop on collecting emission data for assessing airborne pollution			WMO	15	WMO		20,000

ANNEX XII

DRAFT AGENDA

OF THE JOINT MEETING OF THE SCIENTIFIC AND TECHNICAL
COMMITTEE

AND THE SOCIO-ECONOMIC COMMITTEE
(ATHENS, 6-11 MAY 1991)

Joint Meeting of the Scientific and
Technical Committee and of the Socio-
Economic Committee

Athens, 6-11 May 1991

DRAFT AGENDA

1. Opening of the Meeting
2. Rules of Procedure
3. Election of officers
4. Adoption of the Agenda and Organization of Work
5. Progress report on the implementation of the Mediterranean Action Plan during 1990/1991 and recommendations and programme budget for 1992/1993:
 - 5.1 Programme management and co-ordination for the Mediterranean Action Plan:
 - (a) Programme approval through decision-making meetings
 - (b) Programme co-ordination
 - (c) Legal component
 - 5.2 Implementation of the Land-Based Sources Protocol (LBS) and Dumping Protocol:
 - (a) Implementation of the LBS protocol and the Dumping protocol

- (b) Assessment of the state of pollution in the Mediterranean Sea by pathogenic micro-organisms and proposed measures
- (c) Assessment of the state of pollution in the Mediterranean Sea by substances proven carcinogenic/mutagenic/teratogenic and proposed measures
- (d) Assessment of the state of pollution in the Mediterranean Sea by organophosphorus compounds and proposed measures
- (e) Assessment of the state of pollution in the Mediterranean Sea by radioactive substances
- (f) Assessment of the state of pollution in the Mediterranean Sea by persistent synthetic materials which may float, sink or remain in suspension and proposed measures
- (g) Annex IV to the Protocol concerning pollution from land-based sources transported by the atmosphere
- (h) Research projects directly relevant to the LBS protocol

5.3 Monitoring of marine pollution in the Mediterranean:

Marine pollution monitoring activities through MED POL

- (a) Monitoring programmes and supporting activities
- (b) Data Quality Assurance
- (c) Monitoring of plankton blooms
- (d) Research projects
- (e) Climatic changes

5.4 Prevention and combating pollution from ships:

- (a) Implementation of the protocol on Emergency
- (b) Activities of the Regional Oil Combating Centre (ROCC)
- (c) Port reception facilities for ballast water and other oily residues in the Mediterranean

5.5. Protection of the common Mediterranean heritage:

- (a) Implementation of the protocol concerning Specially Protected Areas
- (b) Activities of the Specially Protected Areas/Regional Activity Centre (SPA/RAC)
- (c) Preservation of the 100 historic sites

5.6 Environmentally sound management of the Mediterranean coastal zone:

- (a) Database on Mediterranean environment and development. Activities of the Blue Plan/Regional Activity Centre (BP/RAC)
- (b) Coastal planning and management. Activities of the Priority Actions Programme/Regional Activity Centre (PAP/RAC)
- (c) Coastal areas management programmes

5.7 Public information

6. Other business

7. Adoption of the report

8. Closure of the meeting

ANNEX XIII

**GUIDELINE FOR THE PREPARATION OF PROGRESS REPORT
FOR 1991 COMMITTEES' MEETING**

A. Monitoring of Marine Pollution in the Mediterranean

- 1) National Monitoring Programmes
(Describe your involvement in the design and formulation of monitoring programmes and in the purchase of equipment in 1990 and plans for 1991)
- 2) Data Quality Assurance Programme
(Describe the programme implemented in the various countries in 1990 and being carried out in 1991)
- 3) Intercalibration

(Describe the activities implemented in 1990 and being carried out in 1991, including the list of the participating Institutes)
- 4) Maintenance

(as for 3) plus attach full list of visits made in 1990 and being carried out in 1991)
- 5) MED POL data processing

(In addition to a paragraph by UNEP, include the list of reference methods prepared in 1990 and those planned for 1991)
- 6) Research and study topics

