



United Nations Environment Programme



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Meeting on the Contribution of Mediterranean
bilateral and multilateral programmes to the
objectives of the Mediterranean Action Plan

Brussels, 23 - 26 October 1984

OUTLINE OF PROJECT PROPOSALS

Introduction

1. The purpose of this document is to serve as the basis for discussion of Agenda item 7(b).

It presents those project proposals that have been developed within the Mediterranean Action Plan and whose financial requirements exceed the capacity of the Mediterranean Trust Fund.

2. The whole concept of an Action Plan aims at encouraging and making possible action by Governments and international organisations. The legal framework, co-ordinating mechanisms, monitoring and research, training of personnel become effective in dealing with the serious problems of marine pollution and coastal degradation, only if suitable tools are provided, often in the form of capital investment.
3. The secretariat considers the projects presented in this document to be particularly relevant because they were developed in close consultation with national experts and authorities of the Mediterranean Coastal States, within the framework of the Action Plan.

It should be noted that for most projects, additional, sometimes quite extensive documentation exists in the secretariat. Proposals are presented in the model sheet format adopted by UNEP for its clearinghouse technical assistance.

4. In several cases, considerable pre-investment costs have been contributed by UNEP and other UN Agencies. Should such projects fail to attract financial support from bilateral or multilateral donors, there would be serious implications for the development of similar projects in the future.

3. It bears repeating that the purpose of presenting these projects is not to elicit financial commitments from participants in the present meeting. The purpose is to obtain comments on the type and nature of these projects, and indications on follow-up action by the secretariat.

Recommendations

6. The meeting is, therefore, invited,

- (i) to take note of the projects developed within the framework of the Mediterranean Action Plan;
- (ii) to invite the secretariat to pursue the matter of their financing with the appropriate bilateral and multilateral programmes;
- (iii) to place on record any specific interest on the part of participants to discuss with the secretariat the possibility of financing, totally or in part, the project proposals contained in the present document.

SECTION 1

1.1 Title of Project: ASSISTANCE TO NATIONAL MARINE RESEARCH CENTRES

1.2 Project Proposal No: N.A.

1.3 Subject Area: Assistance to laboratories.
Questionnaire item 2

1.4 Geographical Scope: Mediterranean region

1.5 Implementation: Jointly UNEP and Agencies (FAO, WHO, UNESCO, IOC, WMO, IAEA)

1.6 Duration of the project: 6 years

Commencing: Jan. 1985

Completing: Dec. 1990

1.7 Total Cost of Project: US \$ 3,000,000

Government Contribution: -

External Funds Required: US \$ 3,000,000

1.8 Breakdown of cost:

Personnel Services: -

Training : -

Equipment : US \$ 3,000,000

Miscellaneous : -

SECTION 2

2.1 Objectives:

To provide national institutions participating in MED POL programme with new analytical instrumentation to monitor pollutants in coastal and estuarine areas.

2.2 Legislative Authority:

Contracting Parties to the Barcelona Convention

SECTION 3

3.1 Background:

During MED POL - Phase I an intensive assistance programme was implemented by UNEP and co-operating agencies (FAO, WHO, IOC) to provide national research centers with heavy analytical equipment. Much of this equipment now is either obsolete or in very bad condition and new centers have been since designated to participate in MED POL monitoring programme.

3.2 Activities:

- To assess the present and future needs for equipment of approximately 100 research laboratories.
- To purchase the equipment.

3.3 Workplan:

- 1) Assessment of the requirements Jan - Dec. 1985
- 2) Purchasing of the equipment Jan. 1986
Dec. 1990

3.4 Outputs:

Viable national programmes for monitoring pollution in coastal and estuarine areas.

3.5 Use of Outputs

To implement the Long-term programme for pollution monitoring and research in the Mediterranean Sea (MED POL - PHASE II).

