Liste des projets de GDE en Jordanie

Réalisé par Benoît Henry
Pour le pS-Eau
Septembre 2005

Projets de GDE

Water Demand Management
Information, Awareness, Training, Participation.

File of experience

1 - Your experience (in order to explain your experience, you can fill the board underneath and you can also send us complementary documents of this action if necessary)

Summary of the project (quantitative and qualitative objectives, recipients?...), 5 to 10 lines

Title: **Euro-Med Participatory Water Resources Scenarios (EMPOWERS)**

EMPOWERS aims to improve long-term access to water by vulnerable populations through more effective local integrated water resource management.
The project focuses on: (i) the community management of local drinking water supply and sanitation and sewage; (ii) improved management of local water resources (including rivers and ground water); (iii) irrigation water management; and (iv) use of non-conventional water resources – for example, the recycling of domestic household water for irrigation purposes.
A further aim is to change attitudes to water-use by increasing public awareness of problems and opportunities in the water sector. As well as the communities using the water, the project focuses on governorate and district water authority staff. Pilot projects are being run to provide immediate benefits to local communities as well as a rationale for dialogue and working relationships between communities and various levels of government. For detailed pilot projects, see the annex 1

(For more information: www.empowers.info)

Countries, towns or village of intervention	Egypt, Jordan, Palestine (West Bank/Gaza)
Date and duration (start of project…)	May 2003 – May 2007
Zone of intervention (number of towns, districts…)	In Jordan : 3 communities in Balqa governorate (Um Ayyash, Subaihi, Rweiha villages) ➔ see annex 1
Domain of intervention (themes, subjects…)	Water sanitation, local governance (decentralization), community resources management, capacity building, concerted action, creating communication platforms
Estimated population in the area (number of citizens, main activity…)	Balqa Governorate : 359,500 inhabitants (2003) Um Ayyash Village : 2000 Subaihi : 5000 Rweiha : 3000
Targeted people	Local communities (both men and women), NGOs and community-based organizations (CBOs), government institutions (those operating in the fields of water, irrigation, local government, agriculture, health, environment) at district and governorate levels and private sectors agencies
Human means for the action (number of voluntaries helpers, unpaid, salaried…)	7 salaried workers for EMPOWERS Jordan: 4 from CARE + 1 from the Ministry of Agriculture + 2 from INWRDAM 20 salaried workers for the whole EMPOWERS programme (3 countries) Representatives from various government agencies
Financial means	4.8 million Euros

Partners of action and benefactors	Partners : • Regionally : IRC (International Water and Sanitation Center, Delft, Netherlands), INWRDAM (Amman, Jordan), CARE International (UK&NL) • In Jordan : Ministry of Agriculture- Water Department, the Queen Zein Al Sharaf Institute for Development Sponsors : MEDA Water (➔Europe Aid), CARE International, IRC, PSO (Netherlands) Benefactors : see above
Tools put in place (for example: educating programs, exchange workroom, survey, media, website, bulletins, researches, publications, scholastic intervening, database…)	Knowledge products : - Guidelines for integrated water resources planning & management, using participatory approaches with stakeholders at the local level - Process documentation; using different tools for that; Documents and videos for government officials, HGO staff & local communities - Educational for local communities (to promote awareness of critical issues of water availability, efficient use at the local level and rights and access to water, strategic planning training) - Training materials for government officials and NGOs staff - A website and database on IWRM and SDCA in the Mediterranean and the Middle East countries - periodic Newsletter (4 issues \ year), case studies, working papers - Technical reports (Summary sheets, Light water resources assessment LWRA)
Historical account of the project (origin of the project, initiators…)	In the Balqa governorate, the three pilot projects areas were chosen among others because they presented some interesting characteristics for the implementation of such activities : conflicts between local administration and water users, no interaction and communication between different stakeholders, needs of poor and women not taken into account… facts that made urgent an intervention
Principal results and impacts of the project (economic, environmental, social, durability and possible repetitiveness…)	The pilot projects themselves started in last February, so it's too early for drawing conclusions about the experiences which are being led actually. However, about the general EMPOWERS process itself in Jordan, it seems that the different stakeholders (i.e the Balqa governorate, the village committees) have fully understood the importance of cooperation between themselves and their respective role in the ongoing projects. The necessary conceptual tools for an efficient and durable partnership seem to have been firmly implemented, like the training of the different stakeholders: capacity building, data collecting methods, participatory appraisal methods, water resource assessment, visioning and scenarios building … but also others activities like documenting the learning process.
Main difficulties or limiting factors. Have you found solutions? which? Which tool or method put in place has not worked?	In the process of examining the tools , but some problems have already been noted : - lack of mutual confidence between the government and the water users - importance of tribal influence (conflicts…) - lack of consideration for the role of women in water management → need for making women participate in the meetings but non-equity for men and women in the society → separate meetings for women - lack of information and communication
Which tool or used method in this project has had the best impact? Can you draw conclusions from this experience?	Yet in process

Contacts (responsible organism, responsible person, address, telephone, e-mail…)	• EMPOWERS Regional Information Office INWRDAM Tel : +962 6 533 2993 Fax : + 962 6 533 2969 Email : monainw@nic.net.jo • Peter Laban, EMPOWERS Regional Coordinator, CARE-WBG Telefax : + 970 2296 6690 Email : laban@carewbg.org • Fadi Shraideh, EMPOWERS Country Coordinator, CARE Jordan Tel / Fax : see other questionnaire Mobile : + 962 07 77 25 20 12 Email : fadi@care.org.jo • Fidaa F. Haddad, Field Coordinator, CARE Jordan Tel / Fax : see other questionnaire Mobile : +962 07 77 39 05 34 Email : fidaa@care.org.jo
Publication in this field of experience (newspapers articles, reports, memories…)	The Synthesis Report, IRC Progress and Activity Report Report of the Jordan Country Partnership… (for an exhaustive list, see at http://www.empowers.info/page/265 + Process Documentation

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Awareness : Contrary to the information, the awareness surrounds an emotional dimension, it means it goes further, because it looks for making the public feel concerned by the problems and not only notify them. The action of making public awareness grow supposes a minimum interactive exchange (conference, advice…) or a logical interactive exchange associated to a personal work (school, seminar…). This way of communication aims a participative approach and represents an adapted tool for the objectives of the Water Demand Management.

