



REGIONAL SEAS

UNITED NATIONS ENVIRONMENT PROGRAMME

*Arab co-operation for the
protection and development of the
marine environment and coastal areas
resources of the Mediterranean*

UNEP Regional Seas Reports and Studies No. 52



UNEP 1984

Note: This report has been prepared by UNEP for presentation at the Meeting of Experts from Arab Mediterranean Coastal States on a Sub-regional Agreement for the Protection and Development of the Marine Environment and Coastal Areas Resources of the Mediterranean (Tripoli, Lybian Arab Jamahiriya, 27-30 October 1984) convened by the Arab League Educational Cultural and Scientific Organization (ALECSO)

The views expressed, the designations employed and the presentation of the material in this document do not imply the expression of any official opinion whatsoever on the part of UNEP concerning the legal status of any State, Territory, city or area, or of its authorities, or concerning the delimitation of their frontiers or boundaries.

For bibliographic purposes, this document may be cited as:

UNEP: Arab Co-operation for the Protection and Development of the Marine Environment and Coastal Areas Resources of the Mediterranean. UNEP Regional Seas Reports and Studies No. 52. UNEP, 1984.



UNITED NATIONS ENVIRONMENT PROGRAMME

*Arab co-operation for the
protection and development of the
marine environment and coastal areas
resources of the Mediterranean*

UNEP Regional Seas Reports and Studies No. 52

PREFACE

The United Nations Conference on the Human Environment (Stockholm 1972) adopted, inter alia, the principle that "the marine environment and all the living organisms which it supports are of vital importance to humanity" and recognized that "proper management is required and measures to prevent and control marine pollution must be regarded as an essential element in this management". Furthermore, the Conference recommended that Governments take early action to adopt "effective national measures for the control of all significant sources of marine pollution, including land-based sources, and concert and co-ordinate their actions regionally and where appropriate on a wider international basis" (recommendation 92).

The subsequent meetings of the UNEP Governing Council repeatedly endorsed the regional approach to the control of marine pollution and requested the development of regional action plans for the parts of the ocean where such plans do not yet exist. Consequently, in 1974 the Regional Seas Programme of UNEP was initiated.

The Regional Seas Programme at present includes eleven regions and has over 120 coastal States participating in it. It was conceived as an action-oriented programme encompassing a comprehensive, transsectoral approach to marine and coastal areas and to environmental problems concerning not only the consequences but also the causes of environmental degradation. Each regional programme is shaped according to the needs of the region concerned. All of the regional seas programmes contain elements related to environmental assessment and environmental management. The overall strategy to be followed was defined by UNEP's Governing Council as:

- promotion of international and regional conventions, guidelines and actions for the control of marine pollution and for the protection and management of aquatic resources,
- assessment of the state of marine pollution, of the sources and trends of this pollution, and of the impact of the pollution on human health, marine ecosystems and amenities,
- co-ordination of the efforts with regard to the environmental aspects of the protection, development and management of marine and coastal resources,
- support for education and training efforts to make possible the full participation of developing countries in the protection, development and management of marine and coastal resources.

Since each regional programme is aimed at benefiting the States of that region, Governments are involved from the very beginning in the formulation of the action plan. After acceptance, the implementation of the programme is carried out, under the overall authority of the governments concerned, by national institutions nominated by their governments.

Although the Regional Seas Programme is implemented predominantly by government-nominated institutions, specialized United Nations bodies, as well as the relevant international and regional organizations, contribute to its formulation and may provide assistance to these national institutions. UNEP acts as an overall co-ordinator for the development and implementation of regional action plans although, in some cases, this role is limited to the initial phase of the activities. Financial support to the regional programmes is initially provided by UNEP and other international and regional organizations. However, it is expected that, as a programme develops, the Governments of the regions will assume increasing

financial responsibility for its implementation, through specific regional trust funds or other suitable mechanisms.

Since the Regional Seas Programme was initiated in 1974, action plans for the Mediterranean, Kuwait Action Plan Region, Wider Caribbean, West and Central Africa, East Asian Seas, South-East Pacific, Red Sea and Gulf of Aden and South Pacific have been adopted, while action plans in additional regions such as East Africa, South Asian Seas and the South West Atlantic are being developed. ^{1/}

Activities in the Arab World are carried out in relation to the Mediterranean, the Kuwait Action Plan Region, the Red Sea and Gulf of Aden, West and Central Africa and East Africa. At present, 22 Arab countries participate in one or the other of these regional action plans. The present background information report is limited to the presentation of the Mediterranean Action Plan, with specific reference to the participation of Arab Mediterranean Coastal States in this regional programme.

^{1/} UNEP: Achievements and planned development of UNEP's Regional Seas Programme and comparable programmes sponsored by other bodies. UNEP Regional Seas Reports and Studies No. 1. UNEP, 1982

CONTENTS

	<u>Page</u>
INTRODUCTION	1
THE MEDITERRANEAN ACTION PLAN	1
1. Background	1
2. Achievements and planned developments	2
3. Specific aspects of Arab Mediterranean Coastal States participation in the Mediterranean Action Plan	8
PROSPECTS FOR INCREASED ARAB COOPERATION	10
TABLES	
Table 1 Status as at 1 September 1984 of the Convention for the Protection of the Mediterranean Sea against Pollution and its related protocols	11
Table 2 Status as at 1 September 1984 of the Protocol concerning Mediterranean Specially Protected Areas	12
Table 3 Regional marine pollution monitoring programmes	13
Table 4 Coastline lengths and areal extent of States	14
Table 5 Fisheries	14
Table 6 Ownership of merchant fleets	14
ANNEXES	
Annex I List of Institutions from Arab Mediterranean Coastal States designated to participate in MED POL-Phase I	15
Annex II Designated National Co-ordinators for MED POL-Phase II (as at September 1984)	17
Annex III Yugoslav-Italian Agreement for Co-operation on Protection of the Waters of the Adriatic Sea and the Coastal Regions against Pollution (1974)	19
Annex IV Accord relatif à la protection des eaux du littoral méditerranéen (France-Italie-Monaco, 1976)	23
Annex V Accord de coopération entre la République Hellénique et la République Italienne sur la protection du milieu marin de la mer ionienne et des zones côtières (1979)	27

