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MEDITERRANEAN ACTION PLAN

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

Athens, 6-10 May 1991

Recommendations and Programme Budget for 1992-1993

Proposal by the Secretariat

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I. PROPOSED RECOMMENDATIONS

A. IMPLEMENTATION OF THE BARCELONA CONVENTION AND THE PROTOCOL ON DUMPING

The Contracting Parties adopt the following recommendations.

1. PROGRAMME APPROVAL THROUGH DECISION-MAKING MEETINGS

1. To approve the programme budget as proposed in part II.A.1 (page 19).
2. To conduct their Eighth Ordinary Meeting in plenary session, without establishing a Committee of the Whole.

2. PROGRAMME CO-ORDINATION

1. To approve the programme budget as proposed in part II.A.2 (page 20) with respective personnel and operational costs in part II.A (pages 28 and 29).
2. To invite the Secretariat to strengthen co-operation with financing institutions with a view to their participation in MAP activities, and particularly in the coastal areas management programme.
3. Invite the Secretariat to continue to provide technical support to the Adriatic member-countries with a view to co-ordinating environmental activities at sub-regional level.
4. Invite the Secretariat to continue to provide - when requested - technical support to the Black Sea countries within the framework of UNEP's Regional Seas Programme.
5. Invite the Secretariat to intensify co-ordination with the EEC in relation to the implementation of the actions and measures envisaged in the Nicosia Charter.
6. Take note of the "Mediterranean Report to the 1992 United Nations Conference on Environment and Development" prepared and approved by the Meeting of Experts (Athens, 16-18 January 1991) and the meeting of Bureau of the Contracting Parties (Brussels, 9-10 April 1991) and request the Secretariat to transmit it to the relevant secretariat of the 1992 Conference.

3. LEGAL COMPONENT

1. To approve the programme budget as proposed in part II.A.3 (page 21)
2. To authorize the Executive Director to convene in 1992 a Conference of Plenipotentiaries to consider the draft Protocol on Exploration and Exploitation of the Continental Shelf and the Sea-bed and its Sub-soil prepared by the two meetings of the Working Group of experts.

4. MONITORING OF MARINE POLLUTION IN THE MEDITERRANEAN

1. To approve the programme budget as proposed in part II.A.4 (pages 22, 23 and 24)
2. Monitoring programme and supporting activities
 - To endeavour towards the achievement of complete geographical coverage of the monitoring activities in the Mediterranean through the preparation of national Monitoring Programmes of MED POL and the provision of relevant pollution data;
 - To include the monitoring of airborne pollution whenever possible in the MED POL national monitoring programmes and to initiate the collection of emission inventory data, especially for heavy metals;
 - To welcome the contribution to MAP of the World Bank in the field of MED POL data quality assurance activities which will enable the Secretariat to expand the activities limited by the MAP budget.
 - To ask the World Bank through the Secretariat to continue in the future to support the MED POL activities for the overall benefit of the Barcelona Convention and the Mediterranean Action Plan.
3. Research
 - That fifty per cent of the budget earmarked for the research can be used for one priority research area (which could be eutrophication and plankton blooms for 1992-1993). All the research proposals sent through National Co-ordinators on this subject, in addition to those solicited by the Med Unit and approved by the National Co-ordinators, could form the basis for a regional programme, to be defined in detail by the Unit and the Agencies' staff involved and by a number of selected scientists and implemented by institutes selected from those who had submitted proposals. This system could allow for a higher financial contribution for participating institutes and could lead to multi-institutional joint projects in the region which would enhance the geographical coverage of the research component of MED POL.
4. Climatic Changes
 - To approve the continuation of studies of the impact of climatic change on the Mediterranean coastal zone and islands, in the light of the importance of the problem and on the basis of the work done so far.

5. INFORMATION

1. To approve the programme budget as proposed in Part II.A.5 (page 25).

B. IMPLEMENTATION OF THE LBS PROTOCOL

6. IMPLEMENTATION OF THE LBS PROTOCOL

The Contracting Parties adopt the following recommendations:

1. To approve the programme budget as proposed in part II.B.6 (pages 26 and 27) with respective personnel and operational costs in part II.A. (page 30).

2. POLLUTION BY ORGANOPHOSPHORUS COMPOUNDS

On the basis of the assessment document UNEP(OCA)/MED WG.25/Inf.4, the following text concerning organophosphorus compounds is submitted to the Joint Meeting of the Scientific and Technical Committee and the Socio-Economic Committee, with a view to its transmission by the Secretariat to the next meeting of the Contracting Parties for adoption:

(i) Assessment of the situation regarding organophosphorus compounds in the Mediterranean Sea

- (1) The available information on the production and use of both organophosphorus pesticides and non-pesticides is limited, fragmentary and in some cases unreliable. On the basis of the limited information received from Mediterranean countries the organophosphorus pesticides, dimethoate, chlorpyrifos, malathion, methamidophos, phenthoate, dichlorvos, fenitrothion and parathion were the ones mostly used during the recent years. Other important compounds used were methidathion, fenthion and azinphos-methyl.
- (2) Even though in many cases they are looked at and treated as a group, organophosphorus compounds have varying physical and chemical properties eg. their solubility in water can vary as much as 10 000 times. In general, however, they are considered unstable in water but some of them can have a very high toxicity. The "no-observed effect level" for crustaceans, which appear to be the most sensitive group of marine biota, to organophosphorus compounds is well below 100 ng l⁻¹.
- (3) Organophosphorus compounds reach the marine environment through rivers, the atmosphere, agricultural run-off and industrial point sources. Information on their levels in the Mediterranean marine environment is very scarce. A MED POL study indicated that both pesticide and non-pesticide organophosphorus compounds can be detected in Mediterranean river estuaries and coastal areas subjected to pollution from these compounds. Some compounds were also detected in fish. However, in general, these concentrations are lower than those found in freshwater systems.

- (4) In most countries these compounds are controlled through the general legislation on pesticides and only very few countries have so far taken specific measures for the control of water pollution by organophosphorus compounds either in the form of emission standards or water quality criteria.
- (5) It is generally accepted that on the basis of the available information there is no human health hazard from the consumption of seafood and therefore specific measures are not warranted at the present stage.
- (6) As far as the aquatic ecosystems are concerned it is evident that fresh water ecosystems are exposed to a bigger danger than the marine ones. However, in view of the uncertainties conferred by excessive reliance on single species toxicity tests, lack of data on vulnerable biotopes and lack of data on behaviour of organophosphorus compounds in the marine environment, it is probable that potential impacts on marine ecosystems have been substantially underestimated and therefore the principle of precautionary approach could be followed.

(ii) **Measures for control of pollution by organophosphorus compounds**

The Contracting Parties agree:

- (a) to phase out by the year 2005 the use of those organophosphorus compounds which are persistent, toxic and liable to bioaccumulate, including, but not limited to, azinphos-ethyl, azinphos-methyl, dichlorvos, fenitrothion, fenthion, malathion, parathion, and parathion-methyl.
- (b) to promote measures to reduce inputs into the marine environment and ultimately facilitate the phasing out of the organophosphorus pesticides. These measures could include:
 - (i) the promotion of non-chemical means of pest control;
 - (ii) the use of the International Code of Conduct on the distribution and use of pesticides, as adopted by the FAO Conference in 1985;
 - (iii) the financial and technical support of extension and educational services to train farmers in non-chemical pest control and transitional pest control methods;
 - (iv) the support for farmer oriented research and the long-term development of sustainable, ecological agriculture.
- (c) to monitor the presence of organophosphorus compounds in "hot-spot" areas and if concentration levels so warrant, take the necessary measures for the reduction of pollution.
- (d) to report to the Secretariat on all measures taken in accordance with this decision.

