



United Nations
Environment
Programme



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Paper presented by the
Co-ordinating Unit for the Mediterranean Action Plan

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Introduction

This paper is submitted to the Meeting on Arab Regional Cooperation in order to provide information on the Mediterranean Action Plan, on the participation of Arab Coastal States in the Action Plan, and to recommend measures for further improvement and strengthening of cooperation among Arab Coastal States.

Part I contains a brief description of the Action Plan since its approval in 1975. This information was previously presented to the meeting convened by ALECSO in Tripoli in October 1984.

Part II contains the rationale for strengthening cooperation within each Regional Sea programme and for extending it across Regional Sea boundaries among Arab States.

Part III contains specific proposals which it is hoped may facilitate informal discussions.

The present meeting has a great opportunity since any proposals that may be unanimously adopted by it, for presentation to the respective Regional cooperation programmes, are likely to have a great impact and receive the approval of the respective policy-making bodies.

Specific information on the participation of Arab Coastal States in the Mediterranean Action Plan is contained in Annex I to VIII.

The Co-ordinator and staff of the Unit extend a most cordial welcome to their colleagues from other regions and place all their facilities at the service of this important meeting.

PART I

THE MEDITERRANEAN ACTION PLAN

1. Background

The Mediterranean region was selected by the United Nations Environment Programme (UNEP) as a "concentration area" where it would attempt to fulfil the catalytic role of assisting the Coastal States in a consistent manner to protect their sea. As a result, a comprehensive plan

- the Mediterranean Action Plan - was developed by UNEP in collaboration with the Governments of the region and the relevant United Nations Specialized Agencies. This plan was adopted by a meeting of 16 Mediterranean Coastal States held in Barcelona in January/February 1975 and has been ongoing since that time. All Mediterranean Arab Coastal States namely Algeria, Egypt, Lebanon, Libyan Arab Jamahiriya, Morocco, Syrian Arab Republic and Tunisia are actively involved in this programme.

Basically, the Action Plan includes:

- Co-ordinated programme for research, monitoring, and exchange of information, and assessment of the state of pollution and of protection measures (MEDPOL);
- Framework convention and related protocols with their technical annexes for the protection of the Mediterranean environment; and
- Intergrated planning of the development and management of the resources of the Mediterranean Basin.

All components of the Action Plan are interdependent and provide a framework for comprehensive action to promote both the protection and the continued development of the Mediterranean region. No component is an end in itself. Each activity is intended to assist the Mediterranean Governments in improving the quality of the environmental information on which formulation of their national development policies is based. Each activity is also intended to improve the ability of Governments to better identify options for alternative patterns of development and to make more rational choices for allocation of resources.

A Coordinating Unit, located permanently in Athens, Greece, since 1 July 1982, is responsible for the implementation of the Mediterranean Action Plan, and is staffed by UNEP as the Secretariat of the Convention. Apart from overall coordination of the whole programme, the Unit is particularly involved in the scientific component (MED POL) in which it exercises direct coordination and control, as well as programme management and data processing. It is also responsible for reporting on the state of pollution of the Mediterranean Sea. Policy decisions, including the regular approval of programme components and budgets, are taken by the Contracting Parties to the Convention at their ordinary meetings, held biennially, and at extraordinary meetings, convened to discuss any specific matter.

Up to the end of 1978, the Action Plan was mainly financed by UNEP, with Governments of the region and collaborating UN Agencies contributing in kind. Since 1979, the Plan has been increasingly financed by Mediterranean Coastal States themselves, through the establishment of the Mediterranean Trust Fund. The main sources of finance of the Action Plan at present are cash contributions from Mediterranean Governments and the European Economic Community (about \$2.5 million annually) on a scale agreed between them at meetings of the Contracting Parties, other contributions, also from Mediterranean Coastal States, in cash and/or in kind, for specific aspects of the Plan, contributions in cash and in kind by UNEP, and contributions in cash and/or in kind from UNDP and the various collaborating UN Specialized Agencies.

2. Achievements and planned developments

i) Environmental Assessment (MED POL)

The environmental assessment component of the Mediterranean Action Plan is designed to provide continuous information on the actual state of pollution of the Mediterranean Sea, and to provide the necessary inputs towards the preparation, adoption and updating of the regional legal instruments, as well as the formulation of national legal and administrative measures to prevent and control pollution.

The initial phase of this component, termed the Joint Coordinated Programme of Pollution Monitoring and Research in the Mediterranean (MED POL, Phase I), was carried out between 1975 and 1981 by more than 200 scientific groups of 84 institutions from 16 Mediterranean countries. Annex I to the present paper gives a list of Institutions which have been designated to participate in MED POL Phase I by Arab Mediterranean countries. Apart from acquisition of the necessary technical information, the scope of the pilot phase of MED POL was also to assist national centres in developing their capabilities, with a view to their fuller participation in long-term programmes.

The programme was coordinated by UNEP in conjunction with the relevant United Nations Specialized Agencies.

The original pilot projects, of which four essentially dealt with monitoring and three with research, were the following:

- MED POL I Baseline studies and monitoring of oil and petroleum hydrocarbons in marine waters
- MED POL II Baseline studies and monitoring of metals, particularly mercury and cadmium, in marine organisms
- MED POL III Baseline studies and monitoring of DDT, PCBs and other chlorinated hydrocarbons in marine organisms
- MED POL V Research on the effects of pollutants on marine communities and ecosystems
- MED POL VI Problems of coastal transport of pollutants
- MED POL VII Coastal water quality control.

