### ANNEX V

# RECOMMENDATIONS APPROVED BY THE CONTRACTING PARTIES

# 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

Convene every year, on the same dates, the Scientific and Technical Committee and the Socio-Economic Committee to review both separately and together the progress of the Action Plan and to prepare the decisions of the Contracting Parties.

# 2. PROGRAMME CO-ORDINATION

Invite the secretariat to strengthen co-operation with financing institutions with a view to their participation in MAP activities, and particularly in coastal zone pilot projects.

# 3. LEGAL COMPONENT

- 3.1. Authorize the secretariat to address an appeal to the Contracting Parties urging them to become signatories to and to hasten the process of ratification of the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes; invite the secretariat to prepare within six months an assessment of the nature of such movements in the Mediterranean including the carriage of hazardous wastes by ships transiting the Mediterranean sea; request the secretariat to suggest a mechanism to assist Contracting Parties in monitoring the movement of hazardous wastes in and through the Mediterranean and their disposal; in the light of the assessment proceed with the preparation of a draft legal instrument or a protocol on the subject applicable to the Mediterranean region.
- 3.2. Authorize the Secretariat to develop draft procedures for liability and compensation.
- 3.3. Authorize the Executive Director to convene in 1990 a Working Group of experts nominated by the Contracting Parties to discuss the draft Protocol on Exploration and Exploitation of the Continental Shelf and the Sea-bed and its Sub-soil and to invite thereafter a Conference of Plenipotentiaries to consider the draft Protocol as amended and adopted by the Working Group of experts.

- 3.4. Urge the Mediterranean coastal states to ensure that adequate reception facilities for ship garbage are provided in accordance with Annex V of MARPOL 73/78 and to notify the IMO accordingly.
- 3.5. Amend Rule 8 of section 1.B of the Rules of Procedure to read as follows:

  "The Executive Director shall, with the tacit consent of the Contracting Parties, invite to send representatives, to observe any public sitting of any meeting or conference, including the meetings of technical committees, any international non-governmental organization which has a direct concern in the protection of the Mediterranean Sea against pollution".
- 3.6. Recalling the decision of the Governing Council of UNEP 15/27 on precautionary approach, agree to fully adopt the principle of precautionary approach regarding the prevention and elimination of contamination in the Mediterranean Sea area and request the secretariat to review the Dumping Protocol in the light of the principle of precautionary approach in order to identify any necessary amendments to the protocol.
- 3.7. Agree to take all necessary measures for the protection of <u>Posidonia oceanica</u>, and other phanerogams meadows which are vital to the Mediterranean Sea ecosystem.

Towards this end they agree to:

- a. control trawling and other activities having adverse effects on the <u>Posidonia</u> and other phanerogams meadows,
- b. communicate to the secretariat measures taken in this field.
- 3.8. Agree to amend the Dumping Protocol in order to ban specifically ocean incineration activities in the Convention area and to ask the secretariat to start the necessary procedures.

# 4. MONITORING OF MARINE POLLUTION IN THE MEDITERRANEAN

## 4.1. MONITORING PROGRAMME

Take note of the recommendations of the Meeting of Responsible Investigators of Monitoring Programmes (document UNEP(OCA).MED WG.5/3) and endorse the following recommendations:

(a) Extend the MED POL Phase II monitoring programme, in view of the assessment of the present situation and recent encouraging developments in the collection of data and data quality assurance programmes, for four additional years (until 1995) to enable full participation of all Mediterranean countries and to allow for a proper evaluation of the situation at a regional level;

- (b) design national monitoring programmes in such a way that they ensure assessment of the state of pollution but also simultaneously lead to solution of defined scientific and environmental problems and motivate both young and experienced scientists to participate in the monitoring programme;
- (c) promote a scientific in-depth assessment on monitoring on the basis of past experience in order to prepare the programmes to be implemented in 1995 in the best possible way;
- (d) give particular emphasis to the improvement of the geographical coverage of the monitoring programmes in the South of the Mediterranean;
- (e) encourage the transfer of technology and data related to monitoring on a bilateral and multilateral bases;

## 4.2. PLANKTON BLOOMS AND EUTROPHICATION

Take note of the recommendations of the Meeting of Experts on Implications and Control of Undesirable Plankton Blooms (document UNEP(OCA)/MED WG.4/2).

