

823 MIE95

Library
IRC International Water
and Sanitation Centre
Tel.: +31 70 30 689 80
Fax: +31 70 35 899 64

Water in the Mediterranean

Perspectives on Cooperation

proposals
for **new**
concepts of solidarity



Water Solidarity Network



823-MIE95-14681

The Mediterranean Action Plan (MAP), coordinated by the United Nations Environment Programme (UNEP), in which all Mediterranean nations and the European Union participate, is intended to facilitate the implementation of the minutes of the Barcelona Convention adopted in 1975.

The MAP, which focuses on the protection of the sea, must now be reoriented towards the coastal areas.

The Mediterranean suffers mainly from earthbound activities which expose the sea, but also the coastal areas and the surrounding regions, to extreme dangers. These challenges must be dealt with.

In application of the resolutions of the conference on long-term development that brought together the Mediterranean ministers of the environment in November 1994, the French Minister of the Environment has proposed to his MAP partners to place the accent in each Mediterranean country on the management of the water of the Mediterranean basin.

For this purpose, he has asked the Water Solidarity network to undertake a study on the current state of cooperation on water in the Mediterranean, and on the perspectives of its reinforcement. Without claiming to be a comprehensive survey, this first document shows the abundance and wealth of the initiatives taken and suggests a number of areas for reflection. The scope of this document should be completed and enlarged by all countries concerned. The French initiative, which was favorably received by the decision-makers of the Mediterranean countries visited, has made it possible to stress the necessity of the search for new forms of solidarity, complementary to existing cooperation agreements.

LIBRARY IRC
PO Box 93190, 2509 AD THE HAGUE
Tel.: +31 70 30 689 80
Fax: +31 70 35 899 64

BARCODE: 1 4 6 8 1

LO:

223 MIE 95

contents

Water in the Mediterranean, the current state of cooperation

The main partners of cooperation

3. Numerous programs initiated by international partners
5. A major partner: the European Union
6. French public assistance

Non-governmental and decentralized cooperation

7. Dynamic networks in the Mediterranean
8. Strengthened solidarity between local governments
10. The emergence of non-governmental organizations

Needs expressed, challenges to be met

13. Transforming past experience into concrete action
15. Supporting the institutions in charge of water management
16. Providing better access to financing
18. Promoting awareness and responsibility on the part of the users
20. Training water specialists in the Mediterranean
21. Strengthening exchanges between the Mediterranean countries, including their civic and political institutions

Water Solidarity network
Programme Solidarité Eau
Claude Caillère,
Pierre-Marie Grondin,
Christophe Le Jallé.

c/o Gret, 213 rue La Fayette
75010 Paris (France).
Tel.: (33.1) 40 05 61 23.

■ In the Mediterranean basin, water is of primary importance. In recognition of this fact, the Mediterranean countries and international organizations have launched numerous initiatives, in particular with respect to urban areas.

Water in the Mediterranean

the current state of Cooperation

The main partners of cooperation

The quality and diversity of the programs sponsored by international organizations demonstrate the efforts that have been made to meet the needs of the Mediterranean people.

Numerous programs initiated by international partners

A number of aid and development programs for water supply, sanitation and the protection of natural resources in the Mediterranean basin are sponsored by the United Nations.

● Among them, the UNDP (United Nations Development Programme) promotes long-term human development and the management of natural resources in the Arab countries. At the same time, the joint UNDP/NGO action program, which has attempted to integrate all social components of the Mediterranean countries, has launched a new program to encourage development and cooperation with non-governmental organizations. Within this framework, subsidies will be granted to each of the countries concerned.

● Example of a UNDP action program in Morocco: a complete survey of all groundwater tables.

● Other components of the UNDP with programs in the Mediterranean basin: the Local Initiative Fund for urban Environment, UNDP/Life, and the Aid Program to Palestinian Populations, APPP.

UNDP/Life is particularly concerned with the existing links between urban poverty and the deterioration of the environment. In close cooperation with Palestinian authorities, the APPP has launched a number of projects concerning urban development, water and sanitation, the environment and the integration of women in development efforts.

● Example of networks sponsored by UNDP/Life: International Union of Local Authorities-Eastern Mediterranean and Middle East (IULA-EMME), an organization promoting the collection and distribution of information on small projects and institutional action programs in the Arab countries. ● Example of a program sponsored by UNDP/Life: installation of latrines in a Cairo squatters colony.

● The World Bank, the main lender of funds for the improvement of the environment in the Mediterranean basin, provides financial sup-

port for programs conducted by governments, other institutions and, in some cases, NGOs. In particular, the UNDP / World Bank program on water and sanitation cooperates with the government to assist low-revenue communities in rural areas and on the outskirts of cities with the acquisition of equipment.

Examples of programs financed by the World Bank

- **Albania:** fighting water shortages and related sanitary risks in the Dures district; creation of a water supply and sanitation service.

- **Algeria:** modernization of the water supply systems of 10 cities and 24 waste water processing stations throughout the country.

- **Gaza:** creation of priority infrastructure services in the fields of education, electricity, water, sanitation and road construction.

- Regional financial institutions such as the African Development Bank, **ADB**, frequently cooperate with the World Bank or other multilateral and bilateral partners (European Investment Bank, Arab Bank for the Economic Development of Africa, Kuwaiti funds, etc.).

Examples of programs sponsored by the ABD ● Financing of the sixth drinking water supply project in **Morocco** ● Construction of the Koudiat Acerdaune dam in **Algeria** to regulate the water of the Isser. This dam will facilitate the continuous water supply to the Béni Amrane dam located downstream; the uninterrupted supply of the city of Algiers, the water supply of 15 secondary cities in the vicinity and irrigation of 19,000 ha to the east of the Mitidja plain.

- The management of sweet water resources as well as the protection of oceans and the coastal areas are among the priorities of the United Nations Environment Programme, **UNEP**. Under its auspices, a development plan is currently being drafted for the Nile River basins. The Global Environment Facility, **GEF**, which was created at the Earth Summit in Rio, finances additional costs in connection with environmental protection measures, technical support and research activities.



WCC photo : Peter Williams.

Amman.

During the dry season, water is distributed two or three times per week. It is stored in tanks on building terraces.

- Among the programs conducted in this region, particular attention is given to women and children. The United Nations Children's Fund, **UNICEF**, helps local communities in their fight against children's diseases by means of major programs for the improvement of water supply services and sanitation. At the same time, the International Research and Training Network for the Promotion of Women, **INSTRAW**, facilitates the participation of women in decisions concerning the development of their community. Other programs are sponsored by the World Health Organisation, **WHO**, which provides support and advice on matters relating to water and health.

- A project sponsored by UNICEF in **Morocco**: the integrated basic services program (SBI), which is aimed at the improvement of water supply and sanitary equipment and conducts programs on hygiene, the promotion of women and infant health.

- Among the many initiatives listed, the Mediterranean Action Plan, **MAP**, demonstrates the interest of the international community in the environment of this region. Two programs give this interest a social and economic dimension:

- The Priority Action Program, **PAP**, which promotes exchanges between experts, technical training and the distribution of information;
- The Blue Plan, whose aims include a study of long-term environmental developments and the creation of an envi-

ronment and development observatory for the Mediterranean. It assists governments in the drafting of plans for the development of environment-friendly coastal installations.

A major partner: **The European Union**

The development of the Mediterranean countries is an important priority of European construction. Numerous cooperation programs have been launched on the basis of agreements signed between the Union and each country concerned.

● In 1989, the European Union introduced its Renovated Mediterranean Policy, **RMP**, which covers four main areas: assistance in the economic adjustment process, a call for private investment, increase of bilateral and community-based financing, and strengthening of the economic and political dialogue.

● Beginning in 1996, a new budget line for the Mediterranean region, **MEDA**, will be opened in order to accelerate the allocation of funds and to open up cooperation to new partners. From now on, MEDA will no longer support simple projects, but programs covering all aspects of a given problem. Subsidies and loans must be used during the year of their allocation. Approximately 10 billion ECU (50% EIB loans, 50% subsidies from the Commission of the European Union), to be dispersed over a four-year period, have been submitted to the approval of the member nations of the European Union and will be made available to Mediterranean countries not belonging to the Union.

● Two institutions of the European Union: the European Investment Bank, **EIB**, an independent institution that finances the investments, and the Commission of the European Union, which implements the policies defined by the European Union, will continue their programs on the same basis.

Example of EIB-sponsored programs ● In Turkey, overhaul of

the sanitary system of the city of Antalya ● In Lebanon, water supply and sanitary systems ● In Cyprus, modernization of the water distribution system in Larnaca.

