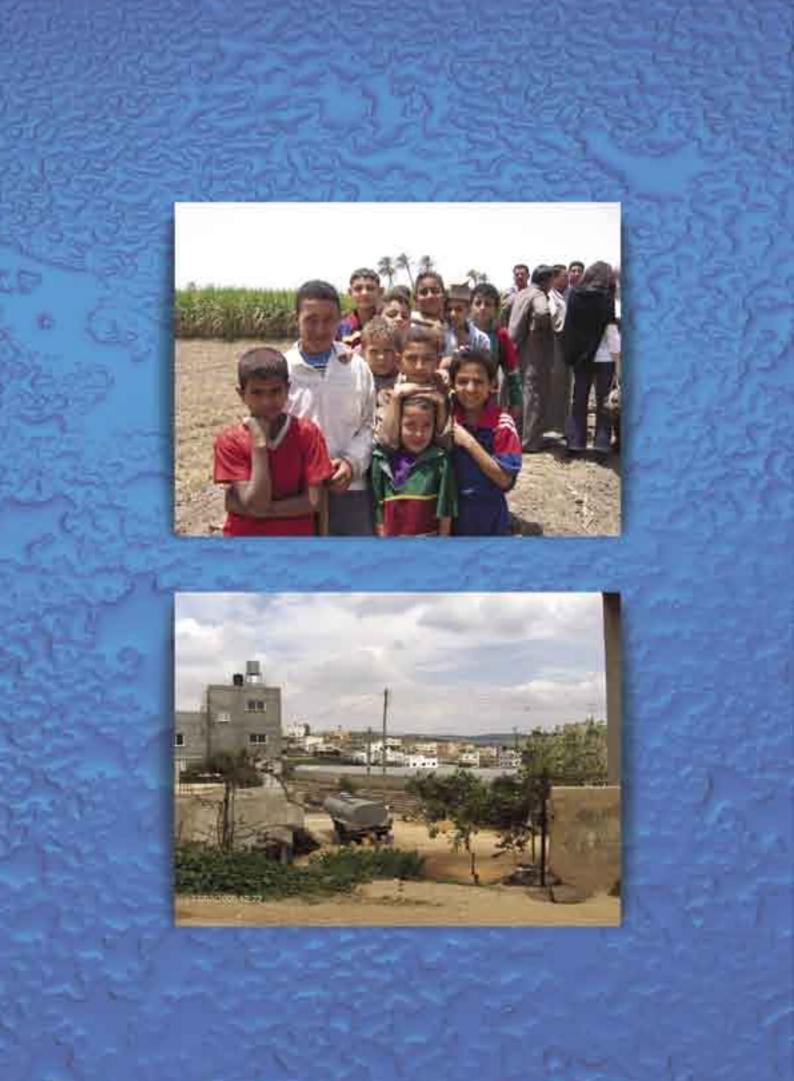


EMPOWERS Regional Symposium: End-Users Ownership and Involvement in IWRM

EMPOWERS Progress in Year III EMPOWERS Regional Cross Visits Programme A Case Study from Lebanon's Bekaa Valley



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EMP WERSInsight



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EMPOWERS Partnership is facilitated and implemented by fourteen organizations that have decided to work together in regional and national partnerships.

These organizations are:

In Jordan

- Ministry of Agriculture / Water Department.
- The Queen Zein Al-Sharaf Institute for Development (ZENID).
- CARE Jordan.

In Palestine

- Palestinian Hydrology Group (PHG).
- Union of Agricultural Work Committees (UAWC).
- CARE West Bank & Gaza.

In Egypt

- Development Research and Technological Planning Center (DRTPC) at Cairo University.
- National Water Research Center (NWRC) of the Ministry of Water Resources and Irrigation.
- Egyptian Water Partnership (EWP).
- Federation for Environmental Protection & Improvement (FEBI), Beni Suef.
- Coptic Evangelical Organization for Social Services (CEOSS).
- CARE Egypt.

Regionally

- International Water and Sanitation Centre (IRC); Delft, the Netherlands.
- Inter-Islamic Network on Water Resources Development and Management (INWRDAM); Amman, Jordan.
- CARE International (UK, NL, USA).

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By Peter Laban EMPOWERS Regional Coordinator

Why should people care about water?

It seems a question with an obvious answer. People need water for everything in their daily lives whether for agriculture, crop irrigation, cooking, house cleanliness, washing, to water plants in the garden, to drink, or to take a bath. Maybe a better question could be: Can people take care of their water resources? In other words, do people have the means to ensure that water resources and infrastructure for their community or households are taken care of? Is it possible for people to make sure that water resources are clean, functional, and providing enough water and at reasonable price? In more technical terms, do people have the capacity, knowledge, rights, and influence, to contribute to the best management of their water resources (whether springs, wells, a drinking water network, or an irrigation channel, etc.), so they can receive maximum benefit?

In EMPOWERS we are convinced that basically, people are very well aware of the need to manage their water resources efficiently. In Palestine for example there is water shortage not only because of the scarcity of resources. The oppressive and illegitimate Israeli Occupation of Palestinian land led to a scarcity of water resources that reach unacceptable levels. Nevertheless, also in Palestine, local communities are looking for ways to better use and manage their water resources. The people feel highly responsible for water consumption in their own local context. However, most of the time, the conditions are not always helpful to enable people to take care of their water resources, or to feel responsible for its use and management. Do people really feel accountable for the use and management of water resources and the infrastructure that serves their needs? In many cases people feel helpless and unable to assume such responsibility. This could be because people are not sure about the rights and access they have to a water source or to a water network, and sometimes they are not convinced that they can benefit from these water sources and infrastructure for the price they are paying. Sometimes they feel disempowered because there are many questions they cannot address on their own, and they feel they lack the capacity and knowledge to best manage a certain type of water source or infrastructure. Indeed as in many other situations of natural resource management, people would like to take up the responsibility but they cannot do so. In EMPOWERS we want to know more about the subtle reasons why people are often unable to assume responsibility for the management of their water resources. In the coming year we will conduct more studies on water rights and access.

Keywords in EMPOWERS Insight

- EMPOWERS Partnership
- Integrated Water Resources Management
- Sustainable Development
- MEDA Water Programme
- Local Water Governance
- Stakeholders Dialogue
- Concerted Actions
- Knowledge Community
- Pilot Project
- IWRM Planning Cycle
- Middle East and North Africa
- Participatory Approach



What is **EMPOWERS**?

The Euro-Med Participatory Water Resources Scenarios (EMPOWERS) is a four-year (2003 - 2007) regional programme in Egypt, Jordan and Palestine. EMPOWERS is a partnership that seeks to introduce improved local water governance which will lead to better long-term access to water by populations currently suffering from the scarcity of this essential natural resource. This Partnership is introducing such improvement through developing participatory planning approaches and involving all stakeholders and end-users in the making of important decisions about water, and by enhancing dialogue and concerted actions. The EMPOWERS teams work on establishing stronger cooperation between stakeholders, improving multilevel decision making, and empowering citizens and institutions at intermediate and community levels. Through these efforts EMPOWERS Partnership is promoting local level, Integrated Water Resources Management (IWRM) by which all water uses and applications are to be handled in an integrated manner. To attain these objectives, EMPOWERS invests a lot of work in building the capacities of local communities for IWRM, while involving national level stakeholders as to harmonize between local activities and national polices.

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EMPOWERS Progress in Year III

Country-Level Milestones

EMPOWERS Partnership:

- Efforts have been made to further EMPOWERS' approaches after the end of this project by initiating new partnerships.
- The EMPOWERS Partnership in Egypt has been further strengthened with two more organizations: CEOSS and FEPI.
- A very motivated group of key stakeholders are now part of the broader EMPOWERS Partnership. They form part and parcel of the implementation of EMPOWERS activities, especially at the governorate/district and community levels.

Country Programmes:

- Linkages created thus far in the project were consolidated through the different water platforms (national, governorate and village).
- Water groups have been created to better enhance the involvement of vulnerable populations into the water decision making process. The different groups (men, women or mixed) participated in data collection, visioning for the villages and strategy setting. Along with community leaders, they wrote the community proposals and are taking part in implementing the community pilots. See www.empowers.info/page/2200
- A first round of community pilot projects was completed and a second round is being implemented. Some of the pilots attracted external funding. See www.empowers.info/page/2084
- Three additional communities were identified in each of EMPOWERS countries to further test and consolidate the PWPC-SDCA approach.
- In all three countries work has been done to develop a Governorate Water Strategy for the coming ten years, following the same process of problem analysis, scenario and strategy building and subsequently the identification of a priority plan.
- Consultation has gone a far distance with government departments for the establishment of Governorate Water Management Information Systems to be housed within the governorate offices.
- Awareness on the benefits of participatory approaches and on rights/responsibilities in local water management has reached a high level among the various stakeholders, including population of target areas, the functionaries of government agencies and civil society organizations as well as decision makers of different levels.

Regional Milestones

- Detailed guidelines for implementing PWPC methodology through SDCA approach were developed; a first version of these guidelines, in English and Arabic, was released. See www. empowers.info/page/120.
- An active, informative and increasingly used public website in English and Arabic is being visited from all over the world.
- A Regional Cross Visits Programme was organized and implemented by EMPOWERS as an End-Users Exchange Programme for local initiatives on public participation in IWRM during the months of August and September 2006 in Jordan and Egypt.
- EMPOWERS Regional Symposium on "End-Users Ownership and Involvement in IWRM" was successfully held in Cairo (Nov. 2005) with the participation of more than 60 persons and presentation of 30 papers mostly from the MENA Region.
- Recommendations for Policy and Practice on Improved Water Governance in the Middle East and North Africa, a major output from EMPOWERS Symposium were published in Arabic and English after being endorsed by several regional and international organizations like IUCN, IDRC, UNESCO-IHE, EMWATER Project, CEDARE, and EMPOWERS partners.
- Several team members participated in different water related activities and events like the 4th World Water Forum in Mexico, CARE MERMU Regional Conference in Egypt, IRC Symposium in the Netherlands, and the IDRC & 3rd World Water Center workshop in Egypt.