#### 4.3. RESEARCH

- (a) Re-orient the research activities within MED POL in order to generate information which will also be useful for the technical implementation of the LBS protocol in addition to supporting monitoring activities;
- (b) replace as from 1990 research activities A-L by the following five new research areas:

Research area I - Characterization and measurement

This area will include projects which cover the characterization (identification of chemical or microbiological components) and measurement development and testing of methodologies of specified contaminants;

## Research area II - Transport and dispersion

This area will include projects which aim at improving the understanding of the physical, chemical and biological mechanisms that transport potential pollutants from their sources to their ultimate repositories. Typical topics will be atmospheric transport and deposition, water movements and mixing, transport of contaminants by sedimentation and their incorporation in biogeochemical cycles. Priority will be given to the provision of quantitative information ultimately useful for modelling the system and contributing to regional assessments:

### Research area III - Effects

This area will include projects relevant to the effects of selected contaminants, listed in Annexes I and II of the LBS and Dumping protocols, to marine organisms, communities and ecosystems or man and human populations. Priority will be given to effects and techniques providing information useful for establishing environmental quality criteria;

## Research area IV - Fates/Environmental transformation

This area will include projects studying the fate of contaminants (including microorganisms) in the marine environment such as persistence or survival, degradation, transformation, bioaccumulation etc. but excluding transport and dispersion which is dealt in area II;

#### Research area V - Prevention and control

This area will include projects dealing with the determination of the factors affecting the efficiency of waste treatment and disposal methods under specific local conditions as well as the development of environmental quality criteria and common measures for pollution abatement;

- (c) define target contaminants or other variables at periodic intervals depending on the progress of implementation of the LBS protocol;
- (d) select project proposals on the basis of their intrinsic scientific validity, their Mediterranean specificity, and encourage whenever possible bilateral and multilateral projects among Mediterranean countries from the north and the south of the basin.

### 4.4. IMPACT OF CLIMATIC CHANGES ON THE MEDITERRANEAN COASTAL ZONE

- a) Approve the continuation by the secretariat of studies of the impact of climatic change on the Mediterranean coastal zone in the light of the importance of the problem and the basis of the work done so far;
- b) appreciate the support of OCA/PAC UNEP to the study of the implications of climatic changes in the Mediterranean and to request the continuation of such support;
- c) include the consideration of implication of climatic changes in the existing (Kastela Bay, Izmir Bay, Syrian coast and Rhodes) and future coastal areas management projects;

d) recommend to all Contracting Parties to prepare and implement energy saving programmes, <u>inter alia</u> interconnection of networks, in order to ease and partially prevent the problem of climatic changes.

# 5. INFORMATION

Combine the existing information bulletins (Medwaves, PAP Bulletin, ROCC News, SPA Bulletin) into one single bulletin, Medwaves, to be issued in Arabic, English and French.

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### B. IMPLEMENTATION OF THE LBS PROTOCOL

The Contracting Parties adopt the following recommendations:

# 6. IMPLEMENTATION OF THE LBS PROTOCOL

# 6.1. POLLUTION BY USED LUBRICATING OILS\*

Adopt the:

(i) Assessment of the situation regarding used lubricating oils in the Mediterranean Basin

Lubricating oils are essential for many industrial and transportation purposes as well as for a number of other uses. Following their use, they represent a potentially serious pollution threat, as they can reach the marine environment via municipal and industrial wastewaters and urban run-off. For this reason, used lubricating oils have been included in Annex I to the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-based Sources which contains substances pollution by which Contracting Parties have undertaken to eliminate.

In the absence of direct data from all countries in the region regarding production and consumption of lubricating oils and the eventual fate of the used product, it is not possible at this stage to make an accurate assessment of the actual state of pollution of the Mediterranean Sea by used lubricating oils in the specific sense. However, extrapolation of data available from other regions on the used lubricating oil or petroleum hydrocarbon content of urban run-off and municipal and industrial wastewaters, together with available information on population numbers, industrial activities involving used lubricating oil generation, and vehicular figures in the coastal zone of the Mediterranean affords a reasonable indication that a significant marine pollution problem could actually or potentially exist in the region.

