



# United Nations Environment Programme



UNEP(OCA)/MED IG.8/4 10 June 1996

Original: ENGLISH

# **MEDITERRANEAN ACTION PLAN**

Extraordinary Meeting of the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution and its Protocol

Montpellier, 1-4 July 1996

# RECOMMENDATIONS AND PROGRAMME BUDGET FOR 1997

SUBMITTED FOR ADOPTION





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#### INTRODUCTION

During 1995, a new MAP II as well as a revised Convention and Protocols were approved by the Contracting Parties in Barcelona. New protocols have also been adopted in 1995 and 1996. In order to meet these new responsibilities and priorities, the Secretariat had presented to the Bureau of the Contracting Parties in Cairo (1-2 April 1996) a general outline of the budget for 1997 with a reasonable increase of 7 % in contribution to the Mediterranean Trust Fund (MTF). This proposal was endorsed by the Bureau.

The Meeting of MAP Focal Points held in Athens (6-10 of May 1996) reviewed the proposal for 1997 prepared by the Secretariat and requested that, in addition to the budget with 7% increase in the contributions, alternative budgets with 0% and 3.5% increases be also presented to the Extraordinary Meeting of the Contracting Parties. The recommendations concerning the budget included in this document are therefore, put under square brackets. The reservations of some delegations concerning specific activities and budgetary allocations have also been duly reflected in this document.

Following the request of the European Community, and after further discussions with the Secretariat, the activities to be funded by the Voluntary Contribution of the European Community are clearly identified in this proposal.

## Included in this proposal are:

- Recommendation of a general nature (pages 1 and 2);
- Specific recommendation (pages 3 to 21);
- A summarized presentation of the proposed budgetary allocation (pages 22 and 26);
- A presentation of the proposed sources of funding (pages 27 and 28);
- Activities to be funded through the voluntary contribution of the European Community (pages 29 to 30);
- Expected Counterpart Contributions to MAP projects from Contracting Parties and U.N. Agencies (page 31);
- Details of the amounts allocated to cover personnel and operational costs (pages 33 to 43); and
- A detailed presentation of the activities related to the implementation of MAP II (page 32 and pages 44 and 66).

#### I. PROPOSED RECOMMENDATIONS:

The following recommendations are submitted to the Contracting Parties for adoption:

#### A. INSTITUTIONAL AND FINANCIAL ARRANGEMENTS (Chapter III of MAP II)

- (a) Financial Arrangements
- [1. To approve the "Summary of Budgetary Allocations" as proposed in part II of this document (pages 22 to 26).]
- [2. To approve the "Sources of Financing" and the "Proposed Contributions to the Mediterranean Trust Fund for 1997" as proposed in part II of this document (pages 27 to 30).]
- [3. To approve the programme budget for 1997 covering the chapter on "Programme Coordination" as proposed in part II of this document (page 32) and MAP personnel and operating costs (pages 33 to 43).]
- 4. To request the Secretariat to establish contact with the European Union (EU) to consider further development of its financial participation in MAP through an increase of its voluntary contribution.
- 5. To call on Mediterranean countries, Contracting Parties to the Barcelona Convention, to invite the EU, in the light of the expanded fields of activities defined in MAP II, to identify together with the Secretariat priority problems, and develop programmes and activities in the framework of the Mediterranean Action Plan which could be financed through the Euro-Mediterranean Initiative (MEDA).
- 6. To invite METAP to consider the further strengthening of its joint work with the Secretariat and an increased financial contribution to activities of common interest, such as: (a) development and implementation of the Regional Programme of Action and the National Programmes of Action for the implementation of the LBS Protocol, and in this context the identification of pollution "hot spots" and the preparation of feasibility studies for investment in the programme for their elimination; (b) capacity building in developing countries, in particular assistance to countries for the establishment or improvement of national systems of environmental inspections; c) improvement of the development of Integrated Coastal Areas Management (ICAM) in the Mediterranean and d) conservation of nature.

## (b) Institutional Arrangements

- 1. To approve a revised structure of the personnel at the Coordinating Unit with the creation of an official post of Deputy Coordinator, a post of MEDPOL Coordinator and a post of a Marine Scientist within MEDPOL, by converting the present post of a Senior Marine Scientist, the post of Senior Fishery Officer (FAO) and the post of IAEA Maintenance Engineer (Monaco). The function of Deputy Coordinator will include coordinating the activities related to the implementation of sustainable development in the Mediterranean and assisting the work of the Mediterranean Commission on Sustainable Development (MCSD). The Secretariat in the course of the above restructuring should make every possible effort to retain experienced MED POL staff already serving in the MED Unit.
- 2. To further strengthen the cooperation of MAP with UN Agencies.
- To invite the Coordinator to establish a small ad hoc group of limited duration, composed of representatives of the Contracting Parties, to examine the best possible structures for the Coordinating Unit and MED POL in the light of the activities to be carried out by MAP following the revision of the Convention and its Protocols in Barcelona in 1995.

The group will also review the role, functions and structures of the Regional Activity Centres and the Secretariat of the 100 Historic Sites and the relations they should maintain with one another. It will also make recommendations to be submitted to the Contracting Parties for their approval concerning the evaluation of the activities of the Regional Activity Centres and the Secretariat of the 100 Historic Sites.

- 4. To approve the Terms of Reference of the Mediterranean Commission on Sustainable Development (MCSD) as contained in document UNEP(OCA)/MED IG.8/6.
- 5. To recommend to the Governing Council of UNEP to extend the Mediterranean Trust Fund (MTF) through 31 December 1999.

#### (c) Strategic Priorities

- 1. To invite the Contracting Parties to give high priority to the implementation of the MAP legal instruments, and request the Secretariat to assist them in the implementation of those instruments, in particular the Land-based Sources and Specially Protected Areas Protocols as priority tasks.
- 2. To invite the Contracting Parties to make every effort for the full implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities, through the development of National Programmes of Action as envisaged in the amended LBS Protocol.

- 3. To invite the Contracting Parties which are eligible to apply for projects with the Global Environment Facility (GEF), in particular projects in the fields of biodiversity and international waters.
- 4. To invite the Secretariat, in consultation with the Contracting Parties and with the assistance of two to three experts, to propose the development of a system of coherent reporting by the Contracting Parties in conformity with MAP II and the relevant provisions of the Barcelona Convention and its protocols.
- B. SUSTAINABLE DEVELOPMENT IN THE MEDITERRANEAN (Chapter I of MAP II)

SUPPORT TO THE MEDITERRANEAN COMMISSION ON SUSTAINABLE DEVELOPMENT

- [1. To approve the programme budget for 1997 covering the chapter on "Support to the Mediterranean Commission on Sustainable Development" as proposed in part II of this document (page 44).]
- 2. To ask the Secretariat to assist through all its components the work of MCSD through the preparation of the necessary documentation and the organization of meetings.
- 1. INTEGRATING ENVIRONMENT AND DEVELOPMENT
- [1. To approve the programme budget for 1997 covering the chapter on "Integrating Environment and Development" as proposed in part II of this document (pages 45 to 52).]
- (a) Observation and Systemic and Prospective Analysis of Environment and Development in the Mediterranean (Blue Plan-BP/RAC)
- 1. To invite the Secretariat (BP/RAC) to pursue and improve, in conformity with Agenda MED 21, the systemic and prospective analysis of development/environment interactions in the Mediterranean and mainly its coastal regions, in particular the analysis of Mediterranean sustainable development problematics, and to identify short and medium-term objectives for sustainable development programmes, as a contribution to the decision-making process towards sustainable development and as technical support for the activities of the Mediterranean Commission on Sustainable Development.
- 2. To invite the Secretariat (BP/RAC) to prepare a medium (5 year) and long (10 year) term programme of activities ("Blue Plan 2000"), integrating its major functions, taking into consideration cooperation with MEDU and RACs and the production of a major Mediterranean output by the year 2000, and focusing on coastal regions.

- 3. To invite the Secretariat (BP/RAC) to develop and strengthen a Mediterranean environment and development information system, and to identify and elaborate pertinent indicators, statistics and information to monitor and evaluate Mediterranean institutions, environment and development, in order to assist the decision-making process towards sustainable development.
- 4. To invite the Secretariat (BP/RAC) to strengthen the implementation and development of the "Mediterranean Environment and Development Observatory" function (MEDO) in close cooperation with MEDU and RACs, together with Mediterranean countries and regional/international organizations (e.g. EU-EC/EEA/EUROSTAT, UNEP/GRID, METAP, FAO, OECD, CEDARE, SSO), and to provide it with the necessary assistance and support.
- 5. To invite the Secretariat (BP/RAC) to assist Contracting Parties in the preparation, implementation and development of national/local observatories as supporting tools for National Environmental Action Plans (NEAPs) and sustainable development strategies and policies, through technical support, exchange of experience and cooperation in order to promote a Mediterranean network.
- 6. To encourage the Secretariat (BP/RAC) to continue to seek additional support from partner institutions such as EC/EEA/EUROSTAT, METAP, etc, in order to strengthen studies, networking and capacity-building activities, mainly on development/environment interactions, environmental statistics, indicators and institutional analysis.
- 7. To invite the Secretariat (BP/RAC) to improve information on its activities and the dissemination of its products and to continue the preparation and publication of its regional and sectoral studies, such as "Fascicules", "Country Profiles" and "Technical Notes".

# (b) Coastal Planning and Management - Priority Actions Programme (PAP/RAC)

- 1. To invite the Secretariat (PAP/RAC) to continue furthering and refining the methodology of integrated planning and management in coastal areas (ICAM) with the aim of achieving a rational management of coastal resources and sustainable development in Mediterranean coastal areas.
- 2. To invite the Secretariat (PAP/RAC) to develop and apply, in cooperation with other components of MAP, as well as national and local authorities, organizations and institutions operating outside the MAP system, relevant policies and methods of sustainable development planning in coastal towns of the Mediterranean basin, particularly those of the developing countries.

- 3. To invite the Secretariat (PAP/RAC) to develop practical management methods, tools and techniques for sensitive and vulnerable coastal resources, particularly the Geographic Information System (GIS), Carrying Capacity Assessment for tourism (CCA), Decision Support and Expert Systems (DSS), multicriteria analysis, etc., and to ensure their dissemination to the Mediterranean countries.
- 4. To invite the Secretariat (PAP/RAC) to continue developing tools and techniques for the assessment of the environmental effects of development decisions in coastal areas through the implementation of individual projects (Environmental Impact Assessment EIA), and to assist Mediterranean countries in the application of these tools and techniques.
- 5. To invite the Secretariat (PAP/RAC) to continue its activities of building up and strengthening national and local institutional capacities for ICAM, with emphasis on the organization of national and regional training courses, workshops, and seminars addressing topics of special importance.
- 6. To invite the Secretariat (PAP/RAC) to continue furthering the method of integrated management of water resources in Mediterranean coastal areas, as well as relevant tools and techniques, and to assist the responsible national authorities and institutions in applying them.
- 7. To invite the Secretariat (PAP/RAC) to develop and disseminate appropriate methodologies within the scope of other priority actions (solid and liquid waste management, environmentally sound aquaculture development, and soil erosion and desertification), and to transfer to Mediterranean countries the most successful experiences in these priority fields.
- (c) <u>Cleaner Production in the Mediterranean Cleaner Production Regional Activity</u> <u>Centre (CP/RAC)</u>
- To invite the Secretariat (CP/RAC) to organize in 1997, as a follow-up to the First National Focal Points on Cleaner Production Meeting in 1996, a Second National Focal Points Meeting to be held in a South Mediterranean Basin country.
- 2. To invite the Secretariat (CP/RAC) to organize in 1997, as a follow-up to the First Surface Treatment and Coating Sector Expert Meeting in 1996, a Second Expert Meeting coinciding with the Second NFP Meeting, which will discuss and analyse the sector proposed in the First NFP Meeting.
- 3. To invite the Secretariat (CP/RAC) to publish a CP/RAC presentation folder to introduce it and to spread its goals and functions as the Cleaner Production Regional Activity Centre within the framework of the Mediterranean Action Programme.