INTRODUCTION

The First Meeting of Arab Mediterranean Coastal States and Meeting of the Arab Council for the Marine Environment convened by the Arab League Educational Cultural and Scientific Organization (ALECSO) in Damascus, Syria, December 1982, called for increased co-operation among Arab Mediterranean Coastal States in the protection of the marine environment and coastal areas resources through, among others, the development of a sub-regional agreement between these countries. Before examining the prospects for increased Arab co-operation the present report reviews the participation of Arab States in the Mediterranean Action Plan as part of the United Nations Environment Programme (UNEP) Regional Seas Programme. The paper concludes by suggesting specific elements which may serve as a basis for increased co-operation among Arab Mediterranean Coastal States.

THE MEDITERRANEAN ACTION PLAN

1. Background

The Mediterranean region was selected by 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, Libya, Morocco, Syria and Tunisia are actively involved in this programme.

Basically, the Action Plan includes:

- Co-ordinated programme for research, monitoring, exchange of information, assessment of the state of pollution and protection measures (MED POL);
- 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 co-ordinating 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 (about US\$ 3,5 million annually). The main sources of finance of the Action Plan at present are cash contributions from Mediterranean Governments and the European Economic Community 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 Coordinated Programme for Research and Monitoring of Pollution 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 ^{2/}. Annex I to the present paper gives a list of Institutions which have been designated by Arab Mediterranean countries to participate in MED POL Phase I.

Apart from acquisition of the necessary technical information, training and equipment the main goal 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 co-operation with the following United Nations Specialized Agencies: Food and Agriculture Organization of the United Nations (FAO), United Nations Educational, Scientific and Cultural Organization (UNESCO), Intergovernmental Oceanographic Commission (IOC of UNESCO), World Health Organization (WHO), World Meteorological Organization (WMO) and the International Atomic Energy Agency (IAEA).

^{2/} FAO/UNESCO/IOC/WHO/IAEA/UNEP: Co-ordinated Mediterranean Pollution Monitoring and Research Programme (MED POL) - Phase I: Programme Description. UNEP Regional Seas Reports and Studies No. 23. UNEP, 1983.

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 IV Research on the effects of pollutants on marine organisms and their populations.
- 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 ^{3/}.
- 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 ^{4/}.

^{3/} UNEP/ECE/UNIDO/FAO/UNESCO/WHO/IAEA: Pollutants from land-based sources in the Mediterranean. UNEP Regional Seas Reports and Studies No. 32. UNEP, 1984.

^{4/} UNEP: Long-term programme for pollution monitoring and research in the Mediterranean (MED POL) - Phase II. UNEP Regional Seas Reports and Studies No. 28. UNEP, 1983.

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. Arab Mediterranean Coastal States have designated specific National Co-ordinators for the continued implementation of MED POL Phase II. The list of the co-ordinators as at July 1984 is presented in annex II.

ii) Environmental Management including legal agreements

In 1976, at a conference of Plenipotentiaries held in Barcelona, representatives of 16 Mediterranean States, including six Arab Mediterranean Coastal States and the European Economic Community (EEC) adopted three international agreements:

- The Convention for the Protection of the Mediterranean Sea against Pollution entered into force on 12 February 1978. It provides the general legal framework for the Action Plan and for the detailed arrangements specified in the protocols to the Convention ^{5/}.
- The Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft 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 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 ^{5/}.

^{5/} Convention for the Protection of the Mediterranean Sea against Pollution and its related protocols. United Nations, New York, 1982.

Later two additional protocols were formulated and adopted by the signatories of the Barcelona Convention:

- 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 and entered into force on 17 June 1983. 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 ^{5/}.
- 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 ^{6/}.

The Status of signature and ratification of the adopted five regional mediterranean agreements mentioned above by Arab Mediterranean Coastal States as at 1 September 1984 is presented in tables 1 and 2.

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

The integrated planning component of the Mediterranean Action Plan aims at the promotion of environmentally-sound management practices both in daily activities as well as in the formulation of long-term strategies for socio-economic development. Accordingly, two distinct but interrelated activities have been initiated as part of this component, namely the Blue Plan and the Priority Actions Programme.

The Blue Plan is an action-oriented general system of prospective studies, and its fundamental 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 first phase of the Blue Plan has been completed in late 1983. It has produced a synthesis report on the state of environment and development in the Mediterranean Region as well as a number of sectoral studies in areas such as urbanization, industrialization, agriculture, transport, off-shore exploration and exploitation, and energy production and use. The results of these studies puts at the disposal of national decision makers information they need to plan socio-economic development on an integrated basis, and in ways which will preserve and enhance the environment.

The Priority Actions Programme (PAP) 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

^{5/} Convention for the Protection of the Mediterranean Sea against Pollution and its related protocols. United Nations, New York, 1982.

^{6/} Protocol concerning Mediterranean Specially Protected Areas. United Nations, New York, 1984.

knowledge, in selected priority action areas. All activities seek to demonstrate, through practical action, alternatives for environmentally-sound socio-economic development. Since it was launched, the PAP has concentrated its efforts on the exchange of information and training through the organization of workshops in areas relevant to protection of soils, management of fresh water resources, marine living resources and aquaculture, human settlements and renewable sources of energy. Furthermore, it should be pointed out that the large scale project on aquaculture development in the Mediterranean (MEDRAP) located in Tunisia was initiated in the framework of PAP.

