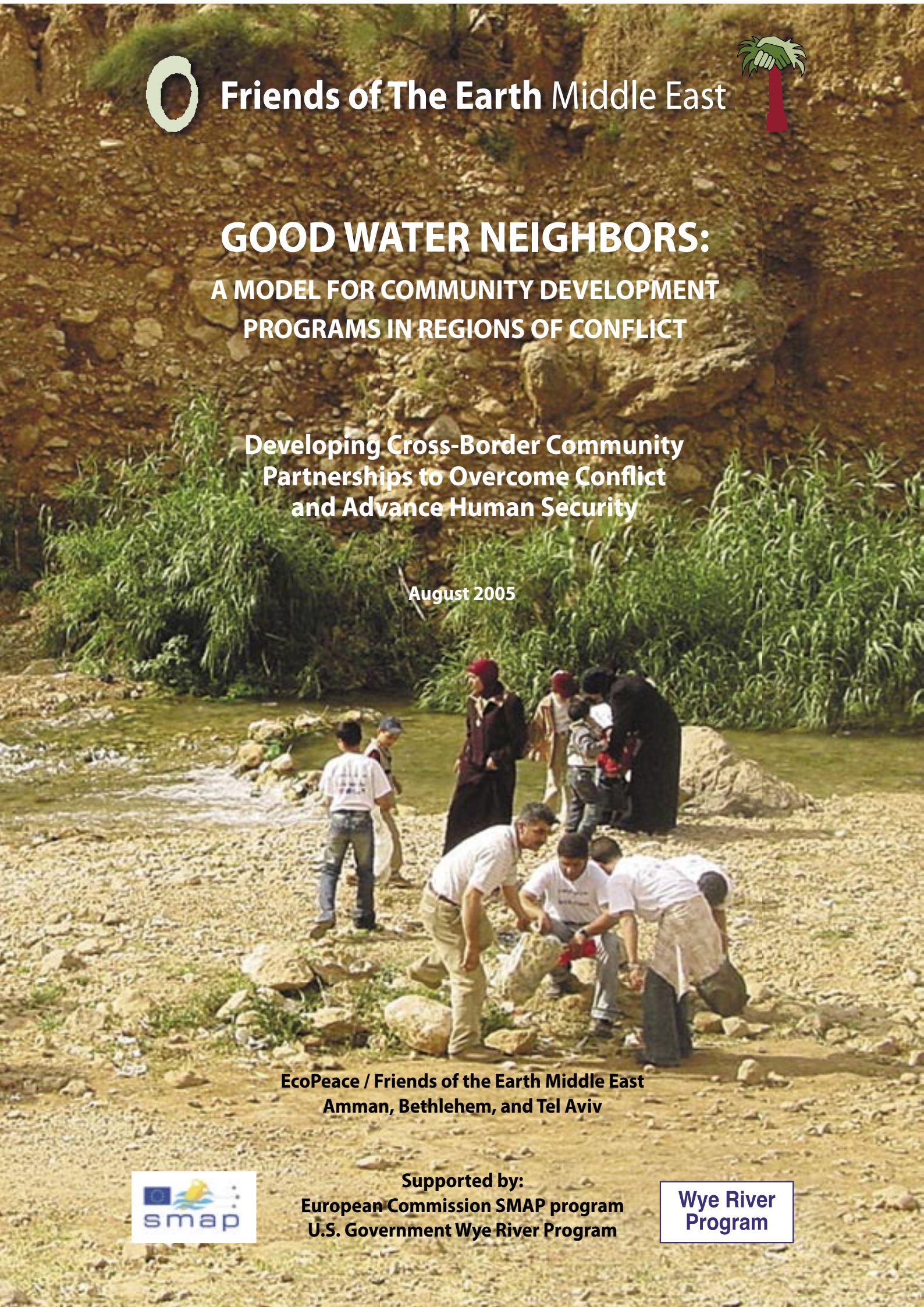
Friends of The Earth Middle East

GOOD WATER NEIGHBORS:

A MODEL FOR COMMUNITY DEVELOPMENT PROGRAMS IN REGIONS OF CONFLICT

Developing Cross-Border Community Partnerships to Overcome Conflict and Advance Human Security