4. To invite the Secretariat (CP/RAC) to publish a leaflet about cleaner production success stories within the Mediterranean region to show real examples of pollution prevention and cleaner production achieved by different companies, most especially small and medium-sized ones.

#### (d) Coastal Areas Management Programme (CAMP)

- 1. To invite the Secretariat to continue work on the six projects approved by the Seventh and Eighth Meetings of the Contracting Parties (Algeria, Tunisia/Sfax, Morocco/Al-Hoceima, Israel, Malta and Lebanon).
- 2. To invite the national authorities concerned and the relevant bilateral and multilateral programmes to support the above-mentioned CAMP projects as practical demonstration areas for sustainable development and for the protection of the Mediterranean environment.
- 3. To present to the next Ordinary Meeting of the Contracting Parties an evaluation of the results of the CAMPs and proposals for necessary changes for the future.
- 4. To approve and start preparation for a Coastal Area Management Programme for Slovenia, in line with the procedure being applied by the Secretariat for CAMP projects and taking into consideration the results of the evaluation of CAMPs.

### 2. CONSERVATION OF NATURE, LANDSCAPE AND SITES

[1. To approve the programme budget for 1997 covering the chapter on "Conservation of Nature, Landscape and Sites" as proposed in part II of this document (pages 53 to 56).]

### (a) Specially Protected Areas

- To take note of the three draft annexes to the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (List of endangered or threatened species; List of species whose exploitation is regulated; Common criteria for the choice of protected marine and coastal areas that could be included in the SPAMI List) as recommended by the meeting of the National Focal Points for SPA (Tunis, 25-27 March 1996).
- 2. To take note of the report of the meeting of experts on endangered species (Montpellier, 22-25 November 1995), and to invite the Secretariat (SPA/RAC) to work on the implementation of the recommendations of the above meeting.

- 3. To invite the Secretariat (SPA/RAC) to pursue the development of its databases and to disseminate them in a computerized form to the Contracting Parties and concerned NGOs.
- 4. To invite the Secretariat (SPA/RAC) to evaluate the implementation of the three action plans for the conservation of species adopted within MAP.
- 5. To invite the Secretariat (SPA/RAC) to prepare common criteria and guidelines for the preparation, at the national level, of inventories of sites, species and other elements of biological diversity, and guidelines for preparing management plans for SPAs.
- To invite the Secretariat (SPA/RAC) to pursue coordination with the Secretariat of the Convention on Migratory Species concerning the agreement on cetaceans currently under preparation for the Mediterranean and the Black Sea.
- 7. To invite the Secretariat (SPA/RAC) to pursue its activities for the enhancement of national capabilities, taking into account the relevant recommendations made by the Third Meeting of the National Focal Points for SPA (Tunis, 25-27 March 1996).
- 8. To invite the Secretariat (SPA/RAC) to pursue its assistance to the Contracting Parties in managing protected areas, in particular by elaborating common methodologies for the evaluation of the efficiency of management programmes.
- [(b) Programme for the 100 Coastal Historic Sites of Common Mediterranean Interest
- 1. To continue its action on the identification and evaluation of activities for the protection and safeguarding in two countries of sites contained in the 100 historic sites list.
- 2. To assist the countries which so request in their efforts to protect and safeguard at least 5 historic sites through the preparation of legal, administrative and financial files.
- 3. To promote the legal protection of sites of particular interest for their cultural value.
- 4. To define and finalize, in cooperation with local authorities, projects related to the protection of historic sites, including permanent and urgent measures.
- 5. To encourage the development of Mediterranean historic sites related to cultural tourism.

- 6. To assist the countries which so request to evaluate the major risks to threatened sites and prepare preventive measures.
- 7. To contribute to promoting an exchange of expertise between the persons responsible for the 100 historic sites, notably through local and regional authorities, in liaison with the Coordinating Unit of the MAP and its centres, in particular with the SPA/RAC and PAP/RAC.]
- 3. ASSESSMENT, PREVENTION AND ELIMINATION OF MARINE POLLUTION
- [1. To approve the programme budget for 1997 covering the chapter on "Assessment, Prevention and Elimination of Marine Pollution" as proposed in part II of this document (pages 57 to 64).]
- (a) MED POL Activities
- 1. MED POL Phase III

To ask the Secretariat to prepare the assessment of the MED POL-Phase II programme (1981-1996) including the summarized results of the monitoring and research activities, an overview of the Data Quality Assurance programme and assistance to countries through training and fellowships.

To approve the MED POL - Phase III Programme for the assessment and control of pollution in the Mediterranean region (1996 - 2005), as contained in document UNEP(OCA)/MED IG.8/5.

To establish an Advisory Group of Experts for MED POL\* which will advise the Secretariat and the Meeting of MED POL National Coordinators on the scientific and technical aspects of the design, development and implementation of the MED POL programme, as well as on the review of its accomplishments. MED POL National Coordinators should not be members of the Group. The terms of reference of this Group are as follows:

# Terms of Reference of the Advisory Group of Experts for MED POL

 The institutional arrangements of MAP Phase II provide for the establishment of advisory groups. The Advisory Group of Experts for MED POL is established as an advisory body of the Meeting of the National Coordinators for MED POL. It will advise the Secretariat and the Meeting of MED POL National Coordinators on the scientific and technical aspects of the design, development and implementation of MED POL-Phase III.

<sup>\*</sup> Tunisia expressed a reservation.

- 2. More specifically, it will advise on the scientific and technical details relating to:
  - the establishment of a coastal zone trend monitoring programme;
  - the establishment of a biological effects monitoring programme;
  - the establishment of a compliance monitoring programme;
  - the implementation of the Land-based Sources Protocol;
  - the evaluation and utilization of MED POL data and information;
  - any other aspect of MED POL as decided by the Meeting of National Coordinators.
- 3. The Advisory Group will consist of a core group of 4-6 Mediterranean experts to be nominated for a 2-year term, with the possibility of extension for a further period of 2 years, by the Meeting of MED POL National Coordinators on the basis of a proposal made by the Secretariat. In order to prepare such a proposal, the Secretariat will inform the Contracting Parties that the process of preparation of the proposal has started and that, if they have an appropriate candidate, they should submit such candidature to the Secretariat.
- 4. The travel and subsistence expenses of the members of the Group will be covered by the Secretariat.
- 5. The Group will meet as necessary, but at least once a year. The meetings of the Group will be announced to the Contracting Parties, which may wish to send observers at their own cost.

To ask the Secretariat to cooperate with existing major international programmes (e.g. RAMOGE, POEMBC, PRIMO) in the implementation of MED POL Phase-III.

#### 2. Assessment of Pollution-related Problems

To ask the Secretariat to formulate a regional programme of coastal zone trend monitoring to be implemented by the Contracting Parties.

To ask the Secretariat to formulate compliance monitoring programmes to be implemented by the Contracting Parties in their respective countries: the programmes should include all the adopted common measures and other relevant decisions of the Contracting Parties.

To ask the Secretariat to provide assistance to developing Contracting Parties, which so request, in their efforts to redesign and implement their national monitoring programmes.

To ask the Secretariat to continue to work on the development of a biological effects (marine organisms) monitoring programme to be implemented by the Contracting Parties in parallel with the chemical component of the existing monitoring programme within the framework of MED POL, as decided at the Eighth Ordinary Meeting of the Contracting Parties in 1993.

To ask the Secretariat to continue implementing Data Quality Assurance activities, including microbial parameters, in order to ensure the full reliability of results and to assist countries in their interpretation.

To approve the utilization of 50 per cent of the 1997 budget earmarked for research for projects on eutrophication and biological effects.

#### 3. Pollution Control

### (i) <u>Implementation of LBS Protocol</u>

To ask the Secretariat to take all necessary action in order that full implementation of the LBS Protocol is achieved.

To urge Contracting Parties to implement the common measures adopted and to inform the Secretariat accordingly.

To urge Contracting Parties to report on their action to incorporate the decisions on common measures into national legal instruments.

To ask the Secretariat to provide assistance (including capacity building) to Contracting Parties requesting it for the implementation and enforcement of the control measures adopted by them.

To request the Secretariat to follow up the implementation by the Contracting Parties of the pollution control measures adopted.

To ask the Secretariat to provide assistance to Contracting Parties requesting it in formulating and implementing national, subregional and regional action plans for the control of land-based pollution.

To urge Contracting Parties which have not completed the questionnaires for the survey of land-based sources of pollution to do so at the latest by September 1996 to enable the Secretariat to prepare a final version of the survey by March 1997. To ask the Secretariat to organize a meeting of government-designated experts for the preparation of the Regional Action Plan for the control and elimination of pollution by land-based sources and activities.

To ask the Secretariat to organize a regional and, if necessary, sub-regional, programme for the identification of pollution "hot spots" (sources).

To ask the Secretariat to formulate a programme of assistance for the Contracting Parties which request it, for the establishment or enhancement of a national inspection system, and the organization of the appropriate training.

## (ii) Implementation of the Dumping Protocol

To urge Contracting Parties to make every effort to send out on a regular basis annual reports to the MED Unit on dumping, including nil reports.

To ask the Secretariat to make use of the results of the Meeting of Government-designated expert on the Preparation of Guidelines for the Management of Dredged Material held in Valencia, Spain, from 20 to 22 May 1996, and, as a result, to prepare new draft Guidelines with the assistance of experts. The new draft Guidelines should be discussed and approved by a second Meeting of experts to be financed by a Contracting Party and, subsequently, presented to the Meeting of Contracting Parties for adoption.

#### (iii) Assessments and control measures

To take note of the following:

# Assessment of the state of pollution of the Mediterranean Sea by zinc, copper and their compounds

Zinc and copper, which appear in Annex II of the LBS Protocol, are found in nature principally in sulphide deposits and in minerals of basaltic rocks. Zinc also occurs as a silicate complex and as a carbonate. Weathering and erosion of the earth's crust release and transport zinc and copper into the marine environment, mainly by surface run-off, rivers and atmospheric deposition. Anthropogenic activities also contribute to the level of inputs into the marine environment. Such activities are: mining, industrial processing of ores and metals and the disposal of metals and their compounds mainly in sewage and sludges. Other activities, such as the combustion of fossil fuels, waste incineration and smelting-release zinc and copper into the atmosphere from where they are subsequently transported to the sea through various routes.

If atmospheric inputs, as well as inputs through the straits of Gibraltar and the Dardanelles, are taken into consideration, the estimated loads into the Mediterranean sea are about 90,000 tons per year for zinc and 24,000 tons per year for copper.

The levels of zinc in seawater can be as high as 450  $\mu$ g L<sup>-1</sup> especially in polluted harbours. However, in clean offshore areas, the values range from 1 to 5  $\mu$ g L<sup>-1</sup> and can even be as low as 0.02  $\mu$ g L<sup>-1</sup>. The reported copper concentrations for the Mediterranean are lower and vary from 0.2  $\mu$ g L<sup>-1</sup> to 50  $\mu$ g L<sup>-1</sup> in the vicinity of point sources.

The concentration levels of these metals found in sediments vary with the extraction method used. For total extraction and subsurface samples the background levels for zinc and copper are estimated to be 20 and 15  $\mu$ g g<sup>-1</sup> DW respectively. In polluted areas, concentrations of up to a few thousand  $\mu$ g g<sup>-1</sup> have been reported, with copper values lower than those for zinc.

The concentrations of these metals in marine biota vary according to species. The highest concentrations are found in some molluscs, such as oysters, in which concentrations of Zn may exceed 100  $\mu$ g g<sup>-1</sup> FW and those of copper 20  $\mu$ g g<sup>-1</sup> FW. From MED POL data it has been estimated that the average zinc value for the entire Mediterranean in the mussel Mytilus galloprovincialis is 27  $\mu$ g g<sup>-1</sup> FW and in the fish Mullus barbatus about 4  $\mu$ g g<sup>-1</sup> FW. The respective values for copper are 1.3  $\mu$ g g<sup>-1</sup> for M. galloprovincialis and 0.4  $\mu$ g g<sup>-1</sup> for M. barbatus.

