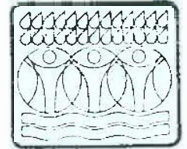




UNITED NATIONS
ENVIRONMENT
PROGRAMME

INTERNATIONAL TRAINING
CENTRE FOR WATER
RESOURCES MANAGEMENT



Meeting of experts on fresh
water resources management
in the Mediterranean region
Cannes, France, 25-29 April 1978
convened by UNEP and organized
in cooperation with CEFIGRE

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PROPOSALS FOR THE ORGANIZATION OF
TRAINING PROGRAMMES FOR TRAINEES
FROM MEDITERRANEAN DEVELOPING COUNTRIES

DRAFT QUESTIONNAIRE RELATIVE TO A TRAINING AND
RESEARCH PROGRAM FOR MANAGEMENT OF FRESH WATER IN
THE MEDITERRANEAN

MEDITERRANEAN BLUE PLAN SEMINAR
(CANNES, FRANCE)
APRIL 25-29, 1978

1. - OUTLINE OF THE QUESTIONNAIRE.

1.1. Careful analysis of the training objectives fixed in the Blue Plan (for example §§ 31.7 and 47 of the PNUE report on the intergovernmental meeting of the Mediterranean coastal countries held in Split, Yugoslavia in the period January 31 - February 4, 1977) enables CEFIGRE - in light of the task assigned to the Center - to submit this draft questionnaire to the representatives of the Mediterranean countries meeting in Cannes for a BLUE PLAN seminar.

1.2. The draft questionnaire is accompanied (see appendix) by a document explaining it. Although the explanatory document is indispensable for proper understanding of the questionnaire, we emphasize the fact that it is your replies to the questionnaire which will enable CEFIGRE concretely to promote training programs for the benefit of the Mediterranean nations.

1.3. Subject to approval of this draft in the final recommendations of the seminar, we trust that the competent authorities of every Mediterranean country will let us have their affirmative responses to our proposal within a reasonable time.

2. - THE QUESTIONNAIRE.

. COUNTRY :

. Competent authority (Ministry - Organization, etc...) :

2.1. In light of the priorities, requirements and options of your government regarding water resource development and management, we shall appreciate your grading the proposed training topics.

2.2. Please grade the seminar topics on the same bases.

2.3. Please make any suggestions you may have regarding :

2.3.a) other training topics

2.3.b) other seminar topics.

2.4. Would experts from your country be available if needed :

2.4.a) to give a training course

2.4.b) to give a lecture or read a paper (seminar)

2.4.c) to direct work on a research memorandum ?

If so, please provide the names, addresses, background and periods of availability of such experts and the organizations in which they work.

2.5. Please list research (memorandum) topics answering to your country's scientific concerns regarding water management.

2.6. Would you like your country to act as pilot country requesting and co-organizing a given traineeship or seminar ? If so :

2.6.a) list such traineeships or seminars

2.6.b) give the name and title of CEFIGRE's permanent correspondent

2.6.c) state your preference as to the place of the traineeship or seminar :

- Sophia-Antipolis (CEFIGRE's headquarters)
- a city in your country
- makes no difference.

2.7. Approximately how many trainees or research workers could you prefer for topics of particular interest to you ?

2.8. Will your country's specialized agencies agree to contribute to a documentary and data bank on a topic dealt with in a traineeship in which your country is represented by trainees ?

2.9. Will the public, parapublic, private organizations having competence in the sphere of water resource development and management adhere to the principle of contributing (on terms to be determined) to the financing of traineeships, seminars or research memoranda in respect of which your country is represented ?

2.10. Please list the periods - and if possible the dates - which you consider best and worst for :

2.10.a) traineeships

2.10.b) seminars.