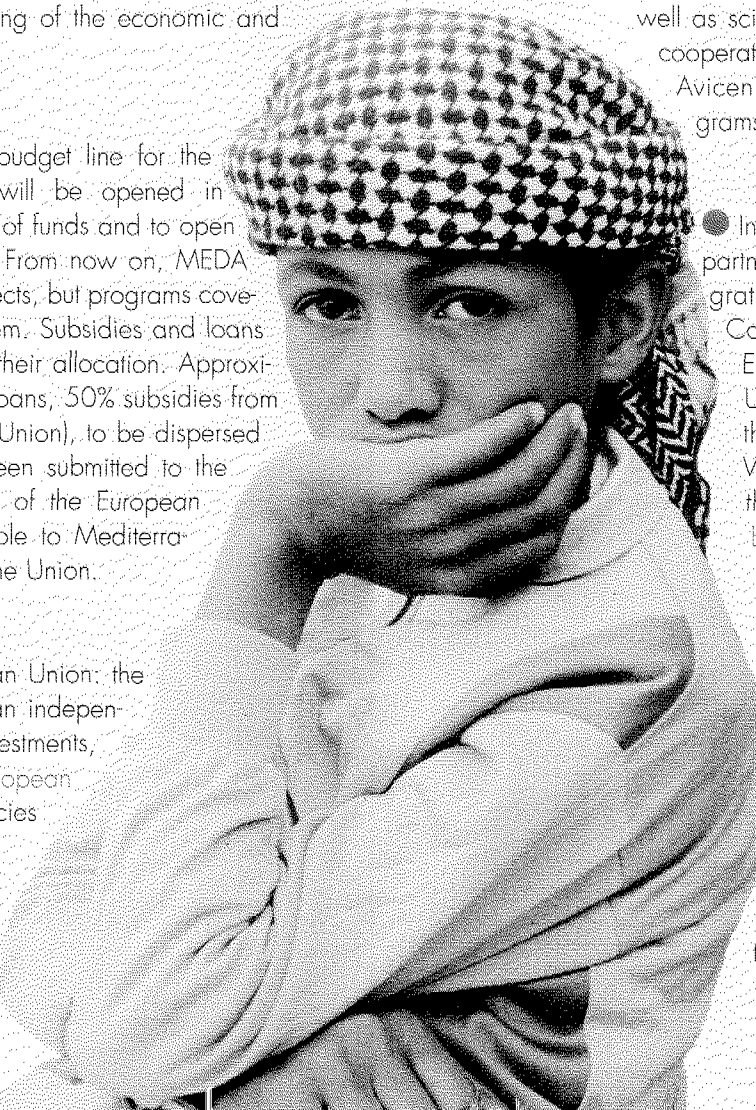
Examples of programs sponsored by the Commission of the European Union ● In Algeria, drafting of the National Water Plan, in cooperation with a group of European consultants ● In Cyprus, modernization of the sanitation system of Nicosia ● In Syria, water supply to Sweida and to Deir Ez Zor.

In addition, numerous budget lines of the European Union, which are directly accessible to NGOs and to local communities, permit financing of projects related to water in the Mediterranean. A component of the **Life/EU** program assists third countries in the Mediterranean region in the creation of legislative, supervisory and planning agencies in view of improving environmental management.

Within the framework of the RMP, the European Union has launched four trans-Mediterranean programs, which today cover 27 countries: MedUrbs, MedCampus, MedInvest and MedMedia, aimed at the creation of decentralized cooperation networks.

The Commission of the European Union also sponsors a number of programs for research as well as scientific and technical cooperation (for example the Avicenne and ISC programs).

● In view of enlarged partnerships and an integrated approach, the Commission of the European Union and UNDP recently joined the EIB and the World Bank to launch the Mediterranean Environmental Technical Assistance Program, **METAP**. The main goal of this program is to stop the deterioration of the Mediterranean basin, in concertation with local authorities, international institutions and NGOs. After two diagnosis and identification



phases, the project implementation phase began in 1993. Operating under the auspices of METAP, the network of organizations in charge of water supply in the Mediterranean, MedWan, focuses on the management of water resources.

Examples of METAP projects ● Management of water supply and sanitation in **Albania** (loan from the World Bank) ● Use of sludge from water treatment plants in Cairo, **Egypt**.

French public assistance

France pursues a broad-based policy of bilateral cooperation in the Mediterranean, including numerous programs for water and sanitation.

● This cooperation comes under the auspices of the Ministry of Foreign Affairs, which also intends to strengthen its current support for decentralized cooperation and NGOs.

● Example: support for Moroccan communities in the fields of sanitation, water recycling and processing of household waste.

● Like the Ministry of Economics, the Ministry of Foreign Affairs delegates certain operations to the Caisse Française de Développement - **CFD**. This financial institution sponsors numerous water programs in the Maghreb (in Algeria, Morocco and Tunisia) through loans and subsidies, accompanied by technical assistance and training programs for managers.

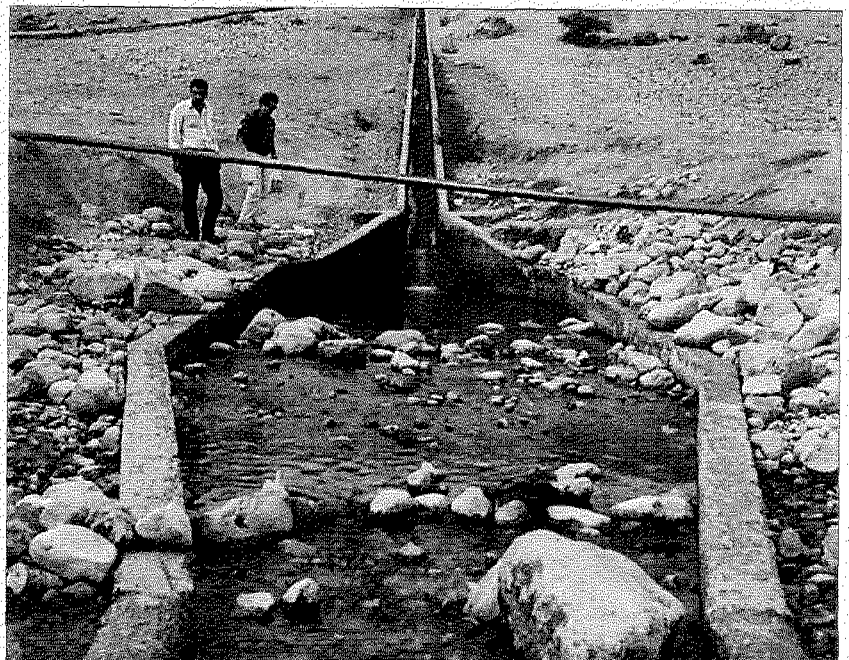
● Example of a project in **Morocco**: in cooperation with the European Union the CFD in 1994 allocated loans totalling 400 MF for the water supply of small and medium-sized urban areas in the northern regions. These credits were provided to the ONEP (Office National Marocain de l'Eau Potable).

● To provide support for the efforts of the economically weakest nations towards a long-term development, France has created the Fonds Français pour l'Environnement

Mondial, **FFEM**, whose aims are similar to those of the Global Environment Facility. This instrument is particularly important in promoting the emergence of new initiatives in Mediterranean countries.

● Example of a project supported by the FFEM: a survey of the water resource management in the **Jordan basin** as a basis for a comprehensive analysis of the environmental problems and challenges in the context of the long-term use of the water resources of the Jordan River. The study will include an analysis of the current and foreseeable environmental impact of all potential functions of the Jordan (water resources, fishing, transport and communication, energy production, location of various sources of pollution, tourism, etc.).

● In view of a diversification of the supported programs, other organizations have supported initiatives linking partners from both sides of the Mediterranean. In the context of decentralized cooperation, the Caisse des Dépôts et Consignations co-finances projects of local communities in the Maghreb, and the Agence pour la Coopération Technique, Industrielle et Economique, **ACTIM**, a non-profit association of companies and professional organizations, guides the internationalization efforts of its members. ACTIM is spe-



Claude Caillère.

For the Near East, water is of crucial concern and might well turn into a major problem.

cialized in the promotion of technologies, the organization of contacts and industrial partnerships; it organizes meetings in France and colloquiums in foreign countries.

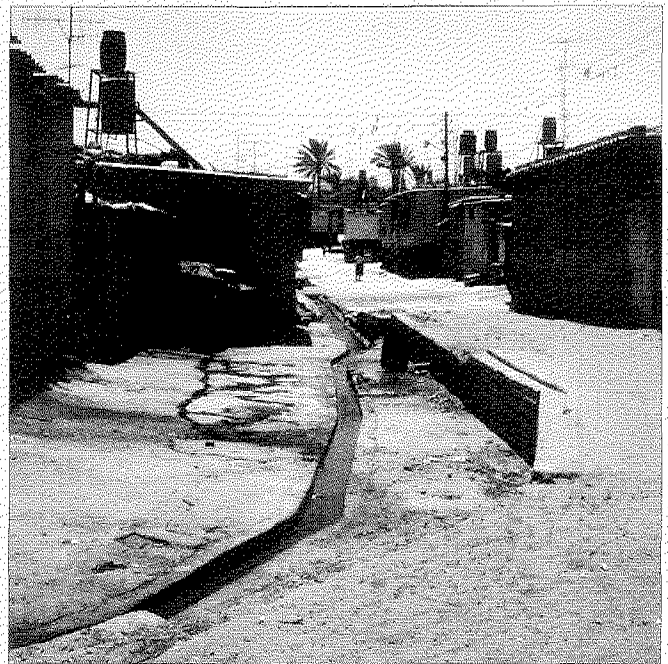
● Examples of the activities of the Caisse des Dépôts et Consignations: co-financing of programs sponsored by the Conseil Général de Loire Atlantique in **Morocco and Tunisia**; co-financing of programs of the Conseil Général des Côtes d'Armor in Gabès, Tunisia.