Prepare a paragraph for each activity (cover only activities A, F, H, I, J, K and L) (and new research areas I, II and IV) according to the following scheme:
 - a) Projects completed in 1990: (number)
 - b) Projects ongoing in 1990: (number)
 - c) Total 1990 contribution: US\$.....
 - d) Paragraph on subjects dealt with, related meetings held in 1990 and planned for 1991)

- 7) Climatic changes
(by UNEP)
- 8) Training and fellowships
(in addition to a paragraph by UNEP, Intercalibration and Data Quality Assurance training courses held in 1990 and planned for 1991 should be covered with description of subject dealt with and number of participants from how many countries).
- 9) Coordination
(by UNEP)
- 10) Plankton blooms and eutrophication
(by UNEP)

B. Implementation of LBS protocol

- 1) Implementation of protocol
(by UNEP)
- 2) Implementation of LBS workplan activities
(all activities from the workplan carried out in 1990 or being implemented in 1991 should be described including the preparation of all pollution assessment documents.
- 3) The work carried out for the preparation of annex IV to the LBS protocol should be described.
- 4) Pilot monitoring surveys
(The activities related to the 1990 ongoing pilot projects should be described as well as the ones planned for 1991).
- 5) Research and study topics
Prepare a paragraph for each activity (cover only activities B, C, D, E and G and new research areas III and V) as indicated under A.6 above.

**ANNEX XIV
PART A**

PROPOSED PROGRAMME BUDGET FOR MED POL

FOR THE BIENNIUM 1992-1993

(AT THE LEVEL OF THAT OF 1990-1991 BIENNIUM)

Note: For reference the MED POL Programme Budget for 1990-1991, as approved by the Contracting Parties (UNEP(OCA/MED IG.1/5) is reproduced.

4. MONITORING OF MARINE POLLUTION IN THE MEDITERRANEAN

Objective

To achieve a comprehensive and co-ordinated marine pollution monitoring programme including all Mediterranean countries, covering pollution sources, coastal and reference areas and airborne pollution and to achieve a high quality of monitoring data.

Activities

Monitoring

	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
	(in thousands of US \$)			
- Assistance to institutions participating in monitoring programmes, through provision of instruments and supplies (about 80 institutions) (Sub-contracts)	530*	530*	430*	530*
- Assistance to institutions for monitoring of plankton blooms and eutrophication (Sub-contracts)	20	25	30	30
- Maintenance of instruments provided to institutions participating in MED POL (spare parts) (about 40 institutions) (Sub-contracts)	38	38	30	40
- Consultants to prepare documents on analysis and data processing of MED POL data	20	20	25	25

* An additional 40 thousand U.S. dollars are budgeted for monitoring programmes in coastal zones pilot projects

1990 1991 1992 1993
(in thousands of US \$)

Training and fellowships

- On-job training of participants in MEDPOL monitoring programme (about 40 participants)	80	80	53	70
- Fellowships to participants in MEDPOL research and monitoring programme in order to present MEDPOL data at meetings	70	40	70	40

Data quality assurance

- Assistance to institutions participating in monitoring programmes in order to assure reliable and high quality data, through country data quality assurance programmes, joint monitoring exercises, intercomparison of results and dissemination of scientific information (about 20 institutions) (Sub-contracts)	70	70	45	65
- Assistance to institutions participating in monitoring programmes through purchase and provision of standards and reference materials (about 40 institutions) (Sub-contracts)	20	23	20	20

Meetings and training courses

- Intercalibration programme for institutions participating in MEDPOL (about 40 institutions) (Sub-contracts)	16	16	15	15
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1990 1991 1992 1993
(in thousands of US \$)