Seafood is a major source of zinc and copper for man. Intake of excessive doses of copper by man leads to severe mucosal irritation and corrosion, widespread capillary damage, hepatic and renal damage and irritation of the central nervous system followed by depression. However, in general, the concentrations found in edible species do not pose a threat to human health. The reported lowest lethal dose known for zinc for a human is 500  $\mu$ g kg<sup>-1</sup> bw/day, and zinc has not been implicated in any human disease derived from the eating of seafood. Copper poisoning of dietary origin is also rare in man and higher mammals owing to the powerful emetic action of copper. However, both metals have been found to have adverse effects on marine life at concentrations much lower than those occurring in polluted areas. Copper concentrations in seawater as low as 10  $\mu$ g L<sup>-1</sup> had a significant inhibitory effect on the shell growth of M. edulis and 5  $\mu$ g L<sup>-1</sup> on the reproduction of the isopod Idothea baltica. Zinc values of between 10 and 40  $\mu$ g L<sup>-1</sup> have been shown to have harmful effects on the life of marine organisms.

In order to protect marine organisms, communities and ecosystems, the concentrations of both metals in seawater have to be reduced to levels which are not harmful. For this purpose it is necessary to limit the inputs of copper and zinc in the marine environment, both in the quantity discharged per unit time and the concentration of the metals in liquid effluents and sludges, as well as emissions to the atmosphere.

It is recommended that environmental quality objectives be set for the coastal waters of the Mediterranean. As a step towards the achievement of these water quality objectives, it is also recommended that limit values be set for all effluent discharges into the Mediterranean Sea.

For the protection of human health, it is recommended that the situation should be monitored and that legal limits should be imposed only when and where necessary.

To adopt the following:

Measures for the control of pollution by zinc, copper and their compounds\*

The Contracting Parties, bearing in mind article 4 of the Barcelona Convention and article 6 and Annex II of the Land-Based Sources Protocol, as well as the principle of the precautionary approach adopted by them at their 6th Ordinary Meeting (Athens, 3-6 October 1989), and taking into consideration the conclusions of the UNEP/FAO/WHO document (UNEP(OCA)/MED WG.111/Inf.3) on the assessment of the state of pollution of the Mediterranean sea by zinc, copper and their compounds,

agree to take the following action as from 1 January 1998:

- (a) For the protection of marine organisms, communities and ecosystems
  - to set water quality objectives for total dissolved copper and zinc in their coastal waters: These objectives should be 10  $\mu$ g L<sup>-1</sup> for zinc and 5  $\mu$ g L<sup>-1</sup> for copper.

As a step towards the achievement of the above quality objectives, they agree:

- to set limit values for both copper and zinc in all effluent discharges into the Mediterranean Sea before dilution. These values should be 0.5 mg for copper and 1.0 mg for zinc per litre discharged (monthly flow-weighted average concentration of total copper and zinc);
- (b) For the protection of human health
  - to monitor the trends of zinc and copper content in marketed species of seafood;
  - to identify areas where high levels of copper and zinc in edible species of seafood are reported and might pose a health problem, taking into account their intake from other sources:
  - to impose legal limits on the copper and zinc content of seafood in such areas (or any other restrictions considered appropriate under prevailing conditions), should the local situation so demand, including prohibition of aquaculture and fishing activities in such areas;

<sup>\*</sup> A reservation was made by the representative of Spain.

- to formulate and implement recommended measures to regulate the type and amount of seafood consumed by high-risk groups, if it is considered that such groups are not sufficiently protected by local measures of a general nature;
- (c) To report to the Secretariat on measures taken in accordance with this decision.
- To take note of the following:

# Assessment of the state of pollution of the Mediterranean Sea by anionic detergents

Detergents containing anionic surfactants represent 60% of the commercially used surfactants; cationic surfactants used as fabric softeners and disinfectants (quaternary ammonium cationics) represent 10%; and the remainder is represented by non-ionic surfactants. The most widely used anionic detergents are LAS (linear-secondary alkylbenzenesulfonate), which is rapidly degraded by environmental microorganisms, derived from linear alkylbenzenes (LAB) by sulfonation of alkylbenzene with  $\rm H_2SO_4$  or  $\rm SO_3$ . Degradation of anionic detergents in sewage treatment plants before reaching natural waters is not always complete, and alkyl phenols which are highly toxic to fish and small water invertebrates, may be formed during aerobic and especially during anaerobic treatment in anoxic conditions. It has been demonstrated that primary biodegradation of LAS in estuarine waters depends strongly upon several factors, such as the origin of the bacterial culture, the temperature conditions and the structure of alkylbenzenes.

The most important sources of anionic detergents in the Mediterranean Sea are land-based sources, and detergents are introduced into the marine environment directly from outfalls discharging into the sea or through coastal dispersion, and indirectly through rivers, canals or other watercourses, including underground watercourses, or through run-off. Information on the amount of anionic detergents reaching the Mediterranean Sea is sparse. A pilot monitoring survey carried out in 1992 provided some more information on levels of anionic detergents. Levels in seawater ranged from 0.01 to 4.2  $\mu$ g L<sup>-1</sup>, in effluents from 0.11 to 34.07  $\mu$ g L<sup>-1</sup> and in rivers from 0.06 to 26.86  $\mu$ g L<sup>-1</sup>. This study, however, had to be restricted to a few coastal areas and the results cannot be interpreted as providing any indication of the situation prevailing in the Mediterranean as a whole. Overall assessment of the situation with regard to the Mediterranean was made on the basis of current knowledge at the global level, taking into consideration the existing differences in sampling and analytical techniques. For the purpose of the study, the levels of concentration were determined by methylene blue active substances (MBAS) and LAS.

Considering that the ingestion of small quantities, even repeatedly, of seawater polluted by anionic surfactants, may be regarded as free of risk, the poor percutaneous absorption and the low toxicity of anionic detergents suggest that there appears to be no risk to human health through contact with detergent-

polluted seawater, provided that concentrations in any particular locality do not reach levels sufficient to produce visible foam on the surface. Nevertheless, it must be borne in mind that another effect of detergents on the skin barrier is that it allows the absorption of other compounds which are temporarily present.

Concentrations of anionic detergents measured in the Mediterranean Sea may represent a risk for marine biota on all occasions when they reach levels of effect. The danger to fish comes from exposure of the gill tissues to the detergent, rather than from ingestion. Very important toxic effects are experienced by fish swimming in water containing LAS (or other detergents) at low (few  $\mu$ g L<sup>-1</sup>) concentrations. It must also be taken into account that no data are available to support the hypothesis of a widespread risk for marine biota in the Mediterranean Sea from anionic detergents, but that some data may lead to the belief that there are some risk situations where high amounts of non-degraded anionic detergents are present in seawater, especially in areas where there is a discharge of untreated sewage wastes.

In a number of Mediterranean countries, detergents are limited by legal restrictions respecting their discharge into the marine environment. Such restrictions generally relate to the use of a high percentage of anionic detergents and to permissible concentrations of detergents in the discharges, as well as in the sea.

#### - To adopt the following:

#### Measures for the control of pollution by detergents

The Contracting Parties, bearing in mind article 4 paragraph 1 of the Barcelona Convention and article 6 and Annex II of the Land-Based Sources Protocol, as well as the principle of the precautionary approach adopted by them at their 6th Ordinary Meeting (Athens, 3-6 October 1989), and also taking into account the high incidence of the use of anionic detergents as compared to non-anionic ones, and of the fact that anionic detergents are rapidly degraded in the environment, consider that a holistic approach has been adopted for detergents in general. The Contracting Parties also, taking into consideration the conclusions of the UNEP/WHO document (UNEP(OCA)/MED WG.111/Inf.4) on the assessment of the state of pollution of the Mediterranean Sea by anionic detergents,

agree to take the following action as from 1 January 1998:

- (a) to promote measures to reduce inputs into the marine environment of nonbiodegradable detergents by restricting the use of detergents to those which are reasonably (90%) biodegradable;
- (b) to reduce the input of detergents in identified hot-spot areas: such actions would have to be individually tailored to suit the conditions prevailing in each particular locality so identified;

- (c) to monitor the level of detergents in coastal recreational areas: as a routine measure this could be done visually, with analysis only resorted to when any particular circumstance so demands;
- (d) to make, whenever possible, the monitoring of detergents in effluents a component of pollution source monitoring within the framework of MED POL;
- (e) to report to the Secretariat on all measures taken in accordance with this decision.
- (iv) Other recommendations

## Recommendations for prevention and control of microbiological pollution

The Contracting Parties, bearing in mind the targets relating to the establishment of sewage treatment plants and submarine outfall structures contained in the Genoa Declaration and the interim environmental quality criteria for bathing waters, adopted for a transitory period during their Fourth Ordinary Meeting in Genoa from 9 to 13 September 1985, as well as the criteria for shellfish waters, adopted during their Fifth Ordinary Meeting in Athens from 7 to 11 September 1987, and taking into consideration the UNEP/WHO document (UNEP(OCA)MED WG.111/Inf.8) on the new assessment on the state of microbiological pollution of the Mediterranean Sea, completed in December 1995,

- Take note of the following:

#### Assessment of the state of microbiological pollution of the Mediterranean Sea

A considerable number of species and strains of pathogenic microorganisms, including mainly bacteria and viruses, but also fungi and protozoa, are known to be present in varying degrees of population density in Mediterranean coastal waters. Some of these are endemic in a number of Mediterranean areas. A number of algal species that produce biotoxins which affect man; mainly through the consumption of contaminated shellfish, have also been identified in various parts of the Mediterranean and are posing a risk in areas where local conditions lead to eutrophication and the development of algal blooms.

Diseases and disorders associated with infection by such pathogenic organisms have been recorded both among local Mediterranean populations and among tourists visiting the region. Except under specific circumstances, however, it is difficult to link infection with bathing in polluted coastal marine areas, with consumption of contaminated shellfish, as practically all such diseases and disorders can result from causes other than marine pollution. In the case of a number of non-gastrointestinal diseases contracted through bathing, it is being recognized that the cause may be high bather density rather than polluted seawater.

In conformity with global practice, the rationale for developing and enforcing seawater and shellfish quality criteria and standards in all Mediterranean countries involves the establishment of upper concentration limits of one or more bacterial indicator organisms as an index of acceptability or otherwise. Criteria and standards for bathing waters vary in the different countries, most of them being based either on the interim criteria for bathing waters adopted by the Contracting Parties to the Barcelona Convention and Protocols in 1985, or on the 1975 EC Directive on the quality of bathing waters. There is a similar variation between the various national criteria and standards for shellfish waters.

Records of bathing water monitoring for the period 1983 to 1992 from thirteen Mediterranean countries submitting their data to MED POL and assessed on the basis of conformity with the 1985 interim criteria for bathing waters appear to show reasonable microbiological quality, but cannot be properly evaluated owing to non-compliance with the stipulated monitoring frequency. These records, however, are known to present an incomplete picture of actual monitoring programmes in at least some Mediterranean states. On the other hand, the quality of bathing waters in the four Mediterranean EC Member States, assessed on the basis of compliance with the guide values of the 1975 EC bathing water Directive, show a positive trend over the last few years, probably as a result of improved wastewater management practices. The two sets of criteria and standards are not directly comparable. In the case of shellfish waters, no monitoring data has been available since the completion of the first phase of MED POL in 1981.

Recent international epidemiological data have cast doubts on the validity of current indicator bacteria as an accurate index of pathogen presence and density, in view of the longer survival of pathogens than of the indicator bacteria in seawater and shellfish and their greater resistance (particularly in the case of viruses) to conventional sewage treatment. The results of the studies in question have also accentuated the need for reliance on multiple, as opposed to single, indicator bacteria, supplemented by monitoring for the more serious pathogens at appropriate times. There is now sufficient data on the basis of which criteria and standards of a more permanent nature than the interim ones adopted in 1985 can be developed, in order to ensure adequate health protection for both local populations and tourists using coastal marine recreational amenities. In view of the lack of data, the matter of shellfish requires further study.

