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MEDITERRANEAN ACTION PLAN

Meeting of the National Focal Points for  
Priority Actions Programme (PAP)

Athens, November 23-25, 1992

PROPOSAL FOR THE ESTABLISHMENT OF  
A TRAINING PROGRAMME ON WATER RESOURCES MANAGEMENT  
IN MALTA

FOR REASONS OF ECONOMY, DELEGATES  
ARE KINDLY REQUESTED TO BRING THEIR  
DOCUMENTS TO THE MEETING

## I BACKGROUND

1. Water resources management has been identified by the Contracting Parties as one of six priority fields within the mandate of the Priority Actions Programme. In 1984, PAP/RAC started the priority action "Water Resources Management in Mediterranean Islands and Fresh Water Deficient Coastal Areas", with the participation of 16 Mediterranean countries, FAO, UNESCO and ACSAD (the Arab Centre for Studies on Arid Zones and Deserts). The first phase of the action was oriented to problems related to small Mediterranean islands, and the second on the big islands and fresh water deficient coastal areas. National reports and a number of selected case studies were prepared, and discussed at two workshops. An active network of experienced experts and institutions was created. Updated knowledge of the state of art and problems, as well as practical experience in the field were obtained.

2. At the meeting of National Focal Points for PAP in 1986 it was recommended that activities of this priority action be oriented at the application of the concept of environmentally sound integrated water resources management, and at the formulation and implementation of pilot projects and training. Later, in 1988 and 1989, it was recommended that the training component be focused on the experience and achievements tested in practice, and that the topics of the training component be selected keeping in mind the interests and needs of the contracting parties.

3. Already at an early stage of the implementation of this priority action it has been established that the island of Malta was one of the areas where the problems of water resources management were of utmost importance for the quality of life of its inhabitants and for the economy and development of the country. The typology and nature of the related technical and scientific problems are of interest for the majority of Mediterranean coastal states. The experience and knowledge of the Maltese Water Services Department (re-organized later as Water Services Corporation), and the interest expressed by the relevant ministry, were a good basis for setting up a joint programme of activities. In 1988-89, the Contracting Parties approved the involvement of PAP in the formulation and implementation of a project on water resources management for the island of Malta, with the intention to use the outputs of the project for training, and at the same time, to create conditions for setting up a consistent training programme in Malta, following previous PAP experience in the fields of soil protection, renewable sources of energy, and historic settlements (implementation of joint project and creation of new project activity centres).

4. Consequently, PAP/RAC, in cooperation with the Water Services Department, developed a project proposal for water resources management for the island of Malta, and presented it to the Maltese Government. The project was accepted, and the Government created, with the support by the European Community, financial conditions for its implementation. The project was open to submission of

competitive bids, and finally, BRGM (Bureau de Recherches Geologiques et Minieres, Orleans, France) was selected as the implementing institution. The project document and contract secured the use of its outputs (database, models, training documents, management instructions and guidelines, etc.) for training purposes and exchange of experience. The implementation of the project started in 1990, and was completed in May 1992.

5. The first outputs of the project were used in the Training Course on Database for Water Resources Management (January 1992). The second training course, on the use of aquifer models in water resources management, is in preparation to be held in November 1992.

6. In the same period, PAP was involved in the formulation and implementation of topic-specific activities within the MAP Coastal Area Management Programmes (CAMPs) of the Kastela Bay, the island of Rhodes, the Syrian coastal region, and the Izmir Bay. Before the end of 1992, new projects will be launched (Fuka - Egypt, Sfax - Tunisia and the Albanian coast). Within each of those CAMPs, an activity is related to water resources management. At the same time, a new project proposal of water conservation in the island of Malta is being prepared. Also, a 3-year action on reuse of treated urban wastewater for irrigation has been implemented jointly with FAO, having as main outputs a number of case studies, one workshop, and Guidelines for Environmentally Sound Reuse of Urban Wastewater for Irrigation in Mediterranean Countries.

7. All Mediterranean countries, UN agencies and other international institutions involved in water resources management in the Mediterranean share the opinion that this problem will be among the dominant ones in the region in the forthcoming period. Accordingly, the related MAP activities should be intensified and strengthened.

8. Along these lines, the experience shows that the conditions have matured for the establishment of a Training Centre for Water Resources Management in Malta within MAP/PAP framework, while PAP/RAC would refocus and intensify its activities on water resources management projects.

## II WATER RESOURCES MANAGEMENT IN MALTA - PROBLEMS, EXPERIENCE AND INSTITUTIONAL ARRANGEMENT

9. Over the last decades Malta has been changing from its traditional role of "island-fortress" to an open crossroad of international communication and commerce. Water is an important item in the country's agenda of activities and has been so for centuries. The necessity of overcoming the constraint to the national and social development imposed by the scarcity of water resources means that a wealth of experience has been accumulated. Over the years those islands kept abreast with water related technologies to enhance the availability and quality of this precious commodity. The

history of the water sector in Malta provides numerous examples of this. Indeed, nowadays we find in those islands the application of sophisticated technologies ranging from mathematical models for aquifer management, to state-of-the-art desalination plants.