3. POLLUTION BY PERSISTENT SYNTHETIC MATERIALS

On the basis of the assessment document UNEP(OCA)/MED WG.25/Inf.5, the following text concerning persistent synthetic litter is submitted to the Joint Meeting of the Scientific and Technical Committee and the Socio-Economic Committee, with a view to its transmission by the Secretariat to the next meeting of the Contracting Parties for adoption:

(i) Assessment of the situation regarding persistent synthetic materials in the Mediterranean Sea

(a) Attention has focused recently on the increasing amounts of man made debris littering the world oceans and coastlines and the Mediterranean is no exception. However, the studies made on this problem are very limited and the available information does not allow a quantitative assessment of litter input, level and decay in the Mediterranean Sea and its coasts. The quantities of litter which are based on measurements in the field cover only a small part of the Mediterranean Sea and its coasts and are not enough to provide a quantitative assessment of the litter problem. However, the MED POL survey provided for the first time some indication of the quantities of litter found on various beaches in some Mediterranean countries (see Table).

Comparison of litter level between various Mediterranean coastlines (Source: IOC/FAO/UNEP, 1989).

Study area	Spain	Sicily	Cyprus	Israel
No. of samples	17	46	123	472
Mean counts (pcs/m)	33.2	102	10.36	7.35
Mean weight (g/m)	159.3	1595	87.08	-

- (b) There are 3 sources of litter input: i) litter which reaches the beach and the sea as drainage from land; ii) litter which is left on the beach by beach goers who come to the beach for recreation and by construction contractors who at times dump building debris there; iii) litter which is discarded from ships directly into the sea.
- (c) Factors which control the distribution of litter are: proximity to the litter source which may be shipping lanes at sea or population concentration on land, winds and currents which disperse the litter from its source, and waves which drive the litter from the front of the beach to its back and in case of storms even beyond it, landward.
- (d) Close to 3/4 of the coastal litter is composed of plastic materials. The remaining are litter pieces which are made of metal, glass, lumber and wood, Styrofoam and others. Floating litter consists almost entirely of plastics, Styrofoam and wood, whereas seabed litter consists mostly of wood and then plastics, metal and glass in the same abundance.

- (e) Field observations yield the impression that the container fraction of the coastal litter in the Mediterranean consists mostly of those used for beverages, food and cosmetics. This is in contrast to containers of household detergents and cleansers which are the most abundant on the European coastline of the Atlantic. It has been proposed that most of the Mediterranean coastal litter is left by beach goers and therefore should be considered as land-based litter whereas that of the Atlantic beaches of Europe is mostly discarded from ships and therefore marine-based.
- (f) Even though the studies on the damage caused by marine litter in the Mediterranean are limited, it is to be expected that the same ill effects that marine litter has in other parts of the world would also exist in the Mediterranean. These are damage to fish, marine mammals and birds through entanglement and ingestion; damage to free navigation through entanglement in ship propellers and clogging intakes of cooling water systems, and damage to beaches by deterioration of their aesthetics. In the case of the Mediterranean the last one may be the most serious one, economically, in view of the heavy investments which are made to attract tourists to the Mediterranean coastline.

(ii) Measures for control of pollution by persistent synthetic materials in the Mediterranean Sea

The Contracting Parties agree:

- (a) that education, legislation and law enforcement are the tools which should be employed at all levels (locally, nationally and internationally) to control and mitigate the problem of persistent litter in the Mediterranean Sea and its coast.
- (b) to ratify Annex V of the MARPOL 73/78 Convention and install the necessary facilities for reception of garbage from vessels at all ports, anchorages and marinas so that the provisions of Annex V for special areas apply to the Mediterranean as soon as possible.
- (c) to carry out reconnaissance surveys, similar to that of IOC/FAO/UNEP (1989), on the beaches and coastal waters of the Mediterranean, especially those of the South for which no data exist and where industrial development and urbanization are still relatively low, to determine the level and nature of the litter. Monitoring should be repeated every 2-3 years to assess any changes.
- (d) to determine the litter sources, marine or land-based, in an effort to formulate the proper strategy required to control litter contamination.
- (e) to design and implement educational programmes, mainly for youngsters but also to increase general public awareness, aimed at the prevention of littering the beach and coastal waters.
- (f) to promote research for the development of biodegradable synthetic materials.

4. POLLUTION BY RADIOACTIVE SUBSTANCES

On the basis of the assessment document UNEP(OCA)/MED WG 25/Inf.6 concerning radioactive substances, the following text is submitted to the Joint Meeting of the Scientific and Technical Committee and Socio-Economic Committee, with a view to its transmission by the secretariat to the next meeting of the Contracting Parties for adoption:

(i) **Assessment of the State of Pollution in the Mediterranean Sea by Radioactive Substances**

In considering radioactive pollution sources for the Mediterranean Sea, it is necessary to differentiate well-defined point sources of radioactive effluent discharges such as nuclear power plants, fuel reprocessing plants, etc. from wide-spread or combined sources like atmospheric fallout, river run-off, etc. Since many nuclear installations in the Mediterranean Region are located along major rivers, artificial radionuclides discharged from these installations enter into the Mediterranean Sea through rivers. While travelling along the rivers, these discharged radionuclides are subjected to various geochemical processes, so that the concentrations of the radionuclides entering the marine environment tend to be reduced in the rivers as compared with the original levels at which they were released. Thus, in considering the sources for radioactive pollution of the Mediterranean Sea the individual point sources of radioactive effluent discharge become less important than the combined sources like contaminated rivers, which introduce combined amounts of radionuclides from several point sources.

Artificial radionuclides released from various sources are introduced into the Mediterranean Sea through different routes and then distributed in sea water, marine sediments and marine biota after having been subjected to a variety of environmental processes. The major route of radiation exposure of man to artificial radionuclides occurring in the marine environment should be through ingestion of radiologically contaminated marine organisms.

The assessments made on sources, inputs, biogeochemical behaviour and levels of artificial radionuclides occurring in the Mediterranean marine environment as well as their effects on marine organisms and man have led to the following conclusions:

- (1) Judging from the data available for river run-offs of some radionuclides, radionuclide discharges from the Mediterranean nuclear fuel reprocessing facilities into the aquatic environment are estimated to be at least three or, more probably, four to five orders of magnitude lower than those made from the Sellafield plant, U.K., while the environmental discharge rates from nuclear power stations and research reactors operating in the Mediterranean Region are estimated to be about 5 TBq a^{-1} and less than 1 GBq a^{-1} respectively in terms of the Cs-137 discharge. Discharges from other types of point sources are considered negligible;
- (2) Atmospheric, river and strait-exchange (Gibraltar and Dardanelles) inputs of Cs-137 into the Mediterranean Sea by 1985 are estimated to be respectively $10 \pm 2 \text{ PBq}$, $0.4 \pm 0.1 \text{ PBq}$ and 1.6 PBq , which add up to the total input of $12 \pm 2 \text{ PBq}$ in 1985 for the entire Mediterranean Sea;
- (3) Base-line levels of Cs-137 in Mediterranean surface sea water and surface coastal sediments are estimated to be respectively $3\text{-}4 \text{ mBq l}^{-1}$ and around 6 Bq kg^{-1} dry in 1985. The total Mediterranean inventory of Cs-137 in 1985, $11 \pm 1 \text{ Pbq}$, estimated on the basis of data available, agrees well with the total input value up to 1986. Although the agreement may be rather coincidental, it is considered to indicate that the general approach adopted for estimating the input and inventory is not grossly in error;
- (4) The recommended average values for sediment and biological concentration factors of selected radionuclides vary between 1 and 10^5 depending on particular radionuclide and are thought to be useful in considering radioprotection measures in the Mediterranean Region;