In 1976 the Regional Oil Combating Centre (ROCC) was established in Malta by UNEP and IMCO (which became since the International Maritime Organization, IMO) to further the objectives of the Protocol on Co-operation in Combating Pollution of the Mediterranean Sea by Oil and other Harmful Substances in Cases of Emergency. The objectives of the ROCC are to facilitate co-operation among the Mediterranean States in order to combat massive pollution by oil, to assist the States in the development of their own national capabilities, and to facilitate information exchange, technological co-operation and training. The ROCC has a small staff which is technically and administratively supported by IMO. The first technical expert of ROCC was from Syria. ROCC has assisted a number of Arab States in developing their national contingency plans for marine pollution emergencies and sponsored the training of their experts in the field.

3. Specific aspects of Arab Mediterranean Coastal States participation in the Mediterranean Action Plan

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 MED POL Phase I seven pilot projects. (See annex I).

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 Phase I, in the form of equipment, 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. A large number of Arab technicians and scientists from laboratories participating in MED POL received training. The total cost of assistance provided to research centres in five Arab Mediterranean coastal states during the pilot phase of MED POL was about US\$ 450,000.

Since MED POL - Phase II 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, Syria and Tunisia and are in the process of being appointed in Libya. The designated National Co-ordinators for MED POL Phase II are presented in annex II to the present report. Morocco and Lebanon have already reached agreement with the Mediterranean Co-ordinating Unit on comprehensive national monitoring programmes, as part of MED

POL - Phase II, 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. The assistance provided so far in terms of equipment to the Arab institutions participating in MED POL Phase II is about US\$ 139,500. A number of training fellowships were also provided to Arab experts participating in the programme.

Background legal studies for the proposed Mediterranean Interstate Guarantee Fund have been prepared by experts from Morocco.

The co-ordinator of the first phase of the Blue Plan was from Egypt and experts from all Arab Mediterranean countries have been involved in the first phase of the project. Two Arab Mediterranean States (at present Morocco and Syria) have been appointed to the five members Steering Committee of the second phase of the Blue Plan. Experts from Mediterranean Arab countries are also contributing to PAP activities and associated with their development. At present, Tunisia, Egypt, Libya and Morocco are participating in MEDRAP.

Last but not least, besides being the site of MEDRAP, Tunisia is also the host country of the Mediterranean Regional Activity Centre for Specially Protected Areas. The main objectives of the Centre are to promote the establishment of a Mediterranean network of specially protected marine and coastal areas, and to encourage regional co-operation in this field.

PROSPECTS FOR INCREASED ARAB CO-OPERATION

The significance and vital importance of the marine environment and coastal areas resources for the socio-economic development of Arab Mediterranean Coastal States is an obvious factor. Major human settlements, port cities, industrial complexes, including tourism centres, are located in the coastal areas of these countries. Resources of the marine environment and activities taking place in the coastal areas occupy high ranks in the economies of the countries concerned, such as fisheries in Morocco and the tourist industry in Tunisia. Some of the relevant facts are illustrated in quantitative terms in tables 4 to 6.

In view of the above, the eagerness of Arab Mediterranean Coastal States to co-operate at the regional level for the protection and development of the marine environment and coastal areas resources is easily understood. Besides their ongoing participation in the UNEP sponsored Mediterranean Action Plan at the regional level, and as requested by the First Meeting of Arab Mediterranean Coastal States and Meeting of the Arab Council for the Marine Environment, Damascus, Syria, December 1982, Arab Mediterranean Coastal States may wish to increase their co-operation at the sub-regional level. Such co-operation at the sub-regional level already exists in other parts of the Mediterranean such as the sub-regional agreements between Yugoslavia and Italy (annex III); France, Italy and Monaco (annex IV) as well as Greece and Italy (annex V).

A sub-regional agreement among Arab Mediterranean Coastal States must not duplicate the activities of the Mediterranean Action Plan nor the Barcelona Convention and related Protocols to which all Arab Mediterranean States are parties (tables 1 and 2). The Arab Mediterranean sub-regional agreement should aim at

increasing the protection and development of the marine environment and coastal areas resources by strengthening:

- a) national marine research capabilities through mutual assistance and co-operation;
- b) national structures and mechanisms dealing with the protection of marine waters under national jurisdiction from pollution arising from land-based sources, dumping and accidents.

While making reference to the Barcelona Convention and related Protocols, the planned sub-regional agreement on Arab Co-operation for the Protection and Development of the Marine Environment and Coastal Areas Resources of the Mediterranean should promote measures such as:

- ratification of and full participation in Mediterranean regional agreements;
- co-operation between National MED POL Co-ordinators with a view to exchanging expertise and data;
- joint identification of sources of financing open to Arab Institutions for equipment and training;
- strengthening of national legislation for the protection of the marine environment and of appropriate national institutions;
- development and co-ordination of national contingency plans for marine pollution emergencies;
- development of mutual assistance mechanisms among neighbouring countries to deal with marine pollution emergencies such as oil spills;
- development of port reception facilities at oil terminals.

Through the sub-regional agreement, Arab Mediterranean Coastal States may also seek to harmonize their national policies for the development of their common marine environment and neighbouring coastal areas in order to avoid adverse impacts and conflicting uses.