- 1.1 Title of Project: FINANCING OF PORT RECEPTION FACILITIES FOR WASTES
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- 1.2 Project Proposal No: N.A.
- 1.3 Subject Area: Questionnaire item 4
- 1.4 Geographical Scope: Mediterranean region
- 1.5 Implementation: Jointly UNEP and IMO

Document UNEP/WG.104/4 Add.1 will present a joint proposal from IMO and UNEP

SECTION 1

1.1 Title of Project: HYDRODYNAMIC MODELING OF WESTERN MEDITERRANEAN

1.2 Project Proposal No: N.A.

1.3 Subject Area: Med-Pol programme
Questionnaire: item 6

1.4 Geographical Scope: Western Mediterranean, between Spain,
Morocco, Algeria, Tunisia, Libya, Italy and
France

1.5 Implementation: Centre d'Etudes Techniques de l'Equipement
Méditerranéen (C E T E)

1.6 Duration of the project: 4 years

1.7 Total Cost of Project: FF 12 960 000 (US \$ 1 524 000)

Government contribution: To be determined

External funds required: Subject to Government contribution.

- Research team: eleven researchers FF 8 000 000

- Training -

- Equipment FF 160 000

- Miscellaneous:

Computer time and trave for field travel FF 2 000 000

Physical models FF 2 800 000

Total FF 12 960 000

or \$ 1,524,000

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at 8.5 exchange rate

SECTION 2

2.1 Objectives:

- To develop a two-level physical model at the scale of 1 :150 000 (w) and 1 :2 000 (H) leading to the construction of a mathematical model of circulation in the Western Mediterranean.

SECTION 3

3.1 Background:

- The Mediterranean circulation has been studied with a view to developing sub-regional models. Hydrodynamic exchanges and gyres affect the transport of pollutants and are relevant to contingency plans for fighting accidental oil pollution.

3.2 Activities:

To construct a general physical model representing in a schematic way the coast, main islands and sea depth up to 1000 m.

To construct regional models for the study of the Straits of Gibraltar, the Algerian coast, the Sicilian Channel, the Tirrenian Sea currents, the gyre of the liguro-provencal basin, the liguro-provencal current and the Gulf of Lion

These models would be constructed on the revolving platform at the Institut de Mécanique (Waves and tides) of the University of Grenoble.

3.3 Workplan: (To be determined)

3.4 Outputs:

Mathematical model of the Western Mediterranean

3.5 Use of Outputs:

This model should permit in the future a better understanding of large and medium scale circulation in the Mediterranean, for data collection and related studies, e.g. on sediments.

SECTION 1

1.1	Title of Project:	DEVELOPMENT OF AQUACULTURE ACTIVITIES
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1.2	Project Proposal No:	N.A.
1.3	Subject Area:	Priority area: Aquaculture Questionnaire item 12
1.4	Geographical Scope:	Mediterranean Sea Area
1.5	Implementation:	PAP/RAC in co-operation with MEDRAP (FAO)
1.6	Duration of the project:	3 years
1.7	Total Cost of Project:	\$ 560 000
	Government Contribution:	N.A.
	External Funds Required:	\$ 560 000
1.8	Breakdown of cost:	
	Personnel services	\$ 160 000
	Training	\$ 260 000
	Equipment	
	Miscellaneous	
	- Subcontracts for case studies	\$ 125 000
	- Sundries	\$ 15 000
		<u>\$ 560 000</u>

SECTION 2

2.1 Objectives:

The general objectives of this project proposal are:

- a) to promote co-operation, communication and exchange of information in the field of aquaculture between all Mediterranean countries.
- b) to strengthen the relations between the various components of the Mediterranean Action Plan as regards aquaculture.
- c) to complement MEDRAP activities and to provide a basis for future continuous regional co-operation in this field.

2.2 Legislative Authority

1. The Extraordinary Meeting of the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution and its Related Protocols (Athens, 10-13 April 1984), "recognized with appreciation the support provided by UNDP and FAO in the development of the aquaculture project (MEDRAP) and recommended to PAP/RAC to provide the PAP Focal Points with all available information on the development of this activity to enable a wider participation of Mediterranean countries. (UNEP/IG.49/5).