- (5) On the basis of the amounts of deposition of various radionuclides, especially those of Cs-137, resulting from the Chernobyl fallout at several locations in the Mediterranean region, it was estimated that the Chernobyl fallout increased the Cs-137 deposition approximately 25-40% in addition to the amounts existing in the region up to 1986. The deposition of radionuclides through the Chernobyl fallout was very heterogeneous depending on the trajectories of high radioactivity plumes, although the radioactivity levels were, generally speaking, much higher in the northern Mediterranean region than those in the southern part;
- (6) Significant increases in the Cs-137 levels by a factor of 2 to 4 were observed in surface coastal sediments along the French coast in 1986-87. The high Cs-137 levels found in various marine organisms after the Chernobyl accident are considered to have decreased to levels close to those in the pre-Chernobyl period towards the end of 1989;
- (7) While the effects of the presence of artificial radionuclides in the Mediterranean Sea on living marine organisms are considered negligible, the increased radiation risk for man may correspond to one case of severe harm in 10^6 , mainly due to artificial radionuclides introduced by fallout from nuclear weapon testing;
- (8) Although concentration of radionuclides in the environment cannot be directly correlated to the effective dose equivalent, at least three orders of magnitude levels lower of artificial radionuclides in the Mediterranean marine environment than those in the vicinity of Sellafield, suggest that effective dose equivalents received by the Mediterranean inhabitants due to sea-food consumption may be roughly three orders of magnitude lower. The risk increase was thus estimated to be approximately 5 cases of severe harm in 10^7 . These estimated risk increases are admittedly crude and should be regarded only as an index of their magnitude.

(ii) **Measures for Control of Radioactive Pollution**

The Contracting Parties agree that:

- (1) Although many countries have already done so, the acceptance of the current ICRP basic principles and radiation dose limits for radiation protection of man as the basis for controlling releases of radionuclides from land-based national nuclear installations into the Mediterranean marine environment should be confirmed by the Contracting Parties;
- (2) In view of site-specific influences of radionuclide releases into the marine environment, it is not advisable to adopt common emission standards for releases from individual national nuclear installations in the Mediterranean Coastal States;
- (3) In cases where releases of radionuclides from a land-based national nuclear installation are being made directly to the Mediterranean marine environment, the Co-ordinating Unit for the Mediterranean Action Plan should be informed about the nationally authorized and actual annual amounts of radionuclides released from the installation and related monitoring data;

- (4) In cases where radionuclides released from land-based national nuclear installations are brought into the Mediterranean marine environment through a river, the Co-ordinating Unit for the Mediterranean Action Plan should be informed about the annual amounts of radionuclides entering into the Mediterranean Sea by the river, estimated on the basis of the monitoring results obtained at the mouth of the river;
- (5) In cases where radionuclide releases from new nuclear installations are expected to influence the Mediterranean marine environment the Co-ordinating Unit for the Mediterranean Action Plan should be informed about the results of pre-operational surveys and assessments of such releases;
- (6) Methods and reporting of monitoring operations on releases of radionuclides into the Mediterranean marine environment should be harmonized internationally as much as possible so as to facilitate the assessments on the influence of the radionuclide releases to the marine environment at a regional level.

5. POLLUTION BY PATHOGENIC MICRO-ORGANISMS

On the basis of the assessment document UNEP(OCA)/MED WG 25/Inf.7 concerning pathogenic micro-organisms, the following text is submitted to the Joint Meeting of the Scientific and Technical Committee and Socio-Economic Committee, with a view to its transmission by the secretariat to the next meeting of the Contracting Parties for adoption:

(i) Assessment of the situation regarding pathogenic micro-organisms in the Mediterranean Sea

A considerable number of species and strains of pathogenic micro-organisms, 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 and/or shellfish. Some of these are endemic in a number of Mediterranean areas. While the majority are released into the immediate coastal zone in sewage effluents, there is also evidence indicating that in certain cases, direct release by affected human subjects while bathing may also be a route of entry.

The diseases and disorders associated with infection by such pathogenic micro-organisms have been recorded, both among local Mediterranean populations and among tourists visiting the region. It is, however, difficult to estimate even approximate morbidity figures specifically linked with marine pollution as practically all such infections can be, and in some cases more easily, contracted through causes other than bathing in polluted waters or consumption of contaminated shellfish.

A number of algal species producing biotoxins affecting man through consumption of contaminated shellfish are also present in various parts of the Mediterranean, and can pose a risk particularly where local conditions lead to eutrophication and the development of algal blooms.

In all Mediterranean countries, the rationale for establishing and enforcing water and shellfish quality criteria and standards is, in conformity with accepted global practice, mainly dependent on upper concentration limits of one or more bacterial indicator organisms as an index of acceptability or otherwise. While monitoring records over the last decade show a steady decrease in such bacterial concentrations, probably as a direct result of improved sewage treatment and disposal methods and associated hygienic procedures, recent international data have resulted in serious doubts as to the

validity of current indicator bacteria as an accurate index of pathogen presence and density, in view of longer survival in seawater and shellfish, and greater resistance to conventional treatment, of the latter (particularly viruses) as compared to the former. Similarly, recent international findings have cast doubt on the validity of most epidemiological studies correlating recreational water quality with health effects on exposed population groups. Such doubt is accentuated by the different results obtained from such studies, both in the Mediterranean and worldwide.

(ii) **Measures for control of pollution by pathogenic micro-organisms**

The Contracting Parties agree:

- (a) that in view of the current international situation regarding the validity of bacterial indicator organisms, it would be premature, at the present stage, to consider substitution of the interim criteria for bathing waters jointly adopted in 1985 by any firm criteria and, similarly, equally premature to consider modification of the criteria for shellfish waters jointly adopted in 1987;
- (b) that until such time in the medium term when such substitution and/or modification can be achieved in the light of new international scientific evidence, every effort should be made by individual countries, within the limits imposed by their infrastructural and legal frameworks, to expand their monitoring programmes in areas so indicated as justifying such expansion, in line with current recommendations of the competent United Nations bodies and of the European Economic Community;
- (c) that more care should be devoted to the maintenance of proper hygienic quality in public beaches, and that serious consideration should be accorded to possible solutions to the problem of beach overcrowding;
- (d) that every effort should be made to accelerate, to the extent possible, implementation by countries of the necessary measures in line with achievement of the 1985 Genoa objective of ensuring adequate sewage treatment and disposal facilities for coastal cities and towns;
- (e) that studies should be carried out, both within the framework of MED POL and otherwise, to provide a more comprehensive catalogue of the presence and (wherever feasible) density of pathogenic micro-organisms in sewage effluents and in coastal marine areas known to be affected by such effluents;
- (f) that future epidemiological studies correlating recreational water quality with health carried out within the framework of MED POL should be more intimately linked with large-scale studies conducted elsewhere;
- (g) that other microbiological studies within the framework of MED POL should be further reorientated towards coordinated studies on priority, target topics, including(i) survival of viruses in seawater and shellfish and their resistance to sewage treatment and to depuration techniques, and(ii) adverse health effects of algal and related blooms, particularly concerning the presence and concentration of algal biotoxins under Mediterranean conditions.