- Consultation meeting on MEDPOL data processing programme and guidance for future work (about 8 participants)	8	8	10	-
- Training and Intercalibration exercise (WHO/UNEP) on determination of microbiological pollution (about 15 <u>new</u> trainees each year)	20	20	20	20
- Consultation meeting on the evaluation of monitoring programmes (about 8 participants)	-	8	15	-
- Intercalibration and training workshop (IAEA/FAO/UNEP) on determination of organotin compounds (about 15 participants)	15	-	-	-
- Training workshop (FAO/IOC/UNEP) on statistical treatment and interpretation of marine community data (about 15 participants)	-	20	-	-
- Consultation meeting (IAEA/IOC/FAO/UNEP) on guidelines on data quality assurance (about 15 participants)	-	15	-	-
- Workshop (FAO/IOC/UNEP) on effects of pollutants on marine organisms (about 15 participants)	-	15	-	-

	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
	(in thousands of US \$)			
- Workshop (WMO/UNEP) on the evaluation of results on airborne pollution measurements (about 15 participants)	-	15	-	-
- Workshop on guidelines and reference method on sample work-up for organic contaminants analysis (IAEA/UNEP) (about 15 participants)	-	15	-	-
- Training workshop (FAO/IOC/UNEP) on the monitoring of biological effects of pollutants on marine organisms (about 15 participants, two weeks)	-	-	35	-
- Training workshop (FAO/IAEA) on the monitoring of chemical contaminants using marine organisms (about 25 participants)	-	-	35	-
- Training workshop (WMO/UNEP) on the monitoring and assessment of airborne pollution	-	-	20	-
- Consultation meeting on the determination of pathogenic micro-organisms in coastal marine waters (WHO)	-	-	20	-
- Training workshop (IAEA/IOC) on the monitoring of chemical contaminants using marine sediments (about 15 participants)	-	-	-	20

1990 1991 1992 1993
(in thousands of US \$)

Research

- Assistance to institutions participating in research programme, through provision of research grants (about 30 grants to about 25 institutions) (Sub-contracts) 100 100 100 100

Assessment of the pollution

- Preparation of an assessment of the state of pollution of the Mediterranean sea, based on the set of assessments already prepared, results of monitoring programmes and other available information (Sub-contracts) 50 - - -

- Printing of Proceedings of the 10th ICSEM/UNEP/IOC Workshop on Mediterranean marine pollution (Sub-contracts) 10 - 10 -

- Study of the impact of climate change on Mediterranean coastal zones (Sub-contracts) 20 20 25 25

TOTAL

	1990	1991	1992	1993
MTF	1037	1028	1008	1000
UNEP	50	50		

B. IMPLEMENTATION OF THE LBS PROTOCOL

6. IMPLEMENTATION OF THE LBS PROTOCOL

Objective

To prepare assessments of the state of pollution of the Mediterranean Sea by Annex I and II substances, to prepare proposed common measures for such substances and to assist countries in the implementation of such measures. To develop guidelines, and as appropriate, standards or criteria for the progressive implementation of the Protocol, and to assist countries in such implementation.

Activities

	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
	(in thousands of US \$)			
<u>Pilot projects</u>				
- Pilot project on monitoring of herbicides and fungicides (Sub-contracts)	10	25	-	-
- Pilot project on monitoring of non-bio degradable detergents and other surface-active substances (Sub-contracts)	10	25	-	-
- Pilot project on monitoring of selected chemical elements and their compounds listed in item 1 of Annex II of the LBS Protocol (Sub-contracts)	5	30	-	-

- Pilot project on monitoring of cyanides, fluorides and phenols in effluents (Sub-contracts) 20 15

1990 1991 1992 1993
(in thousands of US \$)

- pilot project on monitoring of fungicides (sub-contracts) 35

- pilot project on monitoring of Sp, Sn, Ba, Be, B, U, Tl and Te (sub-contracts) 15

Assessment of the pollution

- To prepare documents on assessments of Mediterranean pollution by LBS substances (Consultants) 15 15 15 15

- Assessment of the state of pollution in the Mediterranean Sea by pathogenic organisms (Sub-contracts) 5 - - -