SECTION 3

3.1 Background:

1. Aquaculture is of particular importance in the Mediterranean because the potential for increasing fish catches is very limited and the demand for fishery products in the region is high and continues to rise. It is a well known fact that Mediterranean waters are relatively unproductive as compared to other regions of the world. However, the coastal zone and especially the brackish lagoons are richer in nutrients. According to a FAO (GFCM) study it is estimated that more than one million hectares in the Mediterranean coastal regions could be devoted profitably to aquaculture. In fact, almost all Mediterranean countries are engaged in one way or another with aquaculture.
2. Following the above recommendation, the MAP Co-ordinator organised a two-day meeting at the MED UNIT (July 12 - 13) to discuss possible ways of co-operation between PAP/RAC and the MEDRAP. The meeting was attended by the Director of PAP/RAC, the Co-ordinator of MEDRAP and MED UNIT staff.

Only countries with a UNDP indicative planning figure (IPF) can be included in the UNDP project document. The countries in the present document are Algeria, Cyprus, Egypt, Greece, Libya, Malta, Morocco, Syria, Tunisia, Turkey and Yugoslavia. These countries receive assistance through the project in the form of consultants who help them in the definition and implementation of aquaculture pilot projects. A large part of the budget goes on training of personnel and a small portion on purchase of equipment.

3. Other countries, not included in the document, like France, Italy and Spain are also considered to participate in the project in the sense that they may organise training courses and provide technical assistance to the Mediterranean countries which need it.
4. The main phase of MEDRAP was initiated on 1st January 1984 and will last until the middle of 1986. The total budget for this period is US \$ 940 000.
5. Taking into consideration the present activities of MEDRAP and the fact that the development of aquaculture in harmony with the environment has been accepted as a PAP activity it was recognized that a mutual co-operation with MEDRAP was necessary and justified.
6. The joint activities could relate to:
 - a) exchange of information, knowledge and experience between all parties concerned.
 - b) widening of the activities to cover the whole region.
 - c) strengthening of relations between all competent institutions working in the field of aquaculture especially those dealing with environmental aspects.

3.2 Activities for the period 1985-1987:

- a) Organisation of a workshop to review current practices in aquaculture planning and to elaborate criteria and guidelines for planning the development of aquaculture in harmony with the environment.
- b) The study of the influence of aquaculture activities on the environment. This activity has three stages:
 - (i) Mission to various countries to evaluate case studies and provide guidelines for monitoring aquaculture areas.
 - (ii) Monitoring of case-study areas through the MED POL programme.
 - (iii) Organisation of a workshop to study the above results and put forward recommendations.

- c) Organisation of technical seminars complementing the MEDRAP training courses and incorporating all Mediterranean countries.
- d) Revision of the directories of Mediterranean institutions and experts dealing with aquaculture.
- e) Revision of methodologies for the assessment of potential capacity of aquaculture in the region (through consultants)
- f) Assessment of the potential aquaculture capacity in each country by the use of the methodology under (e) above. (National activities assisted by consultants).

3.3 WORKPLAN: To be developed with the organization carrying out the project.

3.4 Outputs:

- a) Document on criteria and methods for national aquaculture planning and proposals for future regional co-operation.
- b) (i) Guidelines for monitoring potential aquaculture areas and case studies.
(ii) Reports on case studies and results of monitoring activities.
(iii) Workshop document on evaluation of the monitoring results and recommendations for future action.
- c) Technical papers on various aspects of aquaculture and environment.
- d) Directories.
- e) Document on assessment methodology for potential capacity of areas.
- f) Reassessment of potential capacity.
- g) Improvement of capabilities of national institutions for aquaculture studies.

3.5 Use of outputs:

Identification of potential aquaculture development sites, for local financing, foreign assistance or joint ventures.

