



United Nations
Environment
Programme



Distr.
RESTRICTED

UNEP/WG.16/3/Rev.1 */
4 September 1978

ENGLISH
Original: FRENCH

Meeting of Experts on Fresh Water Resources
Management in the Mediterranean Region

Cannes, France, 25-29 April 1978,
convened by UNEP and organized
in co-operation with CEFIGRE

THE BLUE PLAN (First Phase)

SURVEY ON "WATER RESOURCES OF THE MEDITERRANEAN BASIN"

Terms of Reference

*/ Revised text taking account of the amendments and recommendations of the Meeting of Experts on Fresh-Water Resources Management in the Mediterranean Region, convened by UNEP and organized in co-operation with CEFIGRE, Cannes, France, 25-29 April 1978.

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SURVEY ON "WATER RESOURCES OF THE MEDITERRANEAN BASIN"

INTRODUCTION

1. The Blue Plan is a very important element in the social and economic chapter of the Mediterranean Action Plan (MAP), which contains two other chapters - legal and scientific.
2. The Blue Plan Project, which has been in preparation since October 1975, was discussed and formulated during and after two meetings of experts from Mediterranean coastal States, the United Nations, specialized agencies and other organizations (Geneva, January 1976, and Paris, May 1976). It was then submitted to the Intergovernmental Meeting of Mediterranean Coastal States held at Split (Yugoslavia) in February 1977, at which it was adopted by all the Governments represented. These Governments also recommended the initiation of the Priority Actions Programme as soon as possible, and identified water and soil as priority areas.
3. The first of the three phases of the Blue Plan consists of exploratory work on the present situation with a view to obtaining an over-all picture of trends in the evolution of natural environments as they are affected by the various components of development. This exploratory work will take the form of surveys on a set of topics which are related to one another by interdisciplinary links.
4. "Water resources of the Mediterranean Basin" is one of the main topics to be covered in the surveys, which will probably take about one year to complete. Terms of reference were first prepared on the basis of a preliminary document, by a working group of experts from coastal States (Aix-en-Provence, 21-22 November 1977). A meeting of experts on fresh water resources management in the Mediterranean region examined the terms of reference, debated them, and adopted them after making appropriate amendments which have led to the present text.

OBJECTIVES

Long-term objective

5. To identify the risks and constraints which might affect the availability of water (in terms both of quantity and of quality) in the light of developments envisaged, and to promote in regard to water the solidarity and co-operation essential to the preservation of the natural environment, which implies water resources management compatible with the socio-economic development and the protection of the natural heritage.

Immediate objectives

6. Considering water as a vital element of the environment and a factor of development: 1/

1/ Without neglecting, of course, its adverse effects: flooding, erosion, etc.

(i) To make a critical review of the present situation and to lay the groundwork for a prospective study of water resources, both quantitative and qualitative, in their relationship with the sea, in the light of the historical background and from the standpoint of on-going processes;

(ii) To identify the measures regarded as indispensable for the protection of the environment of the Basin, which will support and supplement the initial priority measures already identified elsewhere.

GEOGRAPHICAL COVERAGE

7. For the purposes of the Blue Plan, the Mediterranean Basin comprises the Mediterranean Sea (excluding the Sea of Marmora and the Black Sea) and its islands and littoral. The countries concerned with the Blue Plan are the 18 coastal States. 1/

8. For the purposes of the "fresh water" survey, there will be two different limits for the geographical coverage, depending on the objectives to be achieved:

The natural limit of the catchment areas; and

A conventional boundary line defined by States.

9. The natural limit of the catchment areas includes the maximum geographical area of the Mediterranean Basin (hereinafter called the Basin), with the exception of the Nile basin, the definitive delimitation of which will be the subject of a future recommendation. If, provisionally, the Nile basin is taken to be the part downstream from the Aswan Dam (see attached map), the Basin covers an area of 4.5 million km², including 2 million km² of continental area. Surface and underground flows into or out of the Basin will be taken into account. In any event, the survey can only relate to the territories of the 18 coastal States.

10. The conventional boundary line will be fixed by each State in accordance with criteria of its choice. It may, for example, include a Mediterranean zone identified in accordance with climatic, economic or socio-cultural criteria or major water uses.

11. Within the conventional boundary line, restricted zones or "pockets" may be identified in cases where there is a concentration of development constraints. Such zones may include, for example, all or part of the littoral, depending on the country concerned.

1/ In geographical order beginning in the south west: Morocco, Algeria, Tunisia, Malta, Libya, Cyprus, Egypt, Israel, Lebanon, Syria, Turkey, Greece, Albania, Yugoslavia, Italy, Monaco, France, Spain.

12. In short, the geographical coverage will embrace three different types of zone:

Maximum zone (natural limit of the catchment areas);

Intermediate zone (conventional boundary line fixed by States); and

Restricted zone (areas in which constraints are concentrated).

THE SURVEY PROGRAMME

Preliminary comments

13. The terms of reference for the surveys establish a system of analysis designed for prospective thinking; and they all have a common basis, which is the essential link in this first phase of exploratory work (para. 3). However, in spite of this common basis, elements of the environment and components of development will be dealt with in different ways. These elements and components are the topics of the surveys; and as each topic has its own particular characteristics, the details of the work involved have to be adapted as necessary. This is why there will be separate survey terms for each topic. 1/

14. The rule to be followed in preparing the survey is not to deal with every single aspect of a topic, as would be done in a monograph, but rather to select the data and information that are essential for prospective analysis. The procedure involved, which is similar to that followed in a study, will therefore be convergent, i.e. it will consist merely of assembling the information needed to answer the questions raised. Only global data relating to countries and large areas will be taken into account. In order to assist the coastal States in the selection of adequate information and to facilitate comparisons and evaluations at the international (regional) level, the terms of reference include in an annex a normative memorandum comprising definitions, common multilingual terminology, a questionnaire to be used in preparing the survey, and model forms for presenting data. The annexed memorandum was prepared by a small group of coastal State experts who met at Cannes on 3 and 4 July 1978 at the joint invitation of CEFIGRE and the French focal structure of the Blue Plan.

15. The expression "water resources of the Mediterranean Basin" means the mainland and island water existing in the geographical area of the Basin. It will be considered as an element of the natural environment, whether it exists as precipitation, run-off (including waste water, recycled water, marginal water), evaporation, or in rivers, deltas, lagoons, natural and artificial lakes or

1/ The topics selected (17) are: water, soil, air marine flora and fauna, flora and fauna of Mediterranean coastal areas; mineral and energy resources (sea-bed, littoral), industrialization, urbanization and tourism, agriculture, fisheries and aquaculture, shipping, soft technologies, training and information, transfer of technology, demography (standards of living, quality of life, health); and the social and cultural environment.

surface and underground reservoirs. It may be considered also as a component and factor of development from the standpoint of its different uses and consumption purposes, i.e. irrigation, household and drinking, sanitation, industry, hydro-electric power, navigation, leisure activities and fishing, natural animal reserves, and flood and low-water control. It will, lastly, be studied as a vector of contamination and pollution. Other surveys will deal with specific water problems.

Critical review of the present situation (first objective, para. 6 (i))

Use to be made of the information

16. The information is obtained both from the coastal States and from international agencies. With regard to the latter, mention should be made of the following activities:

Final reports on UNDP water projects and progress reports on on-going projects;

UNESCO's work on the arid zone, the International Hydrological Decade, the International Hydrological Programme and MAB;

Specific regional studies by WMO, WHO, FAO, etc.;

Work of the United Nations Water Conference, held at Mar del Plata;

Preparatory work for the 1972 Stockholm Conference;

Work on the Mediterranean Action Plan (MAP) in the scientific field.

17. The use to be made of the information will consist of a selective classification and a critical analysis of relevant documents to be made both by the coastal States and by international agencies. Through their focal structures or focal points, the coastal States will make an inventory, in regard to water, of various sources of information, public and other competent bodies and regional agencies, committees and working groups. They will supplement the information by an inquiry conducted with officials responsible for water, on the basis of the above-mentioned annexed normative memorandum (para. 14), while not omitting to mention the supplementary studies which are desirable at the local, national or regional level. Concurrently with the action of the coastal States, a consultation with international agencies will make it possible to combine in a report all the necessary information relating to the survey.

18. As a preliminary step, a provisional dossier of basic data useful for the survey has been prepared ^{1/} on the basis of published documents. This dossier consists of the following:

Introduction to the geography of fresh water resources in the Mediterranean region (UNEP/WG.16/INF.4);

Provisional inventory data of underground water in the Mediterranean region (UNEP/WG.16/INF.5);

^{1/} By the Centre for International Training in Water Resources Management (CEFIGRE) and UNESCO.

Provisional inventory data of surface water in the Mediterranean region
(UNEP/WG.16/INF.6).

It is obvious that there are some lacunae in the documentation presented in this dossier, and that the information it contains is heterogeneous for want of a uniform terminology and methodology. Nevertheless, despite its shortcomings, the dossier represents a starting point and a working basis. It is therefore being submitted to the experts of each coastal State, who will be invited to make comments and suggest improvements with the help of the annexed normative memorandum. When this work has been processed, a revised dossier of basic data will be submitted to a panel of consultants from the coastal States.

Reconstruction of the historical background

19. The historical study will be limited to the past 100 years - roughly the maximum period for which quantified data are available - and only the past few decades will be taken into account in identifying signs of possible changes, particularly in the climatological field. The distant past will be referred to only in so far as it helps to explain the present situation. In considering fluctuations in hydrological, ecological and other variables, efforts will be made, where possible, to detect any anomalies by comparison with normal variations. In the historical study, changes in human activity must be given priority over changes in climate.

Stock-taking of the natural potential

20. This will be limited to a summary evaluation of water resources: global data by country, zone or basin. A summary balance sheet of potential renewable or non-renewable water resources will be prepared on the basis of the normative memorandum (annex 1), in particular form A. Special reference will be made to run-off to the sea: physical, chemical and biological quality and quantity.

21. The stock-taking will also concern exploited resources and those which can be mobilized, i.e. resources which are exploitable in socio-economic conditions that are acceptable in the context of the development plans of the countries concerned, and with waste water disposal arrangements that are compatible with the biological equilibrium of the environment. The normative memorandum (annex 1), in particular form B, will serve as a guide and model.

22. Water withdrawals, demand and consumption will be inventoried in order to evaluate their extent in relation to resources. The normative memorandum (annex 1), in particular form C, will serve as a guide and model. Special reference will be made to displaced (transferred) water resources.

23. The survey on water quality will consist of an over-all evaluation of potential pollution, to be prepared on the basis of form D of the normative memorandum (annex 1), a distinction being made between household, industrial and agricultural pollution.

24. When the stock-taking of the natural potential is being done, a bibliography limited to relevant documents will be prepared in connexion with paragraphs 20 to 23.

25. The economic, social, legal and institutional aspects of water will be examined at a further survey stage, at the same time as their relationships with (or effects on) other elements of the natural environment and components of development, detection of sensitive areas and imbalances and identification of present trends. 1/

Identification of gaps in knowledge

26. Where gaps are identified, there will be a specific need for all the information which is required to achieve the objectives of the survey. The gaps will be identified mainly on the basis of the survey results.

Identification of measures regarded as indispensable for the protection of the environment (second objective: para. 6 (ii))

27. The second objective of the survey is to identify measures regarded as indispensable for the protection of the environment of the Basin, which will support, supplement and if necessary correct the initial priority measures being taken independently. Indeed, at the request of the Governments of the coastal States, priority measures are being carried out concurrently with the survey.

28. Consequently, the critical review of the present situation, which is the first objective of the survey (paras. 16 to 26), will make it possible to identify either other priority measures or measures which supplement the already identified priority measures, in accordance with the second objective of the survey.

ORGANIZATION AND BUDGET

Organization

29. The survey is planned to last one year, starting from the date on which the experts are designated (see para. 30). In the light of the results, which will be examined by a meeting of experts from the coastal States, a further survey period may be proposed with a view to identifying other factors indispensable to the prospective study of the Basin (para. 25).

30. The survey will be conducted by two experts to be designated, one from the South and one from the North, in order to take into account problems of disparities. The two experts will work in liaison with the Group of Co-ordination and Synthesis (GCS) of the Blue Plan, which is responsible for co-ordinating the 17 surveys envisaged (para. 13). The experts will work closely both with the services of the coastal States through the national focal point, or with the "water" correspondent of this focal point, and with the specialized services of the international organizations. The two experts will prepare their programme of work as soon as they are designated.

31. At the operational level, the survey will be conducted on the basis of the structural links which have already proved valuable in matters of co-ordination and operations in other activities sponsored by UNEP under the Mediterranean Action Plan (MAP). It is suggested in particular that technical focal points specializing in water should

1/ Recommendation of the Meeting of Experts on Fresh Water Resources Management in the Mediterranean Region, Cannes, 25-29 April 1978.

be established in each country. At the technical level, the links will be established between the national technical focal points ("water" correspondents) and the regional co-ordinating body, while the other links will be established directly with UNEP.

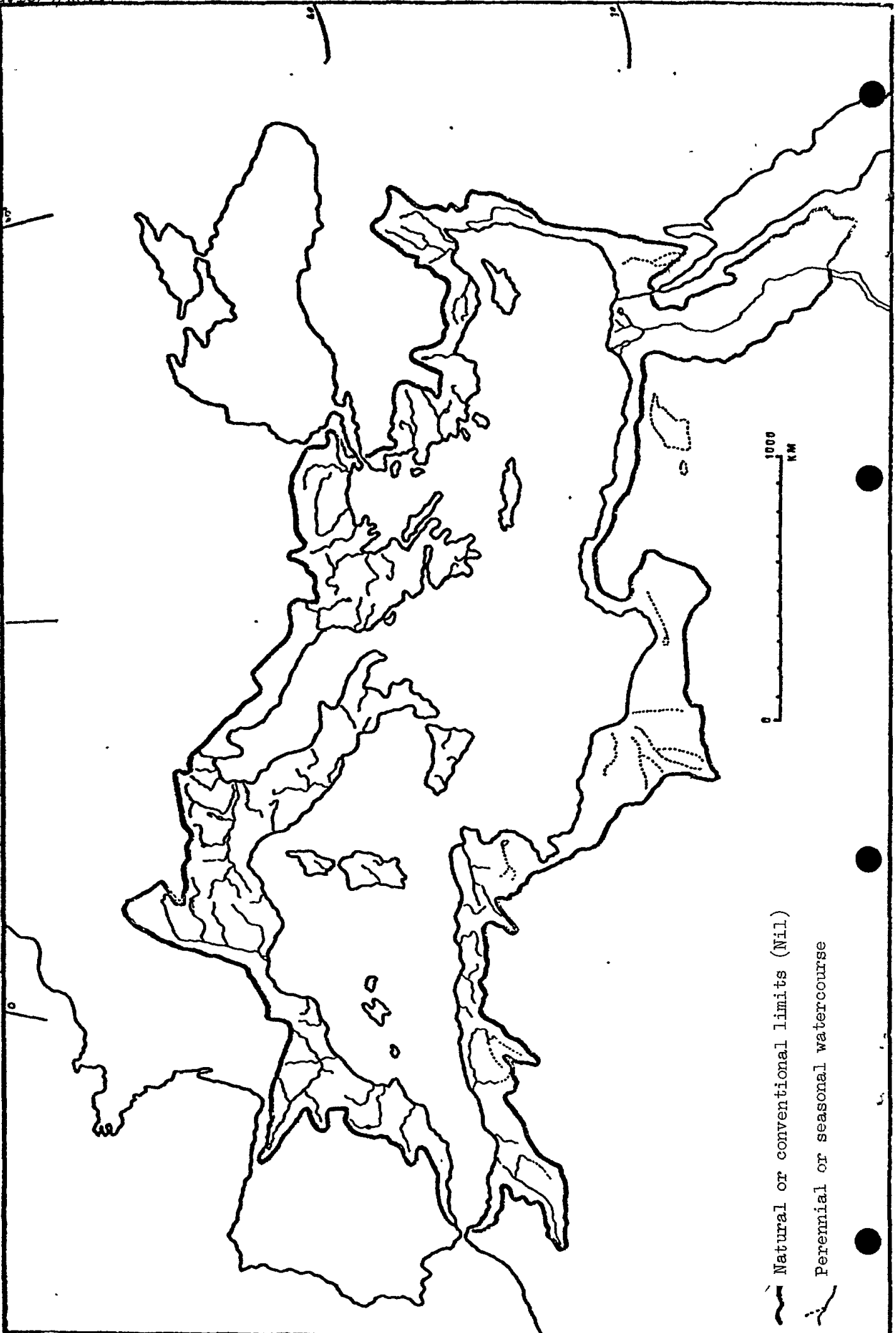
Financing

32. The sources of finance for the survey are primarily the appropriations earmarked for the Blue Plan. The approximate requirements for contributions in cash might be:

	<u>US</u>
Experts	35,000
Consultations	10,000
Travel and subsistence	10,000
Interim report <u>1/</u>	5,000
	<hr/>
Total	60,000
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1/ Publication of the final report will be undertaken by the UNEP/Blue Plan secretariat; the experts' subsistence expenses will be reimbursed on the basis of the scale applied in the United Nations.

MEDITERRANEAN FRESH WATER CATCHMENT AREA



— Natural or conventional limits (Nil)

- - - Perennial or seasonal watercourse

0 1000 KM