What's next?

- Finalize the implementation of the second round pilot projects in the "old" communities, and first round pilots in the "new" communities with more involvement and role of the stakeholders.
- Finalize the development of Governorate Water Strategies through the application of district/governorate level PWPC/ SDCA, and continue support to the implementation of the governorate water management information systems.
- Have the EMPOWERS documentary films on water issues in Egypt, Jordan and Palestine broadcasted on local and international TV stations.
- Hold "National Policy Workshops for Scaling Up EMPOWERS" in each of the project countries during December 2006 and January and February 2007.
- Finalize the Working Papers series and issue the Guidelines for Improved Local Water Governance in Arabic and English and the training tool kit.
- Hold the "Regional Forum on Local Water Governance" in Jordan (June 2007) involving policy makers, donors and regional networks in the field of water management.

Second Round of Pilot Projects

EMPOWERS has grounded its work through the design, development, and implementation of pilot projects in each of its selected communities. Through these pilots, EMPOWERS developed and tested the tools and approaches in a hands-on learning process with the different country teams (facilitators and direct stakeholders), while using the first round of pilots to build capacity, ownership and commitment, and bringing the viewpoints of all those involved closer towards a shared vision and a common understanding of Integrated Water Resources Management (IWRM) and Stakeholder Dialogue and Concerted Actions (SDCA) - the two

main domains of action in EMPOWERS.

Although the pilot projects form an important deliverable of the project and are of course very important for the communities involved, an important function of the identification and implementation of these pilot projects is to test and substantiate the overall methodology of Participatory Water Planning Cycle (PWPC) by a SDCA approach. The prioritisation of the communities' water needs that followed the detailed problem analysis, visioning, scenario and strategizing steps of the PWPC has further guided the selection of the new pilot projects as the box below shows.

Community	Pilot Project	Responsible Community Organization	Funding
	EGYPT / Beni Suef Governorate		
Masharqa	 Enhance potable water network maintenance and control. Activate water users associations (WUA) for one "mesqa" and provide solutions for Irrigation Improvement Project. Increase number of people connected to potable water services. Conduct a study to identify best solutions to the problems of solid and liquid waste disposal systems in village. 	 Community development associations (CDA), women group, Potable Water Authority (PWA) CDA, farmer group, Ministry of Water Resources and Irrigation (MWRI) CDA, PWA CDA, experts 	1. EMPOWERS, PWA 2. EMPOWERS, MWRI 3. EMPOWERS 4. EMPOWERS
Mansha'at Kassab	 Activate WUA for one mesqa and provide real solutions for Irrigation Improvement Project. Rehabilitate village cesspits along with creating liquid waste collection procedure. 	1. CDA, farmer group, MWRI 2. CDA, PWA	1. EMPOWERS, MWRI 2. EMPOWERS
	JORDAN / Balqa Governorate		
Subeihi	Rehabilitate two springs.	Subeihi Voluntary Society	The Netherlands Embassy
Rweiha	Strengthen Community Water Committee through a revolving fund for water management and agricultural purposes.	Rweiha Cooperative Society	EMPOWERS
Omm Ayyash	 Improve domestic water management (e.g. increase drinking water storage capacity and establish suitable sewage cesspits). Establish a center for selling agricultural and environmental equipments. 	Sayyidat Omm Ayyash Cooperative Society	1. EMPOWERS, 2. Global Environment Fund (GEF)
	PALESTINE / Jenin Governorate		
Qabatya	 Study and redesign the municipality water network. Install water meters on agricultural wells to organize and account for irrigational uses of water by farmers who do not have a well of their own. 	 Municipality, Palestinian Water Authority (PWA) Farmer group, Ministry of Agriculture (MoA) 	1. EMPOWERS, Municipality 2. EMPOWERS
Meithaloun	Drill an artificial groundwater recharge well in the highly fertile but often flooded Marj Sanour Valley, and study its technical, socio-economic and environmental effects.	Municipality, PWA, MoA	EMPOWERS, Municipality
Jalboun	Construct metal water reservoirs for harvesting rainwater from the roofs of green houses and other micro-catchment areas and study technical, economic and environmental effects and advantages.	Local Council, Local Water Committee	EMPOWERS

The details of the pilot projects are available at http://www.empowers.info/page/2084.

Accompanying Local Stakeholders in Negotiation Processes Related to Water Allocation through Simulation Models and Role-Playing Games: An Experience from South Africa

Stefano Farolfi

Cirad-UPR Green and Ceepa, University of Pretoria **Kate Rowntree** Rhodes University

Introduction

During the last twenty years, the concept of decision-making on natural resources has been criticized and modified by various research communities within almost all disciplines. In social sciences, for instance, ecological economics (Costanza, 1989; Ramos-Martin, 2003) and neo-institutional economics (Bromley, 1982; Soderbaum, 1992) have addressed issues such as uncertainty and incomplete information that were not explicitly taken into consideration by the conventional mainstream environmental economics (Janssen and Ostrom, 2004).

In South Africa, the new national water legislation (1998) introduces a modern framework of integrated resource management in a social context still affected by severe gaps and backlogs inherited by the Apartheid regime that ended in 1994. While there is a political imperative to promote the democratisation of decision making regarding the use of water, local institutions do not yet have the capacity or the tools to take on board these responsibilities. This paper presents and discusses an innovative action-research approach aimed at facilitating negotiation and decision-making capacity on water management at a local scale. The Kat River catchment in the Eastern Cape of South Africa is the study area.

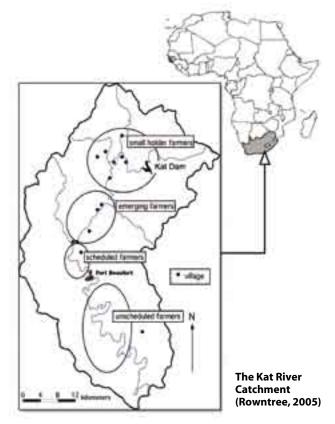
The paper is organised as follows: section 2 provides an overview of the recent developments in the South African water sector institutional and legal frameworks and illustrates the Kat river context of multi-stakeholder negotiation around water; section 3 introduces the Companion Modelling approach and describes the negotiation tools that are being developed in the Kat; some elements of discussion are provided in section 4.

Institutional, legal frameworks and multistakeholder negotiations around water in the Kat River catchment

The new National Water Act of South Africa (NWA, 1998) promotes integrated and decentralised water resource management in a new institutional environment. Decentralisation of water management is promoted through catchment level water management institutions such as Catchment Management Agencies (CMAs) and Water User Associations (WUAs). As a consequence, a clear need emerges for tools that can help the future decentralised water management institutions accomplish their complex tasks.

The Kat River valley (Map) is situated in the Eastern Cape province of South Africa.

The present land and water uses in the catchment are the result of a complex history of politically driven changes to land access since the time of settlement by white colonialists in the early nineteenth century. Today the main water related stakeholders in the Kat Valley are four groups of irrigators (in function of their cultivated surface, water rights and crops produced), domestic water users and the Municipality.



As part of the redress process that followed the end of Apartheid, all irrigation boards controlled by white farmers have been required under the National Water Act to transform themselves into Water User Associations (WUA) that are representative of all water users in the area.

The Kat River WUA came into being in December 2001. The constitution of the WUA includes the following objectives: to provide water for the beneficial use of members; to actively care for and manage the health of the Kat River and Kat Dam. Under ancillary functions the WUA is mandated to "provide catchment management services to or on behalf of responsible authorities".

Action research and stakeholders' involvement through the development of simulation models and role-playing games

Simulation models (SM) and role-playing games (RPG) are increasingly adopted for educational purposes as well as for dealing with negotiation issues (Barreteau, 2003; Meadows and Meadows, 1993; Farolfi et al., 2004). A SM and a RPG are being developed to contribute to the process of building the capacity of groups of stakeholders in the Kat River valley to understand and design their own negotiation process and to select decision-making criteria for their catchment.

The development of the model AWARE (Action research and Watershed Analysis for Resource and Economic sustainability) in the

Studies



Groups discussing water demand over a year during the first Companion Modelling workshop with the Kat River Water User Association (photo by B. Bonté).

Kat River catchment follows a scientific posture called Companion Modelling (ComMod). According to this approach, "Stakeholders learn collectively by creating, modifying, and observing simulations. When carrying out simulations, one acts on the decision-making process by creating or modifying representations. ComMod leads stakeholders to share representations and simulations taking into account possible decisions and actions (management rules, new infrastructures, etc.) that are under consideration within their own environment. Simulation accompanies an iterative research process that is specific to each situation. The endless following cycle field work-> modelling -> simulation -> field work again, etc. corresponds to this concept. This leads to a diversity of models and methods, each contributing to a new kind of relationship between the simulation, the research itinerary, and the decision-making process" (The ComMod Group, 2004).

In the case of the Kat River catchment, the Companion Modelling process is implemented by iteratively co-developing the model AWARE with the local WUA. Playing a role-playing game derived from the model facilitates its comprehension by stakeholders and lays the basis for further discussion and model development. The cycle that is being adopted in the Kat River is illustrated in Figure 1.

A first workshop, in which the majority of representatives of the Kat River Water User Association participated, took place in June 2005. Representatives came from a wide range of socio-economic groups that included large-scale farmers, small-scale farmers, domestic users and the local municipality. During this workshop, local stakeholders discussed and approved the ComMod process and the prototype of the AWARE model. Before presenting the model itself, working group sessions allowed the strategies and concerns of each group of stakeholders to be presented and

discussed. The photo above shows participants using wooden blocks to build histograms representing their seasonal water use. This helped them to understand the computer generated graphs as part of the model output. Moreover, these representations of water used were incorporated into the next version of the model that was used in the second workshop.

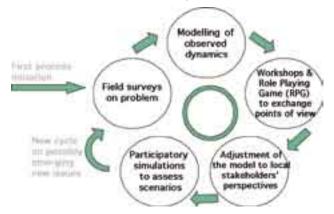


Figure 1- The Companion Modelling approach (adapted from Cirad, 2005

A second workshop in September 2005 was aimed at discussing the modified version of the model so that it could be developed further to better represent the Kat situation.