Apart from the four Mediterranean states members of the Commission of the European Communities, which are expressly bound by the terms of EEC Directive 75/439/EEC of 16 June 1975, as amended by Directive 87/101/EEC of 22 December 1986, specifically dealing with the disposal of waste oils, few of the other countries in the region currently possess specific legislation for dealing with marine pollution by used lubricating oils, although partial coverage through more general legislation exists in a number of cases.

\* The representative of the EEC stated that he accepted these recommendations <u>ad referendum</u>, subject to the usual administrative procedures of the Community.

(ii) Measures for control of pollution by used lubricating oils

On the basis of the assessment prepared by UNIDO/WHO/UNEP on the situation regarding used lubricating oils in the Mediterranean basin (document UNEP(OCA)/MED WG.3/Inf.4) the Contracting Parties:

(a) Adopt, for the purposes of Article 5 and Annex I to the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-based Sources, the following definition of used lubricating oils:

"Any mineral-based industrial or lubricating oils which have become unfit for the use for which they were originally intended, and, in particular, used oils from combustion engines and transmission systems, and also mineral lubricating oils, oils for turbines and hydraulic oils, whether such oils are contaminated by dangerous chemical substances, such as PCB, or not";

- (b) adopt the principle that wastes containing used lubricating oils should not be discharged directly or indirectly into the protocol area;
- (c) undertake to progressively implement, through appropriate national procedures, programmes and measures to ensure the eventual realisation of this principle as early as possible to the extent dictated by national circumstances and not later than 1 January 1994;
- (d) take into account, as and where appropriate, in the progressive formulation and implementation of national control measures, the various control measures available, i.e. recovery, and either:
  - regeneration for re-use as lubricating oils or burning as fuel in an appropriate installation, if one of these two solutions is feasible in the case of used lubricating oils which are not contaminated by dangerous chemical substances; or
  - treatment and disposal in specially designed units in the case of all other used lubricating oils.

# 6.2. POLLUTION BY CADMIUM AND CADMIUM COMPOUNDS

# Adopt the:

(i) Assessment of the state of pollution of the Mediterranean Sea by cadmium and cadmium compounds

Cadmium is a scarce, naturally occurring and fairly expensive metal of low mechanical strength. Its yearly world production is about 18,000 tons. Mediterranean countries

account for about 10% of this. It is mainly used in batteries, electroplating, pigments, stabilizers and alloys. It reaches the marine environment from contaminated agricultural soils, mining wastes, mine waters, and the industrial use of cadmium. An important source is municipal sewage effluents and sludges, including those of domestic origin. No reliable data on cadmium inputs are available. The currently available technology for the removal of cadmium from industrial waste waters is based on physico-chemical methods such as ion exchange, reverse osmosis, dialysis and electrodialysis, adsorption, evaporation, electrolysis, freezing, ion flotation, liquid-liquid extraction and ultrafiltration. Phosphatic fertilizer manufacturers can also decrease the cadmium concentration in their product by choosing raw phosphate with low cadmium content.

Levels of cadmium reported for the various compartments of the Mediterranean marine environment are not alarming and in general they are comparable to those found in other regions of the world. Data available for air are limited to the western Mediterranean. The lack of proper quality control and the diversity of analytical methods used do not allow a comparison of the seawater data. Levels of up to 2 mg Cd  $\Gamma^1$  have been reported for coastal waters. Only in coastal lagoons and river deltas cadmium concentrations were high in sediments. Research workers use different extraction methods and many of them do not take into consideration the mineralogical composition of the sediment. It is estimated however that the background concentration must be in the range of 0.1 to 2.5  $\mu$ g g<sup>-1</sup> (DW). Typical cadmium levels in biota are 50-150  $\mu$ g kg<sup>-1</sup> (FW) for shrimps, 40-1200  $\mu$ g kg<sup>-1</sup> (FW) for mussels and 20-150  $\mu$ g kg<sup>-1</sup> (FW) for demersal fish.

The uptake of cadmium in marine organisms depends both on the chemical species of cadmium and on the route of entry into the organism. Cadmium is slowly accumulated at low water concentrations and therefore only low-term chronic exposures can be used to estimate the toxicity of this metal. In fact, the 96-h LC<sub>50</sub> for a wide range of species are usually in excess of 1 mg Cd  $l^1$  while chronic effects usually become apparent at concentrations greater than 50  $\mu$ g Cd  $l^1$ . However, some species have been reported to be affected at concentrations less than 15  $\mu$ g  $l^1$ . A concentration of 0.5  $\mu$ g  $l^1$  could be an eventual water quality objective.