Table 1: Status as at 1 September 1984 of the Convention for the Protection of the Mediterranean Sea against Pollution and its related protocols

States	Convention *		Dumping a *		Emergency b *		Land-Based Sources c **	
	Signature	Ratification	Signature	Ratification	Signature	Ratification	Signature	Ratification
Algeria	-	16 Feb 81 e	-	16 Mar 81 e	-	16 Mar 81 e	-	2 May 83 e
Egypt	16 Feb 76	24 Aug 78 f	16 Feb 76	24 Aug 78 f	16 Feb 76	24 Aug 78 f	-	18 May 83 e
Lebanon	16 Feb 76	8 Nov 77 e	16 Feb 76	8 Nov 77 e	16 Feb 76	8 Nov 77 e	17 May 80	-
Libya	31 Jan 77	31 Jan 79	31 Jan 77	31 Jan 79	31 Jan 79	31 Jan 79	17 May 80	-
Morocco	16 Feb 76	15 Jan 80	16 Feb 76	15 Jan 80	16 Feb 76	15 Jan 80	17 May 80	-
Syria	-	26 Dec 78 d e	-	26 Dec 78 e	-	26 Dec 78 e	-	-
Tunisia	25 May 76	30 Jul 77	25 May 76	30 Jul 77	25 May 76	30 Jul 77	17 May 80	29 Oct 81

a Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft

b Protocol concerning Co-operation in Combating Pollution of the Mediterranean Sea by Oil and Other Harmful Substances in Cases of Emergency

c Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources

d With reserve

e Accession

f Approval

* Date of adoption: 16 February 1976

Date of entry into force: 12 February 1978

** Date of adoption: 17 May 1980

Date of entry into force: 17 June 1983

Table 2: Status as at 1 September 1984 of the Protocol concerning Mediterranean Specially Protected Areas

States	Protocol *	
	Signature	Ratification
Algeria	-	-
Egypt	16 Feb 83	8 July 83
Lebanon	-	-
Libya	-	-
Morocco	2 Apr 83	-
Syria	-	-
Tunisia	3 Apr 82	26 May 83 d

* Date of adoption: 2 April 1982

Table 3: Regional marine pollution monitoring programmes

MEDITERRANEAN (UNEP): 1975 - 1980 (MEDPOL PHASE I)	
NO. OF PARTICIPATING NATIONAL CENTRES	84 from 16 States.
POLLUTANTS MONITORED	Oil and petroleum hydrocarbons (oil slicks, floating tarballs, tar on beaches, dissolved/dispersed hydrocarbons); heavy metals (Hg, Cd, Cu, Pb, Mn, Se, Zn); polychlorinated hydrocarbons (PCB, DDT, DDD, DDE, dieldrin); total coliforms, faecal coliforms and faecal streptococci.
MATRICES MONITORED	Biota (molluscs, crustaceans, benthic fish and large pelagic fish) for heavy metals and polychlorinated hydrocarbons; sea-water for oil and petroleum hydrocarbons and for total coliforms, faecal coliforms and faecal streptococci. In some cases also sediments were monitored.
FREQUENCY OF MONITORING	Variable from twice a month to once per season according to the matrices.
EFFECTS MONITORED	Changes in ecosystems.
REMARKS	FAO, IOC and WHO were involved in the day-to-day co-ordination of the work. All intercalibration exercises on the analytical techniques and a common maintenance service for the instruments distributed to the laboratories through the project were organized by IAEA.
MEDITERRANEAN (UNEP): 1981 onwards (MEDPOL PHASE II)	
NO. OF PARTICIPATING NATIONAL CENTRES	It is expected that, at least, the same institutions which participated in Phase I will be involved and that new ones might complement network.
POLLUTANTS MONITORED	Heavy metals (Hg and Cd), halogenated hydrocarbons, petroleum hydrocarbons (oil slicks, floating tar, tar on beaches, dissolved/dispersed hydrocarbons) and faecal coliforms were retained for the long-term monitoring programme.
MATRICES MONITORED	Sea-water and estuarine water, sediments and sand, beaches and biota (molluscs, crustaceans, demersal fish and migratory fish) will be covered.
FREQUENCY OF MONITORING	Variable depending on the matrix from bi-weekly (for water) to quarterly (for biota and sediments).
EFFECTS MONITORED	Effects will not be monitored but will be the object of research activities.
REMARKS	FAO, UNESCO, IOC, WHO, WMO and IAEA will co-operate in the co-ordination and support of activities (mainly intercalibration of methods and maintenance of instruments).

Table 4: Coastline lengths and areal extent of States *

	length of coastline (Km)	sea area within EEZ limits ('000 sq.Km)	total land area ('000 sq.Km)
Algeria	1,100	137.2	2,381.7
Egypt	-	173.5	1,001.4
Lebanon	190	22.6	10.4
Libya	1,685	338.1	1,759.5
Morocco	2,998 **	-	725.5
Syria	151	10.3	185.3
Tunisia	1,027	85.7	163.6

Table 5: Fisheries (average year catches)*

Algeria	34,143 t
Egypt	20,910 t
Lebanon	2,400 t
Lybia	4,803 t
Morocco	291,787 t
Syria	3,500 t
Tunisia	54,600 t

Table 6: Ownership of merchant fleets*

(million tonnes dwt)

Algeria	81
Egypt	240
Lebanon	214
Libya	37
Morocco	70
Tunisia	39

* Source: adapted from "The Times Atlas of the Oceans",
Times Books Limited, London 1983.

** Including Atlantic coast

ANNEX I

List of Institutes from Arab Countries which were designated
to participate in MED POL - Phase I

Algeria	Centre de Recherches Océanographiques et des Pêches Jetée Nord B.P. 90 Alger
Egypt	Institute of Oceanography and Fisheries Mediterranean Branch Kayet Bay Alexandria Centre for Post-graduate Studies and Research Alexandria University Horreya Avenue - Shatby P.O Box 832 Alexandria
Lebanon	Centre de Recherche Marine Conseil National de la Recherche Scientifique B.P. 11-8281 Beyrouth
Morocco	Institute scientifique des pêches maritimes Rue du Tisnit B.P. 21 Casablanca Faculté des Sciences Université Mohammed V B.P. 1014 Rabat Institut National d'Hygiene Ministère de la Santé Publique Avenue Mohammed V, 335 Rabat
Syria	Centre for Marine Research of Latakia Supreme Council of Sciences Aboul-Alas Al-Maari Avenue P.O. Box 4762 Damascus