Other projects were added at a later stage to broaden the scope of the programme or to provide support, though not all were fully implemented. These additional projects were:

- MED POL VIII Biogeochemical studies of selected pollutants in the open waters of the Mediterranean
- MED POL IX Role of sedimentation in the pollution of the Mediterranean Sea
- MED POL X Pollutants from land-based sources in the Mediterranean
- MED POL XI Intercalibration of analytical techniques and common maintenance services
- MED POL XII Input of pollutants into the Mediterranean Sea via the atmosphere
- MED POL XIII Modelling of marine systems

The first phase of MED POL provided considerable data and information on various aspects of the pollution of the Mediterranean Sea. It also brought to light, as a result of direct practical experience, the essential requirements for a cohesive regional long-term programme, including remedial and adjustment measures at both technical and administrative levels. On the basis of the pilot phase's results, a comprehensive long-term monitoring and research programme (MED POL Phase II) designed to cover the period 1981-1990, was formulated and has recently commenced.

The main objectives of the programme are to provide a continuous assessment of the state of pollution of the Mediterranean basin, to identify the sources, pathways, amounts and effects of pollutants entering the Mediterranean Sea, to establish temporal trends in pollution levels, to provide the basis for modelling pollutant cycles, and to present the information for use as a management tool in pollution control, thus assisting countries in the region in the decision-making process with regard to environmentally-compatible socio-economic development strategies, as also to suggest pollution control methods, including cost-benefit analysis.

The long-term programme of MED POL includes two main elements:

a) monitoring activities:

- monitoring of sources of pollution to provide information on the type and amounts of pollutants reaching the marine environment from coastal sources;
- monitoring of coastal waters and estuaries under the direct influence of pollutants from identifiable primary or secondary sources;
- monitoring of reference areas (not under the direct influence of pollution sources) to provide information on the general trends in the level of pollution in the Mediterranean;
- monitoring of the transport of pollutants to the Mediterranean Sea through the atmosphere, providing additional information on the pollution load reaching the sea;

b) research and study topics:

- development of sampling and analytical techniques for monitoring the sources and levels of pollutants;
- development of reporting formats for the Protocols;
- formulation of the scientific rationale for the environmental quality criteria to be used in the development of emission standards, standards to use, or guidelines for substances listed in the annexes to the Protocol on land-based sources of pollution;
- epidemiological studies related to the proposed environmental quality criteria (standards of use) for bathing-waters, shellfish-growing waters and edible marine organisms;
- development of proposals for guidelines and criteria governing the application of the Protocol on land-based sources of pollution;
- research on oceanographic processes, with particular emphasis on surface circulation and vertical transport;

- research on the toxicity, persistence, bioaccumulation, carcinogenicity, and mutagenicity of selected substances in the annexes to the various Protocols;
- research on eutrophication and concomitant plankton blooms;
- studies on ecosystem modification in areas influenced by pollutants or caused by large-scale coastal or inland engineering activity;
- effects of thermal discharges on marine and coastal ecosystems, including the study of associated effects;
- biogeochemical cycles of pollutants, particularly those relevant to human health;
- study of pollutant transfer processes at river/sea and air/sea interface, by sedimentation, and through the straits linking the Mediterranean with other seas.

MED POL Phase II provides for a comprehensive assistance component, including individual and collective training, distribution of standards and reference substances, common maintenance services, and provision of standardized material and equipment.

As in the pilot phase, the long-term programme is being implemented by Mediterranean laboratories nominated by their national authorities under the overall coordination of UNEP in collaboration with the relevant UN Specialized Agencies.

ii) Environmental Management including legal component

In 1976, at a conference of Plenipotentiaries held in Barcelona, representatives of 16 Mediterranean States adopted three international agreements:

- The Convention for the Protection of the Mediterranean Sea against Pollution was adopted and signed at the Barcelona Conference and entered into force on 12 February 1978. It enables Contracting Parties to take necessary action on any specific form of pollution affecting the Mediterranean Sea, through ad hoc protocols or any other appropriate measures.
- The Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft was adopted and signed at the Barcelona Conference and entered into force on 12 February 1978. It regulates the dumping of wastes into the Mediterranean Sea through a "black list" (Annex I of the Protocol) of substances the dumping of which is prohibited, and a "grey list" (Annex II of the Protocol) of substances requiring special permits from national authorities prior to dumping.
- The Protocol concerning Cooperation in Combating Pollution of the Mediterranean Sea by Oil and other harmful substances in Cases of Emergency was adopted and signed at the Barcelona Conference and entered into force on 12 February 1978. It covers the development of contingency planning to meet pollution emergencies, dissemination of information, reporting of accidents and collaboration in case of emergencies, including mutual assistance.

- The Protocol for the Protection of the Mediterranean Sea against Pollution from Land-based Sources was adopted and signed at a Conference of Plenipotentiaries held in Athens in May 1980. It covers the control of pollution of the Mediterranean Sea Area caused by discharges from rivers, coastal establishments or outfalls, or emanating from any other land-based sources within the territories of the Contracting Parties. The Protocol contains a "black list" of substances, pollution by which will be gradually eliminated, and a "grey list" of substances and sources, pollution by which will be strictly limited.