C. IMPLEMENTATION OF THE PROTOCOL ON EMERGENCIES

The Contracting Parties adopt the following recommendations:

7. PREVENTION AND COMBATING POLLUTION FROM SHIPS

a) Protocol on emergencies

1. To approve the programme budget as proposed in part II.C.7(a) (pages 31 and 32) with respective personnel and operational costs in part and II.C. (page 34).

b) Port reception facilities

1. To approve the programme budget proposed in part II.C.7(b) (page 33).
2. To promote port reception facilities in major ports in the Mediterranean and inform the Secretariat on progress made.

D. IMPLEMENTATION OF THE PROTOCOL ON SPECIALLY PROTECTED AREAS AND HISTORIC SITES

The Contracting Parties adopt the following recommendations:

8. PROTECTION OF THE COMMON MEDITERRANEAN HERITAGE

a) Specially Protected Areas

1. To approve the programme budget proposed in part II.D.8(a) (pages 35 and 36) with respective personnel and operational costs in part II.D. (page 38).
2. To welcome the signature of the agreement between The Republic of Tunisia and UNEP concerning the operation of the SPA Centre.
3. To invite the Contracting Parties to channel additional assistance to the Centre on a bilateral basis.
4. SPA/RAC to assist countries in their endeavour to promote activities relevant to the identification and protection of at least 50 new marine and coastal sites or reserves of Mediterranean interest in accordance with the protocol concerning Specially Protected Areas and the Genoa Declaration.
5. SPA/RAC to assist countries to develop activities for the protection of endangered species (Monk Seal and Marine Turtle, small cetaceans) through the Action plans developed or being developed by the SPA Centre and in accordance with the protocol concerning Specially Protected Areas and the Genoa Declaration.
6. To support other actions concerning additional endangered species and the ecosystems important for their protection (e.g. marine plants)

7. SPA/RAC to develop and support national activities in the field of selection, creation and management of Specially Protected Areas in accordance with the already approved guidelines.

b) Preservation of Historic Sites

1. To approve the programme budget as proposed in part II.D.8(b) (page 37)
2. To organize a Working Group of Experts on historic sites in 1992

E. ENVIRONMENTALLY SOUND MANAGEMENT OF THE MEDITERRANEAN COASTAL ZONES

The Contracting Parties adopt the following recommendations:

9. ENVIRONMENTALLY SOUND MANAGEMENT OF THE MEDITERRANEAN COASTAL ZONES

a) Prospective analysis of the relationship between Environment and Development

1. To approve the programme budget as proposed in part II.E.9(a) (page 39) with respective personnel and operational costs in part II.E. (page 45).
2. To take note of the recommendations of the Working Group of Experts on the future of the Blue Plan (Sophia Antipolis, 10-11 April 1991).

b) Coastal planning and management

1. To approve the programme budget as proposed in part II.E.9(b) (pages 40, 41, 42 and 43) with respective personnel and operational costs in part II.E. (page 46)
2. To recommend further to the Co-ordinating Unit of MAP to speed up, in co-operation with the responsible bodies of the country hosting PAP/RAC, the signing of the agreement between the host country and UNEP on their mutual obligations regarding the Centre.
3. To recommend to National Focal Points for PAP, particularly those with whom a direct and continuing co-operation has not yet been developed, to intensify the co-operation by including their consultants in various PAP activities and improving communication with PAP/RAC.

c) Coastal Areas Management Programme (CAMP)

1. To approve the programme budget as proposed in part II.E.9(c) (page 44).
2. Continue work on the four on-going coastal areas management programmes (Bay of Kastela, Bay of Izmir, Island of Rhodes and the Coast of Syria).
3. To adopt an additional list of two more coastal areas management programme (Fuka-Egypt and Sfax-Tunisia) and start preparation for two more projects.

4. To invite the national authorities concerned and the relevant bilateral and multilateral programmes to support the above coastal areas management programme as practical demonstration areas for the protection of the Mediterranean.
5. To organize consultation meetings relevant to each coastal areas management programme.

II. PROPOSED PROGRAMME BUDGET FOR 1992-1993

SUMMARY

Proposed Budget
1992 1993
(in thousands of US \$)

A. IMPLEMENTATION OF THE BARCELONA CONVENTION AND PROTOCOL ON DUMPING	3180	3233
B. IMPLEMENTATION OF THE LBS PROTOCOL	400	485
C. IMPLEMENTATION OF THE PROTOCOL ON EMERGENCIES	549	564
D. IMPLEMENTATION OF THE PROTOCOL ON SPECIALLY PROTECTED AREAS AND HISTORIC SITES	377	386
E. ENVIRONMENTALLY SOUND MANAGEMENT OF THE MEDITERRANEAN COASTAL ZONES	1553	1578
F. PROGRAMME SUPPORT COSTS	729	753
GRAND TOTAL	6788	6999

DETAILED SUMMARY

A. IMPLEMENTATION OF THE BARCELONA CONVENTION AND THE PROTOCOL ON DUMPING

Activities

Proposed Budget
1992 1993
(in thousands of US \$)

1.	Programme approval through decision-making meetings	116	320
2.	Programme co-ordination	84	88
3.	Legal component	214	57
4.	Monitoring of marine pollution in the Mediterranean	1220	1220
	UNEP Counterpart	50	50
5.	Information	143	145
	<u>Personnel and operational costs*</u>		
-	Co-ordinating Unit (MAP)	543	543
	Greek counterpart contribution	400	400
-	MED POL Co-operating Agencies	410	410
B. IMPLEMENTATION OF THE LBS PROTOCOL			
6.	Implementation of the LBS Protocol	400	485

* Covers also the implementation of the LBS protocol.

Proposed Budget
1992 1993
(in thousands of US \$)

C. IMPLEMENTATION OF THE PROTOCOL ON EMERGENCIES

Activities

7. Prevention and combating pollution from ships:

(a) Protocol on emergencies

144	151
-----	-----

(b) Port reception facilities

20	20
----	----

Personnel and operational costs

- Regional Marine Pollution Emergency Response
Centre for the Mediterranean (REMPEC)

385	393
-----	-----

**D. IMPLEMENTATION OF THE PROTOCOL ON SPECIALLY PROTECTED AREAS
AND HISTORIC SITES**

Activities

8. Protection of the common Mediterranean heritage:

(a) Specially protected areas

108	114
-----	-----

(b) Coastal historic areas

60	63
----	----

Personnel and operational costs

- Specially Protected Areas Regional Activity Centre
(SPA/RAC)

209	209
-----	-----

E. ENVIRONMENTALLY SOUND MANAGEMENT OF THE MEDITERRANEAN COASTAL ZONES

Activities

9. Environmentally sound management of the Mediterranean
coastal zones:

(a) Prospective analysis of the relationship between
environment and development

84	88
----	----

(b) Coastal planning and management

416	437
-----	-----

Proposed Budget
1992 1993
(in thousands of US \$)

(c) Coastal zones pilot projects	538	538
<u>Personnel and operational costs</u>		
- Blue Plan/Regional Activity Centre (BP/RAC)	245	245
- Priority Actions Programme (PAP/RAC)	270	270
TOTAL	6059	6246
F. PROGRAMME SUPPORT COSTS*	729	753
GRAND TOTAL	6788	6999

* Programme support costs of 13% apply to MTF expenditures of 5,609,000 US \$ for 1992, and 5,796,000 US \$ for 1993.