- Assessment of airborne pollution in the Mediterranean Sea (sub-contracts) 20

- Assessment of the state of pollution of the Mediterranean Sea by Mo, Ti, Se, V, Co and Ag (Sub-contracts) 5

- Assessment of the state of pollution of the Mediterranean Sea by herbicides (Sub-contracts) 5

- Assessment of the state of pollution of the Mediterranean Sea by bio-degradable detergents (Sub-contracts) 5

- Assessment of the state of pollution of the Mediterranean Sea by fungicides (Sub-contracts) 8

1990 1991 1992 1993
 (in thousands of US \$)

- Assessment of the state of pollution of the Mediterranean Sea by Sb, Sn Ba, Be, B, U, Te and Tl (Sub-contracts) - - - 5
- Assessment of the state of pollution of the Mediterranean Sea by cyanides and fluorides (Sub-contracts) - - - 5
- Assessment of microbial pollution in the Mediterranean Sea (Sub-contracts) - - - 5

Common guidelines

- Preparation of common guidelines for the determination of the length, depth and position of pipelines for coastal outfalls (Sub-contracts) 5 5 - -
- Compilation of Mediterranean inventory of effluents requiring special and/or separate treatment (Sub-contracts) 5 5 - -
- Formulation of draft common guidelines, standards and criteria for effluents necessitating separate treatment (Sub-contracts) 5 5 - -
- Preparation of common guidelines for the inventory of air pollution sources (Sub-contracts) 5 - - -

1990 1991 1992 1993
(in thousands of US \$)

Research

- Assistance to institutions participating in research programmes, through provision of research grants (about 70 grants to about 60 institutions) (Sub-contracts)	190	190	190	190
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Meetings

- Consultation meeting (FAO/IAEA/UNEP) on environmental transformation of chemical contaminants (about 15 participants)	15	-	-	-
- Consultation meeting (WHO/UNEP) on health effects of chemical contaminants in Mediterranean seafood (about 15 participants)	-	15	-	-
- Consultation meeting (WHO/UNEP) on updated survey on pollution from Land-Based sources (about 15 participants)	*	-	-	-
- Workshop (IOC/UNEP) on transport and dispersion of pollutants in the sea (about 15 participants)	15	-	-	-
- Consultation meeting (IAEA/FAO/UNEP) on assessment of pollution by herbicides and fungicides (about 10 participants)	8	-	-	-

1990 1991 1992 1993
 (in thousands of US \$)

- Consultation meeting (FAO/UNEP) on assessment of pollution by chemical elements and their compounds listed in item 1 of Annex II of the LBS Protocol (about 10 participants) 8 - - -
- * Consultation meeting on the application of chemical tracers of domestic contaminants for marine pollution surveys (IASA/WHO) (about 15 participants) 10 - - -
- Consultation meeting on the treatment and discharge of toxic wastes (WHO) 20 - - -
- * Training workshop (WMO/UNEP) on collecting emission data for assessing airborne pollution (about 15 participants) 20 - - -

	1990	1991	1992	1993
TOTAL	301	315	340	303
MTF				

* Financed by WHO

E. ENVIRONMENTALLY SOUND MANAGEMENT OF THE MEDITERRANEAN COASTAL ZONES

9. ENVIRONMENTALLY SOUND MANAGEMENT OF THE MEDITERRANEAN COASTAL ZONES

c) Coastal Zones Pilot Projects

Objective

To integrate environmental and resource management policies in coastal zones proposed and accepted by Contracting Parties. Such integrated management programmes will include, as appropriate, findings and knowhow of all components of MAP such as development of coastal zones (including development scenaria), particular PAP actions, monitoring, implementation of common measures adopted by Contracting Parties, implementation of Barcelona Convention and related protocols, contingency plans, and specially protected areas.

At present the following four pilot country projects are on-going:
Kastela Bay (Yugoslavia), Izmir Bay (Turkey), island of Rhodes (Greece) and Syrian coast.