A further Protocol, the "Protocol concerning Mediterranean Specially Protected Areas" was adopted and signed at a Conference of Plenipotentiaries held in Geneva in April 1982. It provides for the establishment and maintenance of specially protected areas within the Mediterranean region in order to safeguard sites of biological and ecological value and sites of scientific, aesthetic, historical, archaeological, cultural or educational importance.

Finally, a "Protocol on Protection of the Mediterranean against Pollution resulting from exploration and exploitation of the sea-bed" is being prepared.

The socio-economic component of the Action Plan (Environmental Management) is essentially divided in two distinct but interrelated parts : the Blue Plan and the Priority Action Programme.

The Blue Plan is an action-oriented general system of prospective studies, and its fundamental long-term objective is to place at the disposal of decision-makers and planners information enabling them to formulate plans for optimal socio-economic development on a sustainable basis without environmental degradation. While promoting cooperative efforts, the Blue Plan also takes into consideration the requirements of each individual country.

The Priority Actions Programme has as its main objective the initiation of cooperative activities by the Coastal States of the Mediterranean region with respect to appropriate environmental management practices, on the basis of available knowledge, in selected priority action areas. All activities seek to demonstrate, through practical action, alternatives for environmentally-sound socio-economic development.

3. Participation of Arab Countries

During the first phase of MED POL (1975-1981) the participation of the arab countries in the programme was very active and in most cases very productive. Eleven laboratories from Algeria, Egypt, Lebanon, Morocco, Syria and Tunisia were designated to participate in the seven pilot projects. (see Annex I).

In particular, two laboratories in Algeria and Egypt were selected to act as Regional Activity Centres for two pilot projects, respectively MED POL V (Research on the Effects of Pollutants on Marine Communities and Ecosystems) and MED POL VI (Problems of Coastal Transport of Pollutants). They mainly helped in the elaboration and analysis of data and in the assessment of the results.

In order to strengthen the national capabilities, assistance was provided through MED POL, in the form of equipment and material and organization of training to the laboratories from Arab countries which participated in the programme. In particular, five Atomic Absorption Spectrophotometers, four Gas Chromatographs and one spectrofluorimeter were provided for the analysis, respectively of heavy metals, halogenated hydrocarbons and petroleum hydrocarbons and training for a total of US \$ 70,470 was provided to individual scientists.

Since MED POL - PHASE II Programme was launched (1981), most of the Arab countries have shown interest and will, to actively participate in it. National Co-ordinators were appointed by the Governments of Algeria, Egypt, Lebanon, Morocco and Tunisia and are in the process of being appointed in Syria and Libya. The Government of Lebanon has already submitted a comprehensive national monitoring programme, as part of MED POL - PHASE II activities, while Tunisia is finalizing it and will submit it soon. In the other countries, the formulation and the definition of monitoring programmes are at present under negotiation with the MAP Co-ordinating Unit. As to research component of MED POL - PHASE II, fourteen research proposals were submitted by the Mediterranean Arab countries and are at present taken into account in the implementation of the programme.

Background legal studies for the proposed Mediterranean Interstate Guarantee Fund have been prepared by experts from Morocco. Experts from all other Arab Mediterranean countries are involved in the activities of the first phase of the Blue Plan. Finally, Tunisia has offered to host the Mediterranean Centre for Specially Protected Areas. This Centre will be operational in the very near future.

PART II

THE RATIONALE FOR CO-OPERATION

World-wide concern for the fate of the Oceans has been reflected at the Stockholm conference on the Human Environment and included into its Action Plan. UNEP has since pioneered the regional sea approach to the problem which focuses attention primarily on problems that have a direct and visible impact on individual States (i.e. coastal pollution) and is essentially action-oriented. The stress on action was welcomed by member States because it recognizes that scientific and financial resources are limited and that we need to develop programmes that are practical and workable.

Inter-State co-operation is the most effective and economical policy of dealing with marine pollution programmes because of the inherent similarity of problems and remedial measures in similar environmental and socio-economic situations.

In the Mediterranean basin such similarities are strikingly present and all the work carried out in Med-Pol, the Blue Plan, the Priority Actions Programme has confirmed and illustrated such similarities.

The benefits of co-operation fall particularly on developing countries because international solidarity and the need to provide assistance has been built into the Barcelona Convention and related protocols.

During the pilot phase of Med-Pol, close to 1.5 million in direct financial assistance was channeled to Med-Pol participants in the form of training, equipment, materials and experts as detailed in Annex VIII.

Yet the full potential of co-operation within the basin is only beginning to be realized. In addition to exchanges, equipment and training available directly through the MAP budget, the Mediterranean Action Plan is in the process of mobilizing co-operation at the EEC, national, regional and municipal level for the purposes of the Action Plan.

As illustrations of this process one may refer to the contribution made by one country to one of the MAP-promoted projects which is close to the entire annual budget of MAP (Italy's \$ 3,000,000 support to the Regional Aquaculture project, MEDRAP). A further illustration is the joint UNEP/IMO identification of port reception facilities requirements in 53 Mediterranean ports, which will cost an estimated \$ 143,000,000 to build.

A similar rationale supports closer co-operation among Arab coastal States to complement their existing partnerships. In addition to the obvious similarities of environmental and socio-economic nature there are language, political and other ties that make such closer co-operation desirable.