While the general situation can be said to have improved to a variable extent over the Mediterranean region, an acceleration of effort in achieving those targets listed in the 1985 Genoa Declaration related to the establishment of sewage treatment plants and submarine outfall structures is necessary in order to further reduce marine pollution and its resultant threats to human health.

## Action for prevention and control of microbiological pollution

Agree on the following action:

- (a) To observe the terms of the measure on interim criteria for bathing waters adopted during their Fourth Ordinary Meeting in 1985 as well as to draw up new criteria taking into account the results of work conducted in an international context and to establish new standards relevant to the Mediterranean;
- (b) to observe the terms of the measure on the criteria for shellfish waters, adopted during their Fifth Ordinary Meeting in 1987, and to ensure that this is supplemented by adequate health or marketing legislation on shellfish quality to protect the consumer from contaminated produce;
- (c) to promote, both within the framework of MED POL and otherwise, the following studies:
  - microbiological surveys to satisfy the requirement for a more comprehensive catalogue of the presence and (where feasible) density of pathogenic microorganisms in sewage effluents and in those marine areas (recreational and shellfish-growing) known to be affected by such effluents. This would provide essential data for the design of new sewage treatment facilities and outfall structures in such localities, and for any possible modifications required in the case of existing ones;
  - epidemiological studies (i) on the correlation between recreational water quality and observed health effects on exposed population groups, covering the main water sport activity areas (including bathing), (ii) correlating the incidence of specified diseases and disorders with beach overcrowding, and (iii) aimed at identifying the extent to which contaminated seafood (as opposed to other sources) is responsible for the incidence of gastrointestinal diseases and disorders in both local populations and tourists;
  - microbiological studies correlating the density of bacterial indicator organisms with the presence and density of pathogens such as *Salmonella*, and studies to try to interpret the real pathogenic significance of pathogens such as *Salmonella* and enteroviruses in seawater samples;
  - Studies: (i) on the development of less expensive techniques for the identification of viruses, (ii) on the development of reliable techniques for the determination of bacteriophages and on the criteria for selection of the most appropriate bacteriophages to be determined for evaluation of the presence of enteroviruses, with the aim of being able, at some future date, to propose limit values for bacteriophages, and (iii) on the survival and adaptation of pathogenic and indicator microorganisms released into the Mediterranean marine environment, including the mechanisms responsible for change;

- (d) to include, to the extent possible, all coastal waters used for bathing purposes in their national and local coastal recreational water quality monitoring programmes, and to include all ongoing programmes in this field in their national agreements with the Secretariat within the framework of MED POL;
- (e) to accelerate the establishment of sewage treatment plants and submarine outfall structures in the appropriate cities and towns, in order to further prevent pollution by sewage at source, and achieve the relative targets contained in the 1985 Genoa Declaration by the earliest possible date:
- (f) to provide the Secretariat to the Convention and Protocols with the fullest information possible on all updates of legislation and administrative measures respecting national criteria and standards for coastal recreational and shellfish waters.

#### (c) Remote Sensing Activities (ERS/RAC)

- 1. To invite the Secretariat (ERS/RAC) to enhance its activities relating to the development and demonstration of the physical observation and study of the environmental state and modification of marine and coastal areas in the Mediterranean basin, thus contributing to the decision-making process concerning the sustainable management of resources.
- To invite the Secretariat (ERS/RAC) to strengthen cooperation with the Focal Points, the MAP Coordinating Unit, RACs and other MAP components for the implementation of the approved programmes by developing activities supported by the use of remote sensing techniques in conjunction with other sources of data.
- 3. To invite the Secretariat (ERS/RAC) to further develop its activities relevant to the observation and assessment of the state and modification of forest and plant coverage in the whole Mediterranean region, as well as their relation with environmental changes, in liaison with other programmes such as the FAO Forest Action Plan.
- 4. To invite the Secretariat (ERS/RAC) to strengthen the use of remote sensing techniques in the implementation of the ongoing and future Coastal Areas Management Programmes (CAMPs), also promoting their integration in multi-disciplinary approaches.

- 5. To invite the Secretariat (ERS/RAC) to develop and propose the use of remote sensing techniques for the observation and study of eutrophication phenomena and of pollution from both marine and land-based sources, as well as for the assessment of pollutant dispersion in marine coastal areas; and to invite ERS/RAC to coordinate its activities with relevant IOC programmes as appropriate.
- 6. To invite the Secretariat (ERS/RAC) to promote the dissemination and exchange of information and activities relating to remote sensing data and applications among the Mediterranean countries and relevant operational Centres, with a view to developing and strengthening a remote sensing Mediterranean network.
- 7. To invite the Secretariat (ERS/RAC) to develop and propose appropriate methods for a sound understanding of the Mediterranean environment, by transferring knowledge of remote sensing applications through on-the-job training and capacity-building activities.
- 8. To invite the Secretariat (ERS/RAC) to take into account possible requests from Mediterranean countries relevant to the monitoring of environmental changes in a number of characteristic zones:
  - large urban centres and their suburbs;
  - coastal zones subject to pressure;
  - ecologically fragile sites;
  - zones exposed to desertification phenomena.

#### 4. INFORMATION AND PARTICIPATION

- [1. To approve the programme budget for 1997 the covering chapter on "Information and participation" as proposed in part II of this document (page 65).]
- 2. To prepare relevant publications, brochures and reports presenting MAP activities and to disseminate them to decision-makers, scientists and administrators as well as the public at large.
- 3. To carry out activities related to the promotion of environmental awareness, exchange and dissemination of information, educational assistance and information on MAP activities through the strengthening of the library and library services of MEDU.
- 4. To enhance cooperation with environmental Mediterranean NGOs and encourage their active participation in MAP-related activities.
- 5. To recommend the inclusion of the following NGOs in the list of MAP Partners, as approved by the Ninth Ordinary Meeting of the Contracting Parties (Barcelona, 5-8 June 1995), "MAP Cooperation with Non-Governmental Organizations":

- Israel Society for the Protection of Nature, Israel;
- Ricerca e Cooperazione (RC), Italy;
- Sustainability Challenge Foundation, Italy;
- European Fertilizer Manufacturers Association (EFMA), Belgium;
- International Marine Mammal Association (IMMA), Canada.

#### III. STRENGTHENING OF THE LEGAL FRAMEWORK (Chapter II of MAP II)

- [1. To approve the programme budget for 1997 covering the chapter on "Strengthening of the Legal Framework" proposed in part II of this document (page 66).]
- To ask the Executive Director of UNEP to convene a Conference of Plenipotentiaries for the adoption of the three annexes to the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean, to be preceded by a one-day meeting of government-designated experts.
- 3. To invite the Contracting Parties to notify to the Depositary, in writing, their acceptance of the amendments to the Convention for the Protection of the Mediterranean Sea against Pollution, the Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft (Dumping Protocol), and the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-based Sources (LBS Protocol).
- 4. To invite the Contracting Parties that have not done so, to sign/ratify the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA Protocol) and the Protocol for the Protection of the Mediterranean Sea against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil (Offshore Protocol).
- 5. To invite the Contracting Parties to review their countries' position with respect to other pertinent international conventions, protocols and agreements and to ensure the early signature of those instruments which may have a positive influence on the Mediterranean Basin.

# **II. PROGRAMME BUDGET FOR 1997:**

### SUMMARY OF BUDGETARY ALLOCATIONS

			Proposed Budget 1997 (,000 US\$)		
	,		A	В	С
ı.	INST	TUTIONAL AND FINANCIAL ARRANGEMENTS			
	PROC	GRAMME COORDINATION	402	402	402
	PERS	ONNEL AND OPERATING COSTS			
	1.	COORDINATING UNIT, Athens, Greece			
		- Secretariat Personnel and Unit's Operating Costs	804	804	779
		- MEDPOL Personnel	431	431	431
		<ul> <li>Operating costs covered by the Greek Counterpart Contribution</li> </ul>	400	400	400
	2.	MED POL COOPERATING AGENCIES	385	385	385
	3.	REGIONAL MARINE POLLUTION EMERGENCY RESPONSE CENTRE FOR THE MEDITERRANEAN (REMPEC)	552	552	552
	4.	BLUE PLAN REGIONAL ACTIVITY CENTRE (BP/RAC)	447	447	437
	5.	PRIORITY ACTIONS PROGRAMME REGIONAL ACTIVITY CENTRE (PAP/RAC)	328	328	328
	6.	SPECIALLY PROTECTED AREAS REGIONAL ACTIVITY CENTRE (SPA/RAC)	274	274	274
	7.	ENVIRONMENT REMOTE SENSING REGIONAL ACTIVITY CENTRE (ERS/RAC)	*	*	*
	8.	SECRETARIAT FOR THE 100 HISTORIC SITES	*	*	*
	9.	SECRETARIAT FOR THE CLEANER PRODUCTION REGIONAL ACTIVITY CENTRE (CP/RAC)	#	*	*
		SUB-TOTAL	3,621	3,621	3,586
PF	ROGRA	MME SUPPORT COST**	727	711	694
TO	OTAL I	NSTITUTIONAL AND FINANCIAL ARRANGEMENTS	4,750	4,734	4,682

<sup>\*</sup> Covered by the host country.

<sup>\*\*</sup> Programme Support Cost of 13% applies to MTF expenditures.

-						sed Budget (,000 US\$	
					Α	В	С
11.	SUS	TAINA	BLE D	EVELOPMENT IN THE MEDITERRANEAN			
			O THE MEDITERRANEAN COMMISSION ON BLE DEVELOPMENT		110	110	110
	1.	INTE	GRATI	NG ENVIRONMENT AND DEVELOPMENT			
		1.1	Econ	omic activities and the environment	100	100	100
		1.2	Urba	n management and the environment	50	50	50
		1.3	Susta	ainable management of natural resources	114	104	90
		1.4	Integ	rated coastal area management			
			(a)	Integrated Planning	31	31	31
			(b)	Coastal Areas Management Programme (CAMP)	173*	173*	163*
		1.5	Elem MED	ents for a Mediterranean strategy (including O)			
			(a)	Observation and Systemic and Prospective Analysis of Environment and Development in the Mediterranean	65	60	55
			(b)	Mediterranean Environment and Development Observatory (MEDO)	**	**	**
		1.6	Natio	onal and local capacity-building	20	20	20
				SUB-TOTAL	. 663	648	619
	2.	CON	ISERV	ATION OF NATURE, LANDSCAPE AND SITES			
		2.1		ection of data and periodic assessment of the ation	15*	15*	15*
		2.2	Lega	al measures (SPA Protocol)	30	30	30
		2.3	Plan	ning and management	35*	20*	20*
		2.4		nange of experience and strengthening of onal capabilities	20*	20*	20*
				SUB-TOTAI	_ 100	85	85

<sup>\*</sup> Additional funding is provided under the voluntary contribution of the European Community.

<sup>\*\*</sup> Funded under the voluntary contribution of the European Community.