Tunisia

Institut national scientifique et technique
d'Océanographie et de Pêches
Salambo
Tunis

Laboratoire Central
Ministère de l'Industrie des Mines et de l'Energie
23 Rue Jeweher Lel Nuhru
Montfleury
Tunis

Institut Pasteur
13, Place Pasteur
Tunis

ANNEX II

Designated National Co-ordinators for MED POL Phase II
(as at July 1984)

Algeria	Mr. Smail Krim Coordonnateur National pour MED POL Maître-Assistant en Microbiologie Université d'Alger Alger
Egypt	Professor Aboul Fetah Abdul Latif Deputy President Academy of Scientific Research and Technology National Co-ordinator for MED POL 101 Kasr-el-Eny Street Cairo
Lebanon	Mr. Joseph Naggear Président du Conseil National de la Recherche Scientifique Coordonnateur National pour le MED POL c/o PNUD Beyrouth
Morocco	Mr. Mohamed Malliti Coordonnateur National pour le MED POL Ministère de l'Habitat et de l'Aménagement du Territoire Rabat
Syria	Dr. Adel Hamwi National Co-ordinator for MED POL Chairman of the National Oceanographic Committee at the Supreme Council of Sciences P.O. Box 3754 Damascus
Tunisia	Mr. Salem Hadj Ali Coordonnateur National pour le MED POL Directeur, Institut National Scientifique et Technique d'Océanographie et de Pêche Salambo, Tunis

ANNEX III

YUGOSLAV-ITALIAN AGREEMENT FOR CO-OPERATION ON PROTECTION OF THE WATERS OF THE
ADRIATIC SEA AND THE COASTAL REGIONS AGAINST POLLUTION

Beograd, February 1974

Desiring to strengthen and develop co-operation between the two countries with a view to preventing pollution of the waters of the Adriatic Sea and the coastal regions, the Government of the Socialist Federal Republic of Yugoslavia and the Government of the Republic of Italy, through their authorized plenipotentiaries,

Have agreed as follows:

Article 1

The Contracting Parties have decided to establish close co-operation for the protection of the waters of the Adriatic Sea and the coastal regions against pollution.

Article 2

The Contracting Parties shall for this purpose establish a Mixed Commission for the Protection of the Adriatic Sea and the coastal regions (hereinafter referred to as: the Commission).

Article 3

The Commission shall be entrusted with the following tasks:

- a) To consider all the problems relating to pollution of the waters of the Adriatic Sea and the coastal regions;
- b) To advance proposals and recommendations which it is considered as necessary, to the Governments on matters relating to the research;
- c) To submit views on bilateral programmes and to be concerned with their harmonization;
- d) To propose to the Contracting Parties measures which should be taken with a view to removing the existing and preventing new sources of pollution;
- e) To submit to the Contracting Parties drafts of international regulations necessary for ensuring the purity of the Adriatic Sea.

Article 4

The Commission shall be composed of members of the two delegations appointed by the Contracting Parties.

Each delegation shall number eight members among whom one shall be a Chairman.

The Commission may:

- a) Invite scientists and experts to participate in its work;
- b) Establish sub-commissions for examining individual questions relating to the protection of the Adriatic Sea and the coastal regions against pollution;
- c) Appoint members of the sub-commissions at the proposal of their delegations.

Article 5

The Commission shall meet at least once a year. The meetings of the Commission shall meet alternately in the country of one of the Contracting Parties.

Article 6

A meeting of the Commission shall be convened by its Chairman. The Chairman of the Commission is the Chairman of the delegation in whose country the meeting is being held.

The duty of the Chairman of the Commission is performed alternately by the Chairmen of the delegations.

Article 7

The decisions of the Commission shall be arrived at unanimously.

The Commission shall adopt its own rules of procedure.

Article 8

The Contracting Parties, after having examined the proposals of the Commission, shall decide on them as well as on the conditions under which each Contracting Party may undertake the necessary measures.

Article 9

Each Contracting Party bears the expenses of its delegation in the Commission, as well as the expenses of its members and experts in the sub-commissions.

Any additional expense, which cannot be divided as stipulated in the foregoing paragraph, shall be divided in a manner as determined by the Commission for each particular case upon the authorization of the respective Governments.

Article 10

For the purpose of obtaining detailed scientific and technical information, the

Commission may, whenever it deems necessary, contact any international organization concerned with the protection of waters, as well as the mixed Yugoslav-Italian commissions concerned with scientific and technical co-operation, as well as other organizations of the two countries which, on bilateral basis, are engaged in shipping, fisheries and management of common waters in general.

Article 11

This Agreement shall enter into force when the Contracting Parties mutually inform one another that constitutional formalities have been fulfilled by each Contracting Party.

Upon the expiry of four years, each Contracting Party may renounce the Agreement at any time by giving a six month's notice to the other Contracting Party.

DONE at Belgrade on 14 February 1974, in duplicate, in the Croato-Serbian and Italian languages, both texts being equally authentic.

For the Government of the Socialist Federal Republic of Yugoslavia: Zvonko Perisic.

For the Government of the Republic of Italy: Carlo Calenda.

ANNEX IV

ACCORD RELATIF A LA PROTECTION DES EAUX DU LITTORAL MEDITERRANEEN

Le Gouvernement de la République Française, le Gouvernement de la République Italienne et le Gouvernement de Son Altesse Sérénissime le Prince Souverain de Monaco,

Soucieux de préserver la qualité des eaux du littoral méditerranéen, d'en prévenir autant que possible la pollution et d'en améliorer l'état actuel,

Désireux de renforcer la collaboration locale instaurée dans ce domaine entre les administrations des trois Gouvernements,

Sont convenus de ce qui suit:

Article premier

Les trois Gouvernements constituent une Commission internationale ci-après dénommée "la Commission" pour la réalisation des objectifs du présent Accord.