Among European countries such examples of advantageous multi-level co-operation are found. France, for example, participates actively in marine protection affairs in the framework of the European Community, of the Mediterranean Action Plan, of the London and Paris Convention, of the Caribbean Action Plan, to mention only a few.

If properly designed, participation in different forms of co-operation is bound to increase the net benefits for each country. Some proposals are put forward in part three of this paper, as a basis for discussion.

PART III

RECOMMENDED ACTIONS

The following proposals are put forward as a basis for discussion by the meeting :

- Ratification of Med protocols

It is recommended to Arab Mediterranean coastal States to accelerate and complete the process of ratification of all protocols to the Barcelona Convention.

- Technical co-operation

It is recommended that whenever possible National Med Pol Co-ordinators from Arab Mediterranean coastal States co-operate in technical matters by exchange of expertise and data, and participation in meetings.

- National legislation

It is recommended to all Arab coastal States to strengthen national legislation relating to marine protection and to facilitate this process through exchange of expertise, development of draft guidelines and standard regulatory measures.

- Mutual assistance

It is recommended that Arab coastal States explore all sources of finances which are exclusively or primarily open to them, in order to finance research and remedial measures related to marine pollution,

- Training

It is recommended that training opportunity be developed within existing Marine Research Laboratories (with outside financing of fellowships and direct training costs) ; that the desirability and need of a common training facility for Arab States be explored together with realistic availability of host facilities and operating funds ;

- Co-operation in oil emergencies

It is recommended to strengthen mutual assistance among Arab coastal States to deal with oil spill emergencies ;

- Port reception facilities

It is recommended that Arab Mediterranean coastal States protect themselves against oil pollution caused by ballast water discharges by developing necessary port-reception facilities as recommended by UNEP and IMO.

- ALECSO

It is recommended that ALECSO study the possibility of becoming a Contracting Party to the Barcelona Convention in terms of Article 24 of the Convention as "a regional economic grouping at least one member of which is a coastal state of the Mediterranean Sea Area and which exercises competences in fields covered by the Convention, as well as by any protocol affecting them.

- UNEP

It is recommended that meetings among regional secretariats be held at regular intervals in order to promote and review matters relating to co-operation among Arab coastal States.

Annex I

Status as at 1 December 1984
of the Convention for the protection of the Mediterranean Sea against pollution and its related protocols

Convention Dumping 1/ Emergency 2/ Land-Based Sources 3/ Specially Protected Areas 7/

	Signature	Ratification	Signature	Ratification	Signature	Ratification	Signature	Ratification	Signature	Ratification
Albania	--	--	--	--	--	--	--	--	--	--
Algeria	--	16 Feb 81 5/	--	16 Mar 81 5/	--	2 May 83 5/	--	--	--	--
Cyprus	16 Feb 76	19 Nov 79	16 Feb 76	19 Nov 79	17 May 80	--	--	--	--	--
Egypt	16 Feb 76	24 Aug 78 6/	16 Feb 76	24 Aug 78 6/	--	18 May 83 5/	16 Feb 83	--	--	8 July 83
France	16 Feb 76	11 Mar 78 6/	16 Feb 76	11 Mar 78 6/	17 May 80	13 Jul 82 4/6/	3 Apr 82	--	--	--
Greece	16 Feb 76	3 Jan 79	16 Feb 76	3 Jan 79	17 May 80	--	3 Apr 82	--	--	--
Israel	16 Feb 76	3 Mar 78	16 Feb 76	3 Mar 78	18 May 80	--	4 Apr 82	--	--	--
Italy	16 Feb 76	3 Feb 79	16 Feb 76	3 Feb 79	17 May 80	--	3 Apr 82	--	--	--
Lebanon	16 Feb 76	8 Nov 77 5/	16 Feb 76	8 Nov 77 5/	17 May 80	--	--	--	--	--
Libya	31 Jan 77	31 Jan 77	31 Jan 77	31 Jan 79	17 May 80	--	--	--	--	--
Malta	16 Feb 76	30 Dec 77	16 Feb 76	30 Dec 77	17 May 80	--	3 Apr 82	--	--	--
Monaco	16 Feb 76	20 Sep 77	16 Feb 76	20 Sep 77	17 May 80	12 Jan 83	3 Apr 82	--	--	--
Morocco	16 Feb 76	15 Jan 80	16 Feb 76	15 Jan 80	17 May 80	--	2 Apr 83	--	--	--
Spain	16 Feb 76	17 Dec 76	16 Feb 76	17 Dec 76	17 May 80	6 Jun 84	3 Apr 82	--	--	--
Syria	--	26 Dec 78 4/ 5/	--	26 Dec 78 5/	--	--	--	--	--	--
Tunisia	25 May 76	30 Jul 77	25 May 76	30 Jul 77	17 May 80	29 Oct 81	3 Apr 82	26 May 83 4/	--	--
Turkey	16 Feb 76	6 Apr 81	16 Feb 76	6 Apr 81	--	21 Feb 83 5/	--	--	--	--
Yugoslavia	15 Sep 76	13 Jan 78	15 Sep 76	13 Jan 78	--	--	30 Mar 83	--	--	--
EEC	13 Sep 76	16 Mar 78 6/	13 Sep 76	12 Aug 81 6/	17 May 80	7 Oct 83 6/	30 Mar 83	30 Jun 84	--	--