	Proposed Budget 1997 (,000 US\$)						
					Α	В	С
3.		ESSMI		PREVENTION AND ELIMINATION OF			
	3.1 Assessment of pollution-related problems		440	440	415		
	3.2	Pollu	ition p	prevention			
		(a)	of th	rention and elimination of the pollution ne marine environment from land-based vities (LBS Protocol)	300	275	250
		(b)	mari	rention of and response to the pollution of ine ronment from sea-based activities	f the		
			(i)	Preparedness for, response to and cooperation in cases of accidental marine pollution (Emergency Protocol)	180	166	166
			(ii)	Prevention of the pollution of the marine environment by dumping from ships and aircraft (Dumping Protocol)	10	10	10
		(c)	the tran was	rention and control of the pollution of environment resulting from sboundary movements of hazardous tes and their disposal (Hazardous stes Protocol)	30	30	30
	3.3	Supp	oorting	g measures	65	65	65
				SUB-TOTAL	1,025	986	936
4.	INFC	RMA	TION .	AND PARTICIPATION	145	145	145
TOTALS	USTA	INABI	LE DE	VELOPMENT IN THE MEDITERRANEAN	1,933	1,864	1,785
III. STR	ENGTH	IENIN	G OF	THE LEGAL FRAMEWORK			
TOTALS	TREN	GTHE	NING	OF THE LEGAL FRAMEWORK	90	30	15
GRAND	TOTAI	L			6,773	6,628	6,482

# AGGREGATE BUDGET COVERING ACTIVITIES AND PERSONNEL AND OPERATING COSTS FOR THE COORDINATING UNIT AND THE CENTRES:

		Proposed Budget 1997 (,000 US\$)		
		Α	В	С
1.	COORDINATING UNIT			
-	Total Activities Coordinating Unit	737	677	662
	Personnel and Operating Costs: - Secretariat Personnel and Unit's Operating Costs - Operating costs covered by the Greek Counterpart Contribution	804 400	804 <b>4</b> 00	779 400
-	Total Personnel and Operating Costs	1,204	1,204	1,179
	TOTAL	1,941	1,881	1,841
2.	MED POL			]
-	Total Activities MED POL	965	940	880
	Personnel and Operating Costs:  - MED POL Personnel in the Coordinating Unit  - MED POL Cooperating Agencies Personnel and Operating Costs	431 385	431 385	431 385
-	Total Personnel and Operating Costs	816	816	816
	TOTAL	1,781	1,756	1,696
3.	REGIONAL MARINE POLLUTION EMERGENCY RESPONSE FOR THE MEDITERRANEAN (REMPEC)	CENTRE		
-	Total Activities	200	186	186
-	Total Personnel and Operating Costs	552	552	552
	TOTAL	752	738	738
4.	BLUE PLAN REGIONAL ACTIVITY CENTRE (BP/RAC)			:
-	Total Activities	135*	130*	125*
-	Total Personnel and Operating Costs	447	447	437
	TOTAL	582	557	562
5.	PRIORITY ACTIONS PROGRAMME REGIONAL ACTIVITY (PAP/RAC)	CENTRE		
-	Total Activities	230*	220*	206*
-	Total Personnel and Operating Costs	328	328	328
	TOTAL	558	548	534

<sup>\*</sup> Additional funding is provided under the voluntary contribution of the European Community.

			Proposed Budget 1997 (,000 US\$)		
			Α	В	С
6.	SPECIALLY PROTECTED AREAS REGIONAL ACTIV	ITY CEN	TRE		
-	Total Activities		68*	68*	68*
-	Total Personnel and Operating Costs		274	274	274
	Т	OTAL	342	342	342
7.	7. ENVIRONMENT REMOTE SENSING REGIONAL ACTIVITY CENTRE (ERS/RAC)				
-	Total Activities		30	30	30
-	Total Personnel and Operating Costs		* *	* *	**
	Ţ	OTAL	30	30	30
[8.	CENTRE FOR THE 100 HISTORIC SITES				
-	Total Activities		60	45	45
-	Total Personnel and Operating Costs		* *	**	**
	1	TOTAL	60	45	45]
9.	CENTRE FOR THE CLEANER PRODUCTION REGIO CENTRE (CP/RAC)	NAL ACT	TIVITY		
-	Total Activities		***	* * *	***
-	Total Personnel and Operating Costs		* *	* *	**
	7	TOTAL	-	-	-
	ERALL TOTAL ACTIVITIES, PERSONNEL AND ERATING COSTS		6,046	5,917	5,788
PR	OGRAMME SUPPORT COSTS (13% OF MTF) ****		727	711	694
GF	AND TOTAL		6,773	6,628	6,482

<sup>\*</sup> Additional funding is provided under the voluntary contribution of the European Community.

<sup>\*\*</sup> Covered by the host country.

<sup>\*\*\* 1997</sup> activities for the CP/RAC are fully funded by the Spanish Government at an approximate cost of Pesetas 15.000.000.- (around 118,557 US\$ at a rate of 126.5 PTA/US\$).

<sup>\*\*\*\*</sup> Programme Support Cost of 13% applies to MTF expenditures.

#### **SOURCES OF FINANCING**

The following scheme of sources of financing for the programme budget for 1997 through the ordinary contributions to the Mediterranean Trust Fund, the Greek counterpart contribution and the UNEP counterpart contribution is proposed to the Contracting Parties:\*

	1997 (in US\$)		
	Α	В	С
A. Income			
MTF Contributions for 1997	4,714,768	4,560,546	4,406,325
Greek Counterpart Contribution	400,000	400,000	400,000
UNEP Counterpart Contribution	50,000	50,000	50,000
Bank Interest (estimate)	100,000	100,000	100,000
Unpaid pledges as at 31 Dec. 1996 (estimate)	897,851	897,851	897,851
Estimated uncommitted funds as at 31 Dec. 1996 (including advance payments towards future pledges)**	2,011,209	2,011,209	2,011,209
Total Expected Income	8,173,828	8,019,606	7,865,385
B. Commitments			
Approved Commitments for 1997	6,773,000	6,628,000	6,482,000
Total Commitments	6,773,000	6,628,000	6,482,000
C. Provisions for revolving fund	1,400,828	1,391,606	1,383,385

<sup>\*</sup> The activities funded by the voluntary contribution of the European Community are indicated separately on pages 29 and 30.

<sup>\*\*</sup> Includes US\$ 222,509 representing advance payments towards future pledges received from Greece during 1996.

# Proposed Contributions to the Mediterranean Trust Fund for 1997:\*

Contracting Parties	%	With 7% increase over 1996	With 3.5% increase over 1996	With 0% increase over 1996
Albania	0.07	3,300	3,192	3,084
Algeria	1.05	49,505	47,886	46,266
Bosnia and Herzegovina	0.30	14,144	13,682	13,219
Cyprus	0.14	6,602	6,385	6,169
Croatia	0.97	45,734	44,237	42,741
EC	2.50	117,869	114,014	110,159
Egypt	0.49	23,102	22,347	21,591
France	37.97	1,790,197	1,731,639	1,673,082
Greece	2.81	132,485	128,151	123,818
Israel	1.47	69,307	67,040	64,773
Italy	31.37	1,479,023	1,430,643	1,382,264
Lebanon	0.07	3,300	3,192	3,084
Libya	1.97	92,881	89,843	86,805
Malta	0.07	3,300	3,192	3,084
Monaco	0.07	3,300	3,192	3,084
Morocco	0.28	13,201	12,770	12,338
Slovenia	0.67	31,589	30,556	29,522
Spain	14.99	706,744	683,626	660,508
Syria	0.28	13,201	12,770	12,338
Tunisia	0.21	9,901	9,577	9,253
Turkey	2.25	106,083	102,612	99,143
Total Contributions to the MTF	100.00	4,714,768	4,560,546	4,406,325
•				
Host Country Contribution:		400,000	400,000	400,000
UNEP Environment Fund:		50,000	50,000	50,000
GRAND TOTAL		5,164,768	5,010,546	4,856,325

<sup>\*</sup> The voluntary contribution of the European Community is presented on pages 29 and 30.

# Activities to be funded by the Voluntary Contribution of the European Community:\*

Proposed Budget 1997 (in US\$)

		Α	В	С
<b>1.4</b> (b)	Integrated coastal area management Coastal Areas Management Programme (CAMP)			
	lementation of CAMP activities: assistance to a systematic and prospective analysis (BP)	50,395	53,749	57,103
Alg	lementation of CAMPs in Sfax/Tunisia, eria, Al-Hoceima/Morocco, Israel, Malta and anon (PAP)	185,000	185,000	185,000
	SUB-TOTAL 1.4	235,395	238,749	242,103
1.5 (b)	Elements for a Mediterranean strategy Mediterranean Environment and Development Observatory (MEDO)			
nat	sistance to countries for preparation of a ional environment and development servatory (BP)	25,000	25,000	25,000
of t	ca collection and processing and organisation the Mediterranean Environment and velopment Information System (BP)	10,000	10,000	10,000
	ntification and elaboration of indicators: water, l, wastes, urban, agriculture, etc (BP)	20,000	20,000	20,000
· De	paration for a report on the State of velopment and Environment in the diterranean (BP)	10,000	10,000	10,000
	SUB-TOTAL 1.5	65,000	65,000	65,000
2.1	Collection of data and periodic assessment of the situation			·
the	llection of data and assistance to countries for preparation of inventories of species and sites special interest (SPA)	60,000	60,000	60,000
	SUB-TOTAL 2.1	60,000	60,000	60,000

<sup>\*</sup> The total of the ordinary contribution and the voluntary contribution of the European Community to the Mediterranean Trust Fund amounts to US\$ 670,047.

# Proposed Budget 1997 (in US\$)

	A	В	С					
2.3 Planning and management			— <u>————————————————————————————————————</u>					
<ul> <li>Implementation of the Action Plan for the conservation of the Mediterranean Marine Turtles (SPA)</li> </ul>	15,000	15,000	15,000					
Implementation of the Action Plan for the management of the Monk Seals (SPA)	15,000	15,000	15,000					
Implementation of the Action Plan for the conservation of Cetaceans in the Mediterranean Sea (SPA)	15,000	15,000	15,000					
<ul> <li>Assistance to countries for the improvement of the management of SPA (particularly as regards the development and control of public access to SPAs) (SPA)</li> </ul>	25,000	25,000	25,000					
SUB-TOTAL 2.3	70,000	70,000	70,000					
2.4 Exchange of experience and strengthening of national capabilities								
<ul> <li>Training sessions on the scientific and technical aspects of the conservation of the natural common heritage (SPA)</li> </ul>	50,000	50,000	50,000					
SUB-TOTAL 2.4	50,000	50,000	50,000					
TOTAL	480,395	483,749	487,103					
Programme Support Costs (13%)	71,783	72,284	72,785					
GRAND TOTAL	552,178	556,033	559,888					
TOTAL VOLUNTARY CONTRIBUTION OF THE EUROPEAN COMMUNITY:								

# Expected Counterpart Contributions in Cash/Kind to MAP Projects from Contracting Parties and U.N. Agencies:

		1997
Countries		(,000 US \$)
Croatia	PAP/RAC	150
italy	Environmental Remote Sensing Regional Activity Centre (ERS/RAC)	300
Malta	REMPEC	75
Spain	CP/RAC	118.5
Tunisia	SPA/RAC	70
U.N. Agencies		
WHO	MED POL	100
WMO	MED POL	50
IAEA	MED POL	300
UNESCO/IOC	MED POL	95

1997 (,000 ECU)
350*
83

- \* The French Government will provide a contribution to ensure the proper functioning of the Centre. During 1997, this contribution will be equivalent to US \$ 440,000 (or 350,000 ECU as per April 1996 rate), corresponding to:
  - The salaries of the Director, of an Expert and the cost of larger premises for a total amount equivalent to US\$ 220,000.
  - An amount of US \$ 220,000 to cover the salary of a Secretary as well as part of the operating cost of the Centre.

#### PROGRAMME COORDINATION

#### **Objectives**

To prepare the work programme and budget for the Mediterranean Action Plan for review by the meetings of the Bureau, the subsidiary bodies and for review and approval by the ordinary meetings of the Contracting Parties. To coordinate MAP activities with participating UN Agencies, intergovernmental and non-governmental organizations, and MAP Regional Activity Centres and to manage the Mediterranean Trust Fund.

ACTIVITIES	-	sed Budget 1 ,000 US \$)	1997
	A	В	С
- 10th Ordinary Meeting of the Contracting Parties to review and approve the 1998-99 programme budget (MEDU)	215	215	215
<ul> <li>Meeting of the MAP National Focal Points to consider the progress of the Action Plan and prepare the 1998- 99 programme budget (MEDU)</li> </ul>	115	115	115
- Second Meeting of the Mediterranean Commission on Sustainable Development (MEDU)	*	*	*
<ul> <li>Meetings of the Bureau (two per year) to review the progress of the Action Plan, advise the Secretariat on matters arisen since the meeting of Contracting Parties, and decide on programme/ budget adjustments (MEDU)</li> </ul>	42	42	42
Meeting of the Regional Activity Centres' Directors and the Coordinating Unit for programming and coordination of MAP activities (MEDU)	10**	10	10
- Training of national officials at MED Unit on MAP programmes and procedures (direct support to 2 countries, 4 participants) (MEDU)	5	5	5
- Consultation on the preparation of reporting formats for national reports (MEDU)	15	15	15
TOTAL ACTIVITIES	402	402	402

- \* Meeting to be hosted by a Contracting Party.
- \*\* Amount to cover cost of translation and interpretation. Travel cost included under the relevant Regional Activity Centres.

#### MAP PERSONNEL AND OPERATING COSTS:

#### 1. COORDINATING UNIT, Athens, Greece

The revised structure of the personnel at the Coordinating Unit, as referred to in the recommendations, are reflected in the proposed budget.

The increase of post adjustment for Athens for the <u>Professional Staff</u> that occurred in December 1995 (from 28.6% to 34.9%) has required an increase of salaries in 1997 compared to 1996. The post adjustment is calculated independently of UNEP by the International Civil Service Commission and reflects the increase of the cost of living in the Duty Station. However, the figures indicated for 1997 are estimates and a further increase of the post adjustment is not excluded. The level of increase of allocation for the post of Deputy Coordinator is less than the other post as it is expected that the recruitment of a new incumbent will be made at a lower step level.

For <u>Administrative Support</u> there has been a readjustment of the salaries (+ 5.84%) that takes into account the recent increase of salaries through the interim salary survey undertaken by the Compensation and Classification Service of UN Headquarters in New York. The figures indicated are indeed estimates and another salary survey is forecast during the second half of 1996 that might result in an even higher increase of salaries, as the survey takes into account such parameters as the level of income tax. The allocation for overtime and temporary assistance however remain at the same level in 1997 as for 1996.

The funds for <u>Travel on Official Business</u> include the travel allocation previously attributed to FAO, due to the closing of the FAO post.

An increase in the <u>Rental</u> cost of MEDU premises of 8.1% has already occurred at the beginning of the year. The figures indicated for 1997 show an estimated increase of 11.9% over 1996 that takes into account the trends observed at the Duty Station. However, it is necessary to underline the favourable conditions provided by the Host Country as the cost of the rent is presently much below the value prevailing in the market in Athens.

The Office Cost includes such costs as the cost of reproduction, telephone and postage. A substantial increase in these costs has occurred in 1996; for postage, for instance, the range of the increase is from 11% for airmail postage to 68% for printed matter in 1996 and for reproduction costs the increase in 1996 is already 8%.

Also included under the budget for office costs are the allocation for non-expendable equipment and the maintenance of the premises. As announced by the Coordinator during the last Joint Committee Meeting held in Athens in 1995, there is an urgent need to replace or upgrade office facilities. In order to catch up with the telecommunications facilities in Greece it will be necessary to replace the obsolete switchboard. An investment of at least US \$20,000 is necessary to this effect. An additional US \$10,000 will also be necessary to replace some equipment and furniture that have not been changed for fifteen years.

## COORDINATING UNIT, Athens, Greece

				d Budget 00 US \$)	
	m/m	MTF	MTF	MTF	Greek Counterpart Contribution
		Α	В	С	Contribution
Professional Staff					
- Coordinator - D.1/D.2	12	122	122	122	
- Deputy Coordinator - D.1	12	116	116	116	
- Senior Programme Officer/ Economist - P.5	12	115	115	115	
- Fund Management/Admin. Officer - P.3	12	(1)	(1)	(1)	
- MEDPOL Coordinator - P.5	6	55	55	55	
- MEDPOL Senior Programme Officer - P.5	12	115	115	115	
- MEDPOL First Officer/ Marine Scientist - P.4	12	89	89	89	·
- Computer Operations Officer - P.4	12	88	88	88	
Total Professional Staff		700	700	700	
Administrative Support					
- Information Assistant - G.6/G.7	12	34	34	34	
- Administrative Assistant - G.6/G.7	12	(1)	(1)	(1)	
- Senior Secretary - G.5	12	29	29	29	
- Administrative Clerk - G.4	12	(1)	(1)	(1)	
- Data Processing Assistant - G.5	12	(1)	(1)	(1)	
- Research Assistant - G.4/G.5	12	29	29	29	
- Senior Secretary - G.4	12	(1)	(1)	(1)	
- Senior Secretary - G.4	12	28	28	28	
- Senior Secretary - G.3/G.4	12	28	28	28	
- Senior Secretary (MEDPOL) - G.4	12	28	28	28	

<sup>(1)</sup> Paid under Programme Support Costs.

		Proposed Budget 1997 (,000 US \$)			
	m/m	MTF	MTF	MTF	Greek Counterpart
		A	В	С	Contribution
- Senior Secretary (MEDPOL) - G.4	12	28	28	28	
- Senior Secretary (MEDPOL) - G.3/G.4	12	28	28	28	
- Telecommunication Clerk - G.3	12	26	26	26	
- Clerk/Driver - G.3	12	25	25	25	
- Office Clerk/Typist - G.3	12	24	24	24	
- Clerk - G.1/G.2	12	19	19	19	
- Temporary Assistance		30	30	30	
- Overtime		19	19	19	
Total Administrative support		375	375	375	
Travel on Official Business		106	106	106	
Office Costs - Rental		-	-	-	122 <sup>(1)</sup>
- Other Office Costs (including sundry)		54	54	29	278
Total Office costs		54	54	29	400
TOTAL PERSONNEL AND OPERATING CO	STS	1,235	1,235	1,210	400

<sup>&</sup>lt;sup>(1)</sup> In the case of a change in the location of premises, the adjustment of the budget, due to the change in cost, to be approved by the Bureau.

#### 2. MED POL COOPERATING AGENCIES

The proposed budget reflected the revised structure referred to in the recommendations with the suppression of the FAO posts (Senior Fishery Officer and FAO Secretary), and the suppression of the IAEA Maintenance Engineer during the second half of 1997.

	m/m		ed Budget 000 US \$)	1997
		Α	В	С
Professional Staff				
<ul> <li>WHO Programme Officer/Senior Scientist, MAP Coordinating Unit (Athens) - P.5</li> </ul>	12	110	110	110
- IAEA Maintenance Engineer (MEL) (Monaco) - P.3	6	95 <sup>(1)</sup>	95 <sup>(1)</sup>	95 <sup>(1)</sup>
Total Professional Staff		205	205	205
Administrative Support -				
- WHO Secretary - MAP Coordinating Unit (Athens) - G.5	12	29	29	29
- IAEA Laboratory Assistant - MEL (Monaco) - G.6	12	55	55	55
- WHO Temporary Assistance - (Athens)	6	15	15	15
- WMO Temporary Assistance - WMO/HQ (Geneva)		13	13	13
- IOC Temporary Assistance - IOC/HQ (Paris)		13	13	13
Total Administrative Support		125	125	125
Travel on Official Business				
- WHO (Athens)		16	16	16
- WMO (Geneva)		10	10	10
- IAEA (Monaco)		20(2)	20(2)	20 <sup>(2)</sup>
- IOC of UNESCO (Paris)		9	9	9
Total Travel		55	55	55
Office costs		(3)	(3)	(3)
TOTAL PERSONNEL AND OPERATING COSTS		385	385	385

The post of IAEA Maintenance Engineer will be terminated in 1997. Estimated cost includes cost of separation (repatriation grant, travel, annual leave, etc.).

To be used for field missions for the Data Quality Assurance Programme.

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

## 3. REGIONAL MARINE POLLUTION EMERGENCY RESPONSE CENTRE FOR THE MEDITERRANEAN (REMPEC) Valletta, Malta

## Cooperating Agency IMO

	m/m	1 1		ed Budget 000 US \$)	
		Α	В	С	
Professional Staff					
- Director - D.1	12	128	128	128	
- Technical Expert - P.4	12	112	112	112	
- Chemist - P.4	12	102	102	102	
Total Professional Staff		342	342	342	
Administrative Support					
- Information Assistant - G.6	12	20	20	20	
- Senior Secretary/Admin. Assistant - G.6	12	20	20	20	
- Clerk Secretary - G.4	12	17	17	17	
- Clerk/Secretary - G.4	12	17	17	17	
- Caretaker/Docs Reproducer - G.3	12	16	16	16	
Total Administrative Support		90	90	90	
Travel on Official Business	···	35	35	35	
Office costs		85	85	85	
TOTAL PERSONNEL AND OPERATING COSTS		552	552	552	

## 4. BLUE PLAN REGIONAL ACTIVITY CENTRE (BP/RAC) Sofia Antipolis, France

The increase in running costs has been kept to a minimum level (less than 4% compared to 1996). This should cover part of the step increase for staff. The allocation for travel has been increased by US\$ 10,000 in order to meet the request for additional field missions, particularly for CAMPs. The increase of the Deputy Director budget reflects the real cost (which still needs to be supplemented) of participation in MAP activities. These increases are compensated by a decrease of \$5,000 on office costs, charged to external sources.

	m/m	Propo	osed Budget 1: (,000 US \$)	997
		Α	В	C
Professional Staff				
- Chairman	12		40	- (1)
- Director	12	(1)	(1)	. (1)
- Deputy Director/Observatory Coordinator	12	100(2)	100 <sup>(2)</sup>	100 <sup>(2)</sup>
- Scientific Expert - Prospective	12	72	72	72
- Computer Officer	12	42 <sup>(2)</sup>	42(2)	42(2)
- Environmental Statistics Expert	12	(3)	(3)	a. (3)
- Specialist Document Officer	12	(3)	(3)	(3)
- Specialist in Map Data Processing	12	(3)	(3)	(3)
- Administrative and Financial Officer	12	47 <sup>(2)</sup>	47 <sup>(2)</sup>	47 <sup>(2)</sup>
Total Experts/Professional Staff		261	261	261
Administrative Support				
- Data Collection Assistant/Senior Secretary	12	43	43	43
- Bilingual Secretary	12	43	43	43
- Secretary	12	(4)	(4)	(4)
- Temporary Assistance		20	20	10
Total Administrative Support		106	106	96
Travel on Official Business		30	30	30
Office costs		50 <sup>(2)</sup>	50 <sup>(2)</sup>	50 <sup>(2)</sup>
TOTAL PERSONNEL AND OPERATING COSTS		447	447	437

<sup>(1)</sup> Seconded by the French Government.

<sup>(2)</sup> Supplemented by the French Government.

Covered by other sources (METAP, EC) to be confirmed.

<sup>(4)</sup> Covered by the French Government.

# 5. PRIORITY ACTIONS PROGRAMME REGIONAL ACTIVITY CENTRE (PAP/RAC) Split, Croatia

The proposed increase in office and personnel costs is due to: (a) the increase of general labour costs (social charges and taxes, in particular) and the resulting need to harmonize the resources with the conditions prevailing in the host country (a considerable increase of salaries in the public sector); and (b) unfavourable rates of exchange which continue to affect personnel salaries and operating costs.

	m/m	Propos (,	997	
		Α	В	С
Professional Staff				
- Director	12	44	44	44
- Deputy Director	12	32	32	32
Total Professional Staff	-1	76	76	76
Administrative Support				
- Senior Assistant to Projects/Translator	12	23	23	23
- Assistant to Projects/Translator	12	22	22	22
- Assistant to Projects/Translator	12	22	22	22
- Assistant to Projects/Translator	12	22	22	22
- Administrative Assistant	12	22	22	22
- Financial Assistant	12	22	22	22
- Temporary Assistance		9	9	9
Total Administrative Support		142	142	142
Travel on Official Business		27	27	27
Office costs		83	83	83
TOTAL PERSONNEL AND OPERATING COSTS		328	328	328

## 6. SPECIALLY PROTECTED AREAS REGIONAL ACTIVITY CENTRE (SPA/RAC) Tunis, Tunisia

	m/m	Propo	osed Budget 19 (,000 US \$)	997
	A		В	С
Professional Staff				
- Director	12	33 <sup>(1)</sup>	33 <sup>(1)</sup>	33 <sup>(1)</sup>
- Expert	12	16.5 <sup>(1)</sup>	16.5 <sup>(1)</sup>	16.5(1)
- Expert	12	62.5	62.5	62.5
- Data Researcher	12	44	44	44
Total Professional Staff		156	156	156
Administrative Support				
- Administrative Assistant	12	14	14	14
- Bilingual Secretary	12	12	12	12
- Driver	12	6.5	6.5	6.5
- Finance Officer	12	_(2)	_(2)	_(2)
- Cleaner	12	_(2)	_(2)	_(2)
- Caretaker	12	_(2)	_(2)	_(2)
Total Administrative Support		32.5	32.5	32.5
Travel on Official Business		25	25	25
Office costs		60.5	60.5	60.5
TOTAL PERSONNEL AND OPERATING CO	STS	274	274	274

Represents funds allocated to supplement the salary paid by the Host Country.