August 2005



EcoPeace / Friends of the Earth Middle East
Amman, Bethlehem, and Tel Aviv

Supported by:
European Commission SMAP program
U.S. Government Wye River Program

Note of Gratitude:

FoEME would like to recognize and thank the **Short and Medium Action Program (SMAP)** of the European Community, and the **Wye River Program** of the U.S. Government for their support of the Good Water Neighbors project. We are grateful for the support provided by our project partners, the **European Environment Bureau**, and in particular Stefan Scheuer and Hans Hartung, and the **University of Texas at El Paso**, and in particular Ed Hamlyn. Thanks to the **Regional Management Support Unit** (RMSU) of the European Commission, and in particular Henry Jakouloff.

Additional financial support has been provided by:
UNESCO office, Amman
Canada Fund, Canadian Embassy in Jordan
Embassy of Finland in Israel
Public Affairs section, U.S. Embassy, Tel Aviv
UNESCO, German Commission
University of Miami, Florida
Lisa and Maury Friedman Foundation
The Global Nature Fund, Germany
BUND, Germany
European Rivers Network

Special thanks to FoEME's expert advisory committee:
Dr. Muna Hindiyeh, University of Jordan
Dr. David Scarpa, Bethlehem University
Dr. Alfred Abed Rabbo, Bethlehem University
Prof. Hillel Shuval, Hebrew University
Prof. Yoav Kislev, Hebrew University

None of the work could have been undertaken without the dedication and commitment of FoEME's **Good Water Neighbors project staff:**
Project Managers – **Gidon Bromberg**, **Munqeth Mehyar, Nader Khateeb**
Palestinian Project Coordinator - **Violet Qumsieh**
Jordanian Project Coordinators – **Tala Moumani, Abdel Rahman Sultan, Fida Hajeer**
Israeli Project Coordinators – **Sharon Karni, Ayala Levy, Efrat Gamliel**

Field Staff:
Baka al Gharbia – **Mohammed Biadsi**, Baka al Sharkia – **Yousef Sadeq,** Emek Hefer – **Ayelet Tapiro, Yael Atar** Tulkarem – **Mohammed Tambouz**, Beit Shean – **Talia Argaman**, Bardala – **Fathi Hadirath, Raed Odeh**
Sheik Hussein – **Mohammed Nawasrah**, Tsur Hadassah – **Mike Leiter**, Wadi Fukin – **Mohammed Awwad, Fahmi Manasra, Fida Sarasrah,** Eshel Hanasi – **Michal Askulai, Shimon Gev, Geula Ran,** Abasan – **Basel Yasin, Ahmed Bargouth**

Other FoEME support staff:
Nour Abu Laban, Mira Edelstein, George Manariuos, Georgina Rizik, Tamar Keinan

Gratitude is also expressed to all the **mayors** and **municipal staff, school principals** and **teachers, community centers , agricultural centers,** and the many other individuals involved in making Good Water Neighbors a successful project.

Report Author:
Tzipora Lubarr has worked as a consultant in environmental management and corporate sustainable development. She has an MA in Family and Community Education from Columbia University, New York.

EcoPeace / Friends of the Earth Middle East is a member of the Living Lakes Network and the Alliance for Middle East Peace, ALLMEP.

ALLMEP

Photographs: Sharon Karni, Abdel Rahman Sultan, Mohammed Biadsi, Ayelet Tapiro,Tali Ben Moshe, Mohammed Tambouz, Violet Qumsieh, Itamar Grinberg, and other GWN staff
Design: Ayelet Tikotzky
Cover photo: Clean up campaign at Al-Auja Spring, Bardala community

The views expressed in this report are those of FoEME and do not necessarily represent those of our funders or our expert advisory committee.