- 1/ The Protocol for the prevention of pollution of the Mediterranean Sea by dumping from ships and aircraft
- 2/ The Protocol concerning co-operation in combating pollution of the Mediterranean Sea by oil and other harmful substances in cases of emergency
- 3/ The Protocol for the protection of the Mediterranean Sea against pollution from land-based sources
- 4/ With reserve
- 5/ Accession
- 6/ Approval
- 7/ The Protocol concerning Mediterranean Specially Protected Areas

ANNEX I I

APPORTIONMENT OF CONTRIBUTIONS FOR 1983, 1984 AND 1985
(IN US DOLLARS)

Pays	U.N. Scale (GA 37)	U.N. Scale at 100%	Approved Contributions		
			1983	1984	1985
Algeria	0,13	0,91	22,500	23,548	24,648
Cyprus	0,01	0,07	2,000	2,081	2,165
Egypt	0,07	0,49	13,250	13,814	14,407
France	6,51	45,85	1,000,000	1,052,799	1,108,239
Greece	0,40	2,81	65,750	66,986	72,384
Israel	0,23	1,61	47,000	48,854	50,801
Italy	3,74	26,33	647,250	677,571	709,407
Lebanon	0,02	0,14	5,750	5,911	6,080
Libyan A.J.	0,26	1,81	43,000	45,084	47,273
Malta	0,01	0,07	2,000	2,081	2,165
Monaco	0,01	0,07	2,000	2,081	2,165
Morocco	0,05	0,35	9,500	9,903	10,326
Spain	1,93	13,57	296,629	312,256	328,664
Syrian A.R.	0,03	0,22	5,750	6,003	6,269
Tunisia	0,03	0,22	5,750	6,003	6,269
Turkey	0,32	2,25	56,250	58,841	61,560
Yugoslavia	0,46	3,23	78,750	82,470	86,375
Sub-TOTAL	14,21	100,00	2,303,129	2,418,285	2,539,200
E.C.			500,000	525,000	551,250
Host Country			400,000	400,000	400,000
" " (training)			50,000		
TOTAL			3,253,129	3,343,285	3,470,200

Method of Calculation

- Agreed increase of 5% per annum in total contributions;
- (i) Base year (1983) contributions as shown;
 - (ii) Each country's increase in contributions equals the corresponding General Assembly proportion of the total increase; e.g. Turkey pays in 1984 its 1983 contribution of \$56,250 plus 2.25% of the difference between the 1984 and 1983 SUB-TOTAL contributions of all countries (\$2,418,285 -- \$2,303,129 = \$115,156; with an increase in 1985 of 2.25% of the difference between total National Contributions for 1984 and 1985.
 - (iii) The Contribution of the European Economic Community is increased at 5% per annum;

Annex III .

Equipment provided to MED POL participants
(including items approved but not yet delivered)

Research Centre	Non-expendable equipment
LEBANON	
Centre de Recherche Marine Conseil National de la Recherche Scientifique B.P. 123 Jounieh	- 1 Slip-ring - 1 S/T Sensor
MOROCCO	
Institut National d'Hygiene (INH) B.P. 769 Rabat	- 1 Filtration apparatus with accessories
Office National de l'Eau Potable (ONEP) (Laboratoire) B.P. Rabat-Chellah	- 1 Oxymeter - Platinum crucibles
Institut Scientifique des Pêches Maritimes (ISPM) B.P. 21 Casablanca	- 1 Salinometer - 1 Oxygene analyser - 1 ORIN type electrode - 1 Winch with cable - 1 Plastic sediment sampler - 1 Precision thermometer
Inst. National Agronomique et Vétérinaire Hassan II (INAV) (Laboratoire de Toxicologie) Rabat-Agdal	- 1 Graphite furnace - AAS lamps
Inst. National Agronomique et Vétérinaire Hassan II (INAV) (Laboratoire d'Hygiène et industrie denrées alimentaires d'origine animale) Rabat-Agdal	- 1 Oven
Ecole Mohammadia d'Ingénieurs (EMI) (Centre International de Génie sanitaire) B.P. 765 Rabat	- 1 DBO meter (Ref.2173-01) - 1 DCO meter (Ref. 16500-10) - 1 Temperature regulator - 1 Set for field analysis of water quality

Annex IV

Trainees and fellowships

I. On-job training and scientific visits

Scientists and institutions	Dates and institutions of training	Purpose of training/visit
<u>LEBANON</u>		
Mr. Elie Najjar Marine Research Center Jounieh	6 - 13 October 1984 IILMR Monaco	Pesticide analysis
Ms. Mary Tilbian Marine Research Center, Jounieh	6 - 13 October 1984 IILMR Monaco	Heavy metals analysis
<u>MOROCCO</u>		
Two technicians Institut National d' Hygiène (INH) B.P. 769 Rabat	Two weeks (approved, but not yet implemented)	Microbiology
Principal investigator Institut Scientifique des pêches Maritimes (ISPM) B.P. 21 Casablanca	Two weeks (approved, but not yet implemented)	Analysis of pollutants in sediments and petroleum hydrocarbons
An investigator (ISPM)	One month (approved, but not yet implemented)	Analysis of organochlorines
Two laboratory technicians Institut National Agrono- mique et Vétérinaire Hassan II (INAV) Rabat-Agdal	Two weeks (approved, but not yet implemented)	
Two investigators (INAV)	One month (approved, but not yet implemented)	
An investigator Ecole Mohammadia d'Ingénieurs (EMJ) B.P. 765 Rabat	One month (approved, but not yet implemented)	Sampling and analysis of waste waters
An investigator (EMI)	One month (approved, but not yet implemented)	Sampling of sediments and analysis of organochlorines