- Examples of ACTIM activities: INFOPOL session on the fight against hydrocarbon pollution in the Mediterranean; session on the recycling of urban waste water in the Mediterranean rim countries (in conjunction with the Ministry of the Environment).

- Another interesting initiative is the transfer of the Water Agency concept. After adaptation to local conditions, these agencies can play a major role in fostering regulatory, scientific and technical innovation. One of the originalities of this concept consists in linking users, technical partners and water managers within the same hydrographic basin. The Agence de l'Eau Rhône-Méditerranée-Corse is quite naturally a major player in that area. The Réseau International des Organismes de Bassin, RIOB, was created to promote this idea.

Beach Plage at Gaza.

Waste water causes numerous diseases.



Claude Caillère.

Non-governmental and decentralized cooperation

Dynamic networks in the Mediterranean

The Mediterranean nations are linked by diversified, original and constantly evolving partnerships, which generally bring together water professionals, research organizations and communities.

- The Mediterranean Water Institute, IME, promotes this dynamic process by sponsoring research on suitable technologies and the transfer of acquired know-how, while at the same time designing specific training and information programs. Its activities are carried out by national groups formed among its members. At the same time, the IME provides the secretariat for MedWan and the RME, a network focused on cooperation and joint project design.

IME projects include ● an assessment of the sanitation networks of the Grand Fes in Morocco ● a technical assistance mission to the Moroccan Ministry of Local Communities in view of modernizing drinking water processing stations (Bird financing).

- The IME cooperates with the Verseau association (Valorisation des Etudes et des Recherches dans les Sciences de l'Eau) which provides training, technical assistance, assessments and research. Verseau participates in a number of regional, national or international study groups, in Metap and MedUrbs programs and in the MedWan network. Verseau also created Gerfseau, a research group that includes all scientific research and higher education partners of the Languedoc-Roussillon area and sponsors activities related to water management.

- In the area of decentralized cooperation, other organizations provide consultancy and project management services. Cités Unies Développement, CUD, is the executive agency that implements the cooperation and development assistance policies of the Fédération Mondiale des Cités Unies, FMCU. It also assists local communities in implementing their cooperation programs. The Centre International de l'Eau de Nancy, NANC.I.E., organizes technology transfers and has provided services to the Office National de l'Eau Potable du Maroc, ONEP, particularly in the areas

of training, technical assistance, assessments and the organization of seminars.

● Other organizations strengthen the cooperation between professionals from developing nations, bilateral or multilateral cooperation agencies, NGOs and research institutions. The Water Supply and Sanitation Collaborative Council brings together numerous managers in charge of drinking water distribution and sanitation throughout the Mediterranean region. The Office International de l'Eau, OIEau, is based in Sophia-Antipolis and, in cooperation with its over 145 private and public member organizations, develops numerous cooperation programs in the Mediterranean, concentrating its efforts on institutional organization, training and information processing. Within the Middle East peace process, the OIEau participates in the multilateral task force on water, in training projects and in the creation of a future regional data base.

● In addition, there are numerous scientific and technical programs and networks, some of them initiated by the European Union, e.g. the International Scientific Cooperation, ISC, or Med-Campus, which sponsors cooperation projects between universities on either side of the Mediterranean. The Commission of the European Union has launched an appeal for proposals for research and technological development programs. French public research agencies, such as CIRAD and ORSTOM, work on water projects for the Mediterranean countries.

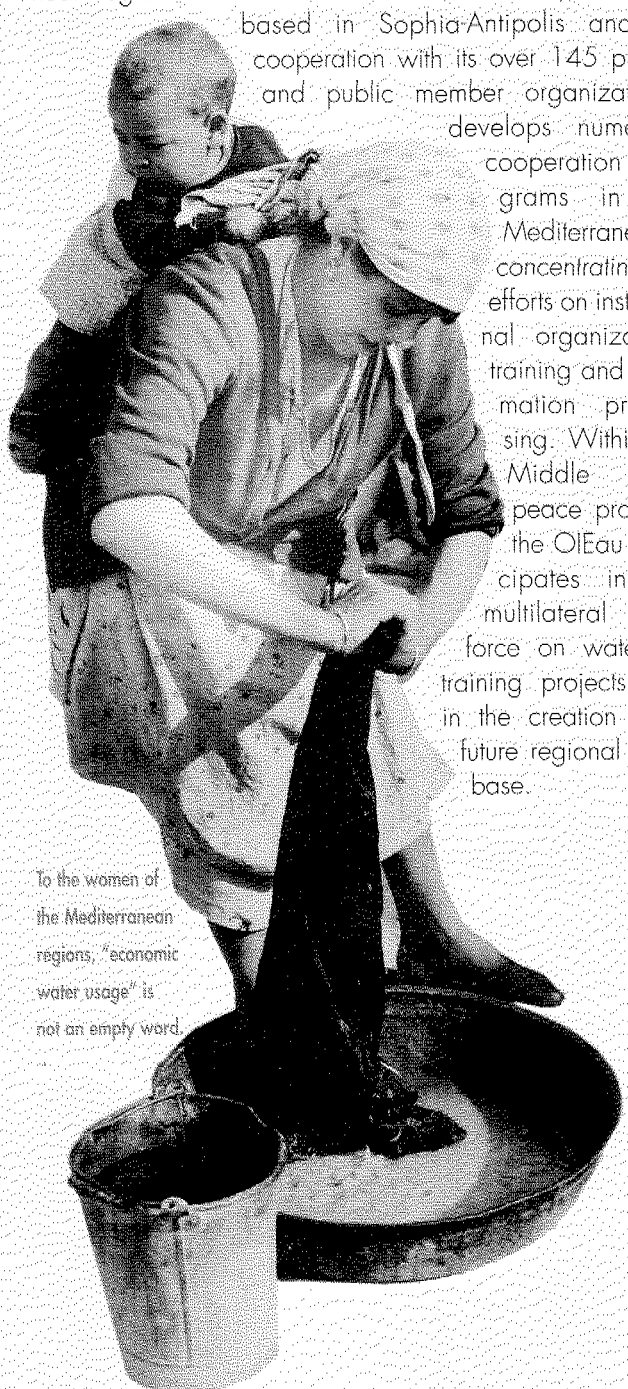
Strengthened solidarity between local governments

In France, the law of February 6, 1992 confirmed the rights of local governments to participate in cooperation programs with their counterparts in other countries of the Mediterranean basin.

● The French regions and departments have established cooperative links with other regions of the Mediterranean rim. Among the most active are the three Mediterranean regions (Corsica, Languedoc-Roussillon, Provence-Alpes-Côtes d'Azur) and some of their departments (Hérault, Bouches du Rhône), which adopted a joint policy of decentralized cooperation. Other regions (Aquitaine, Ile de France, Limousin, Lorraine, Pays de Loire) and departments (Côtes d'Armor, Loire Atlantique) are also participating in this effort.

● As part of the Med-Urbs program, the city of Belfort and the General Council of the Bouches du Rhône and the Hérault have established, together with the cities of Boghni and Cheraga (Algeria), Mohammedia (Morocco), Barcelona and the Regional Council of Tunis, the Med-Develop network, which has financed the installation of the water and sanitation network of Boghni and a water recycling project in Tunis. ● The local government of Côtes d'Armor sponsors activities in Gabes (Tunisia), the department Loire-Atlantique in Madia (Tunisia) and Agadir (Morocco).

● The French cities are also important partners of their counterparts in the Mediterranean basin. These cities include Marseille (environmental audit of the city of Oran) and Montpellier, but also the city and urban district of Bordeaux (members of the Aedificare and MedWater networks, respectively), the city of Belfort, a member of the Med-Develop network and Rennes, partner of the Algerian city of Sétif.



To the women of the Mediterranean regions, "economic water usage" is not an empty word.

- The local governments are organized in numerous national, European and international federations.

The French departments have created the *Assemblée des Présidents de Conseils Généraux, APCG*, which supports the decentralized cooperation programs of the departments and makes optimal use of their know-how.

Gabès, Tunisia.

This channel of the oued Gabès, built by the *Agence tunisienne de réhabilitation et de rénovation urbaine*, was financed by the World Bank. The oued itself is currently being reined in, with the technical support of the French department *Côtes d'Armor*.

The APCG sponsors programs for the countries of the Maghreb.

On the international level, the cities are supported by two major federations: the *Fédération Mondiale des Cités Unies, FMCU*, which gathers the local governments of 109 countries, and the *International Union of Local Authorities, IULA*, in which local communities from 80 countries are represented. Closely tied to these international unions are two French bodies, *Cités Unies France, CUF*, which includes 650 local governments that are members of the FMCU, and the *Association Française du Conseil des Communes et Régions d'Europe, AFCCRE*, a member of the CCRE. The European section of the IULA, the *Conseil des Communes et Régions d'Europe, CCRE*, counts among its members a large number of local governments from 26 European countries and promotes exchanges between European local governments.