SECTION 1

1.1 Title of Project: MEDITERRANEAN CO-OPERATIVE NETWORK IN RENEWABLE SOURCES OF ENERGY

1.2 Project Proposal No.: N.A.

1.3 Subject Area: Priority action:
Renewable sources of energy (RES)
Questionnaire item 15

1.4 Geographical Scope: Mediterranean coastal States

1.5 Implementation: To be determined

1.6 Duration of the project: 40 months

1.7 Total Cost of Project: N.A.

Government contribution: To be negotiated

External funds required: \$ 5,935 000 (1980 estimate)

Personnel services:

268 m/m senior personnel)
280 m/m support staff) \$ 3 150 000

Training

200 m/m on-job training
..Instruction relating to
installation
8 workshops for 25 par-
ticipants each \$ 1 120 000

Equipment

Wind-powered generators \$ 430 000

Photovoltaic generators \$ 845 000

Wind-powered reverse
osmosis desalination plant \$ 276 000

\$ 1 551 000

Miscellaneous \$ 114 000

Total: \$ 5 935 000

SECTION 2

2.1 Objectives:

To concentrate the project on strictly application-oriented design and field testing of a few, selected avenues of technology, on practical training and the transfer of technical skill, on the production and dissemination of technical and economic data and on the study of effects and impacts of systems operated under real-life objectives.

2.2 Legislative authority:

Decision by the Contracting Parties to include renewable sources of energy in the priority actions programme and subsequent endorsement of the development of this project under UNEP sponsorship.

SECTION 3

3.1 Background

UNDP, under project RER/79/020 - RAB/79/021 has financed a preparatory assistance project, carried out by the Consulting firm Beller Consult GMBH of Freiburg, FRG. The project was developed in close consultation with experts from Mediterranean Coastal States after identifying over 40 universities and 30 research centres in Mediterranean and Arab countries actively involved in development of RES - related technologies.

3.2 Activities:

It is proposed to set up at suitable locations in interested coastal States:

A. Wind energy converters:

- (i) one plant for water pumping from shallow wells at a site with average wind speeds of 3 - 4 m/s, direct mechanical transmission from rotor to pump
- (ii) one plant for water pumping from deep wells, at a site with average wind speeds of 4 to 6 m/s, transmission of energy from rotor to pump by electrical energy. Electrical energy also available for rural domestic and small scale public uses
- (iii) one plant for the production of electrical energy for rural domestic and small scale public uses

- (iv) the possibilities for combination of wind-powered water pumping with greenhouses and drip irrigation or with storage of pumped water in reservoirs equipped with hydro-electric power plants shall be carefully studied during site selection.

Uses: Typical rural domestic uses of water and electrical energy.
Water: drinking, cooking, washing, cattle, small scale horticulture and drip irrigation
Electricity: lighting, refrigerators, communications, grain-grinding, crop processing, machines for artisans and cottage size industries

B. Photovoltaic generators:

- (i) two plants for the supply of electrical energy for water pumping from wells and for rural domestic and small scale public uses
- (ii) the possibilities for combination of water pumping with green-houses and drip irrigation shall be carefully studied during site selection
- (iii) one plant for the supply of electrical energy for rural domestic and small scale public uses

Uses: Typical rural domestic uses for water and electricity.
Water: drinking, cooking, washing, cattle, small scale horticulture, greenhouses, drip irrigation
Electricity: lighting, refrigerators, communications, grain grinding, crop processing, machines for artisans and cottage size industries

C. Desalination plan

One desalination plant for brackish water with a salinity not exceeding 10,000 ppm for use of permeate as drinking water, satisfying WHO standards concerning salinity

Uses: Typical rural domestic uses of water for drinking, cooking and washing

Collection, processing and evaluation of test results.

Interpretation of test results and conclusions as to the economic and financial viability of systems.

Four workshops and four training seminars

Exchange of information

SECTION 3

3.3 Workplan:

To be determined with the Executing Agency

3.4 Output:

Production of hard data on technical, financial and economic aspects of the systems tested. Special emphasis to be attached to the promotion of horizontal information flow between the countries in the region and between institutions within the participating countries.

