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Review Meeting of Mediterranean Coastal States  
on the Action Plan

Cannes, 2 - 7 March 1981

ESTABLISHMENT OF A MEDITERRANEAN  
NETWORK OF ECOLOGICAL INFORMATION SYSTEMS

Note by the Executive Director

Following a recommendation by the Governing Council and several previous recommendations, UNEP in co-operation with UNESCO, organized a feasibility study on the setting up of a network of ecological information systems for countries having a mediterranean climate. In the framework of such a study a workshop was organized in Montpellier from 2 to 5 December 1980. This document presents, for the information of participants, the conclusions of the workshop as well as the actions envisaged for the establishment of the network.

Establishment of a Mediterranean network  
of ecological information systems

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The establishment of a Mediterranean network of ecological information systems constitutes a follow up to several recommendations that were made at regional and international meetings.

1. In 1976, the MAB-Mediterranean Scientific Conference requested Unesco to "study the possibility of developing the "Ecothèque méditerranéenne" into a regional structure, which would involve establishing "a real information network ... made up of small working core groups in the interested countries."
2. In 1977, the United Nations Conference on Desertification, organised in Nairobi by the United Nations Environment Programme (UNEP) restated how important it was to establish national ecological information units and to encourage regional co-operation in this field.
3. The Intergovernmental Meeting of Mediterranean coastal states held in Monaco in January 1978 stressed "the interest that would accrue to the protection of the soil and integrated planning from the opening up to the whole Mediterranean region of the system of ecological information called Ecothèque méditerranéenne, administered in co-operation with Unesco."
4. In the same year the Governing Council of UNEP recalled the importance of systematic information exchange to combat the degradation of mediterranean ecosystems and requested the Executive Director "to discuss with the Director General of the United Nations Educational, Scientific and Cultural Organization ways and means of : contributing to the strengthening of the compilation and processing of data by the Ecothèque méditerranéenne; promoting the regionalization of its operation for the benefit of all countries concerned; ensuring the conduct of training activities for specialists from these countries with a view to the effective utilization of this information; considering support for the establishment by the countries concerned of national ecological documentation units linked with the Ecothèque méditerranéenne."

In order to implement this decision, UNEP, in co-operation with Unesco, carried out a feasibility study on setting up an ecological information network for countries with a mediterranean-type climate. In the context of this study, a workshop was organized in Montpellier on 2-5 December 1980 on "the role of ecological information systems in land management in the Mediterranean region." This workshop was attended by representatives of the following countries : Algeria, Egypt, France, Greece, Lebanon, Monaco, Morocco, Spain, Tunisia, Turkey, Yugoslavia.

The participants once more stressed the prime importance of ecological information in integrated land management and reaffirmed their willingness to establish a network of ecological information systems for the Mediterranean region. Unesco was entrusted with preparing an inter-regional project for facilitating the establishment of such a network and strengthening national structures and the training of specialists involved in this field. A project document is being prepared and will be submitted to UNDP through the interested government according to usual procedures.

The network which is proposed here, although not directly part of the activities foreseen in the Action Plan for the Mediterranean, could make a highly appreciable contribution towards the achievement of the objectives of this plan. It could in particular provide extremely useful data for the different activities relating to land-use planning in general and to soil conservation and combating desertification in particular. It would also ensure exchange of information between countries with similar climatic and ecological conditions and the best use of results of existing and on-going studies.

There are therefore many interactions between the proposed project and the various activities planned or already underway within the framework of the Action Plan for the Mediterranean. Accordingly UNEP and Unesco considered that it would be useful to inform the Intergovernmental meeting of coastal states of the development of this project in order that it can be taken into account in planning of future activities and that the meeting can eventually formulate its recommendations in this important field.

The report of the Montpellier workshop and the list of participants are reproduced below.

Proceedings of the Workshop in Montpellier  
(2-5 December 1980)  
on the establishment of a Mediterranean network  
of ecological information systems

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### Introduction

"Following several recommendations of international meetings aiming at strengthening and co-ordinating the ecological information centres in the Mediterranean area, a Workshop "on the role of ecological information systems in land use planning and management in the Mediterranean area" was held in Montpellier from 2 to 5 December 1980, sponsored by Unesco and UNEP. This workshop was organised within the framework of the MAB Programme.

This workshop forms part of a project financed by the United Nations Environment Programme implemented by Unesco. This project aims at creating a Mediterranean network of ecological information systems in order to help researchers and decision makers dealing with land use planning and land management problems. This project follows up in particular a recommendation of the United Nations Conference on Desertification held in Nairobi in August-September 1977 which aims especially at supporting the establishment of national ecological information units and at promoting regional co-operation. It is also the subject of a recommendation made at the Inter-governmental Meeting of Mediterranean coastal states, held at Monaco in 1978.

Mr. André YANA (France) was chairman of this workshop. Mr. Driss TOULALI (Morocco) and Mr. Ivan SUGAR (Yugoslavia) were elected as vice-chairmen, and Mr. Kamel BOUREZG (Algeria) and Miss Penelope MARINOS (Greece) as rapporteurs.