10. In 1992, the Government of Malta has set up the Water Services Corporation to manage the water sector with a high degree of efficiency and flexibility. Apart from restructuring, the Corporation has already embarked on programmes relating to all aspects of water conservation including demand management and tariff studies. The Corporation is required by its establishing law to embark on serious human resources development programmes for its own staff. To do so on a systematic basis it was necessary to establish a Water Training and Education Centre for national purposes.

11. The institutional arrangement for water resources management in Malta is the following:

- The Ministry of the Environment has been assigned the responsibility for the business of the Government in the water sector. This is exercised through the office of the Parliamentary Secretary for Water and Energy.
- Realizing that it will always be necessary to regulate the water sector in the public interest, but at the same time, not ignoring the past experience which shows that a direct Government control of that industry has not ensured effective management and economy, the Government decided that a public corporation controlled by the Government to a minimum extent was the best route to follow in its endeavours to reorganize the water sector.
- The University of Malta incorporates a number of faculties and institutions dealing, among others, with the issues of water resources management, which are well equipped for relevant lectures and exercises.
- The Foundation for International Studies is a Maltese organization of a pronounced international character. It comprises a number of institutes and centres implementing programmes relevant to environmental protection and sustainable development, in cooperation with international institutions and organizations. The Foundation has a vast experience in preparing and organizing professional international events, and in joining international institutions and agencies together on the preparation and implementation of activities of common interest.

### III THE CONCEPT OF TRAINING CENTRE ACTIVITIES

12. The training activities to be implemented by the Centre will be oriented at a number of topics of common Mediterranean interest as

expressed by the participating countries. The emphasis will be on practical aspects of water resources management, applying modern tools, techniques and methodologies. The scientific aspects will have to be presented as the necessary background. Active participation of the trainees, as well as field visits and work will be secured. Training documents will be prepared in advance, revised by competent experts and presented in English and later in French. Updated experience and knowledge obtained in previous activities of PAP and Maltese institutions, as well as of other participating institutions and/or agencies will be used.

13. The main topics to be covered by the Training Centre in the first period are the following:

- Theory and practice of water resources management
- Approach to and practice of water conservation in urban and coastal areas
- Formulation of and preparatory activities for site-specific water resources management projects
- Development of water resources master plans
- Tools of water resources management: database, aquifer models
- Water demand and balance
- Protection of aquifers against pollution
- Desalination: approach, planning, technology and practice
- Wastewater reuse for irrigation and application of other non-conventional water resources
- Preparation of EIA on water resources management projects

14. In the 1992-1993 biennium PAP and the participating institutions will implement the relevant programme approved by the 7th Ordinary Conference of the Contracting Parties. The programme and budget proposals for the 1994-1995 biennium will be presented to relevant MAP bodies in 1993.

#### IV INSTITUTIONAL ARRANGEMENT

15. It is understood that the Training Centre will be created using the existing administrative, logistic and professional structure of the participating institutions.

16. The following authorities and institutions will participate in the activities of the Training Centre:

- Mediterranean Action Plan - UNEP - PAP/RAC
- Maltese authorities and institutions:
  - The Government of Malta
  - Water Services Corporation
  - University of Malta
  - Foundation for International Studies
- International institutions:
  - BRGM, Orleans, France (confirmed)
  - European Water Institute (to be invited)
  - Mediterranean Water Institute (to be invited)
  - Others (to be invited)

17. MAP-PAP will provide programmes, thematic framework, planning of activities to be approved by MAP, scientific and professional assistance, logistic support and partial funding of the activities.

18. The roles of the Maltese authorities and institutions will be as follows:

- The Government of Malta will supervise the activities of the Training Centre, and the involvement and contribution of the Maltese institutions.
- Water Services Corporation will act as the host-institution of the Training Centre, and as the implementing institution for the programme. It will provide premises, training facilities, and lecturers, as well as prepare the training documents.
- The University of Malta will provide the basic scientific support, lecturers and documents for the scientific background to training topics; it will also provide laboratories if needed.
- The Foundation for International Studies will be involved in securing additional funding and assistance, and will provide logistic support.

All Maltese institutions will also provide partial support in kind and/or cash, the amounts to agreed upon with the Maltese Government and MAP.

19. BRGM, Orleans, will provide professional and technical expertise, training documents, tools and lecturers.

20. The roles of other institutions will be negotiated along the same or similar lines.

21. The activities of the Training Centre will be steered by a Steering Committee. The Committee members will be: a representative of the Government of Malta (Chairman), and one representative of each participating institution (MAP-PAP, WSC, University of Malta, FIS, BRGM, and others).

22. A letter of agreement will be prepared by MAP/PAP and proposed for signing to the Maltese Government. An internal agreement among the Maltese participating institutions, approved by the Maltese Government, is expected to be made prior to signing the above letter of agreement.

#### V FINANCIAL ARRANGEMENTS

23. The financial arrangements will be agreed upon after a positive opinion on the proposal has been given by the parties involved.