

An International Programme for the Protection of a Semi-enclosed Sea— The Mediterranean Action Plan

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The paper describes the Mediterranean Action Plan as a significant example of international co-operation for the protection of a semi-enclosed sea. Launched in 1975 under the auspices of the United Nations Environment Programme (UNEP) the Action Plan co-ordinates the efforts of eighteen coastal states and the EEC. The paper describes the four components of the Action Plan: socio-economic, scientific, legal and institutional, and the specific quality criteria, emission standards and other measures already adopted by the Mediterranean States. The recent refocusing of the Plan's activities towards coastal area management, the participation of the World Bank, the European Investment Bank and the European Community in financing needed measures and the growing involvement of non-governmental organisations, are described in the concluding part of the paper.

The United Nations Conference on the Human Environment, held in Stockholm, Sweden, in June 1972 included the protection of the oceans against pollution among the priorities for international action. The United Nations Environment Programme soon after it was established in Nairobi, Kenya, launched one of its first programmes in the Mediterranean and invited the coastal states to adopt an Action Plan for its protection. The Plan was adopted at a conference held in Barcelona, Spain in 1975 with the participation of the coastal states and of the United Kingdom, United States and USSR.

The Action Plan set in motion a complex network of international co-operation that is credited with stopping and reversing the trend of pollution in the Mediterranean. While making due allowance for the many differences between the Mediterranean situation and that of the Japan inland sea, the experience of the last fifteen years in the Mediterranean has many relevant lessons to offer.

The Mediterranean is a semi-enclosed sea with a maximum length of 3800 km, a width of 800 km and a maximum depth of 5000 metres. It is divided into two major basins, by the Sicilian-Tunisian channel. It has a total surface of 2.5 million km². It has a negative water balance, i.e. losses due to evaporation are not compensated by river inputs (see Annex I) and Atlantic water enters through the straits of Gibraltar - 15 km wide, 350 m. deep - as well as through the Dardanelles from the Black Sea. The Suez Canal, opened in 1869, connects it with the Red Sea. The renewal time of its water is estimated around 80 years.

The Mediterranean coastline, including the islands, is 45,000 km long shared by eighteen states with a total population of 355 million in 1985 (see Annex II). It is a major international route for oil transport - 35 per cent of oil transported by sea transits through the Mediterranean that represents only 1 per cent of the world oceans.

It is also the main tourist destination in the world, receiving over 120 million tourists a year. In some localities, the resident population in summer can be 10 to 20 times the local (winter) population.

From the point of view of international relations, it is worth recalling that the eighteen states belong to different political and geographical groupings, some being members of the European Community, some of the Arab League, the Organization of African Unity, the Group of 77, the U.N. Economic Commissions for Europe, for Africa, for Western Asia.

They had no experience of meeting together as Mediterranean States, in any previous forum; on the contrary, many states had no direct diplomatic relations or were briefly in a state of war.

The fact that co-operation could be established under such circumstances and that it grew closer every year, is an indication of the deep concern they all share for their common sea.

At the national level, marine protection programmes should be even easier to establish, although the difficulties of co-ordinating numerous government departments and different levels of central and local government should never be underestimated.

In 1975 the attention of public opinion was focused mainly on marine pollution by oil and by mercury. The accident of the "Torrey Canon" in 1967 had revealed the vulnerability of large tankers while Minamata Bay had shown the tragic consequences of uncontrolled discharges of mercury. As a result, petroleum hydrocarbons and mercury were high on the list of pollutants to be monitored, but, and this is remarkable in retrospect, the Action Plan set out to deal systematically with all other types of pollution.

The Plan adopted a comprehensive approach with four, interrelated components:

- A socio-economic component, aimed at identifying the causes of pollution, and the methods readily available for its reduction;
- A scientific component, aimed at collecting valid, comparable data on priority pollutants, as a basis for legal and other measures;
- A legal component, that would commit coastal states to an active programme, going beyond mere declarations;
- An institutional component to ensure the continuity of action with funds earmarked for it.

We can say today that these four elements namely legally binding, scientifically based continuous action connected with the socio-economic reality are essential to any programme of marine protection. Other elements are also necessary, as the experience of the last fifteen years has shown, and these will be identified later on, after the initial four are briefly described.

The socio-economic component

As early as 1977, at a meeting convened by UNEP in Split, Yugoslavia, the coastal states recognized the peculiarity of the Mediterranean environment. In spite of their different size, level of economic development or social system, every coastal state faced similar problems.