II. Attendance at scientific meetings

a. UNEP Working Group on the Blooms of Jellyfish in the Mediterranean, Athens, 31 October - 4 November 1983

M. Aubert, France	V. Axiak, Malta
M. Belkhir, Tunisia	A. Benovic, Yugoslavia
D. Cargo, U.S.A. ^{1/}	N. Dowidar, Egypt
J. Goy, France	H. Idrissi, Morocco
T. Legovic, Yugoslavia	J. Makjanic, Yugoslavia
A. Malej, Yugoslavia	Z. Maretic, Yugoslavia
H. Möller, W. Germany ^{1/}	G. Pappalardo, Italy
A. Renzoni, Italy	L. Rottini-Sandrini, Italy
F. Stravisi, Italy	T. Theoharidis, U.S.A.
T. Vucetic, Yugoslavia	C. Scarpa, Italy
R. Della Loggia, Italy	F. Wilkerson, U.S.A. ^{1/}
J. Ganoulis, Greece	P. Bernard, France
A. Vukovic, Yugoslavia	B. Ozretic, Yugoslavia

b. WHO/UNEP First Intercalibration exercise and Consultation Meeting on microbiological methods for Coastal water quality monitoring Barcelona, 7-11 November 1983

F.B. Bá, Sénégal, ^{1/}	P. Bernard, France,
E. Chamekh, Algeria	K. Djambara, Côte d'Ivoire, ^{1/}
J. Semeria, Monaco,	S. Jekov, Tunisia

c. UNEP Consultation Meeting on a Jellyfish Project in the Mediterranean Sea, Athens, 6 - 7 February 1984

J. Ganoulis, Greece	L. Rottini-Sandrini, Italy
V. Axiak, Malta	A. Benovic, Yugoslavia
T. Legovic, Yugoslavia	

d. Workshop on Thermal Pollution, Primosten, 14 - 15 May 1984

U. Unluata, Turkey

e. Workshop on the Chemistry of the Mediterranean Sea, Primosten, 16 - 24 May 1984

N. Frilingos, Greece*	M. Scoullas, Greece*
U. Unluata, Turkey**	J. Biscan, Yugoslavia
M. Juracic, Yugoslavia	

1/ Sponsored by RS/PAC of UNEP

* Received D.S.A. only

** Received travel and 20% D.S.A. only

f. FAO/UNEP/IAEA Consultation Meeting on Reference Methods for the Determination of Chemical Contaminants in Marine-Organisms Rome, 4-8 June 1984

E. Bacci, Italy	R. Capelli, Italy
A. Habib, Tunisia	B. Krungalz, Israel
A. Muezzinoglu, Turkey	J. Obiols, Spain
M. Picer, Yugoslavia	G.C. Pappalardo, Italy
I. Salihoglu, Turkey	Y. Thibaud, France
L. Reutergardh, Sweden	U. Fossato, Italy
S. Focardi, Italy	P. Michel, France

g. WHO/UNEP Second Intercalibration exercise and Consultation Meeting on Coastal water quality monitoring, Athens, 25 - 29 June, 1984

S. Bokan, Yugoslavia	E. Ioannou, Cyprus
N. Krstulovic, Yugoslavia	A. Mates, Israel
F. Portelli, Malta	A. Yilmaz, Turkey
Y. Yoshpe-Purer, Israel	

h. Symposium on Environmental Management for Developing Countries, Istanbul, 25 - 31 July 1984

K. Fytianos, Greece	A. Mourmouris, Greece
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j. FAO/UNEP/WHO/IOC/IAEA Biogeochemical Cycle of Mercury in the Mediterranean, Siena, 27 - 31 August 1984

O. Aboul Dahab, Egypt	G. Copin-Montégut, France */
H. Hornung, Israel	Jean-Marie Martin, France
H.H. Saleh, Egypt	I. Salihoglu, Turkey
I. Vukadin, Yugoslavia	D. Zafiroopoulos, Greece

i. WHO/FAO/UNEP Meeting on biological monitoring of methylmercury in Mediterranean populations, Zagreb, 17 - 21 September 1984

C. Alzieu, France	R. Capelli, Italy
N. Egoz, Israel	L. Kosta, Yugoslavia
S. Nakou, Greece	A. Polychronopoulou-Trichopoulou, Gr.
A. Renzoni, Italy	M. Riolfatti, Italy
G. Tomassi, Italy	A. Dahab, Egypt

*/ D.S.A. only.

k. VII ICSEM/IOC/UNEP Workshop on Pollution of the Mediterranean Sea Lucerne, 11 - 13 October 1984