- In November 1994, the CUF participated in the creation of a decentralized Franco-Palestinian cooperation fund. This fund is financed by 20 French cities, the Ministry of Foreign Affairs and



Max Grammare, CAUF 22; Côtes-d'Armor



the *Caisse des Dépôts et Consignation*. This fund sponsors programs for all Palestinian cities of the independent or occupied territories. In this context, the CUF promotes the twinning of French and Palestinian cities.

- Among other projects, the CCRE, in conjunction with the FEMP (*Federación Española de Municipios y Provincias*), the *Organization of Arab Cities* and the city of Valencia (Spain), organized the second Euro-Arab Conference of Cities in Valencia in September 1994.

The *Centre des Régions Euro-méditerranéennes pour l'Environnement, CREE*, is in the process of creation. One of its topics is water, and its aim is the organization of local

governments and scientific institutions throughout the European Mediterranean regions to promote the exchange of experiences and know-how.

- To strengthen cooperation with local governments of the Mediterranean basin, the European Union has, beginning in 1992, created the four Med programs mentioned above. One of them is *MedUrbs*, which focuses on local government. *MedCités*, initiated by *Metap*, is a network of Mediterranean coastal cities whose activities are focused on urban environments and which provides training, technical assistance and financing on the basis of cooperation agreements. Its administrative offices are provided by the city of Marseille, its technical services by *Cités Unies Développement*.

- Under the auspices of the *MedUrbs* program, the *MedWater* network focuses its activities on water management. The pilot city

is Porto (Portugal), members include the cities of Bordeaux (France), Saïda (Lebanon) and Casablanca (Morocco). Its activities include seminars, training, diagnoses and assessments. A book explaining the concept of rational water use to children will be published in three languages (Portuguese, Arabic and French) and distributed in the four cities of the network.

● As part of the Audilevi network, MedCités has conducted local environmental audits in five cities: Sousse, Tangiers, Oran, Tripoli/El Mina and Limassol. The network now wants to launch programs based on these audits and extend the experiment to other cities of the network, particularly Tirana (Albania) and the cities in the Gaza strip.

● The European Union also deals with the major political and economic changes in the Mediterranean. Among the four peace programs (which were created as part of the Middle East peace process and include local governments from Egypt, the occupied territories, Israel and the European Union), PeaceUrbs supports programs conducted by cities.

● The Peace Network network of the PeaceUrbs program deals with the problem of household waste; it includes the urban district of Le Creusot-Montceau les Mines (France), the pilot city, and the cities of Ramalah (occupied territories), Zagazig (Egypt) and Lod (Israel). In Lod and Zagazig, new solutions for garbage disposal are required to protect water resources.

The emergence of non-governmental organizations

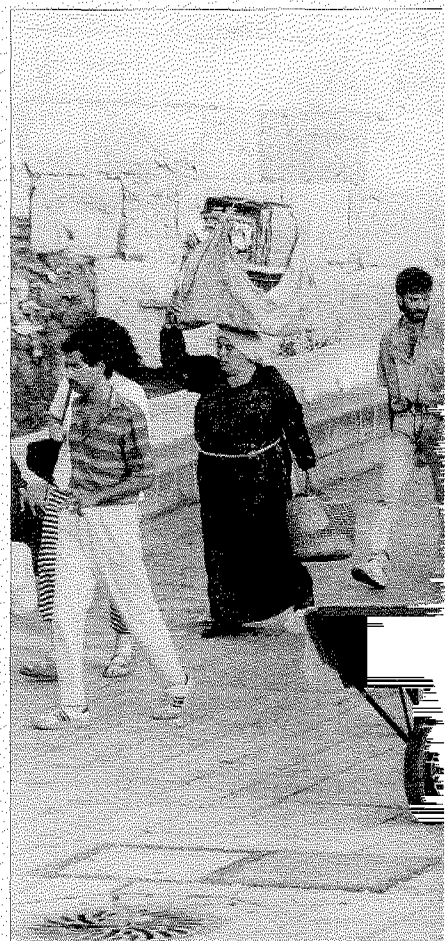
With the exception of the Mediterranean Water Institute, IME, which is recognized as an international NGO by the United Nations, non-governmental organizations are still under-represented in the field of water and sanitation. But this situation is rapidly changing. The Mediterranean nations have become aware of their importance in the mobilization of users toward more rational water use and better environmental management.

● This resulted in the creation of alliances between local operators, for example the Alliance Maghreb-Machrek pour l'Eau, ALMAE. ALMAE includes NGOs, residential communities and researchers active in development programs related to the water resources of the territories of that region. Its activities cover three levels: knowledge of the local environment, training through exchange of experiences, information and communication.

● These networks are supported by the numerous initiatives of local NGOs. The Mouvement Social Libanais, MSL, covers the cities and villages of Mount Lebanon; it supported the women's committee of Saïda to raise the financial and material resources required for a modernization of the sanitation network.

In their fight against infant diarrhea in the Nabaa quarter of Beirut, women took the initiative to obtain regular water analyses. The importance of these initiatives was recognized by organizations active in other areas as well. The Institut de Réadaptation Audiophonétique, IRAP, which sheltered displaced persons during the recent conflicts, has designed a project including the distribution of water and sanitation for their installation in Biacout, on the outskirts of Beirut.

● In sensitive areas of the Jordan Valley, The Palestinian Agricultural Relief Committees, PARC, trains farmers in the techniques of water preservation and drop-by-drop irrigation. In conjunction with the Palestinian Hydrology Group, it provides training and information for better access to water, repairs poorly maintained sources and constructs rain water storage basins. Research and education are also involved in this process. The University of Birzeit (West Bank) has created five centers to train farmers in the valley in the rational use of pesticides, which cause pollution of the groundwater table and public health problems. In Galilee (Israel), the Jam'iet Af Tanmia et at Tatweer, JTT, supports an experimental drop-by-drop irrigation program for an olive plantation, using recycled water.



The Damascus gate in Jerusalem.

The Mediterranean basin was always a cosmopolitan region inhabited by people of different religions and cultures.



WCC photo : Peter Williams.

● While numerous French NGOs are active in the Mediterranean - Concordia/Solidarité Jeunesse, Comité Français de Solidarité Internationale, Cofravail/Travail Volontaire des Jeunes, Guide de France, Institut Belleville, Ingénieurs sans Frontières, Terre des Hommes, Hydraulique sans Frontières, Comité Catholique contre la Faim et pour le Développement (CCFD)... - few of them have dealt with the water in the Mediterranean.

Example of a program sponsored by the CCFD: assistance in conducting a feasibility study for a sanitation network in Fourzöl (Lebanon). The technical school and its cooperative workshops participate in efforts aimed at the systematic reuse of waste water.

● To coordinate their activities, a number of European NGOs dedicated to the environment have created the European Environment Bureau, EEB, which is represented at the Council of the Ministers of the Environment of the European Union. The Commission of the European Union as well as the majority of European Ministries of the Environment provide financial support to this organization. Other international NGOs not directly concerned with the environment participate in its improvement.

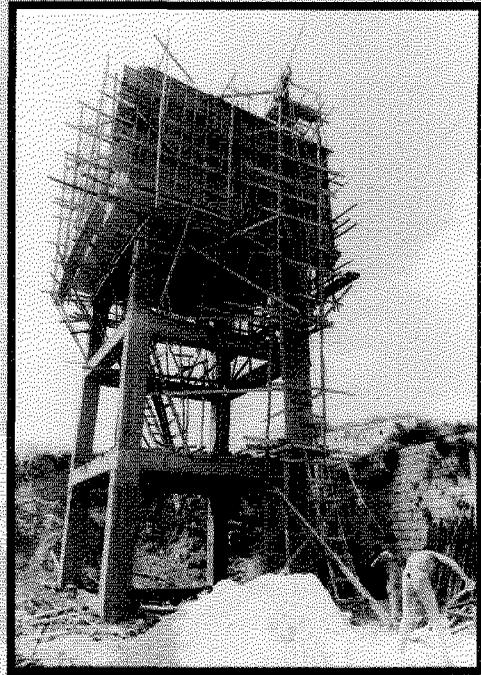
In Egypt, Caritas supports the settlement of young farmers in desert areas. This experiment is accompanied by training on water management and appropriate cultivation techniques.

● In the Maghreb, very dynamic local organizations try to meet the population's expectations with respect to water distribution and sanitation. *Enda Inter-Arabe* and *Enda Maghreb* work in Tunisia and Morocco, modernizing neighborhoods and designing equipment projects for secondary cities.

In Tunisia, the Association pour la Promotion de l'Emploi et du Logement, **APEL**, fights against the deterioration of catchment areas by constructing retainer walls against erosion and the creation of wadis.

In Morocco, the Société Marocaine pour le Droit à l'Environnement, **SOMADE**, an association of lawyers, leads the fight for equal access to natural resources. In addition to other associations active in the Maghreb (for example, **AMSED**, **ADRAR**, **TWIZA**, etc.), *Migration et Développement*, an association created by French immigrants, works in close cooperation in Morocco with *Immigration et Développement Local*. In particular, they supported the construction of a hillside retaining wall in the village of Imgoun, Taliouine. This initiative was carried out in close cooperation with the French association *Hydraulique sans Frontières*.