3.5 Use of outputs:

The information shall be prepared to serve primarily such users as designers, operators as well as engineers having to select systems and components for procurement and construction.

SECTION 1

1.1 Title of Project: PROTECTION OF MARINE MAMMALS IN THE
MEDITERRANEAN

The Protocol concerning Mediterranean specially protected areas, adopted in Geneva in April 1982 intends to safeguard, inter alia, the genetic diversity as well as satisfactory population levels of species and their breeding grounds and habitats (Art.3). The Mediterranean monkseal (*Monachus*) is among the endangered species listed by IUCN and is included in the UNEP/FAO/IUCN global Plan of Action for the Conservation, Management and Utilization of Marine Mammals.

The Governing Council of UNEP by decision 12/12 of 28 May 1984 endorsed the Global Plan of Action and requested the Executive Director to circulate to potential donors fact sheets on individual projects and to investigate the possibility, in the case of projects with a strong regional component, of adopting a regional approach to their funding in consultation with the countries concerned.

Three research proposals abstracts are reproduced below in their original format.

Title: World data bank for pinniped bio-data

Submitted by: Prof K Ronald, University of Guelph, Canada

Scientific area: All areas of seal research; information.

Objectives/Justification: Although seal scientists throughout the world have a fair record of interacting to exchange information, there is no centralised and readily accessible means of discovering what data are available in various fields. This proposal sets out to establish a system which will provide all interested scientists, resource managers and other interested parties (e.g. N.G.O.s) with basic data necessary for further scientific analysis and comparisons on all species of pinniped. The advantages of such a centralised data bank to seal scientists are obvious. Those of particular relevance to UNEP include the opportunity for better management generally and a potential decline in the number of seals taken from the wild to provide scientific specimens.

Species: All pinniped species

Activities: Assembling existing data on pinnipeds, bibliographical references, etc. and computerising them to establish a data base providing on-line information retrieval and hard copy permanent records

Location: University of Guelph, Canada

Duration: Information retrieval should be possible after two years.
Subsequent up-dating would be needed.

Personnel: Co-ordinator (part-time), bibliographer, secretarial support (part-time), computer assistant (part-time)

Costs: US \$ 140,000 for first year, \$ 130,000 in second year.
Total cost for two years: US \$ 270,000.

Title: Behaviour of monk seals at Cap Blanc

Submitted by: Received from ICES Marine Mammal Committee, but not representing the official view of the Committee, nor of ICES

Scientific area: Behaviour; rare species conservation

Objectives/Justification: The current size of the Mediterranean monk seal population, is almost certainly less than 1000 and it appears to be decreasing. If the species is to be given adequate protection, the nature of its reproductive and social behaviour, daily and seasonal movement patterns and frequency of reproduction in mature females need to be known.

Species: Mediterranean monk seal (Monachus monachus)

Activities: Field observation, minimal interference

Location: Cap Blanc, Mauritania

Duration: 2 years

Personnel: One consultant and assistant (150 days)

Costs: c. US \$ 60,000 (150 days consultant and assistant plus \$ 20,000)

Title: Surveys of monk seals in Algeria and public awareness campaign

Submitted by: Received from ICES Marine Mammal Committee, but not representing the official view of the Committee, nor of ICES

Scientific area: Population dynamics, education

Objectives/Justification: The current size of the Mediterranean monk seal population is almost certainly less than 1000 and it appears to be decreasing. The Algerian population was last surveyed in the mid-1970s when there were estimated to be 100 animals, making it one of the largest populations in the Mediterranean. However, it is reported to have declined since then. It is desirable to determine current distribution, abundance and status of monk seals along the Algerian coast, so that action for necessary conservation can be determined.

Species: Mediterranean monk seal (Monachus monachus)

Activities: Boat surveys, interviews, extended field observations

Location: Algerian coast

Duration: 1 year

Personnel: Consultant and assistant (50 days)

Costs: c. US \$ 20,000 (50 days consultant and assistant plus \$ 7,000)