M. Apostolopoulou, Greece	O. Aboul Dahab, Egypt
R.R. Abdallah, Egypt	J. Castritsi-Catharios, Greece
J. Dujmov, Yugoslavia	N. Dowidar, Egypt
O.A. El-Rayis, Egypt	I.H. El-Sokkary, Egypt
B. Fattal, Israel	N. Friligos, Greece
A. Catsiki, Greece	D. Zafiropoulos, Greece
E. Papathanassiou, Greece	A. Mourmouris, Greece
D. Fuks, Yugoslavia	C.F. Gokcay, Turkey
A.A. Haritos, Greece	H. Hornung, Israel
B. Krungal, Israel	A. Kokatas, Turkey
B. Kurelec, Yugoslavia	A. Lambrini, Morocco
I. Munda, Yugoslavia	M. Juracic, Yugoslavia
S. Jekov, Tunisia	J. Pavicic, Yugoslavia
V. Pravdic, Yugoslavia	C. Papaconstantinou, Greece
F. Voutsinou, Greece	S.P. Varnavas, Greece
I. Vukadin, Yugoslavia	M. Vassilaki, -Grimanis, Greece
A. Yilmaz, Turkey	S.D. Wahby, Egypt
Y. Yoshpe-Purer, Israel	A. Cruzado, Spain
V. Zutic, Yugoslavia	L. Athanasiades, Cyprus
A. Laskaratos, Greece */	

l. Meeting on the cooperation of the Mediterranean countries, Venice, 20 - 27 October 1984

A. Mourmouris, Greece 1/

m. FAO/UNEP Meeting on Toxicity and Bioaccumulation of selected substances in marine organisms, Rovinj, 5 - 9 November 1984

P.D. Abel, Greece	A. Balci, Turkey
M. Belkhir, Tunisia	J. Castritsi-Catharios, Greece
A.V. Catsiki, Greece	L. Dalla Venezia, Italy
O. El-Rayis, Egypt	A.H. El-Sebae, Egypt
M.J. Gasic, Yugoslavia	M. Moraitou-Apostolopoulou, Greece
E. Papathanassiou, Greece	H.H. Saleh, Egypt
M. Tudor, Yugoslavia	M. Tusek-Znidaric, Yugoslavia
M. Unsal, Turkey	M. Vighi, Italy
R. Zahn, FRG 2/	

*/ D.S.A. only

1/ Attendance in conjunction with ICSEM/IOC/UNEP Workshop

2/ Sponsored by RS/PAC

n. IOC/UNEP Intercalibration exercise of petroleum hydrocarbon analytical methods, Barcelona, 12 - 16 November, 1984

Balci, Turkey	Saydam, Turkey
Bouloumbassi, Greece	Mimicos, Greece
Saliot, France	Dujmov, Yugoslavia
Picer, Yugoslavia	El Mehrik, Libya
Golik, Israel	Hanna, Egypt
Franco, Spain	

o. Troisième exercice d'inter-étalonnage et consultation sur les méthodes microbiologiques destinées à la surveillance de la qualité des eaux côtières, OMS/PNUE, Tunis, 12 - 16 novembre 1984

A. Belemlih, Morocco	B. Carcassonne, France
L. Idrissi, Morocco	M. Jabry, Morocco
N. Krstulovic, Yugoslavia	A. Nejjar, Morocco
C. Skabic, Yugoslavia	J. Monteiro Ferereiro, Portugal <u>3/</u>
M.M. Valente, Portugal <u>3/</u>	

Annex V

Maintenance services provided to MED POL participants

Institute	Dates	Instruments
ALGERIA		
Institut des Sciences de la mer et de l'aménagement du littoral (ISMAL) Alger	10-16 December 1984	Service of VARIAN AAS, GC and paper chart recorders and H.P. 85 computer
MOROCCO		
Institut Scientifique des Pêches Maritime Casablanca	24 - 26 April 1984	Emergency service of Varian AAS, GC, and two chart recorders
Institut National Agronomique et Veterinaire Hassan II Rabat	27 April 1984	Assessment of state of the analytical instrumentation
Office National de l'Eau Potable (ONEP) (Laboratoire) Rabat-Chellah	27 April 1984	Assessment of state of the analytical instrumentation
Ecole Mohammadia d'Ingénieurs (EMI) (Centre International de Génie sanitaire) Rabat	27 April 1984	Assessment of state of the analytical instrumentation
TUNISIA		
Institut national scientifique d'Océanographie et Pêche (INSTOP) Tunis	17-18 December 1984	Service of Varian AAS and joint repair service with Carlo Erba engineer of Carlo Erba GC

Annex VI

Ongoing MED POL research projects

Activity 'A' : Development and testing of sampling and analytical techniques
for monitoring of marine pollutants

RESEARCH CENTRE	TITLE OF PROJECT, NAME OF PRINCIPAL INVESTIGATOR AND ASSISTANCE RECEIVED IN US \$	CO-OPERATING AGENCY
TUN 02 Service de Bacteriologie des Eaux et produits alimentaires, Tunis	Etude comparative de la valeur spécifique des coliformes fécaux et des Streptocoques fécaux comme marqueurs de la pollution fécale des eaux de baignade sur le littoral tunisien (A. CHADLI) 3000, 3000)	WHO

Activity 'G' : Research on the toxicity, persistence, bioaccumulation, carcinogenicity and mutagenicity

RESEARCH CENTRE	TITLE OF PROJECT, NAME OF PRINCIPAL INVESTIGATOR AND ASSISTANCE RECEIVED IN US \$	CO-OPERATING AGENCY
EGY 04 Dept. of Environ. Sciences, UNARC Alexandria	Acute and chronic toxicology of widely used dispersants, PCB's, chlorinated pesticides and their combinations to marine biota and their biomagnification in Alexandria region (A.K.H. EL-SEBAE, 4000, 4000, 2000)	FAO

