



Environment, Natural Resources and Food



Efficient Management of Wastewater, its Treatment and Reuse in the Mediterranean Countries



Internationale Weiterbildung und Entwicklung gGmbH

Capacity Building International, Germany



Euro-Mediterranean Regional Programme for Local Water Management (MEDA Water)

Euro-Mediterranean Partnership

The Euro-Mediterranean Conference of Ministers of Foreign Affairs, held in Barcelona on 27-28 November 1995, marked the starting point of the Euro-Mediterranean Partnership (Barcelona Process), a wide framework of political, economic and social relations between the 15 Member States of the European Union and 12 Partners of the Southern Mediterranean (Algeria, Cyprus, Egypt, Israel, Jordan, Lebanon, Malta, Morocco, Palestinian Authority, Syria, Tunisia, Turkey).

MEDA Programme

Initiated in 1995, the MEDA Programme is the principal financial instrument of the European Union for the implementation of the Euro-Mediterranean Partnership and its activities. The programme offers technical and financial support measures to accompany the reform of economic and social structures in the Mediterranean partner countries. For the period 1995-2001 MEDA committed for Euro 5,458 billions of budgetary resources allocated for financial co-operation between the European Union and its Mediterranean Partners. MEDA is now in its second programming period (2000-2006) with a budget of Euro 5,350 billions.

More information:
Euro-Mediterranean Partnership
http://europa.eu.int/comm/external_relations/euromed/index.html

Euro-Mediterranean Regional Programme for Local Water Management

The Euro-Mediterranean Regional Water Programme for Local Water Management aims at the enhancement of regional co-operation in the areas of sustainable and integrated management of water resources. The relevant type of interventions are stipulated in the Ministerial Declaration and Action Plan of the 1999 Turin Euro-Mediterranean Ministerial Meeting on Local Water Management.

The programme started in 2001 with a budget of Euro 40 million.

More Information:
Marseilles Ministerial Conference on Local Water Management
http://europa.eu.int/comm/external_relations/euromed/conf/sect/water.htm

Turin Ministerial Conference on Local Water Management
http://europa.eu.int/comm/external_relations/euromed/conf/sect/water2.htm



The Needs



The project Efficient Management of Wastewater, its Treatment and Reuse in the Mediterranean Countries is funded by the European Commission in the framework of the MEDA Water Programme.

EuropeAid Co-operation Office: http://europa.eu.int/comm/europeaid/index_en.htm

Website of the European Commission: http://europa.eu.int/comm/index_en.htm

Water shortage is currently one of the biggest concerns worldwide; it is becoming a global problem seriously affecting the lives of a high percentage of the world population. The Mediterranean region belongs to the most affected areas in the world. However, the situation varies significantly between different countries: while, for example, Jordan and Palestine are already seriously affected by water scarcity today, Turkey and Lebanon, on the other hand, are not likely to face water shortage for several decades. The factor common to all countries is that, in most cases, wastewater is not adequately treated, leading to deterioration both of existing freshwater resources and the Mediterranean Sea.

The different framework conditions call for different approaches to water and wastewater management - but also allow for mutual learning. The EMWater partners aim to increase awareness and the exchange of experience on innovative solutions in wastewater treatment and reuse as well as to support the installation of new technologies. Experts from the field, decision-makers, interested citizens and civil organisations are to be involved in order to sustainably prevent water shortages and water deterioration in the Mediterranean region.

The Aim

Improving security and the safety of water supply in the Mediterranean countries is one of the most important factors in social, economic and political stability in the region and is, thus, the overall goal of the project.

Given the fact of water shortage in many Mediterranean countries, on the one hand, and increasing pollution of existing water resources, on the other, the EMWater project aims to improve water management in the Mediterranean partner countries through highlighting innovative solutions in wastewater treatment and promoting the reuse of reclaimed water.

With this aim in mind, *awareness raising* activities will sensitise experts from the field, decision-makers, interested citizens and civil organisations to these issues.

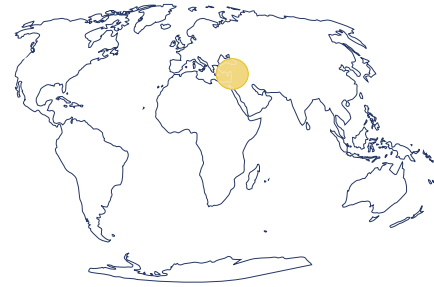
A more specific goal is the strengthening of regional co-operation both by creating networks among experts and encouraging *cross-border knowledge transfer*.