The multitude of initiatives demonstrates the wealth and complexity of the formal and informal networks dealing with water problems in the Mediterranean. The situation has been clearly diagnosed; now, everything must be done to obtain concrete results. To meet the expectations of the Mediterranean people, information, clearly defined joint objectives, as well as coherent technical, organizational and financial means are required.



West Bank.

The construction of this water tower is part of the West Bank water supply and sanitation program conducted by the World Council of Churches in cooperation with the Palestinians and other European partners.

WCC photo - Peter Williams.

Throughout this survey conducted in six Mediterranean countries, the representatives we encountered unanimously insisted on certain priorities, particularly the need for communication. To meet these expectations, appropriate measures must be taken immediately.

Needs expressed challenges to be met

Transforming past experience into concrete action

The needs expressed concern three major areas of application: distribution of drinking water and sanitation, particularly in underprivileged urban areas*, and irrigation.

The objectives are clearly defined, particularly with respect to the distribution of drinking water. The aim is to obtain the highest possible coverage, to mobilize the available resources to the fullest extent, to develop new resources, to provide suitable water treatment methods and to save water by limiting losses in the distribution network. However, the means available to the participants to exchange their experiences remain extremely limited.

The same applies to sanitation where, in many areas, waste water collection systems are unsuitable or nonexistent. The water is rarely processed, even though the required know-how is available in many countries. The participants favor simple, efficient technologies that are adapted to their needs, and they are planning the general introduction of waste water recycling.

* Cf. *Water and health in underprivileged urban areas*. Round Table at Sophia Antipolis, February 1994. Paris, Ed. du GRET, PS-Eau.

In the majority of the Mediterranean countries, 80% of total water consumption is attributable to agriculture. It is therefore important to select irrigation techniques that help preserve the available water resources and to adapt cultivation methods and the choice of crops to local conditions.

To meet these expectations, numerous studies, assessments and pilot projects have resulted in concrete measures. But these measures remain insufficient and the experience derived from them has not yet been applied.

The partners encountered concur in stressing the importance of:

- ◆ Recognizing existing technical capacities. The substantial and diversified local technical potential remains isolated and often unknown, and nothing is done to reinforce it. To remedy this situation, international support programs must be sufficiently flexible and adaptable to integrate the numerous existing initiatives.

- ◆ Reinforcing the links between studies and their implementation. Up to now, the numerous studies conducted in the Mediterranean were seldom followed by pilot projects and



Claude Caillere.

Measures to be taken

- Creation of support and information programs for local initiatives.
- Cataloguing of completed studies and the solutions they propose.
- Storing and updating this information in existing databases.
- Giving all countries of the basin access to these databases, particularly via Internet.
- Allocating part of these information systems for exchanges between operators.
- Creation of a regional application center providing information on ongoing research and projects.
- Encouraging countries to become pilots in their area of competence.

rarely resulted in changes of existing practices. In the fight against soil erosion, for example, suitable technologies are well known and constantly improved, but very few catchment areas have actually benefitted from this know-how.

◆ Promoting the use of innovative techniques. Too many interesting projects remain confidential. They are introduced locally and very few cross the borders of the country in which they have been tested and applied. Thus the experience of the pilot stations operating on the basis of filtration and percolation after lagoon processing that are used in Agadir, Marrakech and Oujda would also be of interest to other regions.

◆ Encourage the reproducibility of these projects. Each Mediterranean country has developed its own know-how in one or several areas of water management. But while the proximity of context favors the reproducibility of such projects, it is regrettable that the exchange between neighboring coun-

tries is so rare.

Morocco and Tunisia, for example, which have developed advanced water distribution and sanitation

techniques, and Israel, which has developed a considerable potential in water recycling, are ready to apply their experiments to other situations.

◆ Disseminating existing know-how. It is indispensable to make specialized documentation and the results of research projects available to others while continuing experimentation. Efforts in this direction have been made by organizations like Aupell-Urel, which distributes new Eaudoc documents of the Office International de l'Eau (OIEau) on CD-ROM. Aquamed-Doc, an ambitious project conducted by OIEau and Cédex in Spain, by Onide in Algeria and by the Lebanese Ministry of the Environment, aims at creating the core of an integrated documentary exchange system on water in the Mediterranean.

The Nile.
The river and its surrounding lands make up a whole ecologically coherent.

Supporting the institutions in charge of water management

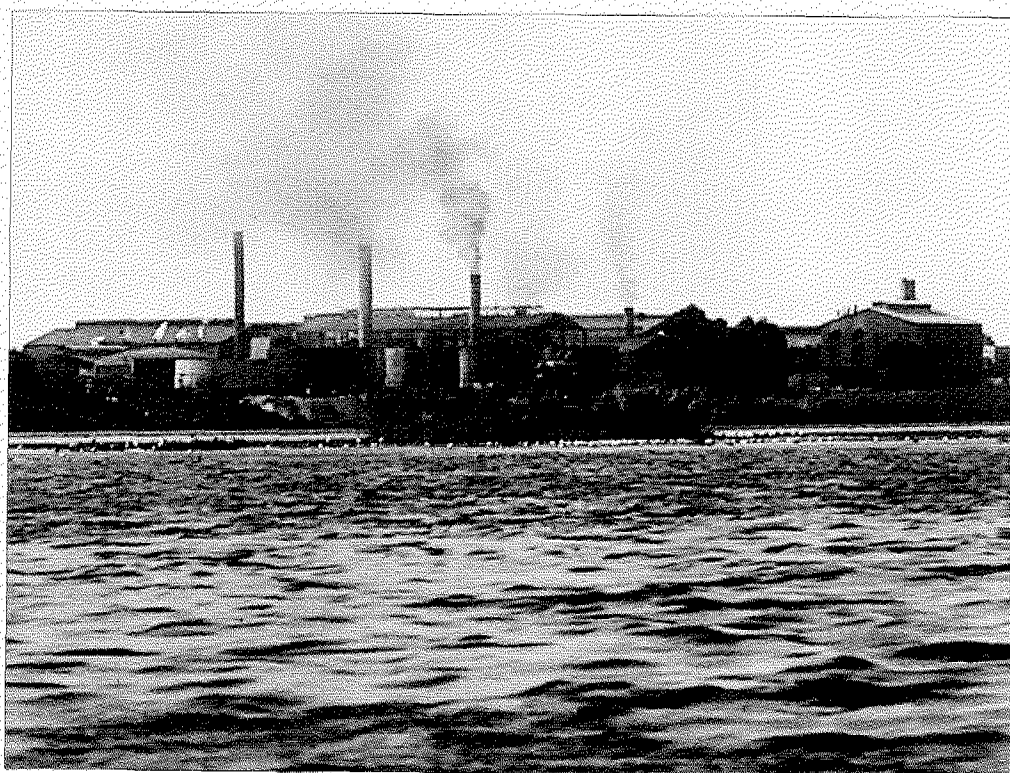
All participants agreed that the institutions* must play a major role in the distribution of drinking water and sanitation, because the practical implementation of the objectives set by the national governments depends on these institutions. But their proper functioning is slowed down by many obstacles.

The increasing demand (growing populations, industrialization, tourism, irrigation, etc.) makes the existing shortages more serious, and the measures taken become rapidly obsolete. Numerous difficulties are also due to great disparities between the institutions involved.

* The term institutions is here used in its widest sense; it includes legislative, economic and organizational aspects.

Measures to be taken

- Creation of a forum for exchanges and concertation on methods and practices.
- Creation of management agencies per basin.
- Creation of multi-disciplinary task forces (sociologists, lawyers, engineers, etc.) to promote development of the institutions.
- Calling upon northern authorities to provide institutional support.



The Nile near Assuan.

One of the major tasks of government is promoting rational use of river water.

To better respond to new situations, the institutions must evolve and their organization be reinforced. The recent integration of services in charge of water and sanitation is a step in that direction.

and to the necessities of industrial, agricultural and touristic development is indispensable. This requires a synthesis of traditional water preservation practices and technological innovation permitting a more rational use of water.

◆ Setting realistic objectives. Since each country has its proper requirements, common rules would be disastrous. The reforms must take into account the current phase of

That is why a majority of the participants has called for the following measures:

◆ Integration of local practice into institutional policy. Numerous obstacles are due to insufficient knowledge of local practice. The institutional framework must be capable of adapting to local customs while at the same time respecting fundamental principles: just distribution of resources, equal access to water for everyone, recognition of the value of water...

◆ Better management of shortages. The adaptation of the institutions to shortages

Claude Caillere.

development and the characteristics of the country concerned. The aim of the institutional reform is the introduction of efficient mechanisms applicable to the entire sector of hydraulic resources.

◆ **Making optimal use of existing institutional particularities.** Each country of the Mediterranean basin has developed its own institutional functions. A great diversity of organization exists, like the water court of Valencia (Spain), a heritage of the past, or French water agencies that manage water on the basis of catchment areas. The latter have initiated the creation of the Réseau

International des Organismes de Bassin (RIOB) to make this concept available to other countries.

◆ **Promoting exchange and concertation.** A joint policy of the Mediterranean countries can be established by setting priorities for the protection of the Mediterranean. Following the example set by the Water Supply and Sanitation Collaborative Council, regular meetings and information exchanges would allow all coastal nations to share their experience. Cities, local governments and countries of the Mediterranean basin could use this forum to present their methods and their technical and economic management practices.