The agenda of the meeting was as follows :

1. What constitutes ecological information and characteristics of ecological information systems
2. Ecological information needs of the researchers and decision-makers
3. Ecological information systems existing in the participating countries
4. Examples of applying ecological information systems
5. Identification of priority actions in the field of training
6. Establishment or strengthening of national ecological information systems and development of regional co-ordination mechanisms.

### Summary of discussions

The environmental information used by researchers and decision-makers in land management is multi-disciplinary and multi-faced in its content. It includes abiotic, biotic, socio-economic and technical data. Information is understood in the widest sense particularly in its orientation towards development. It takes descriptive documentary, factual or summarized forms. Among others it includes ecological information (fundamental or applied, i.e. connected to development) and information concerning the relationships of living organisms to one another and to their environment.

A mass of raw data forms the basis for preparing ecological information, it is thus very useful to use computers although ecological information can also be prepared by other methods. Computer treatment is increasingly used in the Mediterranean Basin countries.

Furthermore, collecting ecological data entails adopting a systemic approach, without neglecting however the contributions of an analytical approach. Qualitative as well as quantitative data are collected, and several forms of presenting results are used. It is important to adopt the form of presentation which suits the needs of researchers and decision-makers.

In order to ensure the best use of research results in development activities, it is increasingly desirable to establish a permanent dialogue between researchers and other users of ecological information.

For this, it is necessary to :

- define the required objectives,
- formulate the questions from the decision-makers in an appropriate manner,
- clearly present and explain ecological and socio-economic information (researchers must make a special effort),
- formulate correctly the request for information from the data basis
- inform decision-makers of the limitations in the use of ecological information,
- prepare the appropriate forms of presenting the land-use potentialities.

It is also necessary to take into account socio-political and cultural considerations and ecological diversity, as well as the availability of ecological information in each country.

The availability of ecological information as well as the means of its collection, processing, presentation and dissemination, vary from country to country.

The various papers presented as well as the visits to institutions and to a field project have enabled the participants from eleven countries to make valuable exchanges of views and of possible approaches and methods. The work of the Ecothèque méditerranéenne and the CEPE "Louis Emberger" (CNRS at Montpellier) form, in this connection, a rich learning experience which can provide ideas for setting up a mechanism of a regional type.

Despite considerable efforts shown by all Mediterranean countries, there is still a large gap to be filled in the field of training in ecological sciences and associated disciplines.

These efforts will be worthwhile only if some comparable effort is made in the field of ecological information. Development of the latter is necessary not only for strengthening research activities but also for making the best use of results already obtained. Training must therefore take more and more account of information requirements, which increase directly in proportion with the development of research activities.

Considering that ecologists must deal with more and more data and that they have to be able to rapidly exploit the available information, it appears necessary to provide training notably allowing them to use computerized data processing.

It is necessary to emphasize that training, in addition to co-ordinating methods and approaches, may also facilitate the dialogue between researchers and between these and other users of ecological information. Training also facilitates circulation of ecological information.

Among the priority actions for training to promote the development and best use of ecological information, it is also necessary to note the following :

- introducing ecologists to the design and use of computerized data processing methods,
- introducing decision-makers to ecological approaches,
- making populations aware of ecological problems.

Such activities must be undertaken at a national level as well as within the framework of regional co-operation.

Training must cover the different fields of applied ecology.

#### Proposals and recommendations

The participants in the workshop,

considering :

- the bilateral relations already established in the field of ecological information between the Ecothèque méditerranéenne of CNRS (France) and researchers or organisms from various countries,
- the organised efforts and ad hoc basis made by the different countries within the Mediterranean isoclimatic area concerning ecological information,

take note of the interest on the national and regional level, to promote exchange of experience in handling ecological information, and of harmonizing methods in this field,

express the wish to promote an ecological information network for the Mediterranean area, taking into account the specificity interests of each country.

In order to ensure that such a network will be efficient, they

recommend

- 1) to associate other specialists, and particularly specialists on data analysis with the work of ecologists,
- 2) to encourage placing appropriate computing facilities at the disposal of these teams of ecologists,
- 3) to connect ecological information systems to the appropriate national documentation centres as well as to the existing international systems. Consequently, an effort must be made in order to use compatible methods of collecting, recording and processing of data,

consider that in the long term one could envisage establishing a Mediterranean calculating Centre specialized on ecological problems. This Centre could be entrusted with :

6.

- 1) creating and exploiting of a documentary data bank on the ecology of Mediterranean countries,
- 2) refining and stocking of data processing programmes of use to ecologists,
- 3) becoming part of the Mediterranean network for exchange of ecological information,

agreed on the necessity of immediately starting to develop a network for exchanging ecological information between Mediterranean countries and consequently

request Unesco, in consultation with the countries concerned, to proceed to prepare a pre-project for regional action, which could be submitted for financing to UNDP as inter-regional project. This project should cover :

- the type of ecological information to be collected and exchanged, and the terms of exchange,
- developing information exchange and strengthening regional actions in training,
- the compatibility and possibilities of harmonization between existing national information systems,
- strengthening of means available at the national level, through experts, scholarships or equipment,
- constituting a consultative group with representatives of participating countries which would follow the implementation of the project,
- formulating future requirements for exchange of ecological information between Mediterranean countries and identifying the measures to be taken to meet these requirements.

Liste des participants à l'Atelier  
List of Participants in the Workshop

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