DETAILED PROPOSED PROGRAMME BUDGET

A. IMPLEMENTATION OF THE BARCELONA CONVENTION AND THE PROTOCOL ON DUMPING

1. PROGRAMME APPROVAL THROUGH DECISION-MAKING MEETINGS

Objective

To prepare the work-programme and budget for the Mediterranean Action Plan for review by the meetings of the Bureau and of the subsidiary committees and to be reviewed and approved by the ordinary meetings of the Contracting Parties.

Activities

	Proposed Budget	
	1992	1993
	(in thousands of US \$)	
- 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	26	27
- Joint Meetings of the Scientific and Technical Committee and of the Socio-Economic Committee to consider the progress of the Action Plan and review technical matters and approve the programme and budget for MAP prior to submission to the Contracting Parties	90	93
- Eighth Ordinary Meeting of the Contracting Parties in 1993 to review and approve the programme and the budget for MAP; review the progress of the Action Plan; consider reports on the state of pollution of the Mediterranean Sea and adopt common measures for its protection	-	200

		1991	1992	1993
TOTAL	MTF	259	116	320

2. PROGRAMME CO-ORDINATION

Objective

To co-ordinate MAP activities with participating UN Agencies, governmental and non-governmental organizations; to co-ordinate activities of the Regional Activity Centres and to manage the Mediterranean Trust Fund.

Activities

	Proposed Budget	
	1992	1993
	(in thousands of US \$)	
- Consultants to facilitate co-operation with:	35	35
(i) intergovernmental organizations and sub-regional agreements;		
(ii) the World Bank, the European Investment Bank, the Islamic Development Bank and other sources of financing;		
(iii) non-governmental organizations and youth organizations		
- Inter-Agency Advisory Committee (IAAC) meeting to co-ordinate activities on MEDPOL with UN Agencies	(1)	(1)
- Meeting with Regional Activity Centres' Directors for programming and co-ordination of MAP activities	(2)	(2)
- Training of national officials at MED Unit on MAP programmes and procedures	14	14
- Support to training courses relevant to MAP	35	39

		1991	1992	1993
TOTAL	MTF	70	84*	88*

(1) Travel cost included in MEDPOL Co-operating Agencies

(2) Travel cost included under the relevant Regional Activity Centres

* An additional 116 thousand U.S. dollars are budgeted annually for co-ordination and development of the coastal areas management programme

3. LEGAL COMPONENT

Objective

To develop additional protocols, to promote sub-regional agreements, to formulate and adopt appropriate procedures for determination of liability and compensation for damage resulting from the pollution of the marine environment, and to promote the adoption of relevant national legislation.

Activities

	Proposed Budget	
	1992	1993
	(in thousands of US \$)	
- Assessment of the implementation in the Mediterranean of the Basel Convention on transboundary movements of hazardous wastes and preparation of a draft protocol, if necessary (Consultants)	24	27
- Assistance to four more Contracting Parties to compile their national legislation related to the protection of the marine coastal environment (Consultants)	10	10
- Prepare (UNEP) a draft of appropriate procedure for the determination of liability and compensation for damages from the pollution of the marine environment (Sub-contracts)	20	20
- Conference of Plenipotentiaries, to be convened in Athens during 1992, on the protocol on exploration and exploitation of the continental shelf and the sea-bed and its sub-soil	160	-

	1991	1992	1993
TOTAL	65	214	57

4. MONITORING OF MARINE POLLUTION IN THE MEDITERRANEAN

Objective

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

Activities

Proposed Budget
1992 1993
(in thousands of US \$)

Monitoring

- | | | |
|--|------|------|
| - Assistance to institutions participating in monitoring programmes, through provision of instruments and supplies (about 80 institutions) (Sub-contracts) | 565* | 630* |
| - Assistance to institutions for monitoring of plankton blooms and eutrophication (Sub-contracts) | 40 | 60 |
| - Maintenance of instruments provided to institutions participating in MED POL (spare parts) (about 40 institutions) (Sub-contracts) | 40 | 40 |
| - Consultants to prepare documents on analysis and data processing of MED POL data | 30 | 30 |

Training and fellowships

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

Data quality assurance

- | | | |
|--|----|-----|
| - Assistance to institutions participating in monitoring programmes in order to assure reliable and high quality data, through country data quality assurance programmes, joint monitoring exercises, intercomparison of results and dissemination of scientific information (about 20 institutions) (Sub-contracts) | 70 | 100 |
|--|----|-----|

* An additional 63 thousand U.S. dollars are budgeted annually for monitoring of the coastal areas management programme

	Proposed Budget	
	1992	1993
	(in thousands of US \$)	
- Assistance to institutions participating in monitoring programmes through purchase and provision of standards and reference materials (about 40 institutions) (Sub-contracts)	20	20
<u>Meetings and training courses</u>		
- Intercalibration programme for institutions participating in MEDPOL (about 40 institutions) (Sub-contracts)	15	15
- Consultation meeting on MEDPOL data processing programme and guidance for future work (about 8 participants)	15	15
- Training and Intercalibration exercise (WHO/UNEP) on determination of microbiological pollution (about 15 new trainees each year)	25	25
- Consultation meeting on the evaluation of monitoring programmes (about 8 participants)	20	-
- Training workshop (FAO/IOC/UNEP) on the monitoring of biological effects of pollutants on marine organisms (about 15 participants, two weeks)	40	-
- Training workshop (FAO/IAEA) on the monitoring of chemical contaminants using marine organisms (about 25 participants)	40	-
- Training workshop (WMO/UNEP) on the monitoring and assessment of airborne pollution	25	-
- Consultation meeting on the determination of pathogenic micro-organisms in coastal marine waters (WHO)	25	-
- Training workshop (IAEA/IOC) on the monitoring of chemical contaminants using marine sediments (about 15 participants)	-	25
<u>Research</u>		
- Assistance to institutions participating in research programme, through provision of research grants (about 30 grants to about 25 institutions) (Sub-contracts)	100	130

Proposed Budget
1992 1993
(in thousands of US \$)

Assessment of pollution

- Printing of Proceedings of the 11th ICSEM/UNEP/IOC
Workshop on Mediterranean marine pollution
(Sub-contracts) 10 -
- Study of the impact of climate change on
Mediterranean coastal zone (Sub-contracts) 40 60

TOTAL

	1991	1992	1993
MTF	1028	1220	1220
UNEP	50	50	50

5. INFORMATION

Objective

To communicate environmental information to governments in order to influence response and follow-up action; to develop greater public awareness and create attitudes that will support policies and action for sustainable development and environmental protection.