Article 2

La Commission a pour mission d'établir une collaboration plus étroite entre les services compétents des trois Gouvernements en vue de lutter contre la pollution des eaux de la mer territoriale et des eaux intérieures du littoral continental compris entre, à l'Ouest, le méridien 6° 7' de longitude Est et, à l'Est, le méridien 9° 8' de longitude Est.

La Commission peut, le cas échéant, procéder, selon la procédure prévue à l'article 8, à l'extension des limites géographiques précitées, sauf objection de l'un des trois Gouvernements dans les trois mois suivant l'adoption des nouvelles limites.

Article 3

En vue d'assurer sa mission, dans le champ d'application du présent Accord, la Commission est chargée:

- a) d'examiner tout problème d'intérêt commun relatif à la pollution des eaux;
- b) de susciter une concertation des services administratifs compétents visant à:
 - i) un recensement des zones polluées;
 - ii) une information mutuelle et réciproque sur les projets d'aménagement qui seraient susceptibles de créer un risque grave de pollution;
 - iii) une étude économique des infrastructures et des équipements nécessaires à la lutte contre la pollution des eaux;

- c) de favoriser et de provoquer éventuellement les études et recherches, les échanges d'information et les rencontres d'experts dans le cadre d'une coopération scientifique dont elle définit les thèmes en tenant compte des travaux et des moyens matériels locaux, nationaux ou internationaux déjà existants;
- d) de proposer aux trois Gouvernements toute mesure de nature à protéger les eaux, notamment au moyen d'accords particuliers.

Article 4

La Commission se compose des délégations des trois Gouvernements. Chaque Gouvernement désigne sept délégués au plus dont un chef de délégation. Chaque délégation peut s'adjoindre des experts pour examiner des questions particulières.

Article 5

La Commission est assistée d'un Comité technique composé d'experts en matière de protection des eaux. Chaque Gouvernement désigne des experts techniques.

La Commission peut également demander la constitution d'autres groupes de travail pour l'étude de problèmes déterminés.

Article 6

La Présidence de la Commission est assurée pour deux ans successivement par le chef de chacune des délégations dans l'ordre des Gouvernements tel qu'il figure dans le Préambule.

Toutefois, la Présidence est assurée, pour la première période, par le chef de la délégation monégasque.

Article 7

La Commission se réunit en session ordinaire au moins une fois par an sur convocation de son Président. Des sessions extraordinaires sont convoquées par le Président, à la demande d'une délégation. Le Président propose l'ordre du jour. Chaque délégation peut y faire figurer les points qu'elle désire voir traiter. Le projet d'ordre du jour est présenté aux délégations deux mois avant la date de la réunion.

Article 8

Chaque délégation dispose d'une voix.

Les délibérations sont adoptées à l'unanimité.

Article 9

La Commission établit les liaisons qu'elle juge nécessaires avec tous les organismes internationaux compétents en matière de pollution des eaux.

Article 10

La Commission fournit chaque année aux trois Gouvernements un rapport d'activité dans lequel figurent en particulier les résultats des études et recherches qu'elle suscite, ainsi que ses propositions.

Article 11

Chaque Gouvernement supporte les frais de sa représentation au sein de la Commission, du Comité technique et des groupes éventuels de travail ainsi que les frais de recherches entreprises sur son territoire.

Les dépenses d'intérêt commun seront réparties entre les trois Gouvernements selon les modalités proposées par la Commission et arrêtées par lesdits Gouvernements. Une telle procédure s'appliquerait également au cas où des recherches exceptionnelles seraient décidées à l'unanimité par la Commission.

Article 12

La Commission établit son règlement intérieur.

Article 13

Le Secrétariat de la Commission est assuré par le Centre Scientifique de Monaco.

Article 14

Les langues de travail de la Commission sont le français et l'italien.

Article 15

Chacun des Gouvernements signataires notifiera au Gouvernement de la Principauté de Monaco l'accomplissement pour sa part des procédures constitutionnelles requises pour la mise en vigueur du présent Accord; le Gouvernement de la Principauté de Monaco confirmera immédiatement la date de réception des notifications et informera les autres Gouvernements signataires.

L'Accord entrera en vigueur le premier jour du deuxième mois suivant la réception de la dernière notification.

A l'expiration d'un délai de trois ans après sa mise en vigueur, le présent Accord pourra être dénoncé à tout moment. Cette dénonciation prendra effet trois mois après sa notification au Gouvernement dépositaire qui en informera immédiatement les autres Gouvernements signataires.

L'original du présent Accord, dont les textes en langues française et italienne font également foi, sera déposé dans les archives du Gouvernement de Son Altesse Sérénissime le Prince Souverain de Monaco qui en remettra une copie certifiée conforme à chacun des Gouvernements signataires.

Fait à Monaco, le dix mai mil neuf cent soixante seize.

Pour le Gouvernement de la République Française:

signé: Michel Poniatowski,
Ministre d'Etat, Ministre de l'Intérieur

Pour le Gouvernement de la République Italienne:

signé: Mario Pedini
Ministre de la Recherche Scientifique

Pour le Gouvernement de S.A.S. le Prince de Monaco:

signé: André Saint-Mleux
Ministre d'Etat

ANNEX V

ACCORD DE COOPERATION ENTRE LA REPUBLIQUE HELLENIQUE ET LA REPUBLIQUE ITALIENNE
SUR LA PROTECTION DU MILIEU MARIN DE LA MER IONIENNE ET DE SES ZONES COTIERES

Le Gouvernement de la République Hellénique et le Gouvernement de la République Italienne

- soucieux de préserver et d'améliorer la qualité du milieu marin de la Mer Ionienne et d'en protéger les zones côtières contre les risques de la pollution marine
- désireux de renforcer l'étroite collaboration entre les deux Gouvernements en vue de la réalisation de ces buts
- tenant compte de l'accord entre la République Hellénique et la République Italienne sur la délimitation des zones du plateau continental propres à chacun des deux Etats, signé à Athènes le 24 mai 1977, et des implications qui peuvent en dériver en ce qui concerne la préservation du milieu marin
- tenant compte de l'esprit de coopération qui a animé les Etats signataires de la Convention pour la protection de la Mer Méditerranée contre la pollution, conclue à Barcelone le 16 février 1976, sont convenus de ce qui suit:

Article 1

Les Gouvernements contractants décident d'instaurer une étroite coopération dans le but de prévenir, combattre et supprimer graduellement la pollution des eaux de la Mer Ionienne et de ses zones côtières.