Training: A training corresponds to the acquisition of a know-how and/or know-how-how. That means teaching to the public the manner to solve the problem (for the water demand management, it deals with explaining to users how they can reduce their consumption of water) or to teach educators. The training constitutes a tool for the supply-driven management as well as for the demand-driven management but objectives are different. For the professional it is more a search to increase the technical-economic efficiency than an increase of citizenship, for the private user it is more an increase of responsibilities than some potential money savings.

This distinction is not negligible and has to be considered because the training strengthens the knowledge and the power of deciders while it aims to strengthen user's capacities by sharing the knowledge: this makes emerging the negotiation capacities for new categories of actors.

Participation: The participation means the implication of concerned people. That means beginning and keeping a discussion with the users to get their point of view, in order to obtain the best conditions of realization. For the demand-driven management, the participation is the keystone because the demand is the result of the participation, contrary to the supply-driven management. The participation does not only deal with the implication of concerned people but also with the taking into account of this implication and its point of view, in order to solve together the same problem.

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Awareness	1
Training	1
Participation	1

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Summary of the project (quantitative and qualitative objectives, recipients ?...), 5 to 10 lines

EMWATER - Efficient Management of Wastewater, its Treatment and Reuse

Given the fact of water shortage crisis in the Mediterranean countries the EMWATER project aims to highlight innovative solutions in wastewater treatment and wastewater reuse. With this goal in mind experts from the field, decision-makers, interested citizens and civil organizations should be sensitized to these issues. A more specific aim is the strengthening of regional co-operation through the creation of networks among the experts as well as through cross-border knowledge transfer. Additionally the project aims at strengthening capacity building through local and regional training programs, the development of regional policy guidelines for wastewater treatment and reuse in the region.

The improvement of the security and safety of water supply in the Mediterranean countries is the best recipe for social, economic and political stability in the region and is, thus, the foremost goal of the project.

Countries, towns or village of intervention	Turkey, Lebanon, Jordan, Palestine
Date and duration (start of project…)	2003-2007
Zone of intervention (number of towns, districts…)	In Jordan : Mafraq area (Mafraq governorate)
Domain of intervention (themes, subjects…)	Definition of general policy guidelines, training (stakeholders and professionals), capacity building
Estimated population in the area (number of citizens, main activity…)	?
Targeted people	Mainly professionals of the water sector + universities + NGOs (women, health, farmers… organizations)
Human means for the action (number of voluntaries helpers, unpaid, salaried…)	?
Financial means	?
Partners of action and benefactors	• InWEnt gGmbH, Capacity builbing International (Germany/Berlin) = Project coordinator • ENEA, National Agency for New Technologies, Energy and the Environment, (Italy/Bologna) • Adelphi Research gGmbH, (Germany/Berlin) • TUHH, Technical University Hamburg-Harburg, (Germany/Hamburg) • Birzeit University, Institute of Water Studies (Palestine/Birzeit) • Al al-Bayt University, Institute of Earth, Environment and Space

	(Jordan / Al Mafraq) • Yildiz Technical University of Istanbul, Faculty of Science & Art, Chemistry Dept., (Turkey / Istanbul) • University of Balamand, Dept. of Civil Engineering, (Lebanon / Tripoli) Donor : EU
Tools put in place (for example: educating programs, exchange workroom, survey, media, website, bulletins, researches, publications, scholastic intervening, database…)	Country studies, regional Training Programme for professionals (including web-based/e-learning courses)+ local training courses, elaboration of regional policy guidelines, public awareness programmes, website
Historical account of the project (origin of the project, initiators…)	This project (with 8 other ones) is part of the MEDA WATER programme, implemented and funded by the EU, in the framework of the Euro-Mediterranean Partnership (Declaration of Barcelona, 1995)
Principal results and impacts of the project (economic, environmental, social, durability and possible repetitiveness…)	Expected results : • Policy guidelines for efficient wastewater treatment • Reuse standards • Human resources development • Computer based training • Pilot plants for demonstration • Increased public awareness • Increased environmental protection Objectives already achieved : • Country studies for the MEDA countries are published • Local and regional training programmes are already done and web-based training programme is about to start • The website is established • Procedures for procurement of the pilot plants and time plan for design and construction are established
Main difficulties or limiting factors. Have you found solutions ? which ? Which tool or method put in place has not worked?	• Difficulties in communication due to the huge number of the partners and different work mentalities • Difficulties to follow up the EU guidelines for financial management • The high working load due to the staff limitation • Political restriction in the region e.g Palestine • Difficulties in NGOs involvement in the project in some countries due to special country conditions
Which tool or used method in this project has had the best impact? Can you draw conclusions from this experience?	
Contacts (responsible organism, responsible person, address, telephone, e-mail…)	• Dr. Ismail Al Baz, Project Director Tel : +962-6-5694341 Fax : +962-6-5686184 E-mail : ismailalbaz@nets.com.jo (www.emwater.org) InWent, P.O Box 491408, Amman 11194, Jordan • Lama Khateeb, Project Assistant E-mail : lamakhateeb@hotmail.com

Publication in this field of experience (newspapers articles, reports, memories…)	Downloadable material will be available soon on the website

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Information 2

Awareness 1

Training 1

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Summary of the project (quantitative and qualitative objectives, recipients ?...), 5 to 10 lines

Title : Graywater Reuse Project

This project aims at investigating, implementing, and promoting graywater reuse at the small and medium scales in the domestic and service sector context. The project will consist of several components. It will examine existing applications of graywater reuse in other countries, and evaluate their technical, social, and economic feasibility. Also, it will investigate the social, economic, climatic, and other environmental factors that may have a bearing on the implementation of graywater reuse systems in Jordan, and will develop, in conjunction with Jordanian professionals, graywater solutions suited to the particular context of Jordan. The results will allow CSBE to provide technical advice that would support the implementation of a number of graywater reuse systems and schemes in both urban and rural areas in Jordan. The project also will include the dissemination of practical information on graywater reuse to developers, construction professionals, and the interested public through printed materials and through the CSBE web site.