Activities

	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
	(in thousands of US \$)			
- Consultants to assist in preparation and implementation of documents and activities resulting in the implementation of coastal zones pilot projects and preparatory activities for follow-up	110	110		
- Assistance to institutions participating in coastal zone pilot projects approved by the Contracting Parties (Sub-contracts)	182			188

1990 1991 1992 1993
 (in thousands of US \$)

- Consultation meetings relevant to each pilot coastal zones

40 40 40

	1990	1991	1992	1993
TOTAL	332	338		

Note: The above programme is broken down as follows:
 PAP 150; Med Pol 40; Scenaria 30; ROCC 15; SPA 10; Data 20; Co-ordinating Unit 67 (1990) and 73 (1991)

It is expected that the four host countries of the pilot projects will contribute matching funds for the implementation of the projects.

MED POL CO-OPERATING AGENCIES

	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
	(in thousands of US \$)			
	<u>m/m</u>			
Professional Staff				
- WHO Senior Scientist - MAP	12	73	84	86
Co-ordinating Unit (Athens) - P.5				
- FAO Senior Fishery Officer - MAP	12	71	85	87
Co-ordinating Unit (Athens) - P.5				
- IAEA Maintenance Engineer (ILMR) (Monaco) - P.3	12	66	78	80
	210	220	247	253
Administrative Support				
- WHO Secretary - WHO/EURO (Copenhagen) - G.4	6	11	12	13
- WHO Secretary - MAP Co-ordinating Unit (Athens) - G.4/G.5	12	13	19	21
- FAO Secretary - MAP Co-ordinating Unit (Athens) - G.4	12	12	18	20
- IAEA Laboratory Assistant - ILMR (Monaco) - G.5/G.6	12	30	36	38
- WMO Secretary - WMO/HQ (Geneva) - G.4	3	6	7	8
	72	76	92	100

1990 1991 1992 1993
 (in thousands of US \$)

Travel on Official Business

-	WHO (Athens)	12	12	14	14
-	FAO (Athens)	12	12	14	14
-	WMO (Geneva)	8	8	9	9
-	IAEA (Monaco)	24	24	26	26
-	IOC of UNESCO(Paris)	6	6	7	7
		62	62	70	70

TOTAL

	1990	1991	1992	1993
MTF	344	358	409	423

Office Costs

Office costs incurred by FAO and WHO staff stationed in Co-ordinating Unit in Athens are covered by MED Unit office costs. Office costs incurred by all Agencies at their own Headquarters or Regional Offices are covered by the respective agencies as part of their counterpart contributions.

**ANNEX XIV
PART B**

PROPOSED PROGRAMME BUDGET FOR MED POL

FOR THE BIENNIUM 1992-1993

(WITH 7 PER CENT INCREASE)

Note: For reference the MED POL Programme Budget for 1990-1991, as approved by the Contracting Parties (UNEP(OCA/MED IG.1/5) is reproduced.

4. MONITORING OF MARINE POLLUTION IN THE MEDITERRANEAN

Objective

To achieve a comprehensive and co-ordinated marine pollution monitoring programme including all Mediterranean countries, covering pollution sources, coastal and reference areas and airborne pollution and to achieve a high quality of monitoring data.

Activities

Monitoring

	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
	(in thousands of US \$)			
- Assistance to institutions participating in monitoring programmes, through provision of instruments and supplies (about 80 institutions) (Sub-contracts)	530*	530*	530*	530*
- Assistance to institutions for monitoring of plankton blooms and eutrophication (Sub-contracts)	20	25	40	40
- Maintenance of instruments provided to institutions participating in MED POL (spare parts) (about 40 institutions) (Sub-contracts)	38	38	40	40
- Consultants to prepare documents on analysis and data processing of MED POL data	20	20	30	30

* An additional 40 thousand U.S. dollars are budgeted for monitoring programmes in coastal zones pilot projects