Article 2

Le présent accord s'applique à la région maritime comprise, à l'Est, par les lignes côtières grecques occidentales, des îles Othonoi à l'île de Gavdos (Crète), à l'Ouest, par les lignes côtières italiennes orientales d'Otranto à Capo Passero, au Nord, par la limite méridionale de l'Adriatique et, au Sud, par une ligne allant de l'île de Gavdos au Capo Passero en passant par le point latitude Nord 35° 34',2 longitude Est Greenwich 18° 20',7.

Le champ d'application du présent accord peut être étendu par décision de l'Organ prévu par l'article suivant, sous réserve d'approbation de la part des deux Gouvernements contractants.

Article 3

A ces fins les Gouvernements contractants décident de constituer une Commission mixte dénommée dans le texte ci-après "La Commission".

Article 4

La Commission est chargée:

- a) D'examiner tout problème relatif à la protection du milieu marin compris dans le champ d'application du présent accord
- b) De proposer aux Gouvernements contractants des recherches et des études dans le but de déterminer les causes, l'origine, la nature et le degré de pollution marine, et d'évaluer les éléments qui en résultent
- c) D'élaborer des programmes et de proposer aux Gouvernements Contractants les mesures et les moyens nécessaires pour faire face aux causes qui provoquent ou pourraient provoquer la dégradation du milieu marin
- d) De donner son avis sur le contenu d'accords et de programmes spécifiques bilatéraux et autres portant sur le champ d'application du présent accord dans le but de les harmoniser avec ses propres programmes
- e) De collaborer avec les Commissions qui s'occupent de questions analogues concernant les mers avoisinantes
- f) De soumettre aux Gouvernements contractants un rapport annuel sur ses activités et les résultats de celle-ci. Outre les rapports annuels, la Commission peut soumettre des rapports intermédiaires où figurent les résultats des études et des recherches qu'elle a directement proposées, ses activités ainsi que ses propositions d'actions futures. Tous ces rapports pourront être publiés avec le consentement des Gouvernements contractants.

Article 5

La Commission se compose des deux délégations des Gouvernements contractants.

Chaque Gouvernement désigne huit délégués au plus dont un chef de délégation.

Chaque délégation peut s'adjoindre des experts pour examiner des questions particulières.

La Commission peut également créer des groupes de travail et charger des experts de l'étude de problèmes spéciaux.

Article 6

La Présidence de la Commission est assurée par le chef de la délégation du pays où se tient la session ordinaire, et est maintenue jusqu'à la prochaine session ordinaire.

Article 7

La Commission se réunit en session ordinaire au moins une fois par an sur convocation de son Président, en alternance dans chacun des deux pays. Des sessions extraordinaires sont convoquées par le Président à la demande de l'une des délégations pour l'examen de questions urgentes. Le Président propose le lieu et la date de la session ainsi que le projet de l'ordre du jour, dans lequel chaque

délégation fait figurer les points qu'elle désire traiter. L'ordre du jour des sessions ordinaires est communiqué aux délégations un mois avant la date de la session.

Article 8

Chaque délégation dispose d'une voix. Les décisions sont prises d'un commun accord.

Pour chaque session, il sera dressé et adopté un compte rendu qui sera signé par les chefs des deux délégations.

Article 9

Pour être effectivement informée sur le plan scientifique et technique, la Commission réunit les données et les renseignements disponibles et établit les liaisons tant entre les deux parties qu'avec les organismes internationaux compétents en matière de protection du milieu marin.

Article 10

Les Gouvernements contractants examinent les propositions élaborées par la Commission et décident des conditions d'application des mesures nécessaires.

Article 11

Chaque Gouvernement contractant supporte les frais de sa participation au sein de la Commission et des éventuels groupes de travail ainsi que les frais des recherches entreprises sur son territoire. Les dépenses des programmes et de recherches d'intérêt commun seront réparties entre les Gouvernements contractants selon les modalités proposées par la Commission et arrêtées par lesdits Gouvernements. Une procédure analogue s'appliquerait dans le cas où des recherches extraordinaires seraient proposées par la Commission.

Article 12

La Commission établit son règlement intérieur, rédigé dans les langues grecque et italienne.

Article 13

Le présent Accord sera soumis à ratification et entrera en vigueur le jour de l'échange des instruments de ratification, qui sera effectué à Athènes.

Article 14

A l'expiration d'un délai de quatre ans après sa mise en vigueur, chacun des Gouvernements contractants peut dénoncer à tout moment le présent accord, après un préavis de six mois.

Fait à Rome le 6 mars 1979 en deux exemplaires originaux en langue française.