Countries, towns or village of intervention	Jordan
Date and duration (start of project…)	Phase I : Sept. 2002 → Aug . 2003 Phase II : Aug. 2003 → Aug. 2004
Zone of intervention (number of towns, districts…)	Mainly in Amman + Ghor Safi+Adasiyyah
Domain of intervention (themes, subjects…)	Graywater treatment, water saving
Estimated population in the area (number of citizens, main activity…)	?
Targeted people	Institutions and public buildings (administration, schools, worship buildings…), private organizations and households
Human means for the action (number of voluntaries helpers, unpaid, salaried…)	Phase I : 1 full time + 1 part time workers Phase II : 2 part time workers
Financial means	Phase I : 45,000 JD (= 54,000 euros) - funds from the Ministry of Planning Phase II : 10,000£ (=15,000 euros) – funds from the British Embassy in Jordan
Partners of action and benefactors	Ministry of Planning and International Cooperation-MoPIC (Enhanced Productivity Program) – British Embassy
Tools put in place (for example: educating programs, exchange workroom, survey, media, website, bulletins, researches, publications,	Researches about graywater reuse in other countries and its feasibility in Jordan, publication of guidelines for graywater reuse, design and production of simple graywater "treatment" units, what else?

scholastic intervening, database…)	
Historical account of the project (origin of the project, initiators…)	CSBE was contacted by the WEPIA programme (see WEPIA questionnaire) to start some research about the greywater use.
Principal results and impacts of the project (economic, environmental, social, durability and possible repetitiveness…)	A better knowledge has been achieved, through research, about the graywater use. Communication between different actors involved in the field of graywater (re)use has been increased, by sharing experiences and increasing cooperation.
Main difficulties or limiting factors. Have you found solutions ? which ? Which tool or method put in place has not worked?	Lack of general interest and awareness of people (→ rural households) for graywater use. The solutions deal with public awareness campaigns and publications / information brochures and leaflets (like the guidelines), but others have to do it, because CSBE's role is mainly about technical research, not about communication and education (→ NGOs, government…)
Which tool or used method in this project has had the best impact? Can you draw conclusions from this experience?	The simple devices designed and produced for the rural households are cheap, simple, and require very few maintenance. The more simple technical solutions are, the better they work. The technical devices implemented in urban areas for water large-users seem to be efficient too, so the best way to cope with different situations (small/large users, rural/urban area…) is to develop solutions suited for each case
Contacts (responsible organism, responsible person, address, telephone, e-mail…)	• Stephen Mc Ilwaine, Technical Manager for CSBE Graywater Use Project , Eco Consult Tel : + 962 6 5699769 Fax : + 962 6 5697264 e-mail : stephen.mcilwaine@ecoconsult.jo
Publication in this field of experience (newspapers articles, reports, memories…)	• Graywater Reuse in Jordan : Report • A Report in Graywater Reuse and its Applicability in Jordan

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Summary of the project (quantitative and qualitative objectives, recipients ?...), 5 to 10 lines

Current project : Greywater Treatment and Use for Poverty Reduction in Jordan (Phase II)

INWRDAM conducted Phase I of this IDRC funded project from May 2001 to May 2003 in Tafila Governerate, southern Jordan. During phase I, INWRDAM installed 25 greywater units in low income households of a peri-urban community of Ein Al-Baida town in Tafila. The aim of the project is to give these people the opportunity to get an acceptable amount of water at an affordable price : recycling used water means decreasing its own consumption of freshwater and the pressure on freshwater resources (by decreasing the demand), and also being less dependant from the centralised water supply sytem, in a context of water resources scarcity and disfunctionning water supply system. Phase II will construct 300 additional greywater systems for low income families in cluster of towns in selected peri-urban areas. A key component of the project will be to promote community participation in all stages of the project by adopting participatory methodology.

Countries, towns or village of intervention	Ein Al-Beida, Tafila Governorate, Jordan, Alamer Villages, Karak Governorate, Jordan
Date and duration (start of project…)	Phase 1 : May 2001 – May 2003 Phase 2 : Feb 2004 – July 2007
Zone of intervention (number of towns, districts…)	Peri-uban community of Ein Al-Beida (Phase I) and Alamer Villages, Karak Governorates, Jordan
Domain of intervention (themes, subjects…)	Greywater treatment and use for poverty alleviation
Estimated population in the area (number of citizens, main activity…)	
Targeted people	Low income households
Human means for the action (number of voluntaries helpers, unpaid, salaried…)	
Financial means	Funding from IDRC, Canada
Partners of action and benefactors	Partners : concerned agencies in wastewater reuse, social development, building codes and public health and also NCARTT (environmental and agricultural research components of the project). Benefactors : see above
Tools put in place (for example: educating programs, exchange workroom, survey, media, website, bulletins, researches, publications, scholastic intervening, database…)	Demonstration units

Historical account of the project (origin of the project, initiators…)	
Principal results and impacts of the project (economic, environmental, social, durability and possible repetitiveness…)	25 greywater units installed in low income households of a peri-urban community of Ein Al-Baida town in Tafila + 300 additional greywater systems for low income families in cluster of towns in selected peri-urban areas (Phase II)
Main difficulties or limiting factors. Have you found solutions ? which ? Which tool or method put in place has not worked?	Reluctance and lack of knowlege about treatment and reuse of greywater ➔ information, awareness activities
Which tool or used method in this project has had the best impact? Can you draw conclusions from this experience?	
Contacts (responsible organism, responsible person, address, telephone, e-mail…)	See INWRDAM questionnaire
Publication in this field of experience (newspapers articles, reports, memories…)	

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Summary of the project (quantitative and qualitative objectives, recipients ?...), 5 to 10 lines

"Integrated Wastewater Management Policies and Technologies for Marginal Communities in Jordan." (Royal Scientific Society – IDRC funded)

People in small-rural communities in Jordan (about 22% of the country's population) lack public sewerage services. Inhabitants in such clusters rely mainly on inadequately managed on-site wastewater disposal systems that fail to protect scarce water resources, public health and the environment. Moreover, there is no clear organizational set-up to plan, implement and manage appropriate sanitation methods for small communities in the country. This research project aims at investigating, in close consultation and with active participation of the community, the feasibility of adopting innovative, non-conventional wastewater management policies for marginal-small communities in the country. This will be approached through a coherent framework of activities including integration of various components of social, technical, economical, environmental, institutional and public participation requirements.