1990 1991 1992 1993
(in thousands of US \$)

Training and fellowships

- On-job training of participants in MEDPOL monitoring programme (about 40 participants) 80 80 80
- Fellowships to participants in MEDPOL research and monitoring programme in order to present MEDPOL data at meetings 70 40 40

Data quality assurance

- Assistance to institutions participating in monitoring programmes in order to assure reliable and high quality data, through country data quality assurance programmes, joint monitoring exercises, intercomparison of results and dissemination of scientific information (about 20 institutions) (Sub-contracts) 70 70 70

- Assistance to institutions participating in monitoring programmes through purchase and provision of standards and reference materials (about 40 institutions) (Sub-contracts) 20 23 20

Meetings and training courses

- Intercalibration programme for institutions participating in MEDPOL (about 40 institutions) (Sub-contracts) 16 16 15

	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
	(in thousands of US \$)			
- Consultation meeting on MEDPOL data processing programme and guidance for future work (about 8 participants)	8	8	10	10
- Training and Intercalibration exercise (WHO/UNEP) on determination of microbiological pollution (about 15 <u>new</u> trainees each year)	20	20	20	20
- Consultation meeting on the evaluation of monitoring programmes (about 8 participants)	-	8	15	-
- Intercalibration and training workshop (IAEA/FAO/UNEP) on determination of organotin compounds (about 15 participants)	15	-	-	-
- Training workshop (FAO/IOC/UNEP) on statistical treatment and interpretation of marine community data (about 15 participants)	-	20	-	-
- Workshop (FAO/IOC/UNEP) on effects of pollutants on marine organisms (about 15 participants)	-	15	-	-
- Consultation meeting (IAEA/IOC/FAO/UNEP) on guidelines on data quality assurance (about 15 participants)	-	15	-	-

	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
	<u>(in thousands of US \$)</u>			
- Workshop (WMO/UNEP) on the evaluation of results on airborne pollution measurements (about 15 participants)	-	15	-	-
- Workshop on guidelines and reference method on sample work-up for organic contaminants analysis (IAEA/UNEP) (about 15 participants)	-	15	-	-
- Training workshop (FAO/IOC/UNEP) on the monitoring of biological effects of pollutants on marine organisms (about 15 participants, two weeks)	-	-	35	-
- Training workshop (FAO/IAEA) on the monitoring of chemical contaminants using marine organisms (about 25 participants)	-	-	35	-
- Training workshop (WMO/UNEP) on the monitoring and assessment of airborne pollution	-	-	20	-
- Consultation meeting on the determination of pathogenic micro-organisms in coastal marine waters (WHO)	-	-	20	-
- Training workshop (IAEA/IOC) on the monitoring of chemical contaminants using marine sediments (about 15 participants)	-	-	-	20

1990 1991 1992 1993
(in thousands of US \$)

Research

- Assistance to institutions participating in research programme, through provision of research grants (about 30 grants to about 25 institutions) (Sub-contracts) 100 100 100 100

Assessment of the pollution

- Preparation of an assessment of the state of pollution of the Mediterranean sea, based on the set of assessments already prepared, results of monitoring programmes and other available information (Sub-contracts) 50 - - -

- Printing of Proceedings of the 10th ICSEM/UNEP/IOC Workshop on Mediterranean marine pollution (Sub-contracts) 10 - 10 -

- Study of the impact of climate change on Mediterranean coastal zones (Sub-contracts) 20 20 30 30

TOTAL

	1990	1991	1992	1993
MTF	1037	1028	1190	1045
UNEP	50	50		

B. IMPLEMENTATION OF THE LBS PROTOCOL

6. IMPLEMENTATION OF THE LBS PROTOCOL

Objective

To prepare assessments of the state of pollution of the Mediterranean Sea by Annex I and II substances, to prepare proposed common measures for such substances and to assist countries in the implementation of such measures. To develop guidelines, and as appropriate, standards or criteria for the progressive implementation of the Protocol, and to assist countries in such implementation.