Pour le Gouvernement de la République Hellénique

Pour le Gouvernement de la République Italienne

PUBLICATIONS IN THE UNEP REGIONAL SEAS REPORTS AND STUDIES SERIES

- No. 1 UNEP: Achievements and planned development of UNEP's Regional Seas Programme and comparable programmes sponsored by other bodies. (1982)
- No. 2 UNIDO/UNEP: Survey of marine pollutants from industrial sources in the West and Central African region. (1982)
- No. 3 UNESCO/UNEP: River inputs to the West and Central African marine environment. (1982)
- No. 4 IMCO/UNEP: The status of oil pollution and oil pollution control in the West and Central African region. (1982)
- No. 5 IAEA/UNEP: Survey of tar, oil, chlorinated hydrocarbons and trace metal pollution in coastal waters of the Sultanate of Oman. (1982)
- No. 6 UN/UNESCO/UNEP: Marine and coastal area development in the East African region. (1982)
- No. 7 UNIDO/UNEP: Industrial sources of marine and coastal pollution in the East African region. (1982)
- No. 8 FAO/UNEP: Marine pollution in the East African region. (1982)
- No. 9 WHO/UNEP: Public health problems in the coastal zone of the East African region. (1982)
- No. 10 IMO/UNEP: Oil pollution control in the East African region. (1982)
- No. 11 IUCN/UNEP: Conservation of coastal and marine ecosystems and living resources of the East African region. (1982)
- No. 12 UNEP: Environmental problems of the East African region. (1982)
- No. 13 UNEP: Pollution and the marine environment in the Indian Ocean. (1982)
- No. 14 UNEP/CEPAL: Development and environment in the Wider Caribbean region: A Synthesis. (1982)
- No. 15 UNEP: Guidelines and principles for the preparation and implementation of comprehensive action plans for the protection and development of marine and coastal areas of regional seas. (1982)
- No. 16 GESAMP: The health of the oceans. (1982)
- No. 17 UNEP: Regional Seas Programme: Legislative authority. (in preparation)
- No. 18 UNEP: Regional Seas Programme: Workplan. (1982)
- No. 19 Rev. 1. UNEP: Regional Seas Programme: Compendium of projects. (1984)
- No. 20 CPPS/UNEP: Action Plan for the protection of the marine environment and coastal areas of the South-East Pacific. (1983)

- No. 21 CPPS/UNEP: Sources, levels and effects of marine pollution in the South-East Pacific. (1983) (In Spanish only)
- No. 22 Rev. 1. UNEP: Regional Seas Programme in Latin America and Wider Caribbean. (1984)
- No. 23 FAO/UNESCO/IOC/WHO/WMO/IAEA/UNEP: Co-ordinated Mediterranean Pollution Monitoring and Research Programme (MED POL) - Phase I: Programme Description. (1983)
- No. 24 UNEP: Action Plan for the protection and development of the marine and coastal areas of the East Asian region. (1983)
- No. 25 UNEP: Marine pollution. (1983)
- No. 26 UNEP: Action Plan for the Caribbean environment programme. (1983)
- No. 27 UNEP: Action Plan for the protection and development of the marine environment and coastal areas of the West and Central African region. (1983)
- No. 28 UNEP: Long-term programme for pollution monitoring and research in the Mediterranean (MED POL) - Phase II. (1983)
- No. 29 SPC/SPEC/ESCAP: Action Plan for managing the natural resources and environment of the South Pacific region. (1983)
- No. 30 UNDIESA/UNEP: Ocean energy potential of the West and Central African region. (1983)
- No. 31 A. L. DAHL and I. L. BAUMGART: The state of the environment in the South Pacific. (1983)
- No. 32 UNEP/ECE/UNIDO/FAO/UNESCO/WHO/IAEA: Pollutants from land-based sources in the Mediterranean. (1984)
- No. 33 UNDIESA/UNEP: Onshore impact of offshore oil and natural gas development in the West and Central African region. (1984)
- No. 34 UNEP: Action Plan for the protection of the Mediterranean. (1984)
- No. 35 UNEP: Action Plan for the protection of the marine environment and the coastal areas of Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates. (1983)
- No. 36 UNEP/CEPAL: The state of marine pollution in the Wider Caribbean region. (1984)
- No. 37 UNDIESA/UNEP: Environmental management problems in resource utilization and survey of resources in the West and Central African region. (1984)
- No. 38 FAO/UNEP: Legal aspects of protecting and managing the marine and coastal environment of the East African region. (1983)
- No. 39 IUCN/UNEP: Marine and coastal conservation in the East African region. (1984)

- No. 40 SPC/SPEC/ESCAP/UNEP: Radioactivity in the South Pacific. (1984)
- No. 41 UNEP: Socio-economic activities that may have an impact on the marine and coastal environment of the East African region. (1984)
- No. 42 GESAMP: Principles for developing coastal water quality criteria. (1984)
- No. 43 CPPS/UNEP: Contingency plan to combat oil pollution in the South-East Pacific in cases of emergency. (1984)
- No. 44 IMO/ROPME/UNEP: Combating oil pollution in the Kuwait Action Plan region. (1984)
- No. 45 GESAMP: Thermal discharges in the marine environment. (1984)
- No. 46 UNEP: The marine and coastal environment of the West and Central African region and its state of pollution. (1984)
- No. 47 UNEP: Prospects for global ocean pollution monitoring. (1984)
- No. 48 SPC/SPEC/ESCAP/UNEP: Hazardous waste storage and disposal in the South Pacific. (1984)
- No. 48/Appendices SPC/SPEC/ESCAP/UNEP: Hazardous waste storage and disposal in the South Pacific. (1984)
- No. 49 UNEP: Legal aspects of protecting and managing the marine and coastal environment of the East African region: National Reports. (1984)
- No. 50 UNEP: Marine and coastal conservation in the East African region: National Reports. (1984)
- No. 51 UNEP: Socio-economic activities that may have an impact on the marine and coastal environment of the East African region: National Reports. (1984)
- No. 52 UNEP: Arab co-operation for the protection and development of the marine environment and coastal areas resources of the Mediterranean. (1984)

Issued and printed by:



Regional Seas Programme Activity Centre
United Nations Environment Programme

Additional copies of this and other publications issued by
the Regional Seas Programme Activity Centre of UNEP can be
obtained from:

Regional Seas Programme Activity Centre
United Nations Environment Programme
Palais des Nations
GENEVA
Switzerland