Countries, towns or village of intervention	North-Eastern Badia (Jordan)
Date and duration (start of project…)	44 months (September 2003 – May 2007)
Zone of intervention (number of towns, districts…)	35 communities scattered In the North-Eastern Badia Region (25% of Jordan total area, around 30 000 inhabitants)
Domain of intervention (themes, subjects…)	Wastewater treatment, sanitation, capacity building for CBOs (community-based organizations)
Estimated population in the area (number of citizens, main activity…)	30 000 inhabitants
Targeted people	Small communities (less than 5,000 people)
Human means for the action (number of voluntaries helpers, unpaid, salaried…)	RSS staff (Environmental Research Center) : 3-5 people + IDRC : ?
Financial means	500 000 Can$ (340,000 EUR) 80% funded by IDRC 20% funded by RSS, through loans or grants from national and foreign donors (USAID…)
Partners of action and benefactors	See above
Tools put in place (for example: educating programs, exchange workroom, survey, media, website, bulletins, researches, publications,	PRA (Participatory Rapid Appraisal) in order to determine the difficulties and needs of the populations ; training courses ; awareness campaign : publication of posters ; data collection ; workshop on "Needs Assessment" ; selection, among the 35 communities, of a

scholastic intervening, database…)	research site (collection of graywater samples and analysis, measurement of generated graywater per unit / household…)
Historical account of the project (origin of the project, initiators…)	Actually quite a lot of wastewater treatment and reuse projects are carried out in Jordan, but few (almost none of them) put the emphasis on small communities, which are the most deprived ones. In order to remedy this situation, RSS decided to launch this project. This project is also in keeping with the IDRC research and funding policy in water management
Principal results and impacts of the project (economic, environmental, social, durability and possible repetitiveness…)	General objective : Improving the quantity and quality of water available for small marginal communities by adapting non-conventional systems of treatment, which mean decentralized systems for wastewater on household and group level.
Main difficulties or limiting factors. Have you found solutions ? which ? Which tool or method put in place has not worked?	Raising awareness among marginal and low-educated communities, facing cultural resistance about the use of wastewater and reticence for technical innovation. Difficulty of collecting data in such an area (communities scattered, very low density, people quite reluctant to give information on their habits, way of life , incomes …)
Which tool or used method in this project has had the best impact? Can you draw conclusions from this experience?	Despite the difficulties, interesting information have been collected (like the percentage of people separating black from graywater). The idea of establishing a research site (concerning 900 people) will allow to design specific and suited treatment devices
Contacts (responsible organism, responsible person, address, telephone, e-mail…)	Wael Suleiman, Head of Water Quality Studies Division, Environmental Research Center, RSS Tel : + 962-6-5344701 Fax : + 962-6-5340373 Email : wael@rss.gov.jo
Publication in this field of experience (newspapers articles, reports, memories…)	Progress reports

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Awareness : Contrary to the information, the awareness surrounds an emotional dimension, it means it goes further, because it looks for making the public feel concerned by the problems and not only notify them. The action of making public awareness grow supposes a minimum interactive exchange (conference, advice…) or a logical interactive exchange associated to a personal work (school, seminar…). This way of communication aims a participative approach and represents an adapted tool for the objectives of the Water Demand Management.

Training : A training corresponds to the acquisition of a know-how and/or know-how-how. That means teaching to the public the manner to solve the problem (for the water demand management, it deals with explaining to users how they can reduce their consumption of water) or to teach educators. The training constitutes a tool for the supply-driven management as well as for the demand-driven management but objectives are different. For the professional it is more a search to increase the technical-economic efficiency than an increase of citizenship, for the private user it is more an increase of responsibilities than some potential money savings.

This distinction is not negligible and has to be considered because the training strengthens the knowledge and the power of deciders while it aims to strengthen user's capacities by sharing the knowledge : this makes emerging the negotiation capacities for new categories of actors.

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It's true that it's difficult to determine if an action can be classified in just one category, and frequently one action can frequently match two or more categories, but we propose to you to try the experience:

1 : principal entry of the action
2 : secondary entry of the action
0 : this entry does not correspond to this action

Information	1
Awareness	1
Training	2
Participation	2

Water Demand Management
Information, Awareness, Training, Participation.

File of experience

1 - Your experience (in order to explain your experience, you can fill the board underneath and you can also send us complementary documents of this action if necessary)

Summary of the project (quantitative and qualitative objectives, recipients ?...), 5 to 10 lines

Title : Education and Information Program to Improve Irrigation Water Use Efficiency (EIP)
= KAFA'A (Knowledge and Action Fostering Advances in Agriculture)

EIP (known in Jordan as KAFA'A, which means "efficiency" in Arabic) is engaged in a range of communications, technical and educational activities to improve water use efficiency in Jordan's agricultural sector. The project helps farmers adopt new agricultural practices and communities implement irrigation management. It also aims to establish a sustainable producer-level extension service and to develop an information campaign for decision makers and the public on positive change in agriculture and water use. EIP seeks to improve on-farm water management and crop production capability of farms in the Jordan Valley and Amman-Zarqa Basin.

Countries, towns or village of intervention	Jordan
Date and duration (start of project…)	2003-2008
Zone of intervention (number of towns, districts…)	Jordan Valley + Amman-Zarqa Basin (Al-Mafraq + Al-Samra)
Domain of intervention (themes, subjects…)	Irrigation, crop management, post-harvest, agricultural extension, agriculture marketing, water policy
Estimated population in the area (number of citizens, main activity…)	8,432 farm units in the project area
Targeted people	Farmers, extensions agents in the Ministry of Agriculture, NCARTT, and private sector
Human means for the action (number of voluntaries helpers, unpaid, salaried…)	30 salaried employees plus occasional short-term consultants in different areas of expertise
Financial means	10 Million US$ for five years (7 million US$ for the first three years)
Partners of action and benefactors	Conception of the project: Academy for Educational Development; Funding agency : USAID Partner : JVA (Jordan Valley Authority)
Tools put in place (for example: educating programs, exchange workroom, survey, media, website, bulletins, researches, publications, scholastic intervening, database…)	Approximately 80 pilot farm units and 8 field demonstration sites, field days and training workshops for farmers and government staff (JVA, MoA), technical publications (posters, brochures, handbooks…), radio programs, participation in the Sawsana International Exhibition and regional agricultural fairs