In November 2005 a role-playing game session was run in which the stakeholders took the place of the model's agents and acted

according to their own strategies over a seven-year period. The game outcomes were calculated by the same model as previously described. Through playing this game the actors got a better understanding of its functions. This session also provided further information regarding local water users' strategies and behaviors to be introduced in a third version of the model. This new version will be presented and discussed in October 2006.

The use of repeated cycles of modelling and discussion sessions enables researchers and their partners to reach progressively more appropriate conclusions (Figure 2). It is equivalent to what some authors call the "hermeneutic spiral" (Gummesson, 1991).

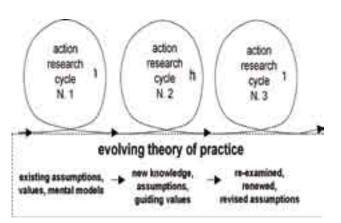


Figure 2 – The iterative nature of action research (Allen, 2000)

Discussion

This paper presented an on-going application of an innovative approach called Companion Modelling (ComMod) to facilitate multi-stakeholder negotiations around water allocation in the Kat River Catchment of South Africa. As the process is ongoing, only some elements of discussion may be proposed at this stage.

Developing the AWARE SM and playing the derived RPG in a context of a real negotiation process for the use of a limited water resource has the main advantage of providing a framework of knowledge and information common to representatives of all the stakeholders from a specific watershed. During the workshops, the focus is not only on the results and the figures that are obtained (scenarios), but also on the dynamic processes and interactions that take place among groups of stakeholders, between them and the public authority, and within the environmental and socio-economic systems. The awareness and knowledge by all water users of these multiple and interactive processes represents a clear example of local stakeholders' empowerment.

The ComMod approach follows the post-normal science posture, for which the final objective is not decision-making and production of definitive results, but rather to enrich the process of multistakeholder negotiation contributing to participatory decisionmaking. In other words, the ultimate target is not the quality of the choices, but rather the quality of the process that conducts to these choices. The process thus enables participants to become better prepared to face an uncertain negotiated future, rather than encourage prescriptive planning of future water allocations.

As for all action-research operations, it is very difficult to assess the real impact that the adoption of this approach has on local stakeholders' learning and possible change of practices. A valuation process is currently underway in the Kat valley to understand extent to which the ComMod approach is affecting individual and collective actions regarding water management and allocation.

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The above is an excerpt from a paper presented at EMPOWERS Regional Symposium: "End-Users Ownership and Involvement in IWRM" in Cairo, Nov.2005. Full text is available online through: http://www.empowers.info/page/1976/offset/20



Increasing Local Involvement in Wastewater Treatment Planning: A Case Study from Lebanon's Bekaa Valley

Cynthia Carlson P.E. (CDM), John Crippen P.E. (CDM), Sana Saliba (USAID)

Introduction

Through the **"Small Village Wastewater Treatment Systems (SVWTS)"** project, the United States Agency for International Development (USAID) Mission to Lebanon seeks to provide a solution to uncontrolled discharges of untreated domestic wastewater which contribute to the degradation of the water quality in the Litani River. To mitigate this problem, the project team, led by CDM, is designing subregional treatment plants to serve local municipalities.

Upon completion of the plants, the beneficiary municipalities will have responsibility for plant operation and maintenance (O&M). Concerns raised by the municipalities include:

- Maintaining continuity between subsequent municipal administrations, i.e. continuing operation of the plant after municipal elections occur; and,
- Establishing the financial and technical capability to provide O&M for the plants.

These concerns are addressed through communication with municipalities and Lebanese ministries; careful plant design; and activities supplemental to the project, such as public education and operator training. This paper discusses the approaches to communication with municipalities and the public and specific examples to illustrate relative successes. Early communication is believed to improve overall project sustainability by increasing a feeling of end user responsibility and ownership.

Initial Meetings with Municipal Government

The project team drove through the area to locate villages that had a wastewater collection network, and were of a size capable of supporting a wastewater treatment facility. The team then arranged for formal meetings with the mayors and/or engineering staff of the village to complete an informational survey and discuss the project. The team collected detailed information by visiting the most promising villages at more length, collecting wastewater and river water samples, viewing data collected by the municipality, and discussing the project with both municipal representatives and local residents.

The project team presented the project

overview to municipal representatives, including the responsibilities of both parties: CDM/USAID to design and build a treatment plant suitable to the region and to municipal needs; the municipality to provide the land for that plant and to operate and maintain the plant once constructed.

Initial meetings with mayors and municipal officials were quite productive and positive. Those present were all extremely enthusiastic about the project. However, in several villages, issues and objections surfaced at subsequent meetings or between meetings. Although the majority of municipalities initially approached maintained high interest in the project, several dropped out of the program voluntarily. These municipalities were concerned about the political impact of working with a foreign entity and about the financial burden of maintaining and operating the plant in perpetuity. Municipalities that made the decision to go forward with the project were asked to submit a letter stating their interest, and to assist in scheduling a meeting inviting the general public to learn about the project.

Public Meetings

Public meetings gave the project team the opportunity to inform the public



about the project, discuss the municipal responsibilities should the project go forward, and gauge the public opinion about the project. The presentation was in Arabic and included proposed plant locations, technical details about the proposed treatment process and details about the projected benefits, and responsibilities for each village and its population.

Those present at the public meetings varied from municipality to municipality. Some meetings were attended by a broad cross section of the population (including boy/girl scouting groups, professional and working men and women, and retired men and women), while some were exclusively the male heads of households of the prominent local families. The project team preferred broad cross section meetings that gave the entire community an opportunity to learn about the project and raise concerns early, while it was still possible to address those issues easily.

In the often lengthy question and answer period following the presentations, the public was found to be generally very supportive of the project. Environmental degradation due to uncontrolled wastewater discharge was seen as an important public health and quality of life issue by those attending the meetings.

Meetings with Governmental Officials

The project team made an effort to include all levels of government-from national government to end users-in major project decisions and approvals, although the focus was on beneficiary municipalities. Discussions were held with the Ministry of Energy and Water (MEW) (responsible for wastewater treatment), the Ministry of Environment (MoE) (responsible for environment impact assessment permit approval), and the Ministry of Interior and Municipalities (MoIM) (responsible for overview of municipal actions and budgets). Initial meetings with the municipalities highlighted the importance of the MoIM in the project, as several of the municipalities requested MoIM approval before becoming involved.

Examples of Method

Village of Ablah – This municipality was very eager for a treatment plant. An early public meeting identified a potential odor problem; the parcel initially identified by the municipality was near land that residents had earmarked for future residential development. During discussion of the location of the proposed parcel in the public meeting, when objections to the identified parcel arose, those present examined a map for an alternative parcel. A second potential parcel of land was identified with the assistance of the public and the municipal officials present. Subsequent investigations (survey, geotechnical review, etc.) found this parcel to be a better location for the plant, resulting in a very good solution for all parties. This public presentation was very small compared to other presentations, with only 12 persons attending. However, having fewer people present allowed a detailed discussion that would not have been possible at a meeting of 50 persons.

Villages of Qaraoun, Baaloul, Machghara, and Aitanit - These villages are all located near the southern tip of Lake Qaraoun, a man-made impoundment of the Litani River important for irrigation in the region. Several schemes were investigated, including each village having its own treatment facility. However, even though there is hilly geography and relatively long distances between the communities, the project team, municipal governments, and public together decided to establish one plant with a discharge directly to the Litani River, south of the lake for all of the villages. Although other adjacent villages in Bekaa were not willing to work together, these villages sharing a shoreline saw the common good resulting from wastewater treatment.

Results of Method

Overall, the results of this method of approaching municipalities and end users were very positive. In the absence of a strong national authority to operate planned treatment plants, the local end users can be empowered to take control of wastewater treatment. It certainly helped that wastewater treatment is deemed quite important by the end users and is related to environmental and public health through agriculture and river water quality.

The municipalities that voluntarily dropped out of the project were perhaps less likely to have been successful in eventual operation and maintenance of the plant. Moving forward with only municipalities enthusiastic about the future responsibilities may heighten the chances of long-term project success.

Note: The opinions expressed herein are those of the author(s) and do not necessarily reflect the views of the U.S. Agency for International Development.

The above is a summary of a paper was presented at EMPOWERS Regional Symposium: "End-Users Ownership and involvement in IWRM" in Cairo, Nov 2005.

A broader overview of this project, including brief author biographies, further discussion on village selection, and bibliography, can be found at http://www.empowers.info/page/ 1976/offset/10.



Do local people accept gray-water technology?*

By Peter Laban

Regional Coordinator EMPOWERS

A lot of effort is put in the last ten years in the search for low-cost and acceptable technologies to treat and reuse wastewater. Research on these issues is urgent as many people in this region suffer from important water scarcities and food insecurity. Technological contributions to solutions that respond to the demand for water at the household level are therefore a necessity. Such contributions will complement the search for more effective and participatory planning and policies in the water sector.

However, technology to be adopted by local people need to be embedded in their cultural and socio-economic reality. This applies to both rural and urban settings. It is great to be able to demonstrate that one or another technology succeeds to treat wastewater - gray or even black - in a way that is technically feasible and respects different ecological and quality/health criteria. However, if such a technology is financially not affordable and does not consider the cultural or even religious values that people adhere to, then it will become very difficult to apply such technology at scales that have the desired impact. Moreover, many technologies introduced from outside suffer from the fact that people have not really taken ownership for the development of such technologies and thus often do not see their relevance in their daily life. There may be four important questions that people will raise when exposed to a new technology for treatment and re-use of grey water.

1. Am I allowed to use it?

How acceptable is the technology in view of cultural and religious values?

- 2. Can I pay it and/or does it reduce my cost of living? How affordable is the technology and what are the financial benefits?
- How difficult is it to use it? What is the required knowledge to install, operate and maintain it?
- 4. Does it give me more water to use in a safe way? How does it improve access and rights to sufficient and good quality water?