Friends of The Earth **Middle East**

GOOD WATER NEIGHBORS:

A MODEL FOR COMMUNITY DEVELOPMENT PROGRAMS IN REGIONS OF CONFLICT

Developing Cross-Border Community Partnerships to Overcome Conflict and Advance Human Security

August 2005

EcoPeace / Friends of the Earth Middle East
Amman, Bethlehem, and Tel Aviv

Supported by:
European Commission SMAP program
U.S. Government Wye River Program

smap

Wye River Program

Contents

I. INTRODUCTION

The Good Water Neighbors (GWN) project was established by EcoPeace/ Friends of the Earth Middle East to raise awareness of the shared water problems of Palestinians, Jordanians, and Israelis. The project identifies communities on either side of the border and utilizes their shared water resources as a basis for promoting environmental education and advancing human security. The project thereby seeks to encourage dialogue and cooperation on sustainable water management. GWN aims to create real improvement within the water sector by building trust and understanding that will lead to common problem solving and peace building between communities. This is done with the expectation that the trust and understanding built around water issues will advance cooperative problem solving and peace building on a broad range of issues beyond water resources.

"Water is essential for life. Yet many millions of people around the world face water shortages… The world needs to respond much better. .. And we must show that water resources need not be a source of conflict. Instead, they can be a catalyst for cooperation."

Kofi Annan
Secretary General of the United Nations, 2005

To advance human security it is necessary to consider justice, personal safety, and human rights. It is no less important to consider notions of compassion, common understanding, and trust. In regions of conflict, advancing human security requires recognizing the problems faced by others, despite serious political disagreements. Promoting human security in relation to many issues - water resources serve as a prime example – requires a commitment to solutions that must transcend political boundaries.

Through its four years of experience operating in the Middle East, GWN can serve as a model for educational and community programs in other regions of conflict. These projects can provide crucial educational and development assistance to communities and serve as a bridge for communication and trust-building between populations in conflict. The methods and strategies employed by GWN to run successful community programs can provide valuable insight to national governments, donor agencies, international organizations, local NGOs, and others interested in fostering development and peace building in regions of conflict.

To optimize its partnership with a community, GWN operates on several levels simultaneously, including the local, regional, and policy levels. GWN has also developed strategies to deal with the unique obstacles and challenges faced by a project working in a region of conflict. The programs developed by GWN demonstrate the possibilities for working with populations in conflict, and for creative change and improvements for people, communities, and the environment.

This report is an invaluable resource for national governments and members of the international community who are serious about conflict resolution and grass-roots peace building. It provides case studies of various programs developed by GWN, and highlights the need to increase investment in sustainable community development programs that advance peace and cross-border cooperation.

II. OVERVIEW OF GOOD WATER NEIGHBORS PROJECT

1. Background

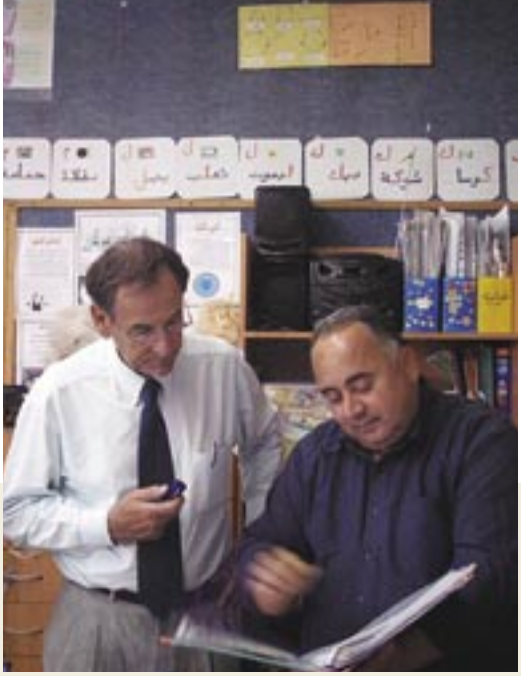
Water and the Middle East

The Middle East is an area where scarce fresh water resources have clear strategic implications. Particularly in the region of Israel, Palestine, and Jordan, the cross-boundary nature of shared water resources is believed by some to be a catalyst for conflict. Others, however, see regional cooperation on water issues as a potential path towards lasting peace, precisely because of the interdependent nature of shared water resources. Because water is critical for all aspects of social and economic development, and because of the interdependent nature of the water resources in the region, cooperation over water issues has been far more prevalent than conflict. As early as the 1950's, Jordanians and Israelis were meeting at the Jordan River to divide its resources, despite their countries being officially at war. More recently, throughout the second intifada, Palestinian and Israeli water officials continued to meet on a regular basis, despite the violence and bloodshed that brought all other bilateral discussions to a halt. Soon after the outbreak of the second intifada, a key understanding reached by the Palestinian Authority and the Israeli Government was an agreement not to destroy each other's water infrastructure.