Additionally, the project aims to *strengthen capacity* through local, regional and e-learning training programmes as well as through developing draft regional policy guidelines for wastewater treatment and reuse.

While the project, which started in 2003 and ends in 2007, is limited to 48 months, its measures are designed to create long-term, positive effects in the region. The primary result of the project will be an increase in efficiency and effectiveness of wastewater management, wastewater treatment and reuse in Turkey, Jordan, Lebanon and Palestine.



The Target



Target areas

The project's target areas are the following rural or peri-urban areas in the Mediterranean partner countries:

- ① Turkey: Peri-urban area of Istanbul
- ② Jordan: Mafraq area
- ③ Lebanon: Koura area and Jbeil (Byblos)
- ④ Palestine: Birzeit / Ein Sinya

Target groups

The general and specific objectives will be achieved by involving, training, and gaining the support of the following main target groups in the Mediterranean partner countries:

Decision-makers in public authorities, the private sector, and other local institutions dealing with water and wastewater problems in general

Non-governmental organisations (NGOs) such as user and consumer associations, women's and environmental protection organisations

Universities and teaching institutions

These target groups are actively taking part in the management of the EMWater Project through their commitment in Local Steering Committees.

The Scope

Country studies

As a first step, four country studies were conducted to analyse the actual situation of wastewater management, wastewater treatment and reuse as well as the needs of each Mediterranean partner country. These studies are being published both in book form and on the websites of the Mediterranean partner organisations.

Local training programme

The local training courses are open to members of institutions and authorities involved in local water and wastewater management. They cover practical aspects such as operation and maintenance of wastewater treatment plants, treatment techniques and reuse, cost recovery, environmental impact assessment, small scale treatment plants etc. Between 2003 and 2005, a total of more than 600 participants attended 38 training modules. Another four training courses are planned for 2006 – 2007.

For further information refer to www.emwater.org/activities/training.htm

Regional training programme

In regional training courses, experts from the MEDA partner countries can increase their skills in efficient management of wastewater and wastewater reuse. The courses later enable them to transfer up-to-date knowledge to technicians and administrative staff as well as other stakeholders with practical experience in the field. In the last two project years, a total of around 70 participants attended eight different training modules. Another two training courses are planned for 2006 – 2007.

For further information refer to www.emwater.org/Training_courses/training_Regional.htm

E-Learning programme

An e-learning platform offers advanced training in efficient management of wastewater, wastewater treatment and reuse for professional engineers. In approx. 40 hours of distance learning, participants can improve their knowledge in construction and design of wastewater treatment plants, appropriate treatment and reuse technologies, cost recovery planning, quality standards, etc. Around 60 participants actively attended the two training courses conducted in 2004 and 2005. Another three e-learning courses are planned for the years 2006 – 2007.

For further information refer to www.emwater.org/Training_courses/training1.htm



EMWater Regional Conference

The EMWater regional conference "Efficient Management of Wastewater, its Treatment and Reuse in the Mediterranean Countries" will take place in Amman, Jordan, from 30 Oct. to 01 Nov. 2006. This conference is designed to foster the exchange of experience and present the state-of-the-art on issues such as low-cost technologies, operation and management of wastewater treatment, decentralisation of wastewater treatment, ecological sanitation and wastewater reuse. We are expecting the participation of 100 – 120 experts from the region.

For further information, registration, submission of abstracts and papers, please visit www.emwater-conference.org.

Guidelines

In order to support political decision-making in wastewater management and to assist in planning and implementing related projects in the MEDA region, the EMWater Project is developing draft guidelines on wastewater treatment and reuse. They will provide useful information for officials on the municipal level as well as for other stakeholders such as authorities on the national level, consultants and NGOs active in the field.

Data and information for developing the guidelines are gathered from experience on the ground as well as from existing guidelines in the region and elsewhere. Moreover, local authorities, experts and other actors are included in guideline development through interviews and surveys.

The guidelines will be published on www.emwater.org



Pilot plants

Complementary to guidelines and trainings, the EMWater Project will provide possibilities to apply newly gained know-how practically:

Pilot plants are built to demonstrate appropriate techniques of wastewater treatment and reuse. This will allow participants of training programmes as well as other interested actors to observe small scale and low cost wastewater treatment and reuse technologies in operation.

The results and experiences from running the pilot plants will serve as a basis for adapting technologies to local conditions.