Historical account of the project (origin of the project, initiators…)	This project follows an attempt by USAID to develop an Irrigation Advisory Service of trained extension agents and field activities within JVA
Principal results and impacts of the project (economic, environmental, social, durability and possible repetitiveness…)	The project is still in his early stage, so the expected results have not been achieved yet. But the main objective remains to increase irrigation water efficiency through high-value crops and to gain access to the European market and modern irrigation systems / devices
Main difficulties or limiting factors. Have you found solutions ? which ? Which tool or method put in place has not worked?	The price of water is heavily subsidized in the Jordan Valley, so there is no economic incentive to reduce water consumption. The education program and the information / training material illustrate how to use water more efficiently, but farmer behavior is motivated by increasing profits, not saving water. The goal is to introduce higher value crops which also have lower water demands, so farmers increase profits while using less water. Another problem is that poorer farmers can not afford soil moisture instruments and other technological innovations. To remedy this, KAFA'A team provides revolving grants as loans to community based organizations, such as producer associations and agricultural cooperatives.
Which tool or used method in this project has had the best impact? Can you draw conclusions from this experience?	As stated above, the project is only two-years old, and the technology adoption occurs over longer periods of time. However, the pilot farms / demonstration units with new, water-saving crops, as seedless grapes and dates palms, seem to interest more and more farmers.
Contacts (responsible organism, responsible person, address, telephone, e-mail…)	Robert Hudgens, KAFA'A, Chief of Party tel : +962 6 566 7730 fax : +962 6 566 1263 – mobile : 0777 805 313 E-mail : bhudgens@kafaa.org P.O Box : 962768, Amman 11196, Jordan
Publication in this field of experience (newspapers articles, reports, memories…)	Newsletters : "Eye on Efficiency" (available at http://www.aed.org/ToolsandPublications/browser.cfm?FieldID=1023&FieldValue=Environment)

2 – How do you define your action ? Is this an action of :

Information: Informing people enlightens them about problems that they may not be aware of or do not fully understand. Information also suggests a course of action to resolve the problem. While face-to-face communications between farmers and agricultural extension agents are the most effective means of conveying information and guiding its use, printed media or radio broadcasts are less effective, because in many cases they reach only a small percentage of the target audience and without technical supervision in its application, interpretation varies from one individual to the other. This kind of communication is used both for supply-driven management and for demand-driven management.

Awareness: While information conveys facts and consequences of actions, awareness relates to the processing of that information by individuals to formulate attitudes and opinions. The goal is to make the public feel concerned about the problems, not only bringing the problems to their attention. Increasing public awareness requires minimum interactive exchanges (conference, advice…) or a logical interactive exchanges (school, seminar…). This form of communication aims at a participative approach to achieve the objectives of the Water Demand Management.

Training: Training corresponds to the acquisition of a knowledge, understanding, and skills. It centers on problem solving. In the case of water demand management, it requires explaining to users how they can reduce their consumption of water. Training constitutes a tool for both supply-driven management and demand-driven management, but the objectives differ in each case. Professionals seek training to improve their technical knowledge, while private citizens seek training to expand their capabilities and income potential. This distinction

is important, because while training improves the decision making process, it also disseminates knowledge, which can be shared with others to have a multiplier effect.

Participation: Participation means the involvement of end users or beneficiaries in the communication process, which starts with obtaining their point of view on problems, in order to identify knowledge deficiencies and to glean insights on possible solutions from their experiences. For the demand-driven management, participation is the keystone because the end-users generate the demand and ultimately determine the most appropriate course of action. Active participants in decision making are more receptive of the results and more likely to change their behaviors accordingly.

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Information	1
Awareness	1
Training	2
Participation	1

Water Demand Management
Information, Awareness, Training, Participation.

File of experience

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Summary of the project (quantitative and qualitative objectives, recipients ?...), 5 to 10 lines
This project is not a fully-oriented WDM project, but some of its components deal with WDM. That's why we put it in this category.

Stakeholder Participatory Sustainable Water Management at Farm Level (MEDWA)
This project has been implemented through MEDA-Water (the Euro-Mediterranean Regional Programme for Local Water Management), which 4 four components are :

- Strenghtening institutional capacities and training
- Exchange of information and know-how
- Transfer of know-how and technology
- Awareness raising, mobilisation and promotion of commitment of the population

Countries, towns or village of intervention	Jordan, Palestine
Date and duration (start of project…)	March, 2004 → March, 2007
Zone of intervention (number of towns, districts…)	5 Governorates in Jordan, in addition to West Bank and Gaza Strip
Domain of intervention (themes, subjects…)	Irrigation, wastewater, agriculture
Estimated population in the area (number of citizens, main activity…)	?
Targeted people	Farmers, households, women
Human means for the action (number of voluntaries helpers, unpaid, salaried…)	19
Financial means	€ 5.4 Mio
Partners of action and benefactors	Consortium : Hilfswerk Austria (HWA)= Consortium Leader, FPSC (Fundacion Promocion Social de la Cultura – Spain), JOHUD (Jordan Hashemite Fund for Human Development), JRF (Jordan River Foundation), PARC (Palestinian Agriculture Relief Committee) Donor : EU through MEDA WATER (Euro-Mediterranean Partnership)

Tools put in place (for example: educating programs, exchange workroom, survey, media, website, bulletins, researches, publications, scholastic intervening, database…)	Adding to technical issues and solutions, The following tools / methods have been used : Demonstrations, trainings, creation of organizational structures, publications, baseline surveys, website, training material
Historical account of the project (origin of the project, initiators…)	The Medwa project is one of the 9 projects of the MEDA programme, the Euro-Mediterranean regional water programme for local water management which aims at the enhancement of regional cooperation in the areas of sustainable and integrated management of water resources. This cooperation was established by the Barcelona Declaration in 1995, then more accutely the Ministerial Declaration and Action Plan of the 1999 Turin Euro-Mediterranean ministerial meeting on local water management. (for more information, http://www.emwis.org/MEDA/about_meda.htm)
Principal results and impacts of the project (economic, environmental, social, durability and possible repetitiveness…)	The project has started in mid 2004, so it's still at an early stage and some activities are still to be implemented. For the general purpose and the Objective Verifiable Indicators of Achievement, http://www.emwis.org/documents/pdf/Presentation_Brussels_MEDWA_Final.pdf
Main difficulties or limiting factors. Have you found solutions ? which ? Which tool or method put in place has not worked?	See explanations above
Which tool or used method in this project has had the best impact? Can you draw conclusions from this experience?	See explanations above
Contacts (responsible organism, responsible person, address, telephone, e-mail…)	Hanan Salah, Project Coordinator Jordan Hilfswerk Austria (HWA) Jordan - Office Middle East c/o JOHUD P.O.Box 5118 Amman 11183 Jordan Tel : +962 (6) 5523576 Email : salah@hwa.or.at
Publication in this field of experience (newspapers articles, reports, memories…)	Nothing particular on the MEDWA project For MEDA programme, http://www.emwis.org/MEDA/documents.htm

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Awareness	1
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Water Demand Management
Information, Awareness, Training, Participation.