Alexander/Schem River, rehabilitated section

Despite the cooperation between the region's governments on some aspects of water allocation, sustainable management of water resources has not been achieved. Lack of sewage treatment, over-pumping of aquifers, excessive diversion of surface water flows, and an unwillingness to implement critical water-demand management policies threaten the scarce water resources of the region. Sixty million cubic meters of untreated or poorly treated sewage are discharged annually from Palestinian and Israeli communities over the shared Mountain Aquifer, causing pollution in the most important drinking water source for both peoples[1]. The Jordan River has seen over 90% of its fresh water resources diverted, mostly for unsustainable agricultural purposes. Of the historic 1.3 billion cubic meters per annum flow, today less than 100 million cubic meters of water flow into the Jordan, and a high percentage of that flow is untreated sewage discharged into the river[2]. In Israeli-Palestinian negotiations, the finalization of water allocation issues - which would create better water justice in the region - has been held hostage to a final peace settlement. Instead of recognizing the potential of fair water allocation as a key confidence-building measure, Israeli and

[1] *Seeping Time Bomb,* FoEME 2004, www.foeme.org
[2] *Crossing the Jordan,* FoEME 2005, www.foeme.org




EU Ambassador Ramiro Cibrian Uzal visits communities

Palestinian peace negotiators have left the issue to final status talks.

A regional perspective must be realized to achieve sustainable water use and to consider all peoples and communities fairly. By gaining a better understanding of water resources in the area, and by striving to achieve sustainable water management and a just water allocation, essential conditions can be met for the establishment of good neighborly relationships. A lack of drinking water mainly affects towns in the Palestinian and Jordanian areas[3], while insufficient (or non-existent) sewage treatment exists in towns in Israeli, Palestinian, and Jordanian areas. These circumstances pose environmental and health hazards to communities, and can be a significant source of cross-border tension and pollution.

Water presents a clear opportunity and challenge for cooperative community development in the Middle East. GWN has taken the lead in localizing water issues by focusing on the community level and highlighting the cross-border neighbor relationships that are necessary to solve common problems. Like all environmental issues, problem solving requires serious investment to promote awareness of water issues among citizens and to identify sustainable water management solutions for communities. That the problems faced are cross-border, makes their impact no different than other environmental issues. On the contrary, the cross border nature of the regional water problem presents the opportunity to link problem solving with peace building, and the need to identify the peace dividend.

2. Project Design

FoEME launched GWN in 2001, despite the outbreak of the second intifada, to raise awareness of common water issues among Palestinians, Jordanians and Israelis. The project aims to foster information sharing, dialogue, and cooperation among communities regarding water and environmental issues. It focuses on the protection and equitable use of water sources, and is designed on a community partnership model, where neighboring communities on different sides of the border / political divide are partnered together to solve common water problems. GWN works with each community to raise awareness of their own water reality and compare it to the environmental situation of their neighboring community. An essential component of the project is to advance the peace dividend – the peace building potential created through the trust developed by community partnerships and cooperative ventures.

[3] Average per capita consumption of water in Israel is 300 liters per day while it remains only 120 liters in Jordan and 60 liters in Palestine.

Solid waste dumped at Wadi Abu Nar

Goals

GWN Project objectives are to:

1. Identify pilot communities in Israel, Palestine, and Jordan to raise awareness of their own water reality, and to promote sustainable water management at the household and municipal level;
2. Advance trans-boundary cooperation between the selected Israeli/Palestinian/Jordanian communities in order to share information concerning each other's water reality, and to seek to advance specific cooperation on common water solutions as neighbors; and
3. Utilize the results and experience gained at the community level for region-wide public awareness and policy activities on wise water use and water equity issues.