After their completion, the pilot plants can be visited in the following locations:

- Turkey: Yildiz Technical University / Atakoy
- Jordan: Al al Bayt University / Al Mafraq
- Lebanon: Lebanese American University / Byblos and University of Balamand / Tripoli
- Palestine: Birzeit University / Ein Sinya / Ramallah

The Consortium

All partners in the Mediterranean partner countries are well established scientific institutions with experience in water related issues. Their responsibilities within their own countries will include the collection and evaluation of relevant data on water topics, the dialogue with the local authorities and other stakeholders, and organising the implementation of planned measures, general dissemination and follow-up activities.

The European partners will assist the Mediterranean partner countries by implementing the project of integrated wastewater management and reuse.

InWEnt - Capacity Building International stands for the development of human resources and organisations within the framework of international co-operation. InWEnt's services cater to skilled and management staff as well as to decision-makers from business, politics, administration and civil societies worldwide.

InWEnt works with partners from developing, transition and industrialised countries and in this way reaches some 55,000 persons yearly.

As the leading institution within the EMWater Project, InWEnt is responsible for the overall management of the project and supports the Mediterranean partners in implementing the training courses.

Adelphi Research, a non-profit research organisation in environmental policy and technology transfer, acts as adviser for the Mediterranean partner countries, especially for the *University of Balamand* (UoB) and the *Lebanese American University* (LAU) in *Lebanon*. The UoB is a private, non-profit, independent Lebanese institution of higher learning. One of its key aims is to provide an intellectual, moral and cultural antidote to the long years of internal war in Lebanon. The LAU is a liberal arts institution that believes in both liberal and specialised education. The university prepares students for responsible living, with full consciousness of the rich heritage and multiple needs of their respective communities.



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adelphi research

The *Hamburg University of Technology*, a young university of technology highly regarded in Germany for the interdisciplinary and industrial orientation of its research, is working closely together with the *Yildiz Technical University of Istanbul* in *Turkey*, having a modern educational environment and a strong academic staff. The Yildiz Technical University is a government university which defines and continues to update methods of engineering and architecture.

ENEA, the Italian National Agency for New Technologies, Energy and the Environment, is one of the largest scientific and technological state-owned Italian institutions with a specific mission in applied research activities, technology transfer and dissemination of innovation to companies.

ENEA is cooperating with the *Al Al-Bayt University* in *Jordan* which serves the local community and helps the country by applying their expert knowledge in environmental protection to solve problems of national and international concern.

ENEA also assists the *Birzeit University* in *Palestine* with its range of institutes, centers and programmes that carry out community oriented activities, aiming at sustainable development of Palestine and preparation of the younger Palestinian generation to become responsible leaders and citizens.



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The Network



Project management team

The project management team plans, implements and monitors all project activities. It is led by the project director based in Amman, Jordan, who is responsible for the overall management of project implementation.

Project coordination

The overall coordination is done by the head office in Amman, Jordan, and InWEnt in Berlin, Germany. This includes financial management, budget planning, quality control and monitoring.

Visit our website for more information:
www.emwater.org

Local steering committees

In each of the Mediterranean partner countries, an external advisory committee (local steering committee) assists the local project managers to achieve optimal project results. The local steering committees are composed of representatives from local institutions, NGOs, users and consumer associations, women's and environmental protection organisations, and water authorities.

Regional steering committee

A regional steering committee composed of representatives from the local steering committees assists the project director by managing the entire project at a regional level. Detached from the day-to-day details, this committee guides and monitors the project and the evaluation process.

Department 5: Environment, Natural Resources and Food

The Environment, Natural Resources and Food Department is made up of three divisions in Bavaria, Saxony and Berlin – three specialised centres of competence which are mutually complementary and supportive. We target developing, transition and emerging countries and offer human resource and organisational development at three different levels:

Individual: Fostering competence of decision making and action taking for specialists and executives.

Organisation: Strengthening the performance of organisations in the public and private sector.

System: Playing a role in shaping frameworks for political institutions through political dialogue and the creation of learning networks.

Nine key areas form the centerpiece of our professional expertise:

- Development management
 - Energy and climate protection
- Natural resources
- Environment
- Global water resources
- Rural development
- Global food security and consumer protection
- EU enlargement and EU convergence
- Disaster prevention and management



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http://www.deljor.cec.eu.int/en/eu_and_jordan/cooperation.htm

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