It is important to give adequate answers to these questions which I think are critical to make sure that people will feel comfortable with such a new technology and will take ownership for its use and maintenance. Related to that, it is also important to use methodologies that develop "new" technology in a participatory way. Such Participatory Technology Development (PTD) has been tested since more than 20 years and would be useful to apply in this domain. A lot of work has still to be done to make relevant technologies acceptable and affordable. More emphasis should be given for this in future development programmes.

* This article is an excerpt from a key-note paper prepared for the IDRC/CSBE "Graywater Stock-Taking Meeting" (11-15 Feb. 2007, Aqaba, Jordan).

Key Concepts in IWRM

By Patrick Moriarty, Charles Batchelor and Peter Laban

Water poses significant management challenges because of its special nature as a resource that is constantly in motion and whose availability and quality can vary dramatically in both space and time. These challenges can be discussed under the following four headings:

Scale

The most important aspect of scale is that all users of water from a common catchment or aquifer are in one way linked by the hydrological cycle. This is rarely evident to individual users. For example, people do not always experience directly the impact of their behaviour on downstream users. It is the aggregation of actions of thousands or millions of individual users, each action in itself possibly insignificant that, when taken together, lead to impacts that are critical to other users.

Institutional Levels

Institutional or administrative levels are closely related to issues of scale. However, one of the main challenges of IWRM is to deal with the frequent mismatch between institutional and natural or hydrological boundaries. In classic IWRM this is dealt with at the largest physical scale by creating basin or catchment level authorities. But what happens at the lower levels? At the community level, different uses and users of water are generally (though far from totally) integrated. Where different user groups -irrigators, livestock herders, domestic users- exist and as long as the community is not too large or divided, it is possible for coordination to be achieved at relatively low cost. However, as one moves up scales and administrative levels, the requirement of specialization and centralized control have led to the division of responsibilities between different sectors.

Sectors

At higher administrative and institutional levels, the development and management of water resources is typically divided between different sectors. In the EMPOWERS project the most important are domestic and irrigation sectors. Traditionally, when resources were less scarce, and budgets and planning more centralized, it made some sense to develop these sectors in isolation from each other. Yet this posed a key challenge of IWRM which is to break down sectoral barriers to planning, and to provide common platforms and frameworks for the development and management of all water resources.

Variability and Uncertainty

Water resource availability in space and time is inherently variable. Rainfall quite naturally demonstrates patterns of above and below average. Much of the history of mankind's interaction with water has been related to trying to reduce the impacts of this variability on people. Uncertainty relates to a wider range of issues than variability as there is uncertainty surrounding a whole range of physical and societal issues relating to IWRM. How much water do people receive through their domestic water supply system; what areas are planted under what crops; how much water is being applied in each irrigation cycle, and so on. Reducing this uncertainty is perhaps the most important reason for trying to improve information flows between sectors and levels.

This text is an extract from EMPOWERS Working Paper No.3, available in full at: http://www.empowers.info/page/1070

Process Documentation



By Firas T. Abd-Alhadi Regional Documentation and Communication Specialist, EMPOWERS

Process documentation (PD) is an important activity in EMPOWERS that tries to capture the more subtle processes embedding the implementation of the six steps of the project's planning cycle on the governorate, district or village level. Then PD turns the resultant data into analyzable information and disseminates the outcomes among all stakeholders. The following processes are given special attention: decision making, concerted actions, behaviours and attitudes, and empowerment.

The involvement of stakeholders in an open dialogue and concerted activities, and their responsiveness to the capacity building efforts, occupied the major portion of process documentation work. It was so because Stakeholders Dialogue and Concerted Actions (SDCA) and capacity building for IWRM were designed to support the stakeholders' strong influence on the decision-making process related to the use and management of water resources. To EMPOWERS, this influence is exactly the right path to improved governance of local water resources. Thus, documenting progress in SDCA and capacity building stood for an assessment of the stakeholders present position and future needs with regard to the acquisition of such influence.

Investing the output of this documentation necessitated critical carefulness by the EMPOWERS country teams due to the existence of many obstacles related to diverging or even contradicting interests and perceptions. One of the useful lessons the documentation team learned was the difficulty of citing a permanent single source for accurate and complete information upon which plans can be outlined and implemented. The team came to know how to avoid the temptation of confining their inputs to the feedback obtained from influential groups or individuals that are usually the most self expressive and inclined to participate but not the neediest or the most informative. On the other hand, they did not restrict the identification of water problems to the information provided by the impoverished groups. They realized that such tendency could minimize development to the mere shifting of attention from one side of the village to the other.

The outcome of documentary tasks proved to be very important in directing the project activities and guiding the team. In several occasions the reports produced by these tasks revealed that water problems can be locally managed despite the inadequate infrastructure or the chronically centralized management to which these problems are typically attributed like poverty and illiteracy. It was found that it is the absence of locallevel institutional cooperative work due to social, economic or personal factors that worsenstheimpact of limited water resources. For example, data collection, interviews and comparing and analyzing information made it quite evident that in most cases CBOs lack both the capacity and the willingness to take the initiative of combining the dispersed communal voices as to become heard by the concerned central water authorities. It became also clear that such entities did

not appreciate the importance of starting locally designed, short-term solutions of water problems instead of waiting for governmental interventions.

These findings posed new challenges for EMPOWERS in dealing with local communities that are satisfied with their beliefs about the origin of water problems and the ways to solve them. The team realised that these communities and their CBOs were in need to become aware of the long-term and short-term advantages of lobbying communal efforts to address their water problems. EMPOWERS, therefore, organized various training activities to create the capacity needed for such lobbying. Eventually, with a newly built capacity and raised awareness, the local stakeholders started to see how participatory work would lead to longterm solutions by which they can take the prime responsibility in the management of local water resources. It is an EMPOWERS assumption that in order to be eligible for demanding local management of water resources, the local communities need to present a convincing evidence of their ability to take over this management.

the governmental part of the In stakeholders' platforms, the customary stereotypical view of the rural community as unequal in knowledge and skills had to be replaced by acceptance of the idea of cooperating with community members. Early interviews with many officials showed that the gap came from a long tradition of centralized planning and implementation of natural resources projects on the one hand and personal convictions on the other. The project developed an awareness of the role of these misconceptions in aggravating the water ordeal. This helped directing attention to familiarizing those officials with a major EMPOWERS belief. This belief is: One reason for the persistence of water problems is the failure of national level planning to reach out for the underprivileged groups and believe in their ability to develop and implement water management plans. Similar to the changes in the attitudes of local communities, it took good facilitation efforts before the observations of the process documentation specialists started to depict a behavioural breakthrough. It was an interesting transition in the officials' reactions from an ill-hidden reservedness at the mere presence with the villagers in the same event to working on equal footing with them in developing the village plans.

For more on process documentation, see the paper presented to the IRC & UNESCO-IHE Symposium (Sept. 2006, Delft, the Netherlands), under the title "The Effect of Process Documentation on Building the Capacities of EMPOWERS Stakeholders for Local Water Governance, at: http://www.irc. nl/page/31141

Regional Activities



A Region-Wide Cross Visits Programme was organized and implemented by EMPOWERS during the months of August and September 2006. The programme that was coordinated by the Regional Documentation and Communication Specialist from the Regional Information Programme, based in INWRDAM (one of the EMPOWERS regional partners) consisted of two visits. The first visit took place in Jordan during 13-15 August including 30 participants while the second was in Egypt during 4-7 September with the participation of 38 participants. In the two visits, the participants (being from the three EMPOWERS countries: Egypt, Jordan and Palestine) were selected and nominated from:

- other water management projects implemented by EMPOWERS partners;
- key stakeholders in EMPOWERS (community leaders and governorate/
- district staff); and
- other MEDA Water projects.

The two visits had the following main objectives that are part of the overall approach of EMPOWERS:

Sharing experience and learning

among community leaders (women and men) in planning and management of integrated local water resources.

- Learning from the experience of EMPOWERS and other approaches.
- Exploring new insights and development horizons for possible use in participants' communities.
- Establishing relationships among local-level stakeholders on the basis of mutual interests.

In Jordan, the programme of the visit started with presentations made by local officials from Balga (EMPOWERS' pilot governorate) about water-related issues there, their experiences with EMPOWERS and the aspirations they now have about the implementation of EMPOWERS approaches by the government. The field visits were to three of the pilot communities in Balga: Rumaimeen, Omm Ayyash and Tell Al-Mantah. In these villages, stakeholders gave overviews of their water problems, emphasizing absence of participatory work as a main impediment for having their voices heard in decision making departments and thus a reason of persisting conventional patterns of water resources management. The

participants became more interested and inquisitive when the local stakeholders started presenting the EMPOWERSbased strategies they have developed for tackling those problems, demonstrating the skills they have acquired in using tools like problem tree analysis, visioning and scenario building. The field visits were followed by one day workshop in Amman also bringing together the participants and local stakeholders to address in working groups and plenary discussions challenges met during project implementation and the requirements of sustainability and advocacy on national and regional scales.

The visit to Egypt started in Cairo, specifically in the DRTPC and CEOSS offices, being two of the partnership members in this country. Experts in both institutions presented their activities and role in EMPOWERS. In Beni Suef (pilot governorate), the participants received different presentations on the agricultural realities and water problems specially those related to the drinking water network. In the visit to one of the project's pilot communities, Bahsamoun, citizens displayed the activities of EMPOWERS in their village and the skills they have

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obtained through involvement in planning for and implementing these activities. The participants were given the opportunity to see other ventures in water resources management in the nearby governorate of Fayyoum. Members from water users associations in the district of Sinoros presented their activities in managing local water ponds (Tera') while farmers from the village of Behmo gave a field demonstration of a water-saving method of rice irrigation. Upon the conclusion of field trips, a workshop was held in Cairo to exchange ideas and feedback drawn from observations on the local communities interaction with EMPOWERS. Working groups also discussed similarities and differences between EMPOWERS and Water Management Project in Fayyoum.

During group work sessions participants in the two visits produced a wide range of recommendations based on their observations of the activities within EMPOWERS against the background of their different experiences and knowledge around water management challenges in the three countries.