In general, cadmium in seafood constitutes only a small fraction of the total daily intake. Terrestrial food and smoking are much more important for humans who are non-occupationally exposed. A provisional tolerable weekly intake of 400 to 500  $\mu g$  of cadmium for an average person was proposed in 1972 by FAO/WHO. At this stage, it is not considered that the adoption of a common regional legal limit on the permissible concentration of cadmium in seafood would be justified.

A limitation on the amount of cadmium discharged into the marine environment is recommended. Some countries in the Mediterranean have already set effluent standards. The EEC countries have to apply directive 83/513/EEC of 26/9/83 which sets limits for effluents from various industrial sectors. No limit is set for the manufacturers of phosphatic fertilizers.

(ii) Measures for control of pollution by cadmium and cadmium compounds

On the basis of the assessment prepared by FAO/WHO/UNEP (document UNEP(OCA)/MED WG.3/Inf.5), the Contracting Parties as from 1 January 1991:

(a) Adopt a limit value of 0.2 mg cadmium per litre discharged (monthly flow-weighted average concentration of total cadmium) for effluent discharges from industrial plants into the Mediterranean Sea before dilution in terms of Article 5 and Annex I of the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-based Sources.

The above limit value does not apply to the phosphate fertilizer industry, but each Mediterranean country should fix its own national value pending a new decision by the Contracting Parties;

(b) agree to use the following procedure for the implementation of the above value:

A sample representative of the discharge over a period of 24 hours will be taken. The quantity of cadmium discharged over a month must be calculated on the basis of the daily quantities of cadmium discharged. However, a simplified control procedure may be instituted in the case of industrial plants which do not discharge more than 10 kgs of cadmium per year;

- (c) adopt, in principle, an eventual water quality objective of a maximum of  $0.5~\mu g$  cadmium per litre in marine waters;
- (d) for the purpose of progressively reaching the objective, adjust relevant outfall structures in such a way as to achieve maximum dilution in the mixing zone adjacent to the outfall and monitoring sediments and biota to ensure an increase of not more than 50% above background levels in the case of new plants, and achieve a progressive decrease towards the same objective in areas affected by existing plants;
- (e) consider, if national or local circumstances so dictate, the imposition of limit values for concentrations of cadmium in edible marine organisms;

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- (f) include, to the extent possible, the sampling and analysis of appropriate species of edible seafood and of appropriate effluents for cadmium within the framework of their national MED POL monitoring programmes;
- (g) encourage the development of substitutes and alternative technologies leading to the reduction of cadmium pollution;
- (h) provide the Secretariat to the Convention with the fullest information possible on:
  - present legislation and administrative measures on existing national standards and criteria on permissible limits of cadmium concentrations in seafood cadmium emissions into the marine environment, and water quality regarding cadmium;
  - measures taken relevant to (a), (b), (c), (d), (e), (f) and (g) above.
  - relevant monitoring data on (f) above.
- (i) continue to support, within the framework of the research component of MED POL those studies on seafood consumption patterns which can be utilised, in conjunction with monitoring data on cadmium concentrations in seafood, to identify possible high risk groups.

## 6.3. POLLUTION BY ORGANOTIN COMPOUNDS\*

# Adopt the:

(i) Assessment of the state of pollution of the Mediterranean Sea by organotin compounds

The worldwide production of organotin compounds had risen from a very low level in the late 1940's to more than 30,000 tons per year at present. It is estimated that about one third of this amount is used for biocidal purposes which can be divided equally between uses in agriculture and for antifouling treatments. The main uses of antifouling agents are in cooling-water pipes for electric power plants and other industries such as chemical and steel factories, and in paints for boats, ships, and marine structures. The compounds used are mainly tri-organotin compounds and especially tributyltin (TBT) derivatives. Two types of antifouling paints are available: "free association" and copolymer paints. The leaching rate (ie the input rate of these contaminants from painted surface to the marine environment) from copolymer paints is less than that

<sup>\*</sup> The representative of the EEC stated that he accepted the recommendations <u>ad referendum</u>, subject to the usual administrative procedures of the Community.

from free association paints. At present, little information is available in the current scientific literature on amounts of organotin compounds released into the environment by way of production and processing operations. Estimation of inputs from painted surfaces are based on leaching rates. Assuming a constant release rate of  $10 \, \mu g \, cm^{-2} \, d^{-1}$ ,  $15 \, g \, d^{-1}$  would be the input into the marine environment from a painted surface of  $150 \, m^2$ . Inputs from the use of TBT in protecting pipes against fouling organisms could also be important especially when the water flow is high.