As a result, regional networks have been established, programmes set up and exchange of information organized on liquid waste treatment and disposal, environmental aspects of aquaculture, rehabilitation and use of coastal historic settlements, renewable sources of energy (solar and wind); seismic risk reduction in coastal areas, rain-induced soil erosion; impact of tourism on the environment.

In addition to these priority areas, a pioneering study was conducted on the future of the eighteen countries of the Mediterranean basin. Entitled the Blue Plan, it developed a coherent set of data on the Mediterranean states covering the previous 30 years. On the basis of these data, it produced a series of scenarios of possible developments or alternative "futures" of the Mediterranean that were published in French and in English¹ and will soon be published in Arabic and Spanish.

These projections show that only with the utmost restraint in the use of scarce coastal resources and close co-operation can the expected increase in population, industrial production, tourism, etc., coexist with the desirable quality of the marine and coastal environment.

The Scientific Component

The scientific component, code-named MED POL, is the largest continuous scientific programme of this type anywhere in the world. It is placed under the joint scientific supervision of UNEP and five UN Specialized Agencies (WHO, FAO, UNESCO/IOC, WMO and the IAEA) and involves a series of national monitoring programmes with the participation of over 140 laboratories. Data are collected for agreed parameters, with agreed frequencies, analytical methods and instruments.

A programme of intercalibration is carried out by the International Laboratory for Marine Radioactivity in Monaco; training, provision of instruments (including their repair) and some laboratory supplies are provided as part of the MED POL.

After validation and analysis data are used to produce reports on the state of pollution of the Mediterranean Sea as well as assessments of individual pollutants that serve as the basis for common measures.

In the early years the main objective was to enable all countries to conduct scientifically correct monitoring, not only as a contribution to the regional MED POL programme, but mainly to provide the basis for national legislation and the allocation of resources.

Today, the problem is rather in the proliferation of data and the need to design monitoring strategies that will generate the information required with reduced monitoring effort, through remote sensing, automated data collection and model building.

The Legal Component

The Action Plan invited the Mediterranean States to take a firm and long-lasting commitment by adopting an international treaty for the protection of the Mediterranean Sea against pollution. The Convention was signed at Barcelona in 1976, entered into force in 1978 and has since been ratified by all coastal states and by the European Community (See Annex III). It is a framework Convention that leaves specific commitments to be taken under separate protocols. Each protocol, in turn, is a full-scale international treaty, adopted at a Conference of Plenipotentiaries and ratified by parliaments. Four protocols have already been adopted on:

- The Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft;
- Co-operation in Combating Pollution of the Mediterranean Sea by Oil and Other Harmful Substances in Cases of Emergency;
- The Protection of the Mediterranean Sea against Pollution from Land-based Sources;
- Mediterranean Specially Protected Areas.

As a result, the number of dumping permits issued has decreased and many countries have stopped the practice altogether, while the number of marine parks and protected areas has increased.

A fifth protocol for the Protection of the Mediterranean Sea against pollution resulting from Exploration and Exploitation of the Continental Shelf and the Sea-Bed and its Sub-Soil was approved in draft by a working group of government experts and industry representatives in April 1990 and will be negotiated towards the end of this year.

It should be noted that the preparation and adoption of the Barcelona Convention and its related protocols preceded the adoption of the Law of the Sea Convention. The Mediterranean experience was taken into account at Montego Bay and the Law of the Sea Convention gives ample recognition to the regional approach (in Part IX, Part XII, Section 2 and Part XIV, Section 3).

The Mediterranean experience has also inspired a number of other regional seas programmes developed by UNEP.

The Institutional Component

The institutional component comprises regular meetings of the Contracting Parties, a Secretariat and a Trust Fund.

The Contracting Parties hold ordinary meetings every two years, extraordinary meetings when required, usually at Ministerial level. At each ordinary meeting the Parties elect a Bureau that remains in office for two years, to give policy guidance to the Secretariat. For the 1989-91 biennium the Bureau has the following composition:

President : H.E. Dr. Atef M. Ebeid
Minister of Cabinet Affairs
Minister of State for Administrative Development and
Minister in charge of the Environment
Egypt

Vice Presidents: H.E. Mr. Ivo Butini
Undersecretary of State for Foreign Affairs
Italy

Mr. Vladimiro Mandl
Chief of Division
General Directorate of Environment,
Consumer Protection and Nuclear Safety
European Economic Community

Rapporteur : Mr. Andreas D. Demetropoulos
Director, Dept. of Fisheries
Ministry of Agriculture and Natural
Resources
Cyprus

The Secretariat function was assigned to UNEP that established a Co-ordinating Unit for the Mediterranean Action Plan in Athens. The choice of Athens was the result of a unanimous decision taken in 1981.