These objectives were designated to simultaneously affect change on the local, regional, and policy level. In addition, they were developed to encompass the various needs of each community and partnership. Since water is a central component of the region's development model, a focus on water naturally leads to a consideration of broader environmental, social, economic, and political issues. GWN therefore has the opportunity to branch out and deal with the full spectrum of development, peace, and human security issues that affect the partner communities.

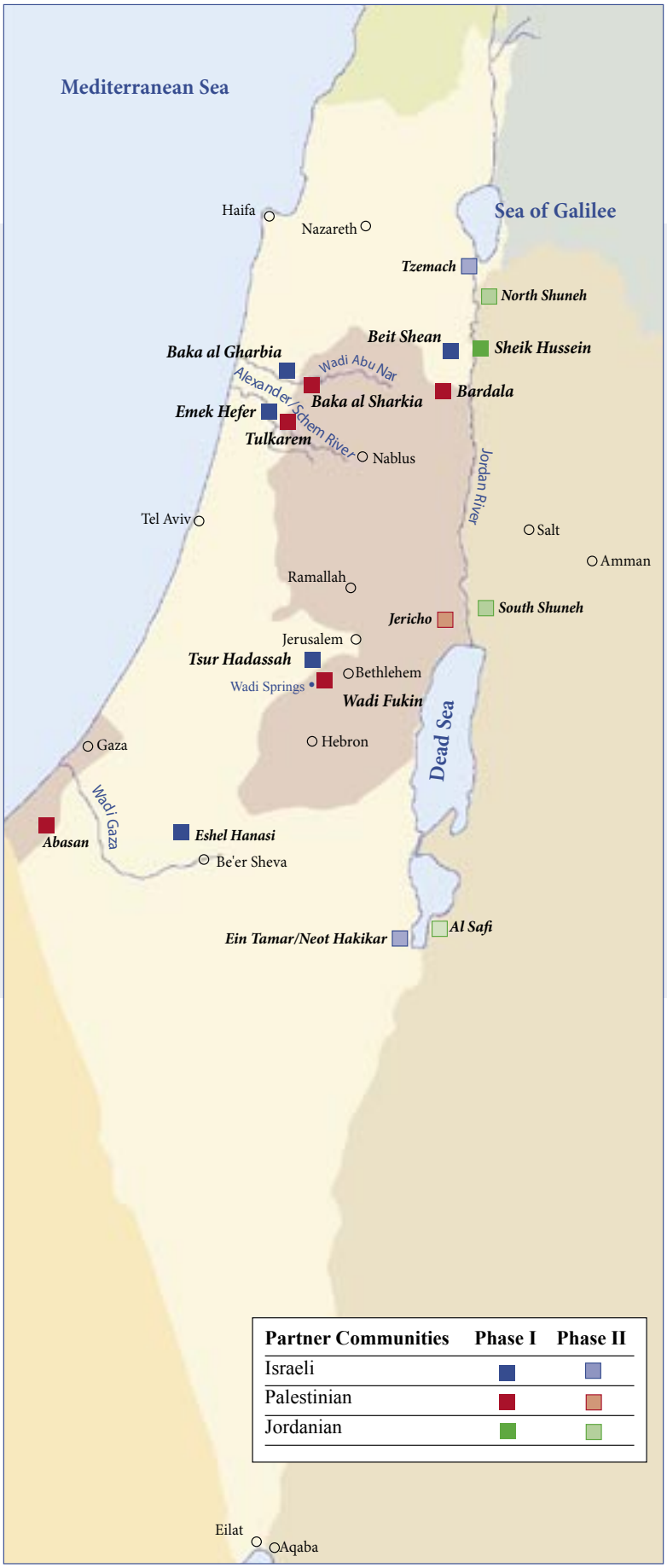
Partner Communities

Eleven communities were selected to participate in Phase I of the project, including five Israeli, five Palestinian, and one Jordanian community. The selection criteria included finding a community that shared a common water resource with its neighbor, whether a river, wadi (a dry riverbed with water flow only in the rainy winter season), or groundwater source. It was necessary to find communities that had an influential set of individuals, community groups, or a mayor who was willing to work with the neighbor community on the other side of the border. In addition, it was important to identify a local individual with a background in environmental or community work who was interested in being hired as a local GWN field staff person.