N.B. The replies to this questionnaire are to be sent to :

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- APPENDIX -

COMMENTS AND EXPLANATIONS RELATIVE TO THE QUESTIONNAIRE

- CONTENTS -

1. - NATURE AND CRITERIA OF CEFIGRE'S OPERATIONS.
 - 1.1. NATURE OF THE OPERATIONS
 - 1.2. CRITERIA
 - 1.3. TABLE A

2. - COHESION OF THE THREE OPERATIONS.
 - 2.1. INTERNAL CONNECTIONS
 - 2.2. TABLE B

3. - SEMINARS.
 - 3.1. THE PROGRAM - TABLE C
 - 3.2. THE ANNOTATED LIST OF TOPICS

4. - TRAINEESHIPS.
 - 4.1. THE PROGRAM - TABLE D
 - 4.2. THE ANNOTATED LIST OF TOPICS

5. - MEMORANDUM.
 - 5.1. THE FRAMEWORK
 - 5.2. TABLE E

6. - ORGANIZATION AND FINANCING.
 - 6.1. PILOT COUNTRY PROCEDURES
 - 6.2. FINANCING OF TRAINEESHIPS, SEMINARS OR MEMORANDA

7. - RESPONSE TABLE (G).

1.3. - TABLE A -

Operation 1.1.	Objective 1.2.1.	Associated countries 1.2.2.	Principal characteristic 1.2.3.	Participant profile 1.2.4.	People 1.2.5 (E)	Duration 1.2.6. (D)
Seminar 1.1.1.	<ul style="list-style-type: none"> . Exchange and comparison of ideas. . Programming of training and research programs in a context of bi- or multilateral cooperation. 	All	General	Having significant responsibilities in water resource management.	$E \leq 60$	$D \leq$ one week
Traineeship 1.1.2.	<ul style="list-style-type: none"> . Training of instructors. . Updating of their knowledge. . Exchange of experience. . Familiarization with new techniques and modern management methods. 	Group of countries interested in a topic	Technical and practical.	In charge of a program, a development, a project, a technical structure.	$E \leq 25$	$D \leq$ 3 weeks
Research Memorandum 1.1.3.	<ul style="list-style-type: none"> . Contribution to research. . Scientific investigation in keeping with the problems encountered in the research worker's native country. 	A requesting country.	Scientific (localized subject)	Assigned to a research mission or organization.	Individual	1 year < $D \leq$ 2 years.

2.1.3. A memorandum is :

- a) the result of seminar thinking (2.1.1.c)
- b) the result of restrictions (2.1.2.b traineeship time).

2.2. TABLE B.

Seminar	Immediate program Research program
Traineeship	Concretization of the immediate program
Memorandum	Proposals of research topics

3. - SEMINARS

3.1. TABLE C : PROGRAM.

Operation	Number	Max.duration	Max.people	Participant weeks
Seminar	8	1 week	60	480

3.2. ANNOTED LIST OF SEMINAR TOPICS.

3.2.1. : First topic

TITLE : SUPPLY OF DRINKING WATER, DRAINAGE AND RECYCLING OF WASTE WATER IN THE METROPOLITAN AREAS OF THE THE MEDITERRANEAN LITTORAL.

- 3.2.1.a) Study and examination of a number of littoral metropolitan areas selected on the basis of the objective threshold consisting of the number of inhabitants.
- 3.2.1.b) There will be examined through papers (and possibly films) the aspects of urban expansion related to the history of the city (and country), the technical aspects, the contradictions of the area's growth.

3.2.1.c) It will probably be of interest for the area to assemble representatives of various sectors involved (local authorities, industry, system managers, technical organizations, etc...)

3.2.1.d) The implications between the city and its port operations.

3.2.2. : Second topic

TITLE : WATER-RELATED PROBLEMS FOR COASTAL ZONE TOURISTIC DEVELOPMENT POLICIES.