In addition to the Co-ordinating Unit, Regional Activity Centres dealing with specific programme components have been set up in Malta, Yugoslavia, France and Tunisia (See Annex IV).

A Trust Fund for the protection of the Mediterranean, in the amount of U.S.\$ 10 million per biennium, is based on contributions of the Parties. The Fund can receive voluntary contributions from any other source, provided they are made for the general purposes of the Action Plan and not tied to specific activities or other conditions.

The Setting of Specific Targets

At the meeting held in Genoa, Italy, in 1985 the Contracting Parties set for themselves a series of specific targets to be reached during the second decade of the programme (1985-1995). These were adopted as part of the Genoa Declaration. The ten targets are listed below:

- (a) Establishment of reception facilities for dirty ballast waters and other oil residues received from tankers and ships in ports of the Mediterranean;

- (b) Establishment as a matter of priority of sewage treatment plants in all cities around the Mediterranean with more than 100,000 inhabitants and appropriate outfalls and/or appropriate treatment plants for all towns with more than 10,000 inhabitants;
- (c) Applying environmental impact assessment as an important tool to ensure proper development activities;
- (d) Co-operation to improve the safety of maritime navigation and to reduce substantially the risk of transport of dangerous toxic substances likely to affect the coastal areas or induce marine pollution;
- (e) Protection of the endangered marine species (e.g. Monk Seal and Mediterranean Sea Turtle);
- (f) Concrete measures to achieve substantial reduction in industrial pollution and disposal of solid waste;
- (g) Identification and protection of at least 100 coastal historic sites of common interest;
- (i) Intensify effective measures to prevent and combat forest fires, soil loss and desertification;
- (j) Substantial reduction in air pollution which adversely affects coastal areas and the marine environment with the potential danger of acid rains.

The Declaration did not provide a budget for these ambitious and expensive goals, leaving it to individual countries and international banking institutions to finance them.

Nevertheless the Genoa Declaration played an important, catalytic role by showing that the proposed actions were part of a clear strategy, based on solid scientific evidence, and had the unanimous support of all coastal states.

The Genoa Declaration inspired the World Bank and the European Investment Bank in their own Mediterranean Technical Assistance Programme (METAP). The European Community, in launching a greatly expanded programme for the Mediterranean (MEDSPA) has made a specific reference to the Genoa Declaration and confirmed the desire of the EEC to work in the framework of the Barcelona Convention.

Quality Criteria and Emission Standards

In approaching the problems of marine pollution in the past, two contrasting approaches were evident. One was based on quality criteria, the other on emission standards.

In the case of the Mediterranean, both were followed in combination.

- Environmental Quality Criteria for Bathing Waters were adopted in 1985;
- Environmental Quality Criteria for Shellfish Waters were adopted in 1987.
- Environmental Quality Criteria for Cadmium and Cadmium compounds were adopted in 1989;
- Environmental Quality Criteria for total DDT were adopted in 1989 for entry into force from 1 January 1991;
- Emission standards for Mercury were adopted in 1987;
- Antifouling paints containing organotin compounds were banned in 1989 for use on hulls of boats of less than 25 m. as of July 1991;
- The discharge of used lubricating oils was prohibited in 1989;
- Incineration at sea was prohibited in 1989.

For oil and other dangerous substances transported by ship, a Centre was established in Malta with the technical supervision of the International Maritime Organization (IMO) to promote the adoption of National Contingency Plans, the training of personnel, and exchange of information on equipment and expertise available.

While no major oil spill has occurred in the Mediterranean, and the designation of the Mediterranean as a Special Area under the Marpol 1973/78 Convention of IMO has banned deballasting, illegal discharges are still polluting the area with an estimated 800,000 tons of oil per year, the equivalent of ten Exxon Valdez disasters.

The Non-governmental Organisations

Non-governmental organisations have played a growing role in the Mediterranean. They are mostly concentrated in the European countries, but their number and weight has been increasing over the years. They have promoted public awareness campaigns, launched monitoring programmes in parallel with governments, worked to protect endangered species such as Monk Seals and Marine Turtles. The growth of Green Parties in several parliaments has given them political muscle. Today they represent a strong force that the Mediterranean States have recognized as valid partners and several non-governmental organisations are now invited as observers to the technical and ministerial meetings of the Mediterranean Action Plan.