The solubility of TBT compounds is of the order of 10 mg  $l^1$  while that for triphenyl (TPT) derivatives is 1 mg  $l^1$  or less. In locations where surfaces have been treated with TBT based antifoulants, the levels of TBT can exceed 1  $\mu$ g  $l^1$  in water and 10  $\mu$ g  $l^2$  in sediments. The results from the pilot survey in selected Mediterranean areas indicate that the following are typical TBT contaminated sites:

- those receiving industrial discharges, mainly related to the use of TBT as an antifoulant in cooling pipes;
- harbours, where commercial shipping activities occur, often together with ship maintenance operations, and which receive large quantities of industrial and other effluents;
- marinas, occupied by pleasure boats;
- mariculture areas.

Marinas have shown to be one of the most polluted areas but values of TBT did not exceed 1,000 ng I<sup>-1</sup> except in one case. The degradation products of TBT, dibutyltin and monobutyltin were also detected but in lower concentrations. The highest TBT levels recorded were in front of a power plant outlet in North Tyrrhenian sea. In general, values were similar to those found in similar situations outside the Mediterranean area. Marine organisms are able to accumulate TBT to levels considerably greater than those found in the surrounding water. With a cessation of inputs, TBT concentrations can be lost in a relatively short time (within one year).

The toxic potential of organotin compounds received considerable attention in the 1950's following the "Stalinon" incident in France. In the late 1970's French scientists found anomalies in the shell calcification of the Pacific oysters growing in Arcachon bay close to a yacht harbour. Since then, work undertaken demonstrated that TBT, together with methyltins and phenyltins, belongs to the most toxic organotin compounds; even low concentrations in aqueous environments may have adverse effects on sensitive stages of invertebrates as well as vertebrates. The most

sensitive effect found for TBT is the development of imposex (change of sex) in certain gasteropod molluscs at concentrations greater than 1 ng  $\Gamma^1$ . Triorganotin compounds can enter the human body directly at the workplace where these chemicals are manufactured or formulated, and where formulations are used or removed after use. These compounds can also enter the human body directly, through residues contained in treated vegetarian food or in contaminated seafood. Some of the symptoms in humans are headaches, memory defects, loss of vigilance, disorientation, etc. An acceptable daily intake (ADI) for man was proposed by FAO/WHO in 1971 for the triphenyltin compounds of chloride, hydroxide and acetate, at 0.5  $\mu$ g kg $^{-1}$  body weight. Recent estimates of research workers for the ADI of TBT oxide vary from 1.6 to 3.2  $\mu$ g kg $^{-1}$  body weight.

The first measures for controlling the use of antifouling paints containing organotin compounds were brought by France in 1982. Since then, other countries have followed suite, the most common measures being the ban on the use of TBT paints on vessels smaller than 25m and on mariculture structures. Recently, measures have also been introduced for sea-going vessels. Measures at regional and international level are promoted through the competent organizations.

(ii) Measures for control of pollution by organotin compounds

On the basis of the assessment document prepared by FAO/WHO/IAEA/UNEP (document UNEP(OCA)/MED WG.1/7), the results of the Mediterranean pilot survey (document FIR/MED POL/OT/5) and the deliberations of the First Meeting of the Scientific and Technical Committee (document UNEP(OCA)/MED WG.1/12), the Contracting Parties agree:

- (a) As from 1 July 1991 not to allow the use in the marine environment of preparations containing organotin compounds intended for the prevention of fouling by micro-organisms, plants or animals:
  - on hulls of boats having an overall length (as defined by ISO standards No.8666) of less than 25 m;
  - on all structures, equipment or apparatus used in mariculture.