3.2.2.a) The objectives of a touristic policy by countries :

- internal tourism (social classes)
- import tourism (social classes)
- mixed plan
- community income from tourism (targets)

3.2.2.b) The means :

- legal
- financial
- infrastructural
- advertising
- transport
- accommodations

3.2.2.c) The results :

- arrival figures
- real income

3.2.2.d) The consequences :

- positive (exchanges and encounters)
- negative (seasonal economic imbalance)

3.2.3. : Third topic

TITLE : SOIL EROSION PREVENTION IN FORESTRY POLICIES.

3.2.3.a) The quantified effects of erosion by countries.

3.2.3.b) The history of the various means of prevention.

3.2.3.c) The forestry techniques used.

3.2.3.d) The results and balance sheets of such programs.

3.2.4. : Fourth topic

TITLE : LAND REORGANIZATION IN IRRIGATION DISTRICTS.

- 3.2.4.a) Compromise between a technical need defended by the officials in charge of development, farmer reluctance and political conservatism.
- 3.2.4.b) The legal aspects.
- 3.2.4.c) The technical content (consolidation, land reform, or adaptation limited to the system plan).
- 3.2.4.d) The psychological and social aspects.

3.2.5. : Fifth topic

TITLE : WATER RESOURCE MANAGEMENT POLITICAL, ADMINISTRATIVE AND TECHNICAL STRUCTURES IN THE MEDITERRANEAN BASIN.

The aspects examined will include :

- 3.2.5.a) The advantages and drawbacks of regional centralization (or decentralization) of resource allocation.
- 3.2.5.b) The advantages and drawbacks of regional centralization (or decentralization) of technical decisional power.
- 3.2.5.c) The advantages and drawbacks of a monopolized decision (single water structure) and of a group decision (water commissions).

3.2.6. : Sixth topic

TITLE : RECOVERY OF FRESH WATER AT SEA.

Stock-taking of practical experiments.

3.2.7. : Seventh topic

TITLE : HYDRAULIC PROBLEMS INVOLVED IN SETTING UP OF LARGE INDUSTRIAL AND URBAN ZONES.

Various concerns will probably surface in this encounter.

- from the domestic standpoint and inside a given country the points of view of the competent organizations involved sometimes differ widely (urbanization, industrialization, etc...)

- from the standpoint of international dialog, solidarity of the riparian countries for protection of the Mediterranean from industrial pollution should lead to development of common recommendations for industrial installation criteria.

3.2.8. : Eighth topic

TITLE : WATER AND INSULARITY.

A LECTURE WILL BE GIVEN ON THIS TOPIC AT THE SEMINAR IN CANNES.

4. - TRAINEESHIPS.

4.1. THE PROGRAMM - TABLE D.

Operation	Number	Max.duration	Max.people	Trainee/weeks
Traineeship	10	3 weeks	25	750

The 10 traineeships proposed break down along 4 lines :

4.1.1. Irrigation and development.

4.1.2. Protection, economy and management of the resource.

4.1.3. Initiation and familiarization into and with new techniques.

4.1.4. Forecasting, prevention and control of harmful natural phenomena.

4.1.5. Table of traineeships : Table Da.

Line	Traineeships	Traineeships topics	Comments
4.1.1.	2	1 - 2	
4.1.2.	2	3 - 4	
4.1.3.	3	5 - 6 - 7	
4.1.4.	3	8 - 9 - 10	

4.2. ANNOTATED LIST OF TOPICS.

4.2.1. Irrigation and development

First topic : traineeship 1

Study and stock-taking of use of two irrigation techniques in the Mediterranean basin :

- drench
- drip

These two heavily used techniques in the Mediterranean basin (especially the first) are sometimes controversial (especially the drench method in the countries on the southern rim).

Second topic : traineeship 2

Ratios between the chemical quality of water and farm production.

This topic meets the concern of many Mediterranean country specialists managing irrigation districts. It was raised by the Tunisian representative (Mr. Gana) at the November 1977 Conference (Tholonet - Blue Plan meeting).

4.2.2. Resource protection, economy and management

Third topic : traineeship 3

Critical study of consumption standards (people, farming, industry, tourism, etc...), water rate-making, waste control. The traineeship will be organized around three principal points :

- saving of water
- consumption standards
- rate-making.

Fourth topic : traineeship 4

Techniques for measuring industrial pollution and legal and administrative pollution control methods :

- exemples of the Mediterranean Basin industrialized countries
- consideration of the developing countries' problems.

This traineeship should result inter alia in proposals for multi-lateral Mediterranean cooperation in the following pollution-related areas :

- research
- legal
- economic
- protection of the environment.

4.2.3. Initiation into and familiarization with new techniques.

The CEFIGRE traineeships on this score will be so organized as to avoid a threefold indictment generally leveled by the specialists from the developing countries of the Mediterranean Basin, namely that :

- a) the techniques are in the experimental stage
- b) they are prohibitive in cost
- c) they involve transfer of equipment, rarely of technology.

The 3 recommended traineeships concern :

Fifth topic : traineeship 5

Techniques of prospecting and reconnaissance for finding water resources. Use of aerial photography and initiation into recent techniques (remote sensing - satellite photography) for locating water resources.

Sixth topic : traineeship 6

Desalination techniques and experiments all over the world. The techniques and their costs. Stock-taking of Mediterranean experience on this score.

Seventh topic : traineeship 7

This topic (in light of much positive experience in the Mediterranean basin in particular) escapes the threefold apprehension mentioned. The topic concerns initiation into simulation (model) techniques for evaluation of a subsurface resource, gauging the current withdrawals and uses and programming the most rational future management thereof (formation study model).

4.2.4. Techniques for prediction and control of harmful natural phenomena.

Eighth topic : traineeship 8

Soil erosion phenomena control techniques.

Ninth topic : traineeship 9

Flood prediction, protection and control techniques.

Tenth topic : traineeship 10

Silting of reservoirs, techniques of instrumentation, cleaning out, protection and the cost of such techniques.

5. - THE RESEARCH MEMORANDUM.

5.1. THE FRAMEWORK.

- 5.1.1. The research topics will be selected on the basis of a complete analysis of the proposals made in response to the questionnaire or in local requests made by a country's competent authorities. Two topics are suggested (see 5.1.6).
- 5.1.2. The research worker will be directed by university professors and high level professionals.
- 5.1.3. The results of the research work appearing in a memorandum or dissertation will be circulated to all the competent authorities of the countries associated in the Blue Plan.
- 5.1.4. The selected research topics will connect up with the seminars or traineeships as mentioned in §§ 2.1, 2.2 and 2.3.
- 5.1.5. In the context of generally accepted university terminologies and curricula, subject to approval by the competent authorities, steps will be taken for the memoranda to fit into a high level university program (doctorate, etc...).
- 5.1.6. Suggestions :
 - powerhouse cooling water
 - study of water resources in karstic regions.

5.2. TABLE E (see next page)

7 - RESPONSE TABLE - SEMINAR (G.1)

TOPIC Reference	Order of interest	Piloting candidature	Potential lecturer	Desired place	Best period	Worst period	CEFIGRE correspondent in case of piloting	Possible financing institution(s)
3.2.1.								
3.2.2.								
3.2.3.								
3.2.4.								
3.2.5.								
3.2.6.								
3.2.7.								
3.2.8.								

7. - RESPONSE TABLE - TRAINEESHIP (G.2)

TOPIC Reference	Order of interest	Piloting candidature	Potential teaching	Desired place	Best period	Worst period	CEFIGRE correspondent in case of piloting	Possible financing institution(s)
4.2.1. (T1)								
4.2.1. (T2)								
4.2.2. (T3)								
4.2.2. (T4)								
4.2.3. (T5)								
4.2.3. (T6)								
4.2.3. (T7)								
4.2.4. (T8)								
4.2.4. (T9)								
4.2.4. (T10)								