Among the recurring attributes of EMPOWERS as seen by the participants one finds the project's emphasis on empowerment of marginalised groups, involvement of officials in participatory work, exchange of experiences among the different stakeholders and creation of public awareness around critical water issues.

The participants were also able to identify challenges that emerge during and after projects of EMPOWERS' scope, such as conflicting interests, change of staff in institutional stakeholders, lack of funding, and absence of legislations that ensure sustainability. Among the several lessons learned in the two visits as cited by the participants:

- significance of outlining duties and responsibilities of local communities and officials;
- necessity of enhancing participatory work on the project's three levels: local, intermediate and national;
- emphasis that has to be given to women's role in improved local water governance;
- need to build the capacity of local stakeholders and civil society institutions as to become actively involved in local water resources management and able to demand water rights; and
- applicability of EMPOWERS approach in other developmental fields other than water.

Such insight into what EMPOWERS has been doing in the past three years was

furthered by a set of recommendations seen by the participants as bases for horizontal and vertical improvement and dissemination of EMPOWERS approach. These recommendations mainly revolved around enhancing the implementation of activities that are already being undertaken by EMPOWERS. However, most recurring opinions were in favour of:

- allocating more budget for carrying out physical projects and for training other teams that would facilitate similar future initiatives;
- involving official and non official agencies in evaluating the project;
- creating a database for water related information that also includes EMPOWERS outputs and is accessible to all actors in the field;
- 4. drawing on EMPOWERS experience in establishing stakeholders platforms for developing expanded knowledge communities (always involving locals and officials) that would discuss, adapt and adopt EMPOWERS approaches and tools in new areas; and
- 5. incorporating a cross visits programme component in similar future projects.

The EMPOWERS Cross Visits Programme stirred not only interest in water problems in the above three countries or its approach and achievements in addressing them. It actually presented the programme as a model that, if replicated by future interventions, may encompass whole countries with the mode of improved local water governance implemented by EMPOWERS. The participants' call for a wider investment of such a programme was not a baseless or theoretical invitation. It was prefaced by a high degree of interaction with the presentations made by the EMPOWERS communities and partners. The questions addressed to the project's stakeholders indicated the participants' desire to go into the minute details necessary for transferring EMPOWERS approach to their own work.



EMPOWERS Regional Symposium: End-Users Ownership and Involvement in IWRM



EMPOWERS Partnership has embraced the strategic objective of establishing a knowledge community to share information and expertise about best approaches to Local Water Resources Management (LWRM). Increasingly and from the outset of EMPOWERS, end-users from the communities and representatives of NGOs, CBOs and government directorates grouped together with EMPOWERS teams in Egypt, Jordan and Palestine in stakeholders platforms in order to develop knowledge on how to:

- collect, analyze, store and share useful information;
- plan and manage, in a participatory manner, water use in communities, districts and governorates; and
- empowerandenhancetheinvolvement of vulnerable groups.

The consolidation of this knowledge community is attained not in a vacuum but through association with a regionallevel sharing of valuable information and knowledge. EMPOWERS is assuming a role in regional networks focusing on the wise use and management of local water resources in the Mediterranean region and has, therefore, participated in several regional and international forums within and outside the framework of MEDA Water Programme.

In this context and taking an advanced step forward in weaving regional networks, EMPOWERS Partnership organized its first regional symposium under the title: "Water is Everybody's Business': End-Users Ownership and Involvement in Integrated Water Resources Management." The Symposium that was held in Cairo, in Nov. 13-17, 2005, brought together 68 practitioners, researchers and policy makers from 14 countries to share promising tools, methodologies and approaches for implementing LWRM which entails the involvement of rural communities and underserved groups. The symposium aimed to discuss the extent to which progress has been made in the Middle East and the Mediterranean in ensuring that local people are taking the driver's seat in planning and decision-making over the management of their local water resources. Three initial points were identified for the symposium's presentations, discussions and the subsequent distilling of significant policy lessons and recommendations:

- Local ownership and governance of water use and management.
- Methodologies, approaches and practical tools that enhance Integrated Water Resources Management (IWRM).
- Low-cost technologies for local water use and management.

The participants in the symposium came from various types of organizations: academic, professional and official. Professors from universities and research centers joined practitioners and stakeholders from water projects and government agencies. This indicated the participants' wish to support the knowledge they already have with experiences to which they may have not been exposed. Thus, it can be said that, from a certain perspective, the structure of the symposium replicated that of the stakeholders platforms established by EMPOWERS in order to instigate dialogue, exchange of experiences and concerted actions.

Symposium's Recommendations for Policy & Practice

Besides plenary presentations, an important method of the symposium was 'working groups' that discussed the themes under which those presentations were made.

The working groups' deliberations led to recommendations that are seen as a basis for further efforts towards the achievement of improved local water governance in the MENA region.

These recommendations will be an important input into the Regional Forum on Local Water Governance (to be held in Jordan, June 2007).

They include:

- 1. Creating an enabling environment of participatory local water governance.
- Ensuring the involvement of marginalized groups and women in local water governance.
- 3. Incorporating participatory approaches in communication and education for local water governance.
- 4. Creating an enabling environment for scaling up innovations in local-level water and waste water management.
- 5. Using decision support systems to support improved local water governance.

The detailed recommendations are available online at: http://www.empowers.info/page/2176

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The Symposium Process



With the progression of the symposium activities, the participants report that their expectations about the symposium are being met; they voice their satisfaction with the choice of the symposium's focal themes and the practical manner in which these themes are addressed. That most of the working papers were based on factual approaches was regarded as a "breakout" from the conventional patterns of many conferences in this region.

Being introduced to other countries' experiences and having a platform to present their own expertise and opinions were of a particular appeal to the participants. The enthusiasm for reciprocal knowledge transfer may be indicative of a common appreciation of this mode of networking as a self assessment tool rather than just a typical forum for exchanging experiences. Within the larger context of innovations in water resources management, "specialists like to compare their work and progress achieved in their countries with those of other people from different countries," one participant maintains, quite justifiably. The enthusiasm also bears on the shortfall in the number of interactive conferences even when these have become a prerequisite of integrated and sustainable development of natural resources in the Middle East.

On the other hand, some participants indicated that they could not fully comprehend the arguments of certain presentations until the core themes of these arguments received further elaboration in the following group work. Others saw in the organizational structure of the symposium an example to be replicated in similar events especially with regard to the revolving of the different components around the same issues and the smooth transition from one component to another. A water resources management lecturer found in such integration and transition an academic tool: "This mix of group work and presentations will benefit me in organizing my courses and organizing the conferences I get involved in," Rhodante Ahlers, from the UNESCO-IHE, contends.

The purpose of the group work was not simply to come out with recommendations in a collective manner. It rather aimed to involve the participants in the essence of IWRM where balanced dialogue helps building capacities and knowledge which eventually leads to the collectiveness in which recommendations are made and concerted actions ensue.

The participants' involvement in the facilitation of the working groups emerges as one of the critical points where the aptitudes of the participants and the progress of the symposium intersect. Shihab Beiruti (INWRDAM) says that the "first opportunity for acting as a group facilitator, granted [to him] in this symposium, has given [him] self-confidence to assume this role in [his own] work in the future."

On the other hand, several participants note that "group members did not always agree with the facilitator's propositions but made good use of his/her encouragement express their opinions." The to disagreement and agreement indicated areas where more efforts are needed and areas where progress has been attained and can be built on. For instance, while the agreement on the necessity of enhancing end-users involvement in water resources management almost reaches consensus, there was a split in opinions over the significance of women empowerment in IWRM. The opinion of an agriculture director from Egypt (Mohammad Qal'awi) that "the most important issue discussed in the symposium was the role of women," and that he "is convinced now that women have a strong role that we never felt before," was shared mostly by female participants while males generally called for not "overemphasizing" that role.

Similarly, it is true that the focal position of participatory approaches to IWRM in this symposium was echoed by the participants' presentation of relevant experiences from their own countries. However, this focus also highlighted the disparity in the terms used to define and describe the components of these approaches. Sometimes, the disparity is attributed to differences in local realities in the various countries as in the case of "marginalized groups."

Proceedings of the symposium are available at: http://www.empowers.info/page/704

Development Organizations



CEDARE: Regional Role in Water Management and Development

The Centre for Environment and Development for the Arab Region and Europe (CEDARE) was established in 1992 as an international organisation, in response to the convention adopted by the Council of Arab Ministers Responsible for the Environment (CAMRE) in Damascus in 1991, and upon the initiative of the Arab Republic of Equpt, the United Nations Development Programme (UNDP) and the Arab Fund for Economic and Social Development (AFESD).

CEDARE strives to cope with all rapid variables, in order to spread, enhance, and encourage the concept of 'Environment for Development', which the whole world is trying to popularize. This is a modern concept that holds solving environmental problems which eventually contribute to eliminating many obstacles to development, and emphasizes that addressing environmental issues, though highly important from the moral and ethical point of view, would also have a positive impact on the health and quality of life of man.

Water resources are one of the pillars of the natural resources systems that also include land resources, marine and coastal environment, biodiversity, atmosphere, mineral resources, and energy sources. Water resources issues are also intertwined with the different sectors of development, agriculture, industry, and urban development. Compared to other regions, such as the Mediterranean Europe countries, most Arab countries suffer from a scarcity of renewable water resources. That is why it is vitally important to encourage water reuse, the best uses of non-renewable groundwater, and desalination as a regional policy to develop unconventional water resources in the region.

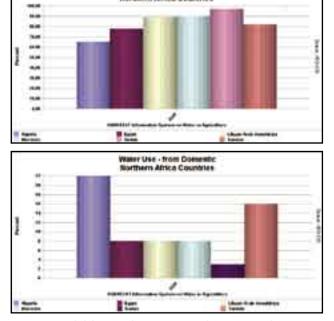
The quality of surface and groundwater is increasingly becoming under threat of deterioration due to some environmentally harmful activities. This requires proper treatment of municipal and industrial wastewater, as well as proper management of solid waste. In addition, several Arab states depend on shared rivers and groundwater, which necessitates greater regional cooperation.