This measure should not apply to any ships owned or operated by a state party to the LBS protocol and used only on government non-commercial service.

Contracting Parties not having access to substitute products for organotin compounds by 1 July 1991 would be free to make an exception for a period not exceeding two years, after having so informed the Secretariat. After agreement, the Secretariat would inform the other Contracting Parties at the earliest opportunity;

- (b) to report to the Secretariat on measures taken in accordance with this decision;
- (c) that a code of practice be developed to minimise the contamination of the marine environment in the vicinity of boat-yards, dry docks, etc., where ships are cleaned of old anti-fouling paint and subsequently repainted.

## 6.4. POLLUTION BY ORGANOHALOGEN COMPOUNDS\*

# Adopt the:

(i) Assessment of the state of pollution of the Mediterranean Sea by organohalogen compounds

Relevant information was assembled on the pesticides, DDT, Drins, Heptachlor, HCH, HCB and the industrial compound PCB. No reliable data on the production and use of these compounds is available and the figures for their inputs are rather rough estimates. World literature indicates that the transport of organohalogens from continental sources to the sea by wet and dry deposition is one of the most important sources of contamination of the marine environment by these compounds. Very few data are available on organohalogens in effluents discharged into the Mediterranean sea.

Organochlorine incorporation into biogenic particles, with subsequent migration via chain transfer, or faecal pellet deposition, provides a rapid and ecologically important transport system in the marine environment. The toxicity of some organohalogen pesticides and PCBs to marine organisms is relatively well documented through toxicological investigations performed both in the Mediterranean and elsewhere in the world. This toxicity in combination with their persistence and bioaccumulation properties makes them one of the most hazardous group of compounds for the marine environment.

<sup>\*</sup> The representative of the EEC stated that he accepted the recommendations <u>ad referendum</u>, subject to the usual administrative procedures of the Community. Using the acceptable daily

intake (ADI) recommended by FAO/WHO and the levels of contamination reported, a risk assessment showed association with the consumption of seafood. HCB, HCH and heptachlor is safe for low, and mostly safe for medium consumption, while the intake of DDT and PCB from one fish meal per week elevates life-time risk above 10<sup>-5</sup>. The drins present intermediate risk but the evidence for their carcinogenicity is very weak.

(ii) Measures for control of pollution by organohalogen compounds

On the basis of the assessment prepared by FAO/WHO/IAEA/UNEP (document UNEP(OCA)/MED WG.3/Inf.6) the Contracting Parties agree as follows from 1 January 1991:

- (a) To adopt an environmental quality objective in coastal waters of 25 µg 1<sup>-1</sup> for total DDT in terms of Article 5 and Annex I of the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-based Sources;
- (b) to use the International Code of Conduct on the distribution and use of pesticides as adopted by the FAO Conference in 1985;
- (c) to promote monitoring programmes wherever possible for:
  - the establishment of trends and baseline concentrations for the organohalogen compounds;
  - the detection of "hot-spot" areas.
- (d) to provide the Secretariat with information on the present legal and administrative measures in force in each country for the production, use and disposal of organohalogen compounds and relevant monitoring data on (c) above.

### C. IMPLEMENTATION OF THE PROTOCOL ON EMERGENCIES

The Contracting Parties adopt the following recommendations:

# 7. PREVENTION AND COMBATING POLLUTION FROM SHIPS

## 7.1 PROTOCOL ON EMERGENCIES

- (a) The Regional Centre should undertake the steps necessary for the establishment, on a voluntary basis, of a regional network of correspondents within port authorities and within authorities responsible for vessel traffic services who receive reports of the movements of ships and their cargoes, to assist in collecting data on the maritime transport of harmful substances other than oil in the Mediterranean and to facilitate, in case of accident and where possible, rapid access to information on cargo, including the loading plan;
- (b) the Regional Centre should prepare a selective list of data concerning the dangerous substances and establish a partly computerised data base;
- (c) the Regional Centre should assist States in activities at the national level aimed at collecting data necessary for the establishment in the future of a computerised marine pollution emergency decision support system, taking into account all existing databases, systems and experience gained in this field throughout the world and, in particular, make use of existing sources of cartographic and oceanographic data on the Mediterranean, with a view to adapting an aid to decision system and its simulation models to the region;
- (d) the Centre should establish a priority list of substances, based on the highest spillage probability, and prepare, on the basis of existing information, operational technical files for intervention, including accident scenarios, for these substances;
- (e) the Regional Centre should assist Mediterranean coastal States which so request to adapt their national oil spill contingency plans to combating accidents involving other hazardous substances and, in particular, to develop their own data banks compatible with the Centre's data bank, and to prepare bilateral or multilateral operational agreements among neighbouring coastal States;
- (f) the Regional Centre should organize periodic alert exercises in order to test use of the standard alert message and the communications network;