Activity 'H' : Eutrophication and concomittant plankton blooms

RESEARCH CENTRE	TITLE OF PROJECT, NAME OF PRINCIPAL INVESTIGATOR AND ASSISTANCE RECEIVED IN US \$	CO-OPERATING AGENCY
ALG 04 Dept.de Production Primaire C.R.O.P.	Eutrophisation et floraisons concomitantes de plancton, dans le port d'Alger (F. AID, 2000, 2000, 1500)	FAO
TUN 04 Lab. d'Ocean. et pollution marine Salammba	Eutrophisation et floraisons concomitantes de plancton (M.S. HADJ ALI, 3000, 3000, 2000)	FAO

Activity 'I' : Pollution-induced ecosystems modifications

RESEARCH CENTRE	TITLE OF PROJECT, NAME OF PRINCIPAL INVESTIGATOR AND ASSISTANCE RECEIVED IN US \$	CO-OPERATING AGENCY
LEB 01 CNRS Beyrouth	Modifications des écosystèmes par la pollution (S. LAKKIS, 3000, 2000, 2000)	FAO

Activity 'K' : Biogeochemical cycles of specific pollutants

RESEARCH CENTRE	TITLE OF PROJECT, NAME OF PRINCIPAL INVESTIGATOR AND ASSISTANCE RECEIVED IN US \$	CO-OPERATING AGENCY
EGY 03 UNARC Alexandria	Biogeochemical cycles of specific pollutants Survival of pathogens in the Mediterranean (F. EL-SHARKAWI, 5000, 5000, 5000)	WHO
EGY 07 UNARC Alexandria	Biogeochemical cycles of specific pollutants (I.H. EL-SOKKARY, 3000, 3500)	FAO
TUN 03 Inst. Pasteur Tunis	Survie des entro-bactéries pathogènes (Salmonella), des Vibrions (NAG vibrions et vibrions parahémolyticus) et des germes marqueurs de pollution fécale (Coliformes et Streptocoques fécaux) en relation avec certains facteurs physico-chimiques (pH, température, salinité, oxygène dissous DBO ₅ , DCO du milieu marin) (S. JEKOV, 2350, 2000)	WHO

Activity 'L' : Pollutant-transfer processes

RESEARCH CENTRE	TITLE OF PROJECT, NAME OF PRINCIPAL INVESTIGATOR AND ASSISTANCE RECEIVED IN US \$	CO-OPERATING AGENCY
EGY 08 Univ. Alexandria Research Centre P.O. Box 832	Pollutant Transfer Processes (M.F. MACKLAD, 5100)	IOC

Annex VII.

Technical assistance by visits of staff
(secretariat and co-operating agencies) and consultants/experts

State	Date	Staff as expert/consultant
ALGERIA		
Algiers	4 - 30 November 1983	P. Ahn, UNEP Consultant S.W. Fowler, IAEA R. Buscaren, UNEP Consultant
Algiers	18 - 20 November 1983	A. Cruzado, UNEP
Algiers	29 - 30 November 1983	A. Cruzado, UNEP
EGYPT		
Alexandria/Cairo	17 - 21 February 1984	L.J. Saliba, WHO
SYRIA		
Damascus, Latakia	7 - 12 October 1984	L.J. Saliba, WHO
TUNISIA		
Tunis	11 - 13 June 1984	L.J. Saliba, WHO

Annex VIII

Direct financial assistance (in US \$) to the participants in MED POL for training, equipment, material and experts (as at October 1980)

Country	MED I	MED II	MED III	MED IV	MED V	MED VI	MED VII	MED VIII	RAC	OTHER	TOTAL
ALGERIA	-	28.125	-	-	22.500	-	2.280	-	50.000	-	102.905
CYPRUS	10.000	30.225	19.500	-	8.500	9.700	-	-	-	-	77.925
EGYPT	11.500	62.825	33.925	12.700	15.700	18.200	5.315	-	40.000	1.401	201.566
FRANCE	2.000	-	1.000	-	-	-	4.560	8.000	10.000	-	25.560
GREECE	12.000	41.225	4.500	6.500	6.300	11.000	10.760	9.200	-	561	102.046
ISRAEL	30.000	30.525	1.000	24.300	-	7.000	26.450	9.000	-	-	128.275
ITALY	2.500	19.800	6.000	3.000	-	14.100	25.300	-	10.000	-	80.700
LEBANON	9.500	8.100	14.500	-	-	-	4.740	-	-	1.370	38.210
MALTA	6.000	24.525	21.878	15.000	-	12.500	7.980	10.000	10.000	-	107.883
MONACO	-	-	-	-	-	-	6.635	-	-	-	6.635
MOROCCO	-	29.525	17.000	-	-	2.500	4.560	-	-	-	53.585
SPAIN	2.500	4.500	18.053	4.500	-	-	9.560	10.000	-	-	49.113
TUNISIA	12.500	30.725	5.500	-	-	3.500	2.280	-	-	-	54.505
TURKEY	10.000	75.970	46.350	10.900	11.200	10.500	10.900	-	10.000	837	186.657
YUGOSLAVIA	7.000	67.050	34.156	32.200	41.100	16.000	41.335	-	10.000	775	249.616
TOTAL	115.500	453.120	223.362	109,100	105.300	105.000	162.655	46.200	140.000	4.944	1.465.181