In order to overcome the challenges mentioned above, water resources management will remain one of CEDARE's Priorities of Action at this stage, with special emphasis on Integrated Water Resources Management (IWRM), by developing comprehensive methodologies to achieve balance between water availability and actual need, involving all sectors of the community according to their different responsibilities.

CEDARE will continue its efforts to maximize IWRM in the Arab region and Europe by building partnerships with the aim of strengthening dialogue and joint action. A fine example of such contributions is its establishment of both the Global Water Partnership – Mediterranean (GWP-MED) at the regional level and the Egyptian Water Partnership (EWP) at the national level, as well as its activities within the framework of the GWP, the Arab Water Council, and the African Ministers Council on Water.

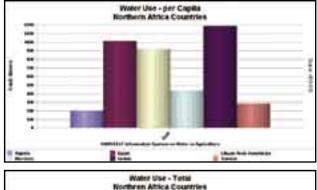
CEDARE is also participating in enhancing human capacities, preparing technical studies, and developing implementation frameworks for a phased transformation towards IWRM. Within this context, CEDARE has started to set the implementation framework necessary to achieve IWRM in South Mediterranean countries, and to evaluate the status of IWRM in Arab Mediterranean countries, in coordination with the Global Water Partnership, for transformation into action plans suitable for the limitations and capacities of each country. CEDARE has also begun to evaluate the progress achieved by Arab countries in their preparation of IWRM plans in order to develop a regional programme within the UNDP and the Arab Water Council to assist Arab countries in the preparation and execution of IWRM plans.

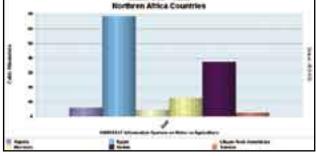
CEDARE's experience has been varied, covering several initiatives, projects and activities in the field of water management and development, especially in IWRM including water resources assessment, conflict resolution mechanisms, shared groundwater management, in addition to several activities related to capacity building, training, media, and public awareness.



Water Use - from Agriculture

Source: Amr Abdel-Megeed, Senior Regional Water Specialist, CEDARE







Egypt

New Communities Complete 2nd Round of Water Sector Analysis

Around mid 2006, the EMPOWERS team in Egypt started working with members from three new local communities on plans for improving water governance in accordance to EMPOWEERS approach. As in the first group of communities, the villages of Bahsamon, Mamaleek and Manial Hani (also in Beni Suef governorate) were chosen according to a criterion by which a target community should:

- have a local community development association;
- be facing irrigation and drinking water problems;
- have a significant population that has experienced previous initiatives to address water problems.
- belong to a village board different from those of the other target villages.

Recently, participants from these new communities have completed analyzing the water sector components affecting their current water situation and possible rectifications of drawbacks.

For instance, the Bhasamon local stakeholders, mostly farmers, collaborated with government officials in analyzing the irrigation challenges within their village. They did that with ardency that reflected their need and hope to identify appropriate solutions to acute hardships they meet in irrigating their lands.

On the other side of the table, officials did not conceal their amazement over two things:

- villagers' ability to illustrate the elements of a difficult irrigational situation of which they (officials) had no clue.
- community's potential to assume a leading role in addressing their problems, making use of EMPOWERS approaches and tools.

Such an impression by the officials made it inevitable for them to welcome an enhanced degree of cooperation with the local stakeholders and to exert additional efforts for empowering the most marginalized groups amongst them.

A similar process took place in the other two villages, Mamaleek and Manial Hani, when the citizens analyzed the drinking water sector, in collaboration with representatives from the local unit, environment unit and



potable water company. Dialogue among those different stakeholders led to the identification of interventions that may help in providing better water services. A very early fruit of this dialogue and concerted action was a promise by the local unit to provide facilities along the main roads of the two villages with water pipes.

In brief..

 Officials from CARE Atlanta (USA) visited three EMPOWERS communities in August 2006 to learn about the project's activities



and local women's participation.

- Also in August, EMPOWERS organized a workshop on gender for its local stakeholders; training was conducted by Dr. Rhodante Ahlers from UNESCO-IHE.
- Families with access to safe drinking water in Beni Suef governorate is 74.7% of the total population; EMPOWERS, in cooperation with stakeholders, seeks to increase this percentage.

More news on EMPOWERS activities in Egypt can be found at: http://www.empowers.info/ page/1228

EMPOWERS Impact on Masharqa

Masharqa is one of the first group of target communities in EMPOWERS.

Masharqa, that is 25 kilometers away from Beni Suef city has an area of 965 feddans, inhabited by 4500 citizens.

Throughout the past two years, this village has displayed an increasingly high level of adherence to EMPOWERS methodologies and involvement in its activities.

It is a wide range of newly developed capacities that exemplifies the behavioural and functional changes taking place in the village.

The first pilot project implemented in Masharqa was operating a tractor pulling a sewage tank. Being an outcome of the local stakeholders' efforts in data collection and analysis followed by integrated planning, the project helped alleviate a health problem by regularly transferring domestic cesspits contents away from houses and water resources.

Another empowerment benefit was displayed when the Masharqa women group that had been formed in the second stage extended its activities as to include non-EMPOWERS activities. One of these was delivering bread to houses in return for a monthly fee. The group members invested their access to households in creating public awareness about bird flu.

Other Masharqa citizens have started developing a website to help raise funds for proposed projects in the village.

See: www.empowers.info/page/2309



Insights Worth Pondering

The third EMPOWERS year witnessed a wide range of activities in the Jordan country programme: Local water development strategies were finalized while significant progress was made in the governorate water strategy and governorate information management system; a capacity building programme was organized for stakeholders from CBOs; work on participatory water planning cycle has started in three new selected local communities; first group of pilot projects in the three "old" communities was implemented; stakeholders and partners took part in several EMPOWERS and non-EMPOWERS events and workshops.

The rich and diverse nature of the third year activities was so informative that it left an impact on planning for the final phases of the project. Among the insights provided by these activities:

- Planning takes a lot of time and people do not always fully accept to volunteer in such a process, unless they find a clear role for them combined with a personal benefit. Pilot projects make it more appealing to them to participate.
- Government employees can understand the complexities of procedures (tendering process) and can deal with a long and challenging process but local community members are not familiar with this issue and simply expect to go on with the plans and then implement directly. Long process and complicated procedures influence in a negative way the locals' trust in the planning and the team ability to guarantee the funding of community's proposed projects.
- Women are more committed to participate in such a planning process. They find it interesting to develop their own plans and spend time on useful matters. Many of them sought to present to the project team ideas for micro projects that need funding.
- Local CBOs commitment to their strategic plans seemed stronger than that of government employees. They can feel the benefits that they will gain like tangible outcomes and strong relationships with government officials. Government employees are less interested because there are already multiple plan offers for projects, and many donors propose and implement different methodologies. They argue that they take some tools from each suitable methodology and incorporate them into the existing systems.

- The participatory strategic planning at the governorate level is a very useful tool to increase communication and information flows between government departments.
- Working on establishing a new CBO is not a simple matter, but takes a long time and hard decisions. Resistance to change was so hard sometimes that the project team decided to stop working with a community facing deep internal conflicts. The intervention and tolerance of some young people in the community, however, has helped the team to endure and continue till they reached a situation where the CBO became ready and willing to work for the common good.
- A participatory approach cannot be achieved unless suitable skills are being acquired such as facilitation, negotiation, appreciation of information, the art of dialogue and acceptance of others. These skills can be acquired during the process but need a lot of patience and understanding of the local customs and



of power relations. It needs a good level of trust and respect for the working team. • There is a general lack of capacity, for the collection and assessment of data, for their transformation into useful information and for their dissemination. There is also need for improved coordination of environmental, demographic, social and developmental data and of information activities at the intermediate and national levels.

Water Management Information System in Balqa Governorate

Goal statement

Balqa Governorate will have efficient management information system to support evidence-based decision making at all levels and enhance transparency and excellence among its stakeholders.



The first pilot project at the governorate level was the development of a water management information system (WMIS), consisting of all information related to water issues.

This system shall increase the efficiency of the management and planning processes, enable data transfer horizontally and vertically, and improve the decision making processes through stakeholders dialogue and concerted actions and participatory water planning cycle approaches.

In the past months, important emphasis has been given to strengthening the institutional frameworks in the Balqa governorate and improve coordination and planning by identifying roles and responsibilities, adopting a joint planning framework, agreeing to share information and work collaboratively. Moreover, the capacities of different stakeholders at the governorate and national levels were built as to be capable to use EMPOWERS approaches and to develop and implement the Governorate Water Development Strategy and the WMIS.

For more news on EMPOWERS country programme in Jordan, visit: http://www.empowers.info/page/1350



The Thrill of Running Water

Mona and Raaed Mahmoud Abourob turn the tap on to get water for tea. When Mona wants to do some cleaning, she fills a bucket. A few flowers grow in the dry red earth of their garden and they can cut their own mint for their tea.

For people living in the UK, none of this is remarkable - but for them it is a minor miracle.

Until recently Mona had to go to her fatherin-law's house to carry water back to her own family house in Jalboun, a village in the hills about 12 km east of Jenin city in the West Bank.

Now she has a well in her garden, dug as part of the EMPOWERS water project that is transforming lives across the West Bank, Gaza, Jordan and Egypt.

"Before the EMPOWERS project helped us dig our well, it was very hard for me to provide my house with water. I had to carry water from my father-in-law's house to our family house.

"This took a lot of time and work and I couldn't use the water as I wanted to, to clean the house or wash clothes, because I had to save as much water as I could," said Mona.

"Before the project we had no water in the tap, like we do now. Now we own our own washing machine, and I can plant some mint and flowers as I have a source of water to irrigate them."

CARE is a partner in EMPOWERS, a major European Commission-funded programme that aims to improve long-term access to water and management of water supplies, particularly for marginalised groups.

Before the 1948 war, the people in Jalboun relied on water carried from the Mujada'a spring which was then located within the boundaries of the village area, and whose water they preserved in cisterns.

However after the Israeli occupation, the lack of groundwater wells or springs in the village forced the inhabitants to collect and store water during the rainy months in individual cisterns used by each family or public ones used by several families.