Activities

	Proposed Budget	
	1992	1993
	(In thousands of US \$)	
- Preparation and editing of MAP Technical Reports Series (Consultants)	21	21
- Preparation and translation of MEDWAVES (Arabic, English and French) (Consultants)	18	18
- Support for the celebration of the Mediterranean Environment Week (Consultants or Sub-contracts)	10	10
- Librarian (exchange of information, dissemination of information) (Consultants)	10	10
- Preparation of brochures, posters, stickers and press releases	28	30
- Printing and dissemination of MAP, MEDWAVES and other documents (Sub-contracts)	56	56

	1991	1992	1993
TOTAL	110	143	145
MTF			

B. IMPLEMENTATION OF THE LBS PROTOCOL

6. IMPLEMENTATION OF THE LBS PROTOCOL

Objective

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

Activities

	Proposed Budget	
	1992	1993
	(in thousands of US \$)	
<u>Pilot projects</u>		
- Pilot project on monitoring of cyanides, fluorides and phenols in effluents (Sub-contracts)	25	25
- Pilot project on monitoring of fungicides (Sub-contracts)	40	-
- Pilot project on monitoring of Sb, Sn, Ba, Be, B, U, Tl and Te (Sub-contracts)	40	-
<u>Assistance</u>		
- Assistance to countries to implement the LBS Protocol	30	130
<u>Assessment of the pollution</u>		
- To prepare documents on assessments of Mediterranean pollution by LBS substances (Consultants)	25	25
- Assessment of airborne pollution in the Mediterranean Sea (Sub-contracts)	20	20
- Assessment of the state of pollution of the Mediterranean Sea by Mo, Ti, Se, V, Co and Ag	5	-
- Assessment of the state of pollution of the Mediterranean Sea by herbicides	5	-
- Assessment of the state of pollution of the Mediterranean Sea by non-biodegradable detergents	5	-
- Assessment of the state of pollution of the Mediterranean Sea by fungicides	-	10

	Proposed Budget	
	1992	1993
	(in thousands of US \$)	
- Assessment of the state of pollution of the Mediterranean Sea by Sb, Sn Ba, Be, B, U, Te and Tl	-	5
- Assessment of the state of pollution of the Mediterranean Sea by cyanides and fluorides	-	5
- Assessment of microbial pollution in the Mediterranean Sea	-	5

Research

- Assistance to institutions participating in research programmes, through provision of research grants (about 70 grants to about 60 institutions) (Sub-contracts)	190	210
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Meetings

- Consultation meeting on the application of chemical tracers of domestic contaminants for marine pollution surveys (IAEA/WHO) (about 15 participants)	15	-
- Consultation meeting on the treatment and discharge of toxic wastes (WHO)	-	25
- Training workshop (WMO/UNEP) on collecting emission data for assessing airborne pollution (about 15 participants)	-	25

TOTAL

	1991	1992	1993
MTF	315	400	485

Personnel and operational costs covering activities 1 to 6

CO-ORDINATING UNIT, Athens, Greece		m/m	Proposed Budget	
			1992	1993
		(in thousands of US \$)		
Professional Staff				
-	Co-ordinator - D.2	12	92	92
-	Senior Programme Officer/ Marine Scientist - P.5/D1	12	87	87
-	Programme Officer/ Economist - P.4/P.5	12	81	81
-	Programme Officer/ Marine Scientist - P.3/P.4	12	56	56
-	Computer Operations Officer - P.3	12	50	50
-	Fund Management/Admin. Officer - P.2/P.3	12	(1)	(1)
Total Professional Staff			366	366
Administrative Support				
-	Administrative Assistant - G.6	12	(1)	(1)
-	Senior Secretary - G.4	12	(1)	(1)
-	Data Processing Assistant - G.4/G.5	12	(1)	(1)
Total Administrative Support			-	-
Travel on Official Business			55	55
Office Costs			122	122

		1991	1992	1993
TOTAL	MTF	495	543	543

(1) Paid under Programme Support costs

Expenditures to be covered by Greek Counterpart contribution to the MAP Programme

	m/m	Proposed Budget	
		1992	1993
(in thousands of US \$)			
Administrative support			
- Information Assistant - G.5	12	19	19
- Senior Secretary - G.4	12	19	19
- Senior Secretary - G.4	12	17	17
- Research Assistant - G.4	12	13	13
- Bilingual Typist - G.4	12	15	15
- Bilingual Typist - G.3	12	15	15
- Bilingual Typist - G.3	12	15	15
- Telephone Operator/Receptionist - G.3	12	15	15
- Clerk/Driver - G.2	12	15	15
- Clerk - G.2	12	13	13
- Caretaker - G.2	12	13	13
- Temporary Assistance		20	20
- Overtime		10	10
		199	199
Total Administrative support			

Office costs

- Equipment:			
Expendable equipment		5	2
- Rental and maintenance of premises:		86	89
- Sundry:			
telephone, telex and postage		110	110
		201	201
Total Office costs			

TOTAL

	1991	1992	1993
Gr.Counter.	400	400	400

MED POL CO-OPERATING AGENCIES

	m/m	Proposed Budget 1992 1993 (in thousands of US \$)	
Professional Staff			
- WHO Senior Scientist - MAP Co-ordinating Unit (Athens) - P.5	12	86	86
- FAO Senior Fishery Officer - MAP Co-ordinating Unit (Athens) - P.5	12	86	86
- IAEA Maintenance Engineer (ILMR) (Monaco) - P.3	12	80	80
Total Professional Staff		252	252
Administrative Support			
- WHO Secretary - WHO/EURO (Copenhagen)- G.4		13	13
- WHO Secretary - MAP Co-ordinating Unit (Athens) - G.5	12	19	19
- FAO Secretary - MAP Co-ordinating Unit(Athens) - G.4	12	18	18
- IAEA Laboratory Assistant - ILMR (Monaco) - G.5	12	38	38
- WMO Temporary Assistance - WMO/HQ (Geneva)		8	8
Total Administrative Support		96	96
Travel on Official Business			
- WHO (Athens)		12	12
- FAO (Athens)		12	12
- WMO (Geneva)		8	8
- IAEA (Monaco)		24	24
- IOC of UNESCO (Paris)		6	6
Total Travel		62	62

Office Costs

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

	1991	1992	1993
TOTAL	352	410	410

C. IMPLEMENTATION OF THE PROTOCOL ON EMERGENCIES

7. PREVENTION AND COMBATING POLLUTION FROM SHIPS

a) Protocol on emergencies

Objective

To strengthen the capacities of the coastal states in the Mediterranean and to facilitate co-operation among them in order to respond to 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

	<i>Proposed Budget</i>	
	1992	1993
	(in thousands of US \$)	
- To assist countries in preparation of national contingency plans and bilateral or multilateral agreements; assist countries in the case of emergencies (Consultants)	8	8
- To assist countries in the preparation of projects for the acquisition of response equipment which would be presented to possible sources of international financing (Consultants)	8	8
- To assist REMPEC in adopting Risk Assessment models and decision support system to the region (Consultants)	6	-
- Publication of a regional atlas for accidental marine pollution, preparedness and response (Sub-contracts)	-	10
- Meeting of national experts for the evaluation of the implementation of 1990-1993 programme of activities of REMPEC and preparation for a future medium term programme	-	40
- Training course on chemical pollution preparedness and response	50	50
- Training course on oil pollution preparedness and response	50	-

	Proposed Budget	
	1992	1993
(In thousands of US \$)		
- Training course on response to accidental pollution resulting from offshore oil exploration or production operation (in cooperation with the oil industry)	-	13
- Technical assistance to States in the organization of national training courses (about 35 participants)	6	6
- Assisting States which so request in organizing joint response exercises	6	6
- Assistance to countries in case of emergency	10	10

		1991	1992	1993
TOTAL	MTF	98	144*	151*

* An additional 24 thousand U.S. dollars are budgeted annually for the coastal areas management programme

b) Port reception facilities

Objectives

To promote port reception facilities for dirty ballast waters and other oily residues received from tankers and ships in 56 major ports in the Mediterranean.