- (g) the Regional Centre should compile and disseminate to the Mediterranean coastal States information on the nature, conditions and procedures by which assistance can be provided by States and organizations by using, in particular, the results of the IMO work on the preparation of a "Guide to International Assistance in Marine Pollution Emergencies";
- (h) the Regional Centre should organize the following training courses included in the 1990-1991 programme budget:
  - a general training course on combating accidental pollution by harmful substances in 1990 and 1991;
  - a regional seminar on financial questions, liability and compensation for consequences of accidents causing pollution by oil and other harmful substances in 1990:
  - a specialised training course on combating pollution by harmful substances in 1991;
- (i) approve the future functions of the Centre as they appear in the amended Annex to Resolution 7 of 1976, Appendix 1 to this Annex;
- (j) approve the long-term workplan of the future activities related to oil and other harmful substances which should be carried out or co-ordinated by the Centre, as set out in Annex VII of the report of the Workshop on Combating Accidental Pollution of the Mediterranean Sea by Harmful Substances held in Malta from 22-26 May 1989 (UNEP(OCA)/MED WG.3/Inf.9);
- (k) decide to change the name of the Mediterranean Regional Centre for Combating Pollution by oil to: "Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea".

## 7.2. PORT RECEPTION FACILITIES

Promote port reception facilities and inform the Secretariat on progress made.

### D. PROTECTION OF THE COMMON MEDITERRANEAN HERITAGE

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

## 8.1. PROTOCOL ON SPECIALLY PROTECTED AREAS

- a) Recommend to the Co-ordinating Unit of MAP, in co-operation with the responsible bodies of the country hosting SPA/RAC, the signing of an agreement between the host country and UNEP on their mutual obligations regarding the Centre;
- b) open a line in the budget to cover one half of the salary of the full time Director of the Centre, as is the case for the other MAP Centres and following the recommendations of UNEP evaluation report "The Regional Activity Centre for the Mediterranean Specially Protected Areas: evaluation of its development and achievements" - UNEP Regional Seas Reports and Studies No. 100. If this budget were approved, SPA/RAC would have a fulltime Director appointed to the Centre;
- c) request 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;
- d) request SPA/RAC to assist countries to develop activities for the protection of endangered species (Monk Seal and Marine Turtles) through the Action plans developed or being developed by the SPA/RAC and in accordance with the protocol concerning Specially Protected Areas and the Genoa Declaration:
- e) support other actions concerning additional endangered species and the ecosystems important for their protection (e.g. marine plants);
- f) request 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;
- g) approve the Action Plan for the Conservation of the Mediterranean Marine Turtles (reproduced in Appendix II to this Annex).

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# 8.2. 100 HISTORIC SITES

- a) Use the PAP structure and experience for the development of the new activities, in close cooperation with SPA/RAC and the Coordinating Unit;
- b) express appreciation to the authorities in France for the offer of Marseilles to service the network of 100 Mediterranean historic sites.