Now the water situation remains the same, with the main source being individual cisterns. In dry months and after the stored rainwater runs out, villagers have to buy water that is brought in tankers from private, agricultural wells in nearby villages.

Source: www.careinternational.org.uk



Towards ownership and self-reliance

Yesterday I joined the Palestinian EMPOWERS team when they visited the village councils and women centres of two new communities in Jenin: Arraneh and Beit Qad. The people in these two communities have been working since May 2006 with EMPOWERS and governorate staff on analysing their water situation, envisioning what they would like to have changed in the coming seven to ten years and planning and deciding on small community water projects on the short term. In the short meetings with them I was asking myself and them what are the "things" that have surprised them and what they see as a benefit in working this short period with EMPOWERS. The following is only part of their story but reveals "things" that I also saw happening in the communities working with EMPOWERS in Jordan and Egypt.

- "We see the benefit of deeper reflecting and analysing the water situation in our village; and we can do this now ourselves also for other issues".
- "It is possible to identify our own needs (and not just implement the agenda of a donor) and put them as priorities for a project".
- "We have learned to be more realistic and plan for the water activities that we can do ourselves or that are within our own reach; and not dream only of things which are not possible in the shorter term".
- "Involving everybody in the village in the reflection, planning and decisionmaking process is much better for the whole village".

What became apparent also is that they feel the above is important as they cannot count really on the government for having things done; and that is because the government cannot do everything.

Peter Laban/ RC EMPOWERS December 6th, 2006

Country Partners

EMPOWERS Country Partners [Egypt]

Egyptian Water Partnership

The Egyptian Water Partnership (EWP) in collaboration with EMPOWERS has produced an Arabized and customized IWRM tutorials to suit the Arab Region and Egyptian context. These tutorials incorporated new insights and lessons learned, especially from the EMPOWERS programme. EWP and EMPOWERS have organized a series of workshops on 'Water Rights and Equity'.

More information about EWP is available on: http://www.egyptianwaterpartnership.org



Federation for Environment Protection and Improvement

This is a federation of 17 community development associations (CDAs) in Beni Sueif, including those of two EMPOWERS communities. The federation is working on capacity building of local CDAs; and enhancing the interaction between CDAs, local community groups and the governorate authorities in order to exchange and update water related information necessary for planning and implementation.

EMPOWERS Stakeholders in Egypt

The key stakeholders have showed a keen interest in supporting the Project's activities and to remain in consultation with the end-users. In Egypt, the stakeholders are:

- Ministry of Water Resources and Irrigation
- Ministry of Agriculture and Land Reclamation
- Potable Water Authority in Beni Suef Governorate.

Development Research and Technological Planning Center

Within EMPOWERS, the tasks of the Development Research and Technological Planning Center at Cairo University (DRTPC) have included:

- 1. Assisting in the collection of necessary information from different sources and analyzing information for a better definition of problems and trends.
- Serving as a local partner of the International Water and Sanitation Centre (IRC) in developing a practical model for integration of local micro-scenario building into national and regional planning initiatives and in developing decision support systems and scenarios.
- 3. Assisting in micro-scenario building including setting up different hydrological and hydraulic alternatives, and testing those using different packages.
- 4. Advising on designing and setting up pilot projects and assist in testing their feasibility and monitoring and evaluating these pilots when appropriate.
- 5. Developing GIS and installing it. This includes developing specifications for data collection, determining layers, and attribute sheets.

More information about DRTPC is available on: http://www.empowers.info/page/214



National Water Research Center

EMPOWERS has been supported by the National Water Research Center (NWRC) as an intermediate host for participatory planning of integrated water resources development and management. NWRC is the research arm for the Ministry of Water Resources and Irrigation and is a pioneer in water research in Egypt. NWRC has played an advisory role to align strategic directions of EMPOWERS with national water strategies and policies to best ensure required sustainability and replication.

Coptic Evangelical Organization for Social Services

The Coptic Evangelical Organization for Social Services (CEOSS) is a private voluntary organization. It has an important role in facilitating dialogue between local organizations and government authorities and in up-scaling the approach in Beni Sueif and in the future possibly in Minia Governorate.

More information about CEOSS is available on: www.ceoss.org.eg

EMPOWERS Country Partners [Jordan]

Ministry of Agriculture

The Jordanian Ministry of Agriculture is a major partner in the implementation of EMPOWERS in Jordan. The basic aspects of its role can be summed up as follows:

- Technical and administrative advice during the implementation of the project.
- Assistance in setting up a sustainable information system for an integrated management of water resources by the local community, which is an important requirement for providing the citizens with a long-term access to water.
- · Manpower support from the Ministry's staff to serve in the Project and the Steering Committee.
- Firsthand participation in the implementation of the Project's activities in the Balqa Governorate through the Ministry's field directorates.

More information about the activities of the Ministry is available at: www.moa.gov.jo

The Queen Zein Al Sharaf Institute for Development

The Queen Zein AI Sharaf Institute for Development (ZENID) is working side by side with the Ministry of Agriculture and CARE Jordan in addition to the two regional partners, the Inter-Islamic Network on Water Resources Development and Management (INWRDAM) and the International Water and Sanitation Centre (IRC).

ZENID has facilitated the earlier developed approaches of the project such as stakeholders analysis, water resources assessment, strategic planning and concerted action; it also participated in improving the skills of the EMPOWERS Jordan team especially that of facilitation. ZENID's assumption of such role stems from recognition of the vast experience it has gained in working with local communities and implementing empowerment and human development programmes throughout Jordan.

More information about the activities of the ZENID is available at: www.zenid.org.jo

EMPOWERS Stakeholders in Jordan

The EMPOWERS Project has given significant weight and time for getting the key stakeholders and their local offices involved in the project's implementation. Representation of key stakeholders is sought at national, governorate and village levels also including end-users. Each key stakeholder has assigned four members to work with the project at the national and governorate levels. The national stakeholders are:

- Ministry of Water and Irrigation.
 Ministry of Interior (through Balqa Governorate).
- Ministry of Planning.

EMPOWERS Country Partners [Palestine]

Palestinian Hydrology Group

The Palestinian Hydrology Group (PHG) is one of EMPOWERS key partners in West Bank. It seconded one of its staff members to work fulltime with EMPOWERS. PHG's main tasks within EMPOWERS are to:

- 1. Collect, verify, and analyze relevant primary and secondary data of the governorate and the selected communities from different sources.
- 2. Work with stakeholders and end-users in identifying water related problems.
- 3. Prepare with other partners and stakeholders the water resources assessment of Jenin governorate.
- 4. Prepare the needed maps on GIS layers.
- 5. Share in the scenario building processes of the governorate and the communities.
- 6. Assist in designing and supervising pilot projects.
- 7. Assist in testing, monitoring, and evaluating process during the several phases of the project.

More information about the activities of PHG is available at: http://www.phg.org/

EMPOWERS Stakeholders in Palestine

Representatives of national level stakeholders are well involved in the project; they participate in conducting meetings, collecting data and implementing several activities. These stakeholders are:

- Palestinian Water Authority.
- Ministry of Agriculture.
- Ministry of Local Governance.
- Ministry of Environmental Affairs.

Union of Agricultural Work Committees

The Union of Agricultural Work Committees (UAWC) is one of EMPOWERS key partners in Palestine. Its main responsibilities within EMPOWERS are to:

1. Work with counterparts from the Palestinian Water Authority, municipalities and local councils to complete a water audit of the Jenin Governorate.

2. Use results from the water audit for scenario building at various levels.

3. Work with CARE-WBG to pilot priority interventions identified by the process, such as water conservation in rural areas.

4. Use the results of the interventions to mount a public awareness campaign in the West Bank.

Information about the activities of UAWC is available at: http://uawc. net/

MEDA Water Projects

IRWA

Improvement of Irrigation Water Management in Jordan and Lebanon project (IRWA) aims at the optimisation of irrigation efficiency and farm outputs in the intervention areas along the Litani River between Qaraoun Lake and Mar Elias village in Lebanon and in the Central -Southern Jordan Valley in Jordan.

In Lebanon, IRWA has been working on the rehabilitation of the Litani river to control inundations and soil erosion. At the same time, the project has built an Agricultural Service Centre in the Bekaa Valley and supports the Litani River Authority in its daily operation. In Jordan, an upstream filtering system is being installed in one of the pumping stations along the King Abdullah Canal, which will improve the quality of irrigation water. IRWA also upgraded the Laboratory for Soil and Water Analysis in the Deir Alla Research Station. www.irwaproject.com

MEDROPLAN

The Drought Preparedness and Mitigation Planning (MEDROPLAN) project is meant to develop guidelines for drought preparedness plans and to set up a network for drought preparedness actions in Mediterranean countries. There are three target countries in which this project is active: Cyprus, Morocco and Tunisia.

MEDROPLAN focuses on the understanding of drought and its causes. It studies the impacts of drought on the economy, the environment and on society. It works on the transfer of know-how, technology and expertise, institutional strengthening and public awareness. To achieve this, MEDROPLAN develops participative and educational activities, involving stakeholder groups,

regional policymakers, resource management planners and regional scientists.

www.imaz.ciheam.org/medroplan

MEDWA

The objective of the Stakeholder Participatory Sustainable Water Management at Farm Level project (MEDWA) is to improve on-farm irrigation water management and farm outputs. The project involves farmers in decision-making, which should ultimately lead to the creation of water user associations and cooperatives. The project is carried out in Jordan and Palestine.

The project tackles the problem of delivering irrigation water of an acceptable quality and combines it with intervention in the relationship between water suppliers and farmers. The project supports the communication process between the two parties. Water storage facilities are built and small scale wastewater treatment is introduced to increase the availability of water resources. The project stimulates the farmers to form water user organisations and cooperatives, in which structures they can exchange experiences. www.medwa.org



ISIIMM

Institutional and Social Innovations in Irrigation Mediterranean Management project (ISIIMM) aims to share experiences and to build new perspectives for sustainable water management in Mediterranean agriculture. It helps rural communities to adapt to problems resulting from water resources pressures through institutional changes. The project is active in Egypt, Lebanon and Morocco.