File of experience

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Summary of the project (quantitative and qualitative objectives, recipients ?...), 5 to 10 lines

Title : **Water Reuse for Industry, Agriculture, and Landscaping (RIAL)**

Building from the pilot project successes of previous reuse activities in Jordan, CDM and its partners are seeking sustainability in the use of treated wastewater as a major resource for agricultural development, urban landscaping, and industrial use in Jordan. This three-year (2004-2007), USAID-funded, CDM-managed project will achieve these goals through reuse activities, institutional capacity building, public awareness, and training.

Countries, towns or village of intervention	Jordan
Date and duration (start of project…)	2004-2007
Zone of intervention (number of towns, districts…)	pilot sites : Wadi Musa, Aqaba, Irbid (Jordan University of Science and Technology – JUST)
Domain of intervention (themes, subjects…)	Wastewater treatment and reuse, irrigation, agriculture, industry, information / training ?
Estimated population in the area (number of citizens, main activity…)	?
Targeted people	Farmers, industries, administrations / institutions
Human means for the action (number of voluntaries helpers, unpaid, salaried…)	22 (CDM : 12)
Financial means	US$ 6.9 Million
Partners of action and benefactors	Donor : USAID Partners : the Water Authority of Jordan (WAJ) through the Water Reuse & Environment Unit, • Irbid : JUST • Wadi Musa : Badia Research and Development Program,Petra Regional Authority (PRA), Sad al-Ahmar Society, Wadi Musa Army Veteran Society • Aqaba : Aqaba Special Economic Zone Authority (ASEZA), General Directorate of Intelligence (Departments of Investment), Ministry of Agriculture (MoA), Al-Salal Farm, Aqaba International Industrial Estate (AIIE), Civil Aviation Airport (CIA)

Tools put in place (for example: educating programs, exchange workroom, survey, media, website, bulletins, researches, publications, scholastic intervening, database…)	• Pilot farms / demonstration units • implementation of EMS (Environmental Management Strategy) + PPM (Prevention and Protection Measures) + recycling process for industry after having led surveys
Historical account of the project (origin of the project, initiators…)	The WRIAL project is the following of a former project, carried out by PA Consulting (a US management, systems and technology consulting firm) up to 2003, titled "the Water Reuse Implementation Project" with 3 pilot projects / demonstration sites : Wadi Musa, Aqaba, Irbid (Jordan University of Science and Technology)
Principal results and impacts of the project (economic, environmental, social, durability and possible repetitiveness…)	30% of the objectives have already been achieved ex : GIS systems built, reports on sustainability published, monitoring strategies established
Main difficulties or limiting factors. Have you found solutions ? which ? Which tool or method put in place has not worked?	Difficulties : at the beginning, no specific laws and regulation for wastewater reuse, effects of wastewater use on agriculture not well known (and require more research), behavior of the customers / farmers about using watewater
Which tool or used method in this project has had the best impact? Can you draw conclusions from this experience?	Demonstration sites have been efficient in raising public awareness and convincing farmers and other people about the general interest of using wastewater Efficient cooperation with National Wastewater Reuse Coordination Committee (NWRCC), since laws & regulation, business planning have been implemented
Contacts (responsible organism, responsible person, address, telephone, e-mail…)	Motasem Haddadin, Project Engineer Tel : 962 6 565-1913 Fax : 692 6 565-1902 e-mail : haddadinm@cdm.jo
Publication in this field of experience (newspapers articles, reports, memories…)	

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Information	1
Awareness	1
Training	1
Participation	2

Water Demand Management
Information, Awareness, Training, Participation.

File of experience

1 - Your experience (in order to explain your experience, you can fill the board underneath and you can also send us complementary documents of this action if necessary)

Summary of the project (quantitative and qualitative objectives, recipients ?...), 5 to 10 lines

Title : Wadimena (Regional Water Demand Iniative in the Middle East and North Africa)

WaDI*mena* aims to facilitate the adoption and implementation of water demand management strategies and tools in the countries of the MENA region: Algeria, Egypt, Jordan, Lebanon, Morocco, Palestine, Syria, Tunisia, Yemen, and to translate awareness into action for tangible impacts. Activities are directed toward applied research, field-based pilot activities and a regional exchange facility to promote capacity development, experience sharing and knowledge networking. The project builds on the success of the WDM Forums (2002-2003) and previous research conducted by IDRC and our partners.

Countries, towns or village of intervention	MENA countries : Algeria, Egypt, Jordan, Lebanon, Morocco, Palestine, Syria, Tunisia, Yemen
Date and duration (start of project…)	2004-2009
Zone of intervention (number of towns, districts…)	See above
Domain of intervention (themes, subjects…)	Applied research on WDM
Estimated population in the area (number of citizens, main activity…)	?
Targeted people	Researchers, policy makers, different stakeholders involved in the water management
Human means for the action (number of voluntaries helpers, unpaid, salaried…)	?
Financial means	?
Partners of action and benefactors	Financial partners : The Canadian International Development Agency (CIDA) and the International Fund for Agricultural Development (IFAD)
Tools put in place (for example: educating programs, exchange workroom, survey, media, website, bulletins, researches, publications, scholastic intervening, database…)	Regional forums (2001-2003) : Wastewater Reuse (Morocco, March 2002), Water Valuation (Lebanon, June 2002), Public-Private Partnerships (Jordan, October 2002), Decentralization/Participatory Irrigation Management (Egypt, February 2003). Pilot activities (i.e pilot projects) Research network, funding / sponsoring research, training Newletters, website (http://web.idrc.ca/en/ev-57064-201-1-

	DO_TOPIC.html)
Historical account of the project (origin of the project, initiators…)	WDM is a concept which has been paid more and more attention in a context of water resources scarcity, like in the MENA countries. However, research and potential applications in this field are still at an early stage. There is a need to fill knowledge gaps, facilitate the link between research and policy and promote positive experiences for knowledge exchange, capacity development and dynamic learning among the countries.
Principal results and impacts of the project (economic, environmental, social, durability and possible repetitiveness…)	
Main difficulties or limiting factors. Have you found solutions ? which ? Which tool or method put in place has not worked?	
Which tool or used method in this project has had the best impact? Can you draw conclusions from this experience?	
Contacts (responsible organism, responsible person, address, telephone, e-mail…)	• Lorra Thompson, WaDI*mena* Project Coordinator Email: LThompson@idrc.org.eg • Naglaa Salem WaDI*mena* Project Administrator Email: NSalem@idrc.org.eg • Doaa Arafa WaDI*mena* Research Assistant Email: DArafa@idrc.org.eg
Publication in this field of experience (newspapers articles, reports, memories…)	WDM forums papers (available at http://web.idrc.ca/en/ev-43773-201-1-DO_TOPIC.html)

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Awareness	1
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File of experience

1 - Your experience (in order to explain your experience, you can fill the board underneath and you can also send us complementary documents of this action if necessary)

Summary of the project (quantitative and qualitative objectives, recipients ?...), 5 to 10 lines

Title : Water Conserving Landscapes

The CSBE project on water conserving landscapes is concerned with the development of aesthetically pleasing landscapes that also conserve the use of water. Such aims can be achieved through a variety of means, which include using native and drought tolerant vegetation, making maximum use of rainfall runoff, and incorporating hard-covered ground surfaces (consisting of materials such as pebbles, stone, brick, and concrete) in landscape designs, rather than relying exclusively on surfaces covered with vegetation. However, such principles and practices are not widespread in Jordan, and this project therefore aims at disseminating and promoting them in the country. Consequently, this project hopefully will contribute to developing, on a wide scale, environmentally and climatically sensitive water saving landscaping solutions that are both creative and attractive, and that can be applied to open areas ranging from small private gardens to public parks.

Countries, towns or village of intervention	Jordan
Date and duration (start of project…)	2001-2004 3 phases: - phase 1: research on arid landscapes in Jordan - phase 2 : design of a demonstration garden - phase 3 : implementation of 3 rural community parks
Zone of intervention (number of towns, districts…)	Mainly Amman + pilot sites
Domain of intervention (themes, subjects…)	Design of water saving gardens
Estimated population in the area (number of citizens, main activity…)	
Targeted people	Every kind of owner of a garden (households, public institutions, schools…)
Human means for the action (number of voluntaries helpers, unpaid, salaried…)	5 salaried people
Financial means	Around 180,000 JD (210,000 EUR) for the 3 phases
Partners of action and benefactors	Ministry of Water and Irrigation, USAID & WEPIA program, University of Arizona Additional support from : the American Center, A. R. Jardaneh and Sons, and Darat al-Funun – The Abdul Hameed Shoman Foundation. For the pilot projects : - Adasiyyah Girls' school : Mennonite Central Committee (MCC) + Habitat for Humanities (HfH)

Tools put in place (for example: educating programs, exchange workroom, survey, media, website, bulletins, researches, publications, scholastic intervening, database…)	• English and Arabic-published documentation (posters, brochures, booklets) + website (http://www.csbe.org/water_conserving_landscapes/index.html) • Workshops (to train participants in the principles and practices of creating water conserving landscapes) • Design and construction of a model water conservation demonstration garden. • Technical assistance to Jordanian community based organizations for the development of nurseries specialized in the propagation of native drought tolerant plants.
Historical account of the project (origin of the project, initiators…)	CSBE was contacted by the WEPIA programme in 2001 to lead some research (and then to implement pilot projects) in the field of water-saving gardens in a context of arid landscapes. WEPIA itself is concerned with a wider range of activities, which deal with water efficiency and public information (for municipal use of water)
Principal results and impacts of the project (economic, environmental, social, durability and possible repetitiveness…)	- better knowledge about arid landscapes, especially in Jordan -better public information and awareness about water scarcity and means to cope with it.
Main difficulties or limiting factors. Have you found solutions ? which ? Which tool or method put in place has not worked?	- working with big donors, like USAID (WEPIA), which means dealing with people which are not fully aware of the realities of the field → it can result in superficial work, not work in depth, so you have to argue to defend your point of view and your way of working - for the pilot projects, lack of CSBE's abilities and skills to work directly with community-based organizations (CBOs), because it is not part of this usual range of activities (i.e research) → need to work with a partner specialised in this field
Which tool or used method in this project has had the best impact? Can you draw conclusions from this experience?	- cooperation with University of Arizona - cooperation with big funder, the USAID, wich allowed to publish many brochures, posters, handbooks… for the public - cooperation with NGOs (Habitat for Humanities, MCC) involved in local stakeholders participation (CBOs), which improved the results of the pilot projects
Contacts (responsible organism, responsible person, address, telephone, e-mail…)	• Dalia al-Husseini, Research and Coordination Officer husseini@csbe.org telefax : (962-6) 461 5297 (will leave CSBE on August)
Publication in this field of experience (newspapers articles, reports, memories…)	• Water-Conserving Gardens: A User's Manual • Creating Landscapes in Water-Scarce Environments: A Case Study of Tucson, Arizona See exhaustive list at : : http://www.csbe.org/water_conserving_landscapes/publications/index.html

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Training	2
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Water Demand Management
Information, Awareness, Training, Participation.

File of experience

1 - Your experience (in order to explain your experience, you can fill the board underneath and you can also send us complementary documents of this action if necessary)

Summary of the project (quantitative and qualitative objectives, recipients ?...), 5 to 10 lines

WEPIA : for general aim : see other questionnaire.