Providing better access to financing

Multilateral and bilateral lenders finance numerous development projects in the field of water management, in the form of subsidies or low-interest loans, which are accessible to the administrations concerned and, to a lesser extent, to local authorities and associations.

However, local government leaders and NGOs expressed a need for financial tools that are better adapted to water management, more readily accessible and more quickly available, because the longer they have to wait, the more costly tomorrow's investments will be. Operations conducted by small and medium-sized communities and NGOs are particularly affected by this difficult access to financing.

To facilitate the access to financing, the representatives contacted insisted on the following points:

◆ **Being informed about existing funds.** This request was made unanimously, since each lender has its own credit policies. And summary presentations of existing credits and the conditions for their allocations are generally not available.



Claude Caillère

Beirut, Lebanon.

The development of many cities on the Mediterranean rim is hampered by rapid population growth.

Solving these difficulties requires the determined yet flexible cooperation of financial institutions.

◆ **Simplifying financing procedures.** Given the complexity of financing procedures, only the major operators meet the criteria for obtaining loans. Recourse to co-financing makes this process even more unwieldy, delays the start-up of new projects and increases costs.

◆ **Providing direct access to loans or subsidies for local governments and institutions.** For local governments, the main obstacle to investment is their debt. The infrastructure for the distribution of quality water and sanitation requires substantial investments. To speed up investments in vital areas, local government representatives are demanding more flexible practices on the part of national governments and

the introduction of significant accompanying measures, such as discount loans with deferred repayments.

◆ **Responding in emergency situations.** The representatives called for the creation of a suitable fund, jointly managed by the Mediterranean countries, to respond in emergency situations.

In Lebanon, in the Ain de Baccout quarter on the outskirts of Beirut, the lack of earlier financing for sanitation work has led to a deterioration of the situation (the only accessible drinking water solution is totally polluted), and the required investments are now far too high.

◆ **Encouraging small programs with multiplying effects.** To complement the actions taken by local governments, projects sponsored by associations could be implemented without delay if funding were available to NGOs.

◆ **Assistance in preparing project financing.** Local operators want assistance in the preparation of project financing. Certain qualified NGOs are already providing this service and should be recognized by the lenders.

Measures to be taken

- Creation of a single financing agency with simplified procedures.
- Allocating earmarked funds to NGOs as interfaces for small projects.
- Providing a structure capable of handling emergency situations.
- Providing assistance in preparing project financing files.
- Organizing inter-Mediterranean meetings between owners to inform about existing funds and ways to access them.
- Developing reduced rate loans with deferred repayments.
- Creation of a loan agency accessible to local actors.

For example, Enda Maghreb has handled the loan application for a processing facility for liquid and solid waste as part of a joint assistance program. Two universities, in Morocco and France, each detached a student to Figuig, Beni-Mellal and Youssoufia.

Promoting awareness and responsibility on the part of the users

Numerous Mediterranean countries are familiar with the problem of water shortage; others, that were spared until now, will sooner or later encounter such problems. And yet, the users continue to consume water as if it were an inexhaustible resource: abundant sprinkling in front of doors to eliminate dust and freshen the air, improperly closed faucets, leaking faucets and flushing systems, etc., and in smaller towns, above-ground water lines facilitate unauthorized taps.

All users must be educated in the economic and rational use of water: families, high school, college or university students as well as tourists, major consumers, who must be made

aware of the preciousness of water in the Mediterranean countries. There is a growing awareness of the fact that fighting water shortage requires:

- ◆ Inciting families to save water. A few simple gestures that do not upset traditional practices are already sufficient to save substantial quantities of water. To make the population aware of the scarceness of water and teach them these new gestures, broad-based awareness campaigns are required.

That is the case in Egypt, where voluntary teams created by SPAAC, an Egyptian consultancy participating in the National Committee Water Conservation Program, visit certain homes in Cairo, Suez and Ismaïlia to explain how one can save water. These visits are covered on television and radio, inciting other households to follow the example.

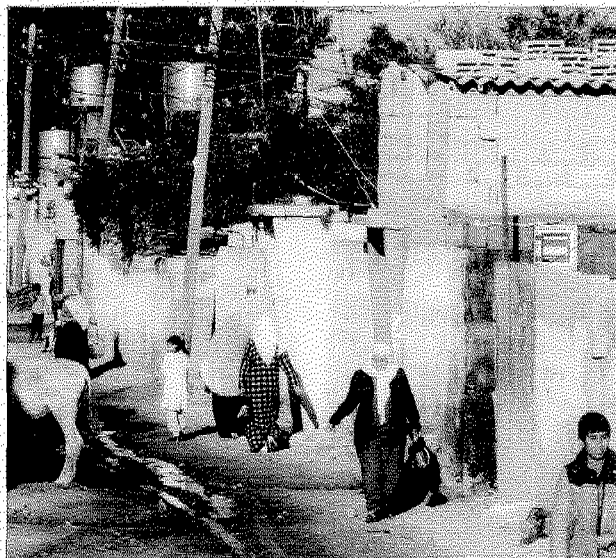


Photo WCC.

Jabalya, Gaza.

At certain hours, the city distributes water stored in rooftop tanks. The used water then flows into the street and collects at the lowest point of the camp, where it stagnates.

- ◆ Making users aware of the economic value of water by contributing to its cost.

To provide an impetus for lower water consumption, the Tunisian government has introduced a proportional surcharge. This policy has made it possible to limit the annual increase of water consumption to 2%, compared to 4 to 6% in previous years. Public services, particularly hospitals, which use a lot of water, are not excluded from these new measures.

- ◆ Stimulating awareness among young people. If young people are made aware of the need for saving water, they will waste less water today and preserve it in the future.

Aware of this necessity, the Office National de l'Eau Potable du Maroc (ONEP) began in 1984 to organize campaigns aimed at young people under 20, which represent approximately half of the Moroccan population: posters, stickers, TV and radio spots, drawing competitions on World Water Day, etc. This campaign is extensively covered by the press. UNDP, UNICEF, the European Union and other organizations have supported this operation.

Tunisia has introduced teaching programs for children and launched numerous actions on the occasion of World Water Day.

- ◆ Participation of different partners in a joint campaign. The participation of all



Claude Caillères.



HOAQUI, Sylvain Grandamadam

players in a joint campaign makes it possible to diversify the means, actions and approaches.

◆ **Developing communications tools.** The planning of an awareness campaign requires specific know-how and media adapted to the target group. This should be done by qualified specialists in communication.

◆ **Informing other countries.** The numerous awareness campaigns conducted

in the Mediterranean countries should be broadly publicized.

The Mediterranean center for audiovisual communication, an association of the various broadcasting companies in the area, has included water on the list of its topics. It could therefore set up a structure for the transfer of this information. The existing city networks or the networks of the MedMedia program could also facilitate the exchange of experiences on this subject.

Assuan.

Sprinkling one's doorstep freshens the air and eliminates dust. But this common practice consumes a lot of water.

Measures to be taken

- Organizing a joint awareness campaign in all Mediterranean countries on World Water Day (March 22 of each year).
- Launching joint operations by several cities of the Mediterranean basin.
- Strengthening local communications facilities.
- Launching a trans-Mediterranean campaign inciting the public to conduct local information programs.
- Identifying communications agencies and gathering the existing tools.
- Launching a "water saving" program in the schools.
- Promoting exchanges with other countries.

Training water specialists in the Mediterranean

All representatives from institutions or technical organizations of the water industry we contacted for this service insisted on the necessity of a large-scale improvement of the training given to water professionals. This need applies to both the administration and the technical services of the water sector.

During the interviews, the following main concepts emerged:

◆ Adapt training to the different existing needs. Our contacts insisted that the programs organized for this purpose

must correspond to the needs of professionals in the field (members of irrigation services or community water and sanitation managers) who are in contact with the users. While the initial training programs, particularly on the intermediary level, must be reinforced and brought up to professional standards, there is also a need for the creation of a system of continued professional training, nonexistent in many countries.

◆ Diversification of programs and systematization of training in the field of water preservation. The water supply of industries and the detoxification of their effluents requires increasingly specialized know-how that combines technical expertise, understanding of environmental issues and the ability to rationalize use of the resource. Water savings and recycling are two broad subjects on which all professionals and decision-makers we encountered want to be informed.

◆ Providing decision aids to local officials. These officials would like to attend decision-aid sessions like the "Water Days for Elected Officials" that were initiated in France by the OIEau with the support of the departments, the water agencies and the FNDAE (Fonds National pour le Développement des Adductions d'Eau).

◆ Reinforcing local training capacities. While specialized manager training programs in Europe are interesting and useful, solutions to the specific needs of each country can only be found if sufficient local training facilities



Solange Münzer

Figuig, Morocco.

In the old quarter of Zenaga, public utilities are limited to electricity.

are provided. Technicians must be trained on location, in their language and at a cost adapted to the living standard of the country.

In Morocco, ONEP has for many years operated such a training center and continues to be supported by OIEau and NAN.C.I.E. for new developments.

◆ Promoting exchanges between Mediterranean countries.

The Office International de l'Eau, OIEau, for which this activity is of primary importance, has set up a number of training centers in Valencia (Spain) and in conjunction with the Algerian Institut National de Perfectionnement de l'Équipement (INPE). OIEau also organizes regional training programs for Egyptian, Israeli, Jordanian and Palestinian technicians as part of the Middle East peace process. Other cooperation projects of this type have been requested and should be encouraged.

Measures to be taken

- Creation of a network of constant exchanges between the water training facilities of the Mediterranean countries.
- Giving priority to training on water and the environment in the exchanges between local governments.
- Systematic exchange of know-how between neighboring countries.
- Providing decision aids in special sessions for local officials.
- Developing specific support programs for training programs in each country.
- Upgrading the training capacities of each Mediterranean country.
- Creation of a Mediterranean water training center.

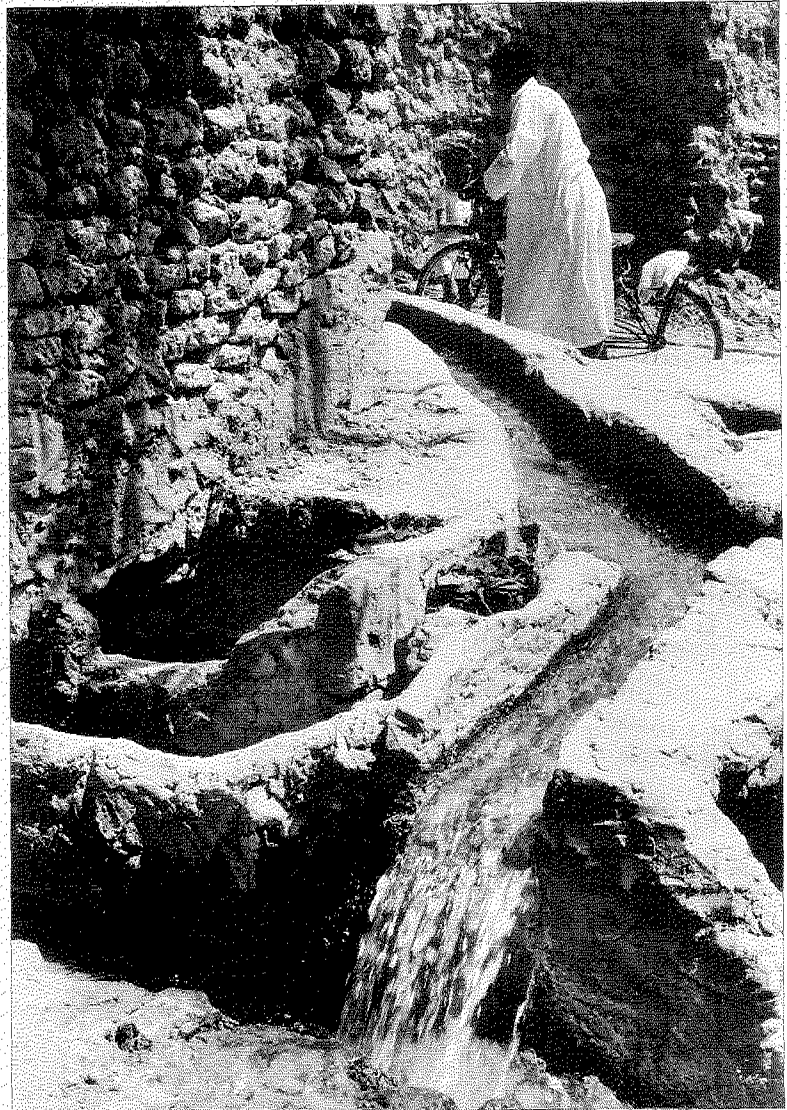
◆ Relying on the know-how of local communities and NGOs, reinforcing exchanges. A wide variety of organizations, universities, institutes, scientific bodies, unions or NGOs of the Mediterranean nations or other countries can provide specialized training in the field of water.

One of the priorities of the Med-Campus program is the training of trainers at the university and on-the-job training of administrative and technical personnel.

The Association Marocaine de Solidarité et de Développement (AMSED) and the Ministry of Health organized training sessions on health problems related to water quality.

◆ Promoting joint usage of programs and tools. According to the recommendations issued by the Euro-Mediterranean Conference in Rome (October 1992), it now appears indispensable to promote the creation of a Mediterranean water training center with the cooperation of the professional centers and institutions of all countries of the region. This network would be placed in charge of joint training programs for trainers, production of pedagogic materials and equipment, and the organization of regional training programs on topics specific to the Mediterranean.

Zenaga, Morocco.
Traditional water management methods, whose efficiency has always been recognized, are still in use throughout the Mediterranean basin.



Solange Münzer

Strengthening exchanges between the Mediterranean countries, including their civic and political institutions.

The Mediterranean has always been an area of intensive exchange; strong bonds unite its nations. Water is no exception to this rule. The Genoa Declaration of 1985 stresses the readiness of the contracting parties "to cooperate for the protection of the environment and the rational use of resources" and indicates that "the support of international, regional and non-governmental organizations is recognized as essential to fully attaining the objectives of the Mediterranean Action Plan." A multitude of Mediterranean exchanges makes it possible to confront experiences on equivalent levels of responsibility.

The representatives we encountered were more interested in a better knowledge of these exchanges than in a further increase of their numbers. All players - political decision-makers, technicians, researchers, members of NGOs, etc. - are interested in extending their partner networks.

The topics to be discussed (administration, technical know-how, training, research, awareness campaigns, etc.) require the availability of a wide range of means. To obtain a specific response to each need, the interrelations between the numerous existing networks must be intensified.

Measures to be taken

- Creation of a directory of all parties concerned with water in the Mediterranean.
- Undertaking a study of the Mediterranean networks active in the area of water.
- Initiating a forum for the identification of small and medium-sized programs.
- Defining the venues of exchange and concertation in each country.
- Linking the databases to networks like the Internet.
- Promoting the emergence of networks in the private sector.
- Raising exchanges between local governments to the operational level.
- Launching of action programs involving Mediterranean cities from the north and the south of the basin.
- Considering the creation of a Mediterranean water center.

All representatives we encountered wish to strengthen these partnerships, and in particular:

- ◆ Identify exchanges outside the existing networks. Numerous exchanges take place outside the established networks; they are little known and there is currently no way of gaining access to this information.
- ◆ Clarifying the aims of the different networks. Many networks associate partners of the same level on specific topics related to water: city networks (MedCités), media professionals (Med-Media), water management agencies (RIOB), NGOs (ALMAE), universities,

etc.; others combine several types of players, Mediterranean Water Institute (IME), Réseau Méditerranéen de l'Eau (RME), etc. It would be interesting to establish a complete catalogue of their areas of activity and the type of partners associated in them in order to clarify the role of each of them.

- ◆ Promoting synergies and concertations between networks. The current networks must be interconnected, particularly since some of them have common areas of activity.

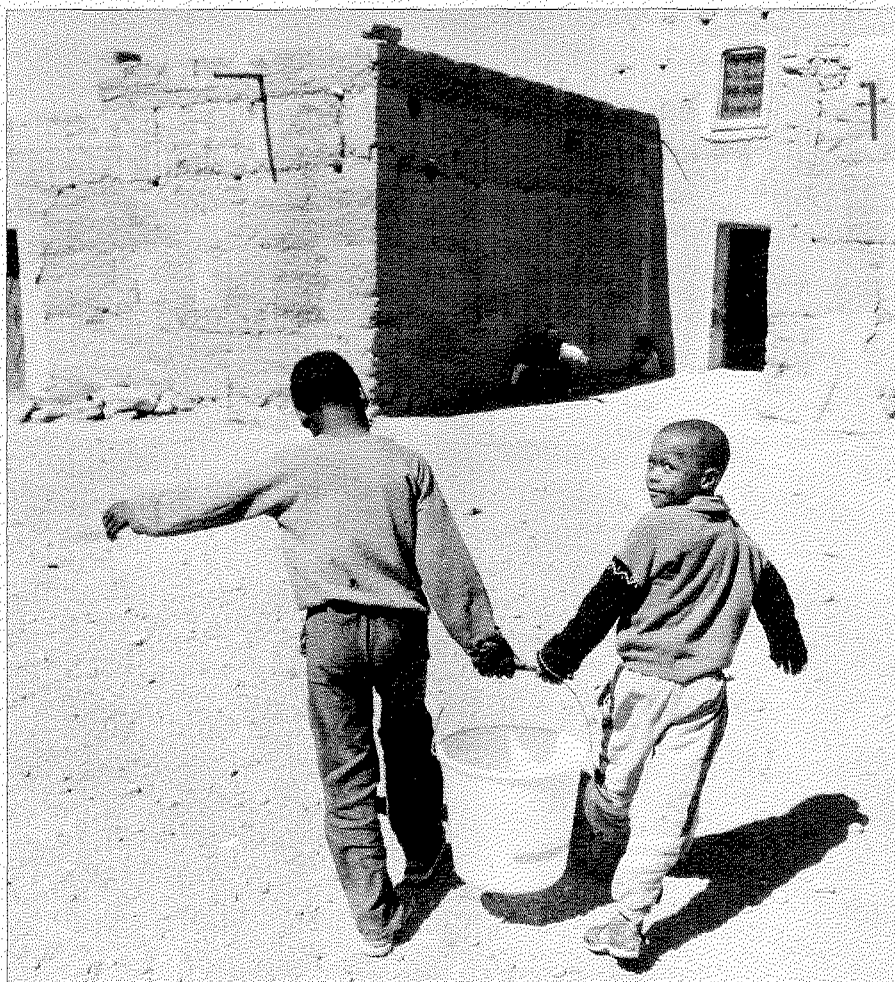
Tata, Morocco.