The project develops its main activities with full participation of the target groups in the development of water management strategies and action plans. It also discusses institutional arrangements for the sustainable management of water resources with them. This leads to new water-sharing behaviours and innovations. www.isiimmagropolis.org

MEDAWARE

The Development of Tools and Guidelines for the Promotion of Sustainable Urban Wastewater Treatment and Reuse in Agricultural Production in the Mediterranean Countries project (MEDAWARE) focuses on the promotion of efficient wastewater treatment systems and sustainable wastewater reuse in agriculture. The target countries Cyprus, Jordan, Lebanon, are Morocco, Palestine and Turkey.

The project has collected information on themes related to urban wastewater treatment and reuse in the participating countries. Based on this information, the project made an analysis of best practices and success stories. As a follow-up, the project has developed specifications for innovative urban wastewater treatment technologies and systems. It also developed

methodology for the control of wastewater treatment plants. www.uest.gr/medaware

ZERO-M

Sustainable Concepts towards a Zero Outflow Municipality project (Zer0-M) aims at testing and refining concepts and technologies for a close-loop usage of all water flows in small communities: the Zero Outflow Municipality. The target countries are Egypt, Morocco, Tunisia and Turkey.

The key idea of Zer0-M is to integrate water supply, wastewater treatment and reuse. Systems will be developed that minimise freshwater consumption. The best-quality freshwater will be reserved for high-grade use (i.e. drinking), while wastewater will be treated specifically for the planned purpose of re-use. Segregation of wastewater into different fractions will be one option to ease treatment. Thus, all resources that are found in the wastewater will be reused. www.zer0-m.org

Source of information on this page: www.medawater-rmsu.org The other two MEDA Water projects, ADIRA and EMWATER, were described in the previous issue of EMPOWERS Insight.

Stortes EMPOWERSInsight

Najah's Success

The first time I met Najah -a 24 years old poor widow from Masharqa village in Egypt- was in one of EMPOWERS village meetings in June 2005. The EMPOWERS team was establishing a women group in that village. At that time, Najah seemed as a woman unrelated to the Arabic meaning of her name which is "success".

Najah's husband had died in a car accident after four years of marriage leaving her with a three years old child to support. But Najah's high school certificate could not find her a job. Moreover, she was deprived from the opportunity of a new marriage that would provide her with support and protection, as some communities in Upper Egypt are against a widow's marriage to someone not from her husband's family. Najah's late husband had no brothers which made the chances of a new matrimonial life very slim. As a result she suffered a permanent state of sadness and morbidity about the future.

Najah joined EMPOWERS activities after hearing about the project from a friend. She first attended one of the meetings hoping that she could find a job through contacting EMPOWERS staff. We made it clear to Najah that EMPOWERS does not provide job opportunities or financial remuneration in return for her work and that the benefits will be of a public nature that includes the whole village.

During meetings I observed how intelligent and hard working Najah was. I talked her into continuing to work with the project even if she did not see a tangible personal benefit.

Najah decided to go on with her voluntary work. She joined the Masharqa Women Group and participated in collecting data on water problems in the village. Like the other members of the group, she transferred what she learned to other women with no direct involvement in the project. She also took part in building a problem tree for her village, vision, scenarios and all steps of our planning cycle.

With new self confidence and skills, Najah overcame her sorrows and started to see things in a different way. In June 2006, Najah –who became an active member of the education committee in Masharqa Community Development Association-passed an interview for working in a new education project in Beni Suef. Out of a hundred applicants Najah was one of the nine persons selected for working in that project. In the job interview, Najah explained what she learned through EMPOWERS and demonstrated how the methodology can benefit people in all fields and not only water.

Today, Najah not only has a job but also a husband. She decided to resist negative social habits by accepting marriage to a farmer who was not a member of her late husband's family. She argued that what she cared for was her new husband's understanding personality and his appreciation of her and readiness to take good care of her child. For me, Najah has finally fulfilled the meaning of her name.

May Abu-Elseoud EMPOWERS- Egypt

New Language

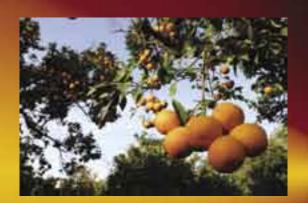
Rural life in any country is abundant of words that express simplicity and spontaneity which comes from direct contact with nature, water, soil and vegetation. But when nature is degraded and water exhausted it becomes unusual to resist the introduction of new terms whose adoption indicates a positive attitude towards innovative approaches in the management of scarce water resources.

Hajj Ghaith from Jenin governorate in Palestine is one of many local stakeholders in EMPOWERS communities in Palestine, Jordan and Egypt who can now make a presentation on problem tree analysis, visioning, scenario building and strategizing.

He also exemplifies the locals' confidence in approaching government officials, expressing their problems and demanding the right of participation in decision making regarding the management of water resources.

The confidence and knowledge have led to a new discourse in our villages characterized by a developmental and participatory diction.

> Buthaina Mizyed EMPOWERS- Palestine





Events and Reads

Upcoming Events

Greywater Stock-Taking Meeting Organized by IDRC/CSBE February 11-15, 2007 Aqaba, Jordan www.csbe.org

Participatory Development

Planing Workshop March 14-15, 2007 Amman, Jordan GTZ - Amman, World Bank Institute, Knowledge Network Agency

Zer0-M "MEDA

Water International Conference on

Sustainable Water Management" March 21-24, 2007 Tunis, Tunisia www.zer0-m.org/medawaterconf/index.htm

First MEDA

Water Partners Conference

April 15-16, 2007 Amman, Jordan www.medawater-rmsu.org/database/?se=/pages/new.asp&id=7

EMPOWERS

Regional Forum

Local Water Governance June 6-7, 2007 Amman, Jordan www.empowers.info

Details on these events and others are available on EMPOWERS website at: http://www.empowers.info/page/342

Selected Websites

Arab Environmental Monitor:

Update and analysis of environmental issues in the Arab World www.arabenvironment.net/

> Arab Water Council www.arabwatercouncil.org/

> MEDA-Water RMSU www.medawater-rmsu.org/

International Decade for Action

Water For Life, 2005-2015 www.un.org/waterforlifedecade/

Selected Resources

AQUASTAT: FAO's Information System on Water and Agriculture www.fao.org/ag/agl/aglw/aquastat/main/index.stm

GEMStat - Water programme

Global water quality data access on web services and geospatial referencing with Google Earth www.gemstat.org

Biblioteca:

Documents recommended by the UN Secretary-General's Advisory Board on Water and Sanitation http://www.unsgab.org/Biblioteca.htm#iwrm

Selected Reads

Status of the IWRM Plans in the MENA Region, 2004 Study by the UN, Arab Water Council and CEDARE.

www.unsgab.org/Recommended Paper/III-1.2.pdf

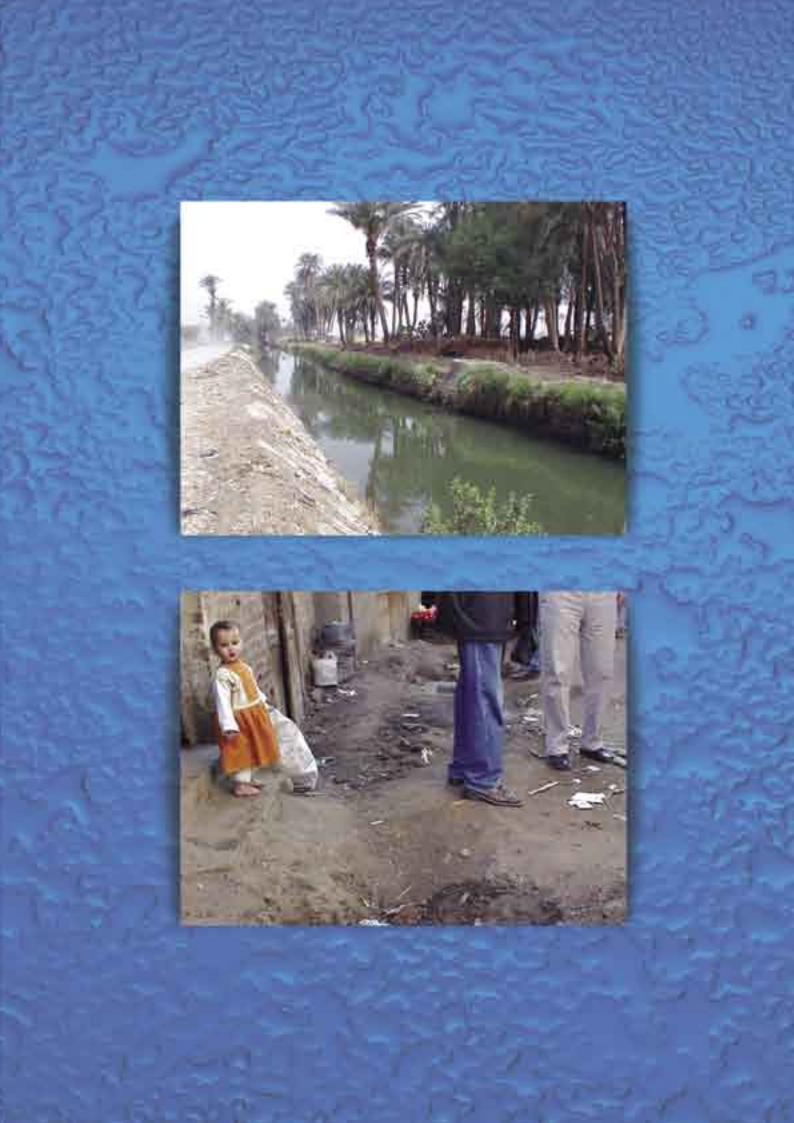
Gender, Water and Sanitation: A Policy Brief. 2006

By UN-Water and IANWGE. www.genderandwater.org/page/5111

Beyond Scarcity: Power, Poverty, and the Global Water Crisis.

The UN Human Development Report 2006 http://hdr.undp.org/hdr2006/









Euro-Med Participatory Water Resources Scenarios www.empowers.info