The WEPIA project has three main components : one technical and one educational the other is building capacity for MWI and NGOs. AED has worked with the Jordanian government to incorporate water conservation measures in the national building codes, to train more than 350 plumbers and maintenance engineers to conduct water audits; and to audit more than half of the country's large water consumers (hotels, private schools, hospitals, businesses and government agencies). Many of them opted to have their plumbing systems retrofitted with water saving devices.
The Jordanian government has also asked AED to integrate water issues into the national school curriculum. In addition, WEPIA and Jordan University of Science & Technology are offering a certification program in water demand management. WEPIA and selected universities will also deliver a course in arid landscaping, fund-raising, and public education.

Countries, towns or village of intervention	Jordan
Date and duration (start of project…)	2000-2004
Zone of intervention (number of towns, districts…)	national
Domain of intervention (themes, subjects…)	Water Demand Management using Social Marketing modules
Estimated population in the area (number of citizens, main activity…)	
Targeted people	Waters consumers in general (and concentrate on large consumer (607 member) , children, students, plumbers, administration, all private and public new buildings…
Human means for the action (number of voluntaries helpers, unpaid, salaried…)	WEPIA Staff (10)+Consultant (12)+NGOs (20) + GOV. (12) + Committees (40)
Financial means	Phase one 7million second phase 5Million
Partners of action and benefactors	IdRC+ JES, RSCN, BPWA, CSBE, HCC,JERADS+Water Demand Management Unit+MWI+ Ministry of Islamic Fair +MOPWH+RSS+WAJ
Tools put in place (for example: educating programs, exchange workroom, survey, media, website, bulletins, researches, publications, scholastic intervening, database…)	WEBSITE+ Survey +Database+ Educational and awareness materials+ E-Learing+ Research and published papers

Historical account of the project (origin of the project, initiators…)	USAID vision for water conservation building on old project on 1997
Principal results and impacts of the project (economic, environmental, social, durability and possible repetitiveness…)	See annex 1 (doc "accomplishments")
Main difficulties or limiting factors. Have you found solutions ? which ? Which tool or method put in place has not worked?	1. missing water demand management strategy at the beginning of the project. 2. WEPIA worked for Domestic which is not the major consumer of water (Municipal water not agriculture or industry 3. People facing several action to cut down water consumption such as pricing system and rational 4. changing the building code 5. no subsides for retrofit or incentives
Which tool or used method in this project has had the best impact? Can you draw conclusions from this experience?	Direct short term (retrofit and community grants) Long term (Education and curriculum+ building code)
Contacts (responsible organism, responsible person, address, telephone, e-mail…)	Motasem Haddadin Tel : +962 6 565-1913 Fax : +962 6 565-1902 e-mail : haddadinm@cdm.jo Rania Abdel Khaleq- WEPIA coordinator at the Ministry of Water and Irrigation Telephone: 962-6-5652265 ext 1156 e-mail: Rania_Abdel_Khaleq@mwi.gov.jo
Publication in this field of experience (newspapers articles, reports, memories…)	Retrofit report, Code changes, Water saving assessment study

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Summary of the project (quantitative and qualitative objectives, recipients ?...), 5 to 10 lines

Project: Water Resources Management for Irrigated Agriculture

Countries, towns or village of intervention	Jordan Valley (Jordan)
Date and duration (start of project…)	Phase I : June 2001- November 2003 Phase II : November 2003 – November 2006 (or 2009?)
Zone of intervention (number of towns, districts…)	
Domain of intervention (themes, subjects…)	Irrigation management, water supply network management &maintenance, involvement of water users in the water management, capacity building …
Estimated population in the area (number of citizens, main activity…)	
Targeted people	Farmers- Administration (i.e JVA, Jordan Valley Authority)
Human means for the action (number of voluntaries helpers, unpaid, salaried…)	
Financial means	3.02 million Euros
Partners of action and benefactors	Partners : JVA, Ministry of Agriculture Benefactors: farmers, JVA Who else?
Tools put in place (for example: educating programs, exchange workroom, survey, media, website, bulletins, researches, publications, scholastic intervening, database…)	I- Water Users Associations (Committees, Water Councils Cooperatives) II - Technical Assistance/Innovation : 1. improvements in the distribution system (water meters installation, maintenance, repair or replacement, rehabilitation of pressurized pipes, of volumetric water measurement…) 2. rehabilitation of a water distribution network III – Community buildings activities 1. Workshop on Farmer Participation in Irrigation Management 2. JVA and WMIA Staff Communication workshops 3. Joint JVA – Farmer – WMIA Project Planning Workshops IV – Applied Research 1. Social Study of opportunities and constraints on farmer

	participation 2. International Irrigation Management Practice
Historical account of the project (origin of the project, initiators…)	
Principal results and impacts of the project (economic, environmental, social, durability and possible repetitiveness…)	Phase I : - 27 % of the irrigated area in the JV is covered by 9 water users groups (=2,930 farmers=30% of the farmers in the JV). 8 WUAs were on the way to being formed ➔by mid-2004 , 46% irrigated area in the JV will be covered by WUAs (=50% of all the farmers) - improved efficiency and reductions in water transgression, resulting from farmer participation and cooperation - stabilization of the water distribution network ➔ more reliable water supply - better communication between the farmers themselves and between the farmers and JVA staff
Main difficulties or limiting factors. Have you found solutions ? which ? Which tool or method put in place has not worked?	Corruption ; illegal use of water ; an aging, unreliable badly maintained network ; lack of training of JVA staff ; lack of consultation or dialogue with farmers… → technical and social solutions
Which tool or used method in this project has had the best impact? Can you draw conclusions from this experience?	The process of dialogue and consultation, through the establishment of the WUAs, has allowed a better mutual understanding between farmers and JVA staff, and has increased greatly the efficiency of the water network and the water management
Contacts (responsible organism, responsible person, address, telephone, e-mail…)	Jochen Regner, GTZ, Project Advisor Telefax : +00962 6 5678926 Mobile : +00962 79 5502301 e-mail : j_regner@go.com.jo P.O Box : 926 238, Amman 11190 HK of Jordan
Publication in this field of experience (newspapers articles, reports, memories…)	GTZ/JVA,Water Resources Management for Irrigated Agriculture, Annual Progress Report – June 2001-May 2002 GTZ/JVA,Water Resources Management for Irrigated Agriculture, Second Final Progress Report of Phase I – June 2002-November 2003

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