Water fatigue
costs the women
and children
one or two
hours per day.

For this purpose, a forum is needed that permits them to coordinate their programs. The creation of a Mediterranean water center should be considered.

◆ Extending the networks to the entire Mediterranean basin. Most of the topics dealt with in networks correspond to common preoccupations of all Mediterranean nations. To improve their efficiency and cover the entire basin, groups should be created.

- ◆ Promoting exchanges between countries with common characteristics. One of the objectives of the networks will be the reinforcement or creation of particular links between countries having comparable characteristics, in order to give added value to the experience of each of them. ■



We would like to express our gratitude to the people and organizations of the Mediterranean who agreed to participate in the survey on which this document is based.

Egypt. Cultural services of the French embassy: Mr. SALINES, medical expert, Mr. Cyril KAO, department of agricultural cooperation, Mr. Etienne MARNAVAL, Attaché Commercial for economic expansion. Institutions: National Research Center: Professor Fatima GHOARY, Director of the Environmental section, department of science. Delegation of the European Commission: Mr. Stéfan ZENS. Subsidiary Sofricide France: Mr. Néhad SHAWKI. NGOs: Spaac, consultancy: Ms Sara LOZA. Association for the Protection of the Environment, Makatam: Mrs Yousréa LOSA. National Association for the Protection of the Environment: Mr. Abdallah El EGAWY. Egypt Development: Mr. Magdy SIDHOM, Mr. Adham AKEF. **Independent and occupied Palestinian Territories.** Cultural Services of the French consulate in Jerusalem: Mr. Jean Pierre KEIL, Chargé de Mission, Mr. Marc PETILLOT, department of scientific and technical cooperation. Institutions: European delegation in Jerusalem: Mrs. Bettina MUSCHEIDT. Ministry of Planning and International Cooperation: Mrs Assaf KAREM. Birzeit University (Center for Environmental & Occupational Health Sciences): Dr Ramzi SENSUR. Municipality of Gaza: Mr. Aown CHAWA, mayor. Gaza Environmental Institute: Mr. SHAFFI, president. Delegation of Cités Unies France: Ms Najers SAIDANE. NGOs: Applied Research Institute Jerusalem (ARIJ): Mr. Jaad ISAAC, participant of the Peace Conference for Water Problems. Palestinian Hydrology Group of Gaza: Mr. Rhao JANINA. Palestinian Hydrology Group of Ramallah: Mr. Eng Ayman RABI. Palestinian Agricultural Relief Committees, Gaza: Mr. Hamed SOURANI. Palestinian Agricultural Relief Committees, Jerusalem: Mr. Judeh ABDALLAH, Mr. Yahia Abou SHARIF, journalist. **Jordan.** Cultural Services of the French Embassy: Mrs. Agnès ROMATET-ESPAGNE, councillor for culture, science and cooperation, Mr. Philippe OSPITAL, head of the agricultural mission, Mr. Gilles SARTER, national cooperation service, engineer in agronomics, Mr. BARRIAU, national cooperation service, agricultural expert. Institutions: Mr. Munther HADDADINE, participant of the Israeli-Jordanian Peace Accords on Water. Research and Study Center on the Contemporary Middle-East: Mr. Jean HANNOYER, director, Ms Anna JABERT, Mrs. Géraldine CHATELERD, Ms Stéphanie V LONG, anthropologist. European delegation: Mr. J.C. CRACKNELL, development councillor. Department of economic expansion: Mr. Michel DUGER. NGOs: Queen Alia Fund: Mr. Mufti KHALED, economist, Mr. Muhammad A. AL-LOZI, economist. Jordan Environment Society: Mr. Suleiman E. HANBALI, director general, Mr. Munir ADGHAM, projects director. **Lebanon.** Cultural services of the French embassy: Mr. Henri GENAUD, deputy councillor for education, Attaché de Coopération, Ms Sylvie THORAL. Institutions: Municipality of Saida: Mr. KALASHM, mayor, Mr. Sami BIDAWI, Ms Dina JAWAD. National Litani Office: Mr. COMAIR, director, Mrs. Awatef FAKOURI, Ms Rolla BEYDOUN, journalist. Council for development and reconstruction: Mr. Nagib BAROUDI, in charge of financial agreements, Mrs. WAFA, in charge of water and the environment. Lyonnaise des eaux Dumez: Mr. SEROPIAN. NGOs: Caritas: Mr. Michel NASSIF, secretary general, Mrs. Rita CHALIE. Secours populaire libanais: Mr. Siad ABDEL-SAMAD. Mouvement social libanais: Mrs. Mayla Bakach, secretary general, Mrs. Renée GEHA. Ecole libanaise de formation sociale: Mrs. Hyam KAHI, director, Ms Micheline SAAD, responsable de formation. NAJDEH: Mrs. Leila ZAKARIE, secretary general. Cercles d'innovations et de technologies éducatives: Ms Alia NAJEM, Mr. Chaouki KHOURY. Irap: Mrs. Janine SAFA. **Morocco.** Cultural services of the French embassy: Mr. Jean-Paul FIORES, councillor for cooperation, Mr. Olivier WEIL, public health. Institutions: Ministry of the Interior, director for water and sanitation: Mr. KAOUNI. Ministry of Public Works, Professional Training and Manager Training, Department of Research and Water Planning: Mr. Bzioui MOKHTAR. Ministry of the Environment: Mrs. El AYACHI, Mr. BENYAHIA. Onep: planning department, Mssrs HAJJI and RHALLOUSSI. Unicef: Mr. Jamal TABIB. Régie autonome de distribution: Mr. BENANI, director general. Caisse française de développement: Mr. MOULINAT. Documentation center La Source: Mr. J. LEVRAT. NGOs: Enda Maghreb: Mr. Mohamed NACIRI, President, Mr. Jean-Jacques GUIBBERT, Secretary General. Association marocaine de solidarité et de développement: Mr. Mustapha BOUHADDOU. Migration and local development: Mr. Vincent BUTIN. Somade/Almae: Mrs. Houria TAZI-SADEQ. Association Bouregreg Salé: Mrs. Habiba LAALOU, pharmacist, Mr. Nabil RAMONY, architect. **Tunisia.** Cultural services of the French embassy: Mr. Gilles BONNAUD, councillor for culture, science and cooperation, Mr. Gilles GERMAIN, deputy cultural councillor, Mr. Pasquin CRISTOFARI, industry, equipment, data processing. Institutions: Ministry of the environment and territorial equipment: Mrs. Amel BEN ZARTI, director of international cooperation. Ministry of agriculture: Mr. Ameer HORCHANI, department of hydraulic resources, Mr. Abdalkader HAMDANE, director general of rural engineering. Société nationale d'exploitation et de distribution de l'eau, Mr. Moncef MOUELHI, president and CEO. Office national de l'assainissement: Mr. BENZARTI. Caisse française de développement: Mr. THEVENINI. NGOs: Asab: Mr. Lasmi ABDELWAHED. Association pour la promotion de l'emploi et du logement: Mr. Rachid Ben AYED. Enda Inter-Arabe: Mrs. Esmâ BEN HAMIDA.

Decentralized cooperation

Needs expressed challenges to be met

Transforming past experience into concrete action

- Creation of support and information programs for local initiatives.
- Cataloguing of completed studies and the solutions they propose.
- Storing and updating this information in existing databases.
- Providing information on ongoing research and projects.

Supporting the institutions in charge of water management

- Creation of a forum for exchanges and concertation on methods and practices.
- Creation of management agencies per basin.
- Creation of multi-disciplinary task forces.

Providing better access to financing

- Creation of a single financing agency with simplified procedures.
- Allocating earmarked funds to NGOs as interfaces for small projects.
- Providing a structure capable of handling emergency situations.
- Creation of a loan agency accessible to local actors.

Promoting awareness and responsibility on the part of the users

- Organizing a joint awareness campaign in all Mediterranean countries.
- Launching joint operations by several cities of the Mediterranean basin.
- Launching a "water saving" program in the schools.
- Promoting exchanges with other countries.

Training water specialists in the Mediterranean

- Creation of a network of constant exchanges between trainers.
- Systematic exchange of know-how between neighboring countries.
- Developing specific support programs for training programs in each country.
- Creation of a Mediterranean water training center.

Strengthening exchanges between the Mediterranean countries, including their civic and political institutions

- Creation of a directory of all parties concerned with water in the Mediterranean.
- Undertaking a study of the Mediterranean networks.
- Launching of action programs involving Mediterranean cities from Europe and the south of the basin.
- Considering the creation of a Mediterranean water center.

Ministère de l'Environnement, direction de l'eau
20, avenue de Ségur 75302 Paris 07 SP (France). Tel : (33.1) 42 19 20 21.