Activities

Proposed Budget
1992 1993
(in thousands of US \$)

-	To assist in the establishment of Port reception facilities	10	10
-	Fellowships for Training course on port reception facilities	10	10

TOTAL

	1991	1992	1993
MTF	30	20	20

Personnel and operational costs

<p>REGIONAL MARINE POLLUTION EMERGENCY RESPONSE CENTRE FOR THE MEDITERRANEAN (REMPEC) Co-operating Agency IMO</p>

	m/m	Proposed Budget 1992 1993 (in thousands of US \$)	
Professional Staff			
- Director - P.5	12	82	85
- Technical Expert - P.4	12	74	76
- Chemist - P.3	12	62	65
- Engineer - P.2	12	(1)	(1)
Total Professional Staff		218	226
Administrative Support			
- Information Assistant - G.6	12	21	22
- Senior Secretary/Admin. Assistant - G.6	12	19	20
- Clerk/Secretary - G.4	12	15	16
- Clerk/Typist - G.3	12	13	14
- Caretaker/Docs. Reproducer - G.3	12	13	14
Total Administrative Support		81	86
Travel on Official Business		21	21
Office Costs		65*	60

	1991	1992	1993
TOTAL	354	385	393

(1) On secondment from the government of France

* This figure includes US \$ 10,000 for the purchase of INMARSAT equipment and the upgrading of the communication facilities of REMPEC.

**D. IMPLEMENTATION OF THE PROTOCOL ON SPECIALLY PROTECTED AREAS
AND HISTORIC SITES**

8. PROTECTION OF THE COMMON MEDITERRANEAN HERITAGE

a) Specially Protected Areas

Objective

To strengthen and co-ordinate activities undertaken by the Contracting Parties for the safeguard of the natural resources and natural sites of the Mediterranean Sea Area, as well as for the safeguard of their cultural heritage in the region.

Activities

	Proposed Budget	
	1992	1993
	(in thousands of US \$)	
- To promote the establishment of at least 50 new protected areas through the approved guidelines (1985-1995) (SPA-RAC/IUCN) (Consultants)	10	12
- To assist countries to develop their legislation related to protected areas (SPA-RAC/IUCN) (Consultants)	10	10
- Meeting of experts on environmental legislation (SPA-RAC/IUCN)	-	38
- Meeting of experts on the definition of 50 new specially protected areas of particular importance because of their scientific, aesthetic, historical, archeological, cultural or educational interest (SPA-RAC/IUCN)	30	-
- To assist countries to develop specially protected areas of cultural interest (SPA-RAC/IUCN) (Sub-contracts)	10	15
- To implement the Action Plan on the conservation of the Mediterranean Marine Turtles in line with the recommendations of the experts' meeting held in 1989 (SPA-RAC/IUCN) (Consultants)	5	7
- To promote the application of the Action Plan on the conservation of the Mediterranean Monk Seal approved in 1987 (SPA-RAC/IUCN) (Consultants)	5	6

	Proposed Budget	
	1992	1993
(in thousands of US \$)		
- Meeting of experts on Mediterranean small cetaceans	30	-
- To assist participants in training courses relevant to Specially Protected Areas	8	26

		1991	1992	1993
TOTAL	MTF	90	108*	114*

* An additional 16 thousand U.S. dollars are budgeted annually for the coastal areas management programme

b) Preservation of Historic Sites

Objective

To protect the coastal historic sites of common Mediterranean interest already identified by the Contracting Parties.

Activities

	Proposed Budget	
	1992	1993
	(in thousands of US \$)	
- Assist (UNESCO/Atelier du patrimoine/PAP-RAC) in co-operation with the authorities responsible for the coastal historic sites designated through the MAP procedures and developed co-operative programme in the field of stone degradation and protection of underwater archaeological sites, including shipwrecks (SPA-RAC/IUCN) (Consultants)	10	15
- Promote (MAP/Atelier du patrimoine) co-operation among the authorities responsible for the historic sites, the list of which remains open, and develop a work programme on the above mentioned fields (Sub-contracts)	20	28
- Working group of experts	20	-
- To assist (PAP/RAC/Atelier du patrimoine) participants in training courses	10	20

	1991	1992	1993
TOTAL	50	60	63

Personnel and operational costs

SPECIALLY PROTECTED AREAS/REGIONAL ACTIVITY CENTRE (SPA/RAC),
Salamambo, Tunis. In association with IUCN

	m/m	Proposed Budget 1992 1993 (in thousands of US \$)	
Professional Staff			
- Director	12	30 ⁽¹⁾	30 ⁽¹⁾
- Expert	12	(2)	(2)
- Expert	12	50	50
- Data Researcher	12	40	40
Total Professional Staff		120	120
Administrative Support			
- Administrative Assistant	12	12	12
- Bilingual Secretary	12	10	10
- Driver	12	5	5
- Clerk/Driver	12	(2)	(2)
- Finance Officer	12	(2)	(2)
- Cleaner	12	(2)	(2)
- Caretaker	12	(2)	(2)
Total Administrative Support		27	27
Travel on Official Business		20	20
Office Costs		42	42
TOTAL			
		1991	1992
TOTAL		155	209
		1993	209
		MTF	209

⁽¹⁾ Partly paid by host country

⁽²⁾ Paid by host country

E. ENVIRONMENTALLY SOUND MANAGEMENT OF THE MEDITERRANEAN COASTAL ZONES

9. ENVIRONMENTALLY SOUND MANAGEMENT OF THE MEDITERRANEAN COASTAL ZONES

a) Prospective analysis of the relationship between Environment and Development

Objective

To assist in preparing national, coastal or sectoral scenarios in the Mediterranean countries in keeping with the results and methodologies of the Blue Plan; to gather and process socio-economic, and environmental data and data relating to the appropriate technologies for the entire Mediterranean region, its coastal areas and coastal strip; to provide for the authorities concerned the instruments and methods of forward-looking work as applied to the sustainable development of the coastal regions, on the basis of the experience and achievements of the BP/RAC.

Activities

	Proposed Budget	
	1992	1993
	(in thousands of US \$)	
- Responding to request of states for assistance on scenarios (Consultants)	35 [*]	37 [*]
- Develop and update the Mediterranean database established through the Blue Plan exercise giving priority to the environment of coastal areas, technological changes, training programmes, etc. and use it for national and regional scenarios and coastal zone planning pilot project exercises (Sub-contracts)	20 ^{**}	22 ^{**}
- Training course on scenarios	29	29

		1991	1992	1993
TOTAL	MTF	70	84	88

* An additional 48 thousand U.S. dollars are budgeted annually for scenarios in the coastal areas management programme

** Regular updating of Blue Plan data base will require matching funds from outside sources

b) Coastal Planning and Management

Objectives

To develop methodology on integrated management for sustainable development of the Mediterranean coastal region with the full integration of environmental considerations and to develop and implement specific priority actions relative to integrated planning.