Activities

Pilot projects

	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
	(in thousands of US \$)			
- Pilot project on monitoring of herbicides and fungicides (Sub-contracts)	10	25	-	-
- Pilot project on monitoring of non-bio degradable detergents and other surface-active substances (Sub-contracts)	10	25	-	-
- Pilot project on monitoring of selected chemical elements and their compounds listed in item 1 of Annex II of the LBS Protocol (Sub-contracts)	5	30	-	-
- Pilot project on monitoring of cyanides, fluorides and phenols in effluents (Sub-contracts)	-	-	20	20

1990 1991 1992 1993
(in thousands of US \$)

- Pilot project on monitoring of fungicides (Sub-contracts)	-	-	40	-
- Pilot project on monitoring of Sb, Sn, Ba, Be, B, U, Tl and Te (Sub-contracts)	-	-	40	-
<u>Assessment of the pollution</u>				
- To prepare documents on assessments of Mediterranean pollution by LBS substances (Consultants)	15	15	20	20
- Assessment of the state of pollution in the Mediterranean Sea by pathogenic organisms (Sub-contracts)	5	-	-	-
- Assessment of airborne pollution in the Mediterranean Sea (Sub-contracts)	-	-	20	20
- Assessment of the state of pollution of the Mediterranean Sea by Ni, Ti, Se, V, Co and Ag (Sub-contracts)	-	-	5	-
- Assessment of the state of pollution of the Mediterranean Sea by herbicides (Sub-contracts)	-	-	5	-
- Assessment of the state of pollution of the Mediterranean Sea by bio-degradable detergents (Sub-contracts)	-	-	5	-
- Assessment of the state of pollution of the Mediterranean Sea by fungicides (Sub-contracts)	-	-	-	8

1990 1991 1992 1993
(in thousands of US \$)

- Assessment of the state of pollution of the Mediterranean Sea by Sb, Sn Ba, Be, B, U, Te and Tl (Sub-contracts) 5
- Assessment of the state of pollution of the Mediterranean Sea by cyanides and fluorides (Sub-contracts) 5
- Assessment of microbial pollution in the Mediterranean Sea (Sub-contracts) 5

Common guidelines

- Preparation of common guidelines for the determination of the length, depth and position of pipelines for coastal outfalls (Sub-contracts) 5
- Compilation of Mediterranean inventory of effluents requiring special and/or separate treatment (Sub-contracts) 5
- Formulation of draft common guidelines, standards and criteria for effluents necessitating separate treatment (Sub-contracts) 5
- Preparation of common guidelines for the inventory of air pollution sources (Sub-contracts) 5

1990 1991 1992 1993
(in thousands of US \$)

Research

- Assistance to institutions participating in research programmes, through provision of research grants (about 70 grants to about 60 institutions) (Sub-contracts) 190 190 190 190

Meetings

- Consultation meeting (FAO/IAEA/UNEP) on environmental transformation of chemical contaminants (about 15 participants) 15 - - -

- Consultation meeting (WHO/UNEP) on health effects of chemical contaminants in Mediterranean seafood (about 15 participants) - 15 - -

- Consultation meeting (WHO/UNEP) on updated survey on pollution from Land-Based sources (about 15 participants) * - - -

- Workshop (IOC/UNEP) on transport and dispersion of pollutants in the sea (about 15 participants) 15 - - -

- Consultation meeting (IAEA/FAO/UNEP) on assessment of pollution by herbicides and fungicides (about 10 participants) 8 - - -

1990 1991 1992 1993
(in thousands of US \$)