One Step Forward

As mentioned at the beginning of this paper, it now appears that the four components of the Action Plan need to be complemented by two more factors: the adoption of positive quality objectives and the quantitative reduction of pollutants from land-based sources.

This step forward is possible only when a reliable monitoring network is in place, detailed information is available on the sources and quantities of pollutants reaching the sea area, and financing for agreed measures is forthcoming.

The sources of pollution of the sea must be controlled on land. Experience has shown the difficulty of controlling unplanned, often illegal building and other activities in coastal areas and of regulating diffuse sources of pollution, e.g. from agriculture or carried through the atmosphere.

For these reasons the Executive Director of UNEP, Dr. Mostafa Tolba, proposed to the Mediterranean States to refocus the Action Plan on the management of coastal areas. In response to his appeal pilot areas were selected in Yugoslavia, Greece, Turkey and Syria, and others are being considered in Egypt and Tunisia where a concerted effort is being made to meet the agreed quality criteria, enforce the emission standards and take the remedial actions required through planning and investment.

In order for this effort to succeed one more ingredient is necessary.

The importance of the sea around us must be appreciated not only as a source of food and income, but as part of our heritage and culture. This respect for the sea is shared by every old civilization - that of the Mediterranean and that of Japan, alike - and it is the best guarantee that, however difficult, however long, the job of protecting the sea against pollution will be done.

REFERENCES

1. Grenon, M. and Batisse, M. (eds). (1989). *Futures for the Mediterranean Basin: The Blue Plan*. United Nations Environment Programme/Mediterranean Action Plan. Oxford University Press.
- Grenon, M. et Batisse, M. (eds). (1988). *Le Plan Bleu: Avenirs du Bassin Méditerranéen*. Programme des Nations Unies pour l'Environnement/Plan d'action pour la Méditerranée. Economica.

ANNEXES

- I. River inputs
- II. Coastline and Population (national, coastal)
- III. Ratifications
- IV. Regional Centres

ANNEX I		
Country	Main Rivers	Flow (over 100 m ³ /s)
Albania	Drini	342
	Semani	113
	Vjöse	182
Algeria	-	
Cyprus	-	
Egypt	Nile	500
France	Rhône	1,712
Greece	Acheloos	167
	Aliakmon	133
	Axios	163
	Evros	311
	Nestos	100
	Pinios	102
	Strimon	111
	Israel	-
Italy	Adige	231
	Arno	103
	Po	1,550
	Tevere	234
Lebanon	-	
Libya	-	
Malta	-	
Monaco	-	
Morocco	-	
Spain	Ebro	550
Syria	-	
Tunisia	-	
Turkey	Büyük Menderes	100
	Ceyhan	230
	Manavgat	129
	Seyhan	188
Yugoslavia	Neretva	355

Source: State of the Mediterranean Marine Environment,
MAP Technical Series No. 28, UNEP, Athens, 1989.

ANNEX II			
Country	Population 1985 (thousands)	Population in Mediterranean Regions 1985 (thousands)	Mediterranean Coastline(km)
Albania	3,050	3,050	418
Algeria	21,718	11,500	1,200
Cyprus	669	669	782
Egypt	46,909	16,511	950
France	54,621	5,494	1,703
Greece	9,878	8,862	15,000
Israel	4,252	2,886	190
Italy	57,300	41,862	7,953
Lebanon	2,668	2,668	225
Libya	3,605	2,284	1,770
Malta	383	383	137
Monaco	27	27	4
Morocco	21,941	3,390	512
Spain	38,542	13,860	2,580
Syria	10,505	1,155	183
Tunisia	7,081	4,965	1,300
Turkey	49,289	10,000	5,191
Yugoslavia	23,153	2,582	6,116
Total	355,591	132,148	46,214

Source: State of the Mediterranean Marine Environment,
MAP Technical Series No. 28, UNEP, Athens, 1989.