Paid by the Host Country.

# 7. ENVIRONMENT REMOTE SENSING REGIONAL ACTIVITY CENTRE (ERS/RAC) Palermo, Italy

	Proposed Budget 1997 (,000 US \$)			
	Α	В	С	
TOTAL PERSONNEL AND OPERATING COSTS	*	*	*	

\* Personnel and Operating Costs are fully funded under the counterpart contribution of the Government of Italy for ERS/RAC.

## 8. SECRETARIAT FOR THE 100 HISTORIC SITES Marseilles, France

		Proposed Budget 1997 (,000 US \$)			
4 1	Α	A B C			
TOTAL PERSONNEL AND OPERATING COSTS	*	* * *			

\* Personnel and Operating Costs are fully funded under the counterpart contribution of the Municipality of Marseilles.

## 9. CLEANER PRODUCTION REGIONAL ACTIVITY CENTRE (CP/RAC) Barcelona, Spain

	Proposed Budget 1997 (,000 US \$)		
	Α	В	С
TOTAL PERSONNEL AND OPERATING COSTS	*	*	*

\* Personnel and Operating Costs are fully funded by the Spanish Government.

#### II. SUSTAINABLE DEVELOPMENT IN THE MEDITERRANEAN

SUPPORT TO THE MEDITERRANEAN COMMISSION ON SUSTAINABLE DEVELOPMENT\*

## **Objectives**

To support the activities of the Mediterranean Commission on Sustainable Development which is expected to meet in December 1996 and make proposals for studies. It is proposed that the studies will be mainly undertaken by BP/RAC and PAP/RAC.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)			
	Α	В	С	
- Coastal planning and management/socio-economic analysis	110	110	110	
TOTAL ACTIVITIES	110	110	110	

\* With reservations by Italy and Spain.

## 1. INTEGRATING ENVIRONMENT AND DEVELOPMENT

## 1.1 Economic activities and the environment

### **Objectives**

To study the agriculture production system, inputs and practices, and identify the impacts on major environment components, mainly water and soil.

To implement activities relevant to the implementation of the LBS Protocol with respect to industry and industrial pollution.

To secure sustainable development of tourism in the region through capacity-building for determining the capacity-building of sustainable tourism.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)			
	Α	В	С	
Agriculture - Mediterranean Agro-Systems and Impact on Environment (BP)	10	10	10	
Industry  LBS Protocol  - Application of the LBS Protocol (collection of information, implementation of common measures, preparation and implementation of action plans, capacity- building (MEDPOL)	60	60	60	
Cleaner Production in the Mediterranean - Second National Focal Points Meeting and Second Experts Meeting	*	*	*	
Tourism  - National training course on the application of environmentally sound approach to planning and development of tourism activities using the Guidelines for carrying capacity for tourism (PAP)	15	15	15	
[- Regional workshop on future of ancient ruins/tourist capacity of sites on the list of 100 historic sites (HIST)	15]	15]	15]	
TOTAL ACTIVITIES	100	100	100	

<sup>\*</sup> To be fully funded by the government of Spain.

## 1.2 Urban management and the environment

### **Objectives**

To study past, present and future interactions between urban and rural developments, as well as their impact on environment components, and to identify major parameters to monitor and evaluate their evolutions.

To contribute to the implementation of the concept of sustainable cities in the Mediterranean region, and especially to study the problems of urban infrastructure systems.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)		
	A B		С
- Urbanization, Rural Development and the Environment in the Mediterranean: Status and perspectives (BP)	20	20	20
- Training course on Urban Solid Waste Management (French) (PAP)	30	30	30
TOTAL ACTIVITIES	50	50	50

### 1.3 Sustainable management of natural resources

#### **Objectives**

To identify major water management actors, study their strategies and identify relevant indicators to follow, evaluate and (re-)orient their actions towards a sustainable use of water.

To study the major use policies and their impact on soil erosion, quality and availability.

To develop the system of integrated water resources management in the region through capacity-building for water managers, and especially, to develop the management systems in urban and arid areas focusing on the conservation of water resources.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)		
	Α	В	С
Water resources - Preparation of Guidelines for Coastal Urban Master Water Planning (PAP)	18	18	18
Expert meeting to revise and adopt the Guidelines for Coastal Urban Master Water Planning (PAP)	10	10	10
- Training Course on Integrated Development, Management and Use of Coastal Water Resources (French) (PAP)	20	20	20
Soil  - Reports on measurement of soil erosion phenomena in selected pilot sites in Turkey, Tunisia and Spain, and final editing of draft Guidelines on Mapping and Measurement of Soil Erosion Processes (PAP)	12	12	12
Regional Training Course on consolidated methodology of mapping of soil erosion phenomena, with the participation of FAO (PAP)	30	30	30
Living marine resources  - Expert Group meeting to promote coordination of the ongoing research on ecologically sound integrated management of mollusc culture (PAP)	10*	-	-
<ul> <li>Training course on the environmentally sound siting of aquaculture, including the utilization of GIS (15 participants) (PAP)</li> </ul>	14*	14*	-
TOTAL ACTIVITIES	114	104	90

\* Additional funding to be sought.

## 1.4 Integrated coastal area management

## (a) Integrated Planning

## **Objectives**

To assist coastal States in the formulation, approval and implementation of coastal management policies; to contribute to the strengthening of capabilities of local and national institutions, authorities and experts for the implementation of the integrated coastal and marine areas management (ICAM) process; and to assist in the resolution of concrete environmental problems in coastal areas.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)			
	Α	В	С	
Identification of the directions of future development and implementation of ICAM in the Mediterranean - expert meeting (PAP)	10	10	10	
National Training Course on the Application of Guidelines for ICAM (PAP)	11	11	11	
- National Training Course on the Application of GIS in ICAM (PAP)	10	10	10	
TOTAL ACTIVITIES	31	31	31	

## 1.4 Integrated coastal area management

(b) Coastal Areas Management Programme (CAMP)

#### **Objectives**

To integrate environmental/development and resource management policies in Coastal Areas Management Programmes proposed and accepted by the Contracting Parties. Such integrated management programmes should include, as appropriate, findings and know-how of all components of MAP Phase II, such as development and sustainable management of natural resources of coastal zones.

To ensure coastal protection through legal means and to promote the exchange of expertise concerning policies and strategies for coastal protection.

This programme includes six ongoing CAMP projects in different stages of implementation, namely: Sfax/Tunisia, Algeria, Al-Hoceima/Morocco, Israel, Malta and Lebanon.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)		
	Α	В	С
Identification of pollution "hot spots"; assistance for monitoring programmes (levels and compliance) (MEDPOL)	40*	40*	30*
- Implications of climate change studies (MEDPOL)	20	20	20
- Implementation of CAMP activities: assistance to local systematic and prospective analysis (BP)	**	**	**
<ul> <li>Planning and implementation of the activities for the Malta:Morocco/Israel CAMPs - Technical assistance to local counterparts, consultations, meetings, training (ERS)</li> </ul>	10	10	10
- Implementation of CAMPs in Sfax/Tunisia, Algeria, Al- Hoceima/Morocco, Israel, Malta and Lebanon (PAP)	**	**	**
- Experts, consultants to assist countries participating in CAMPs (MEDU, REMPEC, SPA)	73***	73***	73***
- Consultation meetings relevant to each CAMP project (MEDU)	30	30	30
TOTAL ACTIVITIES	173	173	163

- \* Additional funding to be sought.
- \*\* Funded under the voluntary contribution of the EC.
- \*\*\* The above funds are broken down as follows:
  The Med. Coordinating Unit \$25,000, REMPEC \$20,000, and SPA \$28,000.

## 1.5 Elements for a Mediterranean strategy

#### Objectives

To provide the development and environment public and private actors, including the Mediterranean Commission on Sustainable Development, with necessary information, pertinent analysis and evaluation, and relevant methods and tools including the use of remote sensing as a major input to their decision-making process towards sustainable development in the Mediterranean region. Systemic and prospective approaches will be applied at regional, national and coastal levels. Through the Mediterranean Environment and Development Observatory, indicators will be identified and elaborated, institutional knowledge will be improved and national observatories will be promoted. Related capacity-building assistance will be extended to Mediterranean partners.

(a) Observation and Systemic and Prospective Analysis of Environment and Development in the Mediterranean

ACTIVITIES	Proposed Budget 1997 (,000 US \$)		
	Α	В	С
- Preparation and publication of 2 country profiles (BP)	25*	20*	20*
Systemic and prospective tools for coastal management (BP)	10	10	10
<ul> <li>Workshop on identification, elaboration and use of environmental statistics and indicators (BP)</li> </ul>	20	20	15
- Preparation and publication of a fascicle (BP)	10	10	10
TOTAL ACTIVITIES	65	60	55

<sup>\*</sup> Additional funding to be sought.

## 1.5 Elements for a Mediterranean strategy

(b) Mediterranean Environment and Development Observatory (MEDO)

ACTIVITIES	Proposed Budget 1997 (,000 US \$)		
	Α	В	С
Assistance to countries for preparation of a national environment and development Observatory (BP)	*	*	*
Data collection and processing and organisation of the Mediterranean Environment and Development Information System (BP)	*	*	*
<ul> <li>Identification and elaboration of indicators: water, soil, wastes, urban, agriculture, etc (BP)</li> </ul>	*	*	*
Preparation for a report on the State of Development and Environment in the Mediterranean (BP)	*	*	*
TOTAL ACTIVITIES	*	*	*

<sup>\*</sup> Funded under the voluntary contribution of the EC.

## 1.6 National and local capacity-building\*

## **Objectives**

To assist developing countries through capacity-building activities in the use of remote sensing for the monitoring of the state and the dynamic evolution of the coastal zone environment.

ACTIVITIES	Proposed Budget 1 (,000 US \$)		1997	
	А	В	С	
<ul> <li>On-the-job training in remote sensing techniques and applications and technical assistance to countries (mainly on monitoring of vegetation, monitoring of coastline changes, assessment of natural resources and land suitability, study of sea dynamics in coastal areas) (ERS)</li> </ul>	20	20	20	
TOTAL ACTIVITIES	20	20	20	

<sup>\*</sup> Other capacity-building activities of a more specific nature, such as training courses and direct assistance to countries, are found under each component.

## 2. CONSERVATION OF NATURE, LANDSCAPE AND SITES

## 2.1 Collection of data and periodic assessment of the situation

## **Objectives**

Assessment of the status and, where possible, the evolution of biological diversity in the Mediterranean, with a view to identifying appropriate measures for its conservation.

ACTIVITIES	Prop	1997	
	Α	В	С
<ul> <li>Collection of data and assistance to countries for the preparation of inventories of species and sites of special interest (SPA)</li> </ul>	*	*	*
- Meeting of Experts on Caulerpa (MEDU)	15**	15**	15**
TOTAL ACTIVITIES	15	15	15

- \* Funded under the voluntary contribution of the EC.
- \*\* Additional funding to be sought.