- Consultation meeting (FAO/UNEP) on assessment of pollution by chemical elements and their compounds listed in item 1 of Annex II of the LBS Protocol (about 10 participants)	8	-	-	-
- Consultation meeting on the application of chemical tracers of domestic contaminants for marine pollution surveys (IAEA/WHO) (about 15 participants)	-	-	10	-
- Consultation meeting on the treatment and discharge of toxic wastes (WHO)	-	-	-	20
- Training workshop (WMO/UNEP) on collecting emission data for assessing airborne pollution (about 15 participants)	-	-	-	20

	1990	1991	1992	1993
TOTAL	301	315	355	313
MTF				

* Financed by WHO

E. ENVIRONMENTALLY SOUND MANAGEMENT OF THE MEDITERRANEAN COASTAL ZONES

9. ENVIRONMENTALLY SOUND MANAGEMENT OF THE MEDITERRANEAN COASTAL ZONES

c) Coastal Zones Pilot Projects

Objective

To integrate environmental and resource management policies in coastal zones proposed and accepted by Contracting Parties. Such integrated management programmes will include, as appropriate, findings and knowhow of all components of MAP such as development of coastal zones (including development scenarios), particular PAP actions, monitoring, implementation of common measures adopted by Contracting Parties, implementation of Barcelona Convention and related protocols, contingency plans, and specially protected areas.

At present the following four pilot country projects are on-going:
Kastela Bay (Yugoslavia), Izmir Bay (Turkey), island of Rhodes (Greece) and Syrian coast.

Activities

	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
	(in thousands of US \$)			
- Consultants to assist in preparation and implementation of documents and activities resulting in the implementation of coastal zones pilot projects and preparatory activities for follow-up	110	110		
- Assistance to institutions participating in coastal zone pilot projects approved by the Contracting Parties (Sub-contracts)	182			188

1990 1991 1992 1993
(in thousands of US \$)

- Consultation meetings relevant to each pilot coastal zones

40 40 40

	1990	1991	1992	1993
TOTAL	332	338		

Note: The above programme is broken down as follows:
PAP 150; Med Pol 40; Scenaria 30; ROCC 15; SPA 10; Data 20; Co-ordinating Unit 67 (1990)
and 73 (1991)

It is expected that the four host countries of the pilot projects will contribute matching funds for the implementation of the projects.

MED POL CO-OPERATING AGENCIES

	m/m	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
		(in thousands of US \$)			
Professional Staff					
-	12	73	77	84	86
-	12	71	74	85	87
	12	66	69	78	80
		210	220	247	253
Administrative support					
-	6	11	11	12	13
	12	13	14	19	21
	12	12	13	18	20
	12	30	32	36	38
	3	6	6	7	8
		72	76	92	100

Professional Staff

- WHO Senior Scientist - MAP
Co-ordinating Unit (Athens) - P.5
- FAO Senior Fishery Officer - MAP
Co-ordinating Unit (Athens) - P.5
- IAEA Maintenance Engineer
(ILMR) (Monaco) - P.3

Administrative support

- WHO Secretary - WHO/EURO
(Copenhagen) - G.4
- WHO Secretary - MAP
Co-ordinating Unit (Athens) -
G.4/G.5
- FAO Secretary - MAP
Co-ordinating Unit (Athens) - G.4
- IAEA Laboratory Assistant -
ILMR (Monaco) - G.5/G.6
- WMO Secretary - WMO/HQ
(Geneva) - G.4

1990 1991 1992 1993
 (in thousands of US \$)

Travel on Official Business

-	WHO (Athens)	12	12	14	14
-	FAO (Athens)	12	12	14	14
-	WMO (Geneva)	8	8	9	9
-	IAEA (Monaco)	24	24	26	26
-	IOC of UNESCO (Paris)	6	6	7	7
		62	62	70	70

TOTAL

	1990	1991	1992	1993
MTF	344	358	409	423

Office Costs

Office costs incurred by FAO and WHO staff stationed in Co-ordinating Unit in Athens are covered by MED Unit office costs. Office costs incurred by all Agencies at their own Headquarters or Regional Offices are covered by the respective agencies as part of their counterpart contributions.