Activities

	Proposed Budget	
	1992	1993
	(in thousands of US \$)	
1) <u>Priority action "Integrated planning and management of Mediterranean coastal areas"</u>		
- Identification, evaluation and development of tools and techniques of integrated coastal zone management (Consultants)	10	-
- One Arab (French speaking) consultant to assist in the implementation of coastal zone planning and management tools in Arab countries (Consultant)	5	20
- Preparation of GIS models for integrated environmental management (Consultants)	-	12
- Assistance to national institutions in the preparation of planning and management tools (Sub-contracts)	8	8
- Workshop on natural resource management (20 participants)	27	-
- Workshop to assess the results of GIS application in Mediterranean countries (12 participants)	20	-
- Workshop on development of tools and techniques of integrated coastal zone management (25 participants)	-	35
- Two training courses on GIS application (15 participants each)	15	15
2) <u>Priority action "Application of environmental impact assessment (EIA) in the development of Mediterranean coastal zones"</u>		
- Preparation of EIA documents and studies in selected countries (Consultants)	8	10
- Two regional training courses on application of EIA (15 participants each) (Training)	30	30
- Two national training courses on application of EIA (20 participants each) - in 1992 in English, in 1993 in French (Training)	10	10

	Proposed Budget	
	1992	1993
	(in thousands of US \$)	
3) <u>Priority action "Water resources development for Mediterranean Islands and isolated coastal areas"</u>		
- Preparation of training course documents on aquifer modelling in the Mediterranean and on water resources conservation (Consultants)	10	10
- Preparation of one training course on aquifer modelling and one on water resources conservation (20 participants each)	30	30
4) <u>Priority action "Rehabilitation and reconstruction of historic settlements"</u>		
- Assistance to interested countries in the application of the methodology of the rehabilitation process of Mediterranean historic settlements (Consultants)	10	10
- Four national workshops on the application of the methodology of the rehabilitation process of Mediterranean historic settlements (each year one in French in an Arab country and one in English - 25 participants each) (Training)	30	30
5) <u>Priority action "Land-use planning in earthquake zones"</u>		
- Within the implementation of CAMPs, the results will be used of the PAP project "Mitigation of Seismic Risk in the Mediterranean Region" which is implemented as a UNDP project SEISMED, and assistance will be given in the formulation of the follow-up of SEISMED	-	-
6) <u>Priority action "Soil erosion mapping and measurements"</u>		
- Assistance to national experts in the implementation of the pilot project (Consultants)	15	10
- Two expert meetings to evaluate the results of the pilot project, one for mapping and one for monitoring (8 participants each) (Consultants)	15	-
- One expert meeting to prepare the final documents on the pilot-project results (10 participants) (Consultants)	-	10
- Preparation of the final documents on the pilot-project results and on the follow-up (Consultants)	-	10
- Assistance to national institutions in the implementation of the pilot project (Sub-contracts)	30	-

	Proposed Budget	
	1992	1993
	(in thousands of US \$)	
- Workshop to present and evaluate the pilot-project results (20 participants) (Training)	-	35
7) <u>Priority action "Solid and liquid waste management, collection and disposal"</u>		
- Preparation of training course documents on solid waste management, and training course documents on liquid waste management for small and medium-size Mediterranean towns (Consultants)	8	10
- Training course on solid waste management for small and medium-size Mediterranean towns in French (15 participants)	30	-
- Training course on solid waste management for small and medium-size Mediterranean towns in English (15 participants)	-	30
- Two national training courses on reuse of urban wastewater in Mediterranean areas, one in English (1992) and one in French (1993) (20 participants each)	10	10
8) <u>Priority action "Development of Mediterranean tourism harmonized with the environment"</u>		
- Preparation of Carrying Capacity Assessment (CCA) for tourist establishments (one in 1992, and one in 1993) (Consultants)	10	10
- One expert meeting to evaluate the applied methodology of CCA (Consultants)	10	-
- Preparation of guidelines for CCA and workshop documents	20	-
- One workshop on the application of CCA (20 participants)	-	30
9) <u>Priority action "Environmental planning and management of aquaculture in Mediterranean conditions"</u>		
- Assistance to and cooperation with the UNDP (Tunisia) project on Mediterranean aquaculture, using the project results in the application of CAMPs (Consultants)	5	7

Proposed Budget
1992 1993
(in thousands of US \$)

10) Priority action "Mediterranean co-operative network in renewable sources of energy"

-	Preparation of training course documents and programmes for training courses on application of PV solar systems and on bioclimatic architecture (passive solar systems) (Consultants)	10	10
-	Assistance in the application of renewable sources of energy in CAMPs (Consultants)	5	10
-	Training course on the application of PV solar systems in the Mediterranean countries (15 participants)	35	-
-	Training course on the application of bioclimatic architecture in the Mediterranean developing countries (15 participants)	-	35

TOTAL

	1991	1992	1993
MTF	347	416*	437*

* An additional 239 thousand U.S. dollars are budgeted annually for the coastal areas management programme

c) Coastal Areas Management Programme (CAMP)

Objective

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

Activities

	Proposed Budget	
	1992	1993
	(in thousands of US \$)	
- Consultants to assist in preparation and implementation of documents and activities resulting in the implementation of coastal areas management programme and preparatory activities for follow-up	175	175
- Assistance to institutions participating in coastal areas management programme approved by the Contracting Parties (Sub-contracts)	299	299
- Consultation meetings relevant to each coastal area	64	64

		1991	1992	1993
TOTAL	MTF	338	538	538

Note: The above programme is broken down annually as follows:

PAP 239; Med Pol 63; Scenarios 48; REMPEC 24; SPA 16; Data 32; and the Co-ordinating Unit 116.

It is expected that the host countries of the programme will contribute matching funds for the implementation of the programme

Personnel and operational costs

<p>BLUE PLAN/REGIONAL ACTIVITY CENTRE (BP/RAC) Sophia Antipolis, France</p>

	m/m	Proposed Budget 1992 1993 (in thousands of US \$)	
Professional Staff			
- President		-	-
- Scientific Director ⁽¹⁾	6	55	55
- Technical Expert - Ecogeographer	12	70	70
- Statistician - Computer Expert ⁽²⁾	6	37	37
Total Professional Staff		162	162
Administrative Support			
- Data Processing Assistant	12	35	35
- Senior Secretary	12	(3)	(3)
- Bilingual Secretary	12	(3)	(3)
- Administrative Assistant	12	(3)	(3)
Total Administrative Support		35	35
Travel on Official Business		23	23
Office Costs		25	25

		1991	1992	1993
TOTAL	MTF	200	245	245

(1) Part of salary paid by host country
(2) Half time paid by host country
(3) Paid by host country

Personnel and operational costs

PRIORITY ACTIONS PROGRAMME/REGIONAL ACTIVITY CENTRE (PAP/RAC)
Split, Yugoslavia

	m/m	Proposed Budget 1992 1993 (in thousands of US \$)	
Professional Staff			
- Director	12	35	35
- Co-ordinator of Pilot Projects	12	25	25
Total Professional Staff		60	60
Administrative Support			
- Bilingual Secretary	12	18	18
- Bilingual Secretary	12	17	17
- Bilingual Secretary	12	17	17
- Bilingual Secretary	12	17	17
- Administrative Assistant	12	17	17
- Finance Assistant	12	17	17
- Temporary Assistance		8	8
Total Administrative Support		111	111
Travel on Official Business		23	23
Office Costs		76	76

TOTAL

	1991	1992	1993
MTF	216	270	270

F. PROGRAMME SUPPORT COSTS

In accordance with United Nations rules concerning the establishment and management of trust funds, administrative and technical costs incurred in the implementation of programmes and projects financed from trust funds are reimbursed to UNEP. The amount of the reimbursement is calculated at the standard percentages rate approved by the General Assembly (13%).

They cover the administrative services provided in the Headquarters or in the Med Unit such as project management, personnel administration, accounting, internal and external auditing.

TOTAL

	1991	1992	1993
MTF	604	729	753