## 2.2 Legal measures (SPA Protocol)

## **Objectives**

The establishment of adequate legislation for the effective protection and management of the natural and cultural heritage of the Mediterranean region, in particular through the effective implementation of the new SPA Protocol.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)		
	A B		С
Analytical study on national legislation related to the conservation of biodiversity and the implementation of the new SPA Protocol (SPA)	20	20	20
[- Technical assistance for the establishment of national and local measures of safeguarding and management of sites of cultural heritage (HIST)	10]	10]	10]
TOTAL ACTIVITIES	30	30	30

## 2.3 Planning and management

## **Objectives**

The establishment of effective forms of management of the natural and cultural heritage, in order to ensure its conservation and to promote its social and economic aspects.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)		
	Α	В	С
- Implementation of the Action Plan for the conservation of the Mediterranean Marine Turtles (SPA)	*	*	*
Implementation of the Action Plan for the management of the Monk Seals (SPA)	*	*	*
<ul> <li>Implementation of the Action Plan for the conservation of Cetaceans in the Mediterranean Sea (SPA)</li> </ul>	*	*	*
[- Implementation of international conventions as well as national legislations concerning cultural sites:  Workshop for the guides of concerned cultural sites (HIST)	15]	-	-
Assistance to countries in the field of biodiversity conservation (SPA)	20	20	20
<ul> <li>Assistance to countries for the improvement of the management of SPA (particularly as regards the development and control of public access to SPAs) (SPA)</li> </ul>	*	*	*
TOTAL ACTIVITIES	35	20	20

<sup>\*</sup> Funded under the voluntary contribution of the EC.

## 2.4 Exchange of experience and strengthening of national capabilities

## **Objectives**

The improvement of the institutional capabilities of the Mediterranean countries in the field of conservation and management of the natural and cultural heritage.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)		
	Α	В	С
<ul> <li>Training sessions on the scientific and technical aspects of the conservation of the natural common heritage (SPA)</li> </ul>	*	*	*
[- Assistance to countries for the conservation of cultural sites (HIST)	10]	10]	10]
[- Training course on the scientific aspect of conservation of cultural sites (HIST)	10]	10]	10]
TOTAL ACTIVITIES	20	20	20

<sup>\*</sup> Funded under the voluntary contribution of the EC.

## 3. ASSESSMENT, PREVENTION AND ELIMINATION OF MARINE POLLUTION

### 3.1 Assessment of pollution-related problems

#### **Objectives**

Assessment of the levels and trends of loads of pollutants reaching the Mediterranean Sea.

Assessment of the levels and trends of pollutants and their potentially harmful effects on marine life , fisheries and human health.

Assistance to Contracting Parties in establishing/improving national monitoring programmes.

Provision of information about general and specific pollution-related problems and potential threats to the Mediterranean region.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)		
	Α	В	С
Assessment - Identification of sources and assessment of loads of pollution (MEDPOL)	30	30	30
<ul> <li>Monitoring of trends in the levels and effects of pollution (MEDPOL)</li> </ul>	30*	30*	30*
- Preparation of documents on loads, levels, trends and effects of pollution (MEDPOL)	30	30	30
Assistance - Assistance to Contracting Parties to establish/improve national monitoring programmes through capacity-building, training and data quality assurance (MEDPOL)	120	120	120
<ul> <li>Assistance to MED POL participating institutes for target oriented research, in particular eutrophication and biological effects (MEDPOL)</li> </ul>	120	120	120
<ul> <li>Assistance to countries to develop procedures for legal provisions for maximum permissable levels in seafood (MEDPOL)</li> </ul>	25	25	25
Training and fellowships  - On-job training of participants in MED POL monitoring programmes and fellowships to present MED POL research and monitoring data (MEDPOL)	40	40	40
Meetings - First Meeting of Advisory Group of Experts for MED POL (MEDPOL)	20	20	20
Review meeting on the results of the pilot programme for biological effects monitoring (MEDPOL)	25	25	-

<sup>\*</sup> An additional contribution of 20,000 USD will be provided by WHO.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)			
	Α	В	С	
<ul> <li>Planning workshop on baseline surveys of open Mediterranean waters (MEDPOL)</li> </ul>	*	*	*	
TOTAL ACTIVITIES	440	440	415	

<sup>\*</sup> A contribution of 15,000 USD will be provided by IOC. Additional funds may be sought from other sources.

#### 3.2 Pollution prevention

(a) Prevention and elimination of the pollution of the marine environment from land-based activities (LBS Protocol)

#### **Objectives**

Identification of major pollution "hot spots" in the Mediterranean, development and implementation of action plans (including economic aspects with timetables) for reduction and elimination of major "hot spots".

Development and implementation of concrete pollution control measures required by the Barcelona Convention, its protocols and decisions and recommendations of the Contracting Parties.

Formulation, adoption and implementation of the regional action plan and development and implementation of national action plans for reduction and elimination of pollution from land-based sources and activities.

Assistance to Contracting Parties in establishing compliance monitoring programmes.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)		1997
	Α	В	С
Action Plans  - Identification of major pollution "hot spots";preparation and implementation of action plans (including economic aspects with timetables) for reduction and elimination of pollution at major "hot spots" (MEDPOL)	30*	30*	30*
<ul> <li>Formulation, adoption and implementation of regional action plan for reduction and elimination of pollution from land-based sources and activities (MEDPOL)</li> </ul>	30*	30*	30*
Assistance - Assistance to Contracting Parties for the development and implementation of national action plans for reduction and elimination of pollution from land-based sources and activities (MEDPOL)	40	40	40
<ul> <li>Assistance to Contracting Parties for the implementation and enforcement of adopted pollution control measures (MEDPOL)</li> </ul>	30	. 30	30
<ul> <li>Assistance to Contracting Parties for establishment of national compliance monitoring programmes (MEDPOL)</li> </ul>	40**	40**	40**
<u>Training</u> - Training of national staff in relation to strengthening the system of environmental inspection (MEDPOL)	20*	20*	20*

<sup>\*</sup> Additional funding to be sought.

<sup>\*\*</sup> An additional contribution of 20,000 USD will be provided by WHO.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)		
	Α	В	С
Meetings - Meeting of the National Coordinators for MED POL (MEDPOL)	: 60 :	·60	60
<ul> <li>Inter-Agency Advisory Committee (IAAC) meeting to coordinate activities on MED POL with UN Agencies (MEDPOL)</li> </ul>	*	*	*
<ul> <li>One meeting of experts for the development of elements of national action plans for the reduction and elimination of pollution from land-based sources and activities (MEDPOL)</li> </ul>	50**	25**	-
TOTAL ACTIVITIES	300	275	250

<sup>\*</sup> Travel cost included in MED POL Cooperating Agencies.

<sup>\*\*</sup> Additional funding to be sought.

### 3.2 Pollution prevention

- (b) Prevention of and response to the pollution of the marine environment from sea-based activities
  - (i) Preparedness for, response to and cooperation in cases of accidental marine pollution (Emergency Protocol)

#### **Objectives**

To strengthen the capacities of the coastal states in the Mediterranean and to facilitate cooperation among them in order to intervene in case of emergencies and accidents causing or likely to cause pollution of the sea by oil and other harmful substances especially in case of emergency in which there is grave and imminent danger to the marine environment or when it can affect human lives.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)		1997
	Α	В	С
<ul> <li>Assistance to States in developing their national system for preparedness and response (REMPEC)</li> </ul>	10	10	10
<ul> <li>Assistance to States which so request for the preparation and development of agreements amongst neighbouring coastal States (REMPEC)</li> </ul>	6	6	6
Assistance to States in developing port emergency response system (REMPEC)	8	8	8
- Adaptation of predicting models and decision support system to the region (REMPEC)	6	6	6
- Regional training course on preparedness and response to accidental marine pollution (REMPEC)	74	60	60
- Workshop on Crisis Management (REMPEC)	60	60	60
Technical assistance to States in the organisation of national training courses (REMPEC)	8	8	8
- Assistance to States in case of emergency (Mediterranean Assistance Unit) (REMPEC)	8	8	8
TOTAL ACTIVITIES	180	166	166

## 3.2 Pollution prevention

- (b) Prevention of and response to the pollution of the marine environment from sea-based activities
  - (ii) Prevention of the pollution of the marine environment by dumping from ships and aircraft (Dumping Protocol)

## **Objectives**

Prevention and abatement of pollution of the Mediterranean Sea Area caused by dumping from ships and aircraft.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)		
	Α	В	C
<ul> <li>Collection of information on issuance of permits and dumping activities and assessment of the implementation of dumping protocol (MEDPOL)</li> </ul>	10	10	10
<ul> <li>Second Meeting of government-designated Experts for the Preparation of Guidelines for the Management of Dredged Material (MEDPOL)</li> </ul>	*	*	*
TOTAL ACTIVITIES	10	10	10

<sup>\*</sup> Funding to be sought.

## 3.2 Pollution prevention

(c) Prevention and control of the pollution of the environment resulting from transboundary movements of hazardous wastes and their disposal

## **Objectives**

To provide Contracting Parties with the necessary assistance related to the implementation of the Protocol on the Prevention and Control of the Pollution of the Environment resulting from Transboundary Movements of Hazardous Wastes.

ACTIVITIES	Propose (,(		
	Α	В	С
Regional Activities  - Assistance to Contracting Parties in carrying out the appropriate preparatory actions (technical and legal) related to the implementation of the Protocol on the Prevention and Control of the Pollution of the Environment resulting from Transboundary Movements of Hazardous Wastes (development of guidelines, rules and procedures for liability and compensation, legal and administrative measures related to the prohibition of export and transit of hazardous wastes) (MEDPOL)	30	30	30
TOTAL ACTIVITIES	30	30	30

## 3.3 Supporting measures

## **Objectives**

Building of the institutional capabilities of the Contracting Parties for the assessment and elimination of marine pollution.

		osed Budget (,000 US \$)	
	А		С
<ul> <li>Formulation and implementation of data quality assurance programmes (MEDPOL)</li> </ul>	40	40	40
<ul> <li>Purchase of standards and reference material (MEDPOL)</li> </ul>	25	25	25
TOTAL ACTIVITIES	65	65	65

## 4. INFORMATION AND PARTICIPATION

## **Objectives**

To strengthen public awareness of the protection and enhancement of the Mediterranean environment, to strengthen cooperation with appropriate NGOs, and to inform Mediterranean decision-makers, scientists, administrators as well as the public at large on MAP activities.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)		1997
	Α	В	С
- Publication and dissemination of MAP Technical Reports (MEDU)	15	15	15
<ul> <li>Library services (environmental awareness and educational assistance); Librarian (Consultant);</li> <li>Exchange/dissemination of information and reports (MEDU)</li> </ul>	20	20	20
- Preparation and translation of MAP Newsletter MEDWAVES (Arabic, English and French) (MEDU)	15	15	15
- Printing and dissemination of MEDWAVES (MEDU)	25	25	25
- Support to public awareness national campaigns on the Mediterranean, the conservation of the coastline, scarce water, etc. (support to NGOs, training, competitions, youth campaigns, etc.) (MEDU)	20	20	20
- Preparation, editing and translation of MAP brochures and reports (MEDU)	30	30	30
- Printing and dissemination of brochures and reports, including the use of the Internet (MEDU)	20	20	20
TOTAL ACTIVITIES	145	145	145

### III. STRENGTHENING OF THE LEGAL FRAMEWORK

### **Objectives**

To seek the early entry into force of the new MAP legal instruments and to promote their early implementation by the Contracting Parties.

To formulate and adopt appropriate rules and procedures for the determination of liability and compensation for damages resulting from the pollution of the marine environment.

To promote the adoption of relevant national legislation and to ensure the compliance of the Contracting Parties to the provisions of the Barcelona Convention and its protocols.

ACTIVITIES	Proposed Budget 1997 (,000 US \$)		
·	A	В	С
- Legal assistance to the Secretariat (MEDU)	15	15	15
- Assistance to countries to develop their national legislation in line with the objectives of MAP II (MEDU)	15	15	-
<ul> <li>2nd Meeting of legal and technical experts to review a draft of appropriate procedure for the determination of liability and compensation for damages from the pollution of the marine environment (MEDU)</li> </ul>	60	-	-
TOTAL ACTIVITIES	90	30	15