ANNEX III

STATUS OF THE RATIFICATIONS OF THE CONVENTION FOR THE PROTECTION OF THE
MEDITERRANEAN SEA AGAINST POLLUTION AND ITS RELATED PROTOCOLS

Status as at 1 June 1990

	Convention ⁽¹⁾	Dumping ⁽²⁾	Emergency ⁽³⁾	Land-Based Sources ⁽⁴⁾	Specially Protected Areas ⁽⁵⁾
	Ratification	Ratification	Ratification	Ratification	Ratification
Albania	—	—	—	—	—
Algeria	16 Feb 81/AC	16 Mar 81/AC	16 Mar 81/AC	2 May 83/AC	16 May 85/AC
Cyprus	19 Nov 79	19 Nov 79	19 Nov 79	28 Jun 88/AC	28 Jun 88/AC
Egypt	24 Aug 78/AP	24 Aug 78/AP	24 Aug 78/AP	18 May 83/AC	8 Jul 83
France	11 Mar 78/AP-R	11 Mar 78/AP-R	11 Mar 78/AP-R	13 Jul 82/AP-R	2 Sep 86/AP-R
Greece	3 Jan 79	3 Jan 79	3 Jan 79	26 Jan 87	26 Jan 87
Israel	3 Mar 78	1 Mar 84	3 Mar 78	(Pending)	28 Oct 87
Italy	3 Feb 79	3 Feb 79	3 Feb 79	4 Jul 85	4 Jul 85
Lebanon	8 Nov 77/AC	8 Nov 77/AC	8 Nov 77/AC	(Pending)	—
Libya	31 Jan 79	31 Jan 79	31 Jan 79	6 Jun 89/AP	6 Jun 89/AP
Malta	30 Dec 77	30 Dec 77	30 Dec 77	2 Mar 89	11 Jan 88
Monaco	20 Sep 77	20 Sep 77	20 Sep 77	12 Jan 83	29 May 89/R
Morocco	15 Jan 80	15 Jan 80	15 Jan 80	9 Feb 87	(Pending)
Spain	17 Dec 76	17 Dec 76	17 Dec 76	6 Jun 84	22 Dec 87
Syria	26 Dec 78/AC-R	26 Dec 78/AC	26 Dec 78/AC	—	—
Tunisia	30 Jul 77	30 Jul 77	30 Jul 77	29 Oct 81	26 May 83/R
Turkey	6 Apr 81	6 Apr 81	6 Apr 81	21 Feb 83/AC	6 Nov 86/AC-R
Yugoslavia	13 Jan 78	13 Jan 78	13 Jan 78	16 Apr 90	21 Feb 86
EEC	16 Mar 78/AP	16 Mar 78/AP	12 Aug 81/AP	7 Oct 83/AP	30 Jun 84/AP

1- Convention for the protection of the Mediterranean sea against pollution:

Adopted (Barcelona): 16 February 1976 Entry into force: 12 February 1978

2- The Protocol for the prevention of pollution of the Mediterranean Sea by dumping from ships and aircraft:

Adopted (Barcelona): 16 February 1976 Entry into force: 12 February 1978

3- The Protocol concerning co-operation in combating pollution of the Mediterranean Sea by oil and other harmful substances in cases of emergency:

Adopted (Barcelona): 16 February 1976 Entry into force: 12 February 1978

4- The Protocol for the protection of the Mediterranean Sea against pollution from land-based sources:

Adopted (Athens): 17 May 1980 Entry into force: 17 June 1983

5- The Protocol concerning Mediterranean Specially Protected Areas:

Adopted (Geneva): 3 April 1982 Entry into force: 23 March 1986

AC= Accession, AP= Approval, R= Reservation

ANNEX IV

INSTITUTIONAL ARRANGEMENTS
OF THE MEDITERRANEAN ACTION PLAN:

Secretariat of the Convention:

United Nations Environment Programme
P.O.Box 30552
Nairobi, KENYA

Co-ordinating Unit for the Mediterranean Action Plan (MEDU):

UNEP
P.O. Box 18019
Vas. Konstantinou 48
116 10 Athens, GREECE

Co-ordinator: A. Manos

Regional Marine Pollution Emergency Response Centre for the Mediterranean:

Regional Marine Pollution Emergency Response
Centre for the Mediterranean
Manoel Island, MALTA

Director: J.C. Sainlos

Regional Activity Centre for the Priority Actions Programme (PAP/RAC):

PAP Regional Activity Centre
Urbanisticki Zavod Dalmacije
Kraj. Sv.Ivana 11
P.O. Box 74
58000 Split, YUGOSLAVIA

Director: A. Pavasovic

Regional Activity Centre for the Blue Plan (BP/RAC):

Centre d'Activités Régionales du Plan Bleu pour la Méditerranée
Place Sophie Laffitte
Sofia Antipolis
06560 Valbonne, FRANCE

President: M. Batisse

Director: B. Glass

Regional Activity Centre for Specially Protected Areas (SPA/RAC):

c/o Institut national scientifique et technique
d'océanographie et de pêche
2025 Salammbô
Tunis, TUNISIE

Director: M. Hadj Ali Salem