# 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

- 9.1 PROSPECTIVE ANALYSIS OF THE RELATIONSHIP BETWEEN ENVIRONMENT AND DEVELOPMENT (post Blue Plan)
  - (a) As a follow-up to the report on the Mediterranean scenarios of the Blue Plan published in 1989, to assist the countries of the region at their request in preparing scenarios at the national, coastal or sectoral level in keeping with the result and methodologies of the Blue Plan. For this purpose the Regional Activity Centre of the Blue Plan, acting as the Mediterranean observatory of the relationship between the environment and economic activities in favour of sustainable development, will adjust the forward-looking methods already worked out in respect of the national level to the level of the coastal regions and to the level of the major sectors (town planning, agriculture, industry, energy or tourism). The Scientific Director and the Mediterranean experts associated with the Blue Plan will provide assistance to the countries concerned by means of local visits or technical consultations in the BP/RAC. Special attention will be given to the preparation of the scenarios necessary for the development of PAP pilot projects in the coastal areas;
  - (b) promote the regular exchange of information concerning the Blue Plan with countries and institutions and ensure provision for training of national experts in the forward-looking and systemic methods of the relationship between environment, development and land use by means of technical workshops and individual training courses;
  - (c) bring up to date regularly the demographic, economic and environmental databases of the Blue Plan, to extend them to the level of the Mediterranean coastal regions and the coastal strip and to keep the information at the disposal of the countries;
  - (d) welcome the offer of other institutions, such as the Genoa University and Genoa Ricerche, to develop Mediterranean data bases (including geocoded bases), with a view to establishing gradually a network of co-operation for the prospective studies of the development of the coastal areas;
  - (e) welcome the offer of France to continue to host and to provide intellectual and financial support for the BP/RAC for the continuation of the forward-looking analytical activities of the Blue Plan.

(f) provide the greatest possible publicity for the report on the Blue Plan scenarios, facilitate its publication in the official languages of the Uited Nations and possibly in other languages and continue the preparation and dissemination of thematic fascicles with the participation of experts from the various Mediterranean countries.

## 9.2. COASTAL PLANNING AND MANAGEMENT

- (a) Recommend 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;
- (b) recommend to National Focal Points for PAP, particularly those with which 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.

## 9.3. MEDITERRANEAN COASTAL AREAS MANAGEMENT PROGRAMMES

- (a) Continue work on the four on-going coastal zone MAP projects (Bay of Kastela, Bay of Izmir, Island of Rhodes, Coast of Syria);
- (b) assist Mediterranean States to identify and formulate environmental protection and integrated development projects in coastal zones, making use of significant national and international financing; up to ten projects could be studied; attention will be focused on projects that are the most viable from the point of view of the Mediterranean environment and financing organizations;
- (c) envisage three phases for each programme:
  - a preliminary phase including fact finding, definition of options and formulation of a programme proposal;
  - an executive phase;
  - follow-up and implementation;
- (d) deal simultaneously with up to three programmes in the preliminary phase and four in the executive phase, unless appropriate external support would be found for specific programmes;
- (e) prepare detailed proposals for new programmes including obligations of each participating party, signed by competent national authorities. Such proposals would be evaluated by the secretariat and presented to Contracting Parties for adoption;

- (f) present to meetings of the Socio-Economic Committee information on going projects;
- (g) secure participation of UNEP and other UN bodies dealing with industrial, toxic and hazardous wastes;
- (h) assist in drawing up, implementing and disseminating model thematic projects likely to be
  of interest to Mediterranean countries because of their innovations and degree of
  integration;
- (i) invite UNEP and the other international organizations (e.g. the World Bank) to provide financial support to cooperative and pilot projects;
- (j) invite the national authorities concerned and the relevant bilateral and multilateral programmes to support the four on-going pilot projects as practical demonstration areas for the protection of the Mediterranean;

## 9.4. SPECIAL ACTION FOR THE ADRIATIC SEA

- (a) Recognize the specificity of the Adriatic Sea as one of the most sensitive parts of the Mediterranean and welcome the intention declared by the Government of Italy and Yugoslavia to implement a sub-regional joint programme for the environmental protection and development of the Adriatic, as essential part of the "Adriatic Initiative" inspired by the goals of the Barcelona Convention and its protocols, and of the Genoa Declaration;
- (b) recommend the strengthening of mutual co-operation between all MAP components, in particular MED POL, Priority Actions Programme (PAP) and Blue Plan, with the Adriatic countries committed to implement projects, consistent with the MAP objectives, methods and practice;
- (c) invite the Co-ordinating Unit with the Regional Centres to continue to provide scientific and technical support in order to accelerate the implementation of the objectives of the Genoa Declaration in the Adriatic, through active co-operation with the "Adriatic Initiative";
- (d) encourage the participation of Albania, Greece and the EEC, as well as other interested countries in the relevant activities for the protection of the Adriatic and adjacent waters in co-ordination with MAP activities;
- (e) invite the international financial institutions to support the implementation of the environmental goals of the Adriatic initiative.