The communities were selected to extend over a broad geographic area, including the West Bank and Gaza, and to include both Jewish and Arab citizens of Israel. The communities also represent a range of social, economic, ethnic, and religious populations.

Partner communities (Phase I):

Israeli	Palestinian	Jordanian	Shared Water Resource
Beit Shean	Bardala	Sheikh Hussein	Jordan River
Baka al Gharbia	Baka al Sharkia		Wadi Abu Nar
Emek Hefer	Tulkarem		Alexander/Schem River
Tsur Hadassah	Wadi Fukin		Fukin Springs/ Mountain Aquifer
Eshel Hanasi	Abasan		Wadi Gaza


Mediterranean Sea
Haifa
Nazareth
Sea of Galilee
Tzemach
North Shuneh
Beit Shean
Sheik Hussein
Baka al Gharbia
Wadi Abu Nar
Alexander/Schem River
Baka al Sharkia
Bardala
Emek Hefer
Tulkarem
Nablus
Jordan River
Tel Aviv
Salt
Amman
Ramallah
South Shuneh
Jericho
Jerusalem
Tsur Hadassah
Bethlehem
Wadi Springs
Wadi Fukin
Dead Sea
Gaza
Hebron
Wadi Gaza
Abasan
Eshel Hanasi
Be'er Sheva
Ein Tamar/Neot Hakikar
Al Safi
Eilat
Aqaba
Partner Communities
Phase I
Phase II
Israeli
Palestinian
Jordanian

Rainwater collection tanks, Baka al Gharbia

Administration

GWN is administered through the three offices of FoEME in Amman, Bethlehem, and Tel Aviv. The project manager supervises the three project coordinators, who are based in the respective FoEME offices. Project coordinators oversee a total of eleven part-time field staff, and supervise the program activities in their respective countries. The field staff are the local representatives of GWN and are responsible for implementing programs in each community. Constant communication between all project staff plays an important part in program development and operations. To facilitate coordination, English is used as a common language between regional staff members. Project coordinators communicate with the field staff in Arabic and Hebrew, respectively, and program materials are published in both languages as well. Administrative and general support is provided by the branch offices of FoEME as needed.

3. Challenges & Recommendations

Many challenges were faced in the early stages of the project, including trust building, administration and operational issues. With the launch of the project shortly after the outbreak of the second intifada, mistakes were made, and the project had to be flexible enough to adapt to constantly changing circumstances.

Trust Building

The consequences of living in a state of unresolved conflict can create significant psychological and cultural barriers against participating in a project with the 'other' side. On a fundamental level, cross-border projects must deal with the basic challenge of building trust between populations in conflict. This challenge should be addressed from the start of of project development, so that appropriate measures can be taken to gain the necessary support of the different populations.

Trust building is not a simple, automatic consequence of cross-border programs. It is a complex, difficult process that can take an extensive amount of time and diplomacy to develop. With the project launched soon after the outbreak of the second intifada, a key challenge for the project was to find community groups willing to work with the other side. In Palestine and Jordan, there existed 'blacklists' against people working in a cooperative framework with Israelis; some organizations used intimidation tactics against individuals and groups that maintained relations with Israelis. In more general terms, distrust and outrage over violent acts on both sides was seen as a major obstacle to enlisting community involvement.

Under these circumstances, a focus on shared water resources played a key role in building

Dedication of school water-saving system, Baka al Gharbia

trust. Due to the natural interdependence of water resources, it made sense for people to recognize - in principal - the necessity of working together even in the midst of violence. The fact that the governments continued to have contact over water issues also set an important precedent. Nevertheless, in the initial years of the project, the regional objectives were kept at a low profile. During the first years, the project was designed to focus on raising awareness of a community's local water reality and improving water conditions, independent of direct work with a partner community. Though the regional and cooperative nature of FoEME was known by all the communities, there was no need to stress that the project aimed to develop actual interaction and cooperation between partner communities in subsequent years.

Hiring a local staff person was another key trust building factor crucial to the success of the project. Often, the local staff person had grown up in the community and had already developed relationships with schools, community groups, and the mayor's office. The project was therefore able to benefit from the inherent trust associated with the hiring of a local, well-respected resident.

Another key trust building method was the undertaking of real investment in the physical

improvement of a community. Field staff and project supporters could then turn to these achievements when 'accused' by others in their community who objected to regional cooperation. For instance, in one community, in the middle of a public meeting organized by the local field staff, an individual stood up and called for everybody to leave, since FoEME was a regional organization. The principal of the local school, which was being converted to a model water-saving building, immediately stood up and defended the local FoEME staff person and the project. He cited the investment and the work being carried out in the community – all led by local community members. The individual was asked how he was contributing to the community; in the end, he was the only one who left the meeting. The combination of local leadership and investment that resulted in tangible benefits enabled the project to gain the trust of the community, even against the background of the second intifada.

Once trust is gained, there is no limit to the possibilities open to communities in working together productively. Cross-border meetings become not only possible, but desirable. Cooperation over water extends to other environmental issues, to economic interests such as agriculture and tourism, and to political issues such as the building of the separation barrier. The 'other' side becomes a point of intrigue and genuine interest, rather than just an outlet for suspicion and accusation. Individual community members come to value, and defend, the cooperative actions they have taken and the relationships that have developed. The circle of peace supporters in each community is widened, and individuals may be more willing to espouse their views publicly.

Administration and Operations

As the project moved into the implementation stage, possible administrative obstacles were identified in connection to operating a project out of three separate offices, each in a different country. Since FoEME has extensive experience in this work environment, several strategies were employed to ensure that the project would run smoothly. These include:

- Clear descriptions of each staff member's role and responsibilities, and a clear chain of accountability.
- Encouragement of daily communication between staff members in each office, particularly among project coordinators.
- Bi-monthly meetings between all field staff from the three countries to learn from each other's experiences and to respond to on-the-ground circumstances.
- Frequent updates and reports distributed to all staff.
- Central administration of finances.

Good Water Neighbors staff

Planning a regional workshop

Ultimately, it is the professional relationship that develops between staff members that can determine the success of a project that operates across geographic and cultural differences. It is therefore critical to recognize the necessary attributes of staff members who need to be sensitive and flexible towards the challenges that inevitably arise in a cooperative project, ever more so in the middle of a violent conflict.

Peace Dividend

The identification of the peace dividend should be a desired goal of donor agencies that support projects in areas of conflict. Unfortunately, FoEME has found that this is generally not the case. If the underlying cause of poverty and underdevelopment in a region is conflict and violence, then investments undertaken solely to promote poverty relief and infrastructure development will lead to little more than 'band-aid' solutions. Donor agencies need to adopt a broader strategy that combines and integrates conflict resolution and development aid. To do this, donor agencies need to identify measures to involve both sides of a conflict in the development of a program, preferably at a cross-border community level.

Sewage is an illustrative point case, since it quite naturally flows across political divides. The sewage produced by one community, untreated and flowing in open wadis, can negatively impact the lives of not only the residents who

Regional workshop

Polluted Wadi Abu Nar

Discharge of raw sewage into Wadi Abu Nar

created the problem, but also the lives of all those living downstream. Building a sewage treatment facility will improve the livelihood of residents of the community that produces the sewage, by reducing the risk of disease and providing opportunities for the economic utilization of the treated sewage water. The investment made in the sewage treatment plant will also benefit the communities downstream, across the border. By developing a strategy that includes all communities along the sewage stream, not only do greater development options become available, but a peace dividend can be advanced through dialogue and a sense of common interest and achievement.

If conflict resolution is a project goal, it is crucial to identify the peace dividend at the earliest stages of program development. This is important for communities, as well as for donor agencies. By determining the role of a program in advancing peace from the start, and by highlighting this peace dividend as the program continues, it is easier to keep this goal in focus and to track its progress through the duration of a project.

III. PROGRAM ACTIVITIES

Dedication of school water-saving system, Beit Shean

Program activities are designed to fulfill a specific GWN project objective and are created to affect change on a local, regional, and policy level. Within each community, GWN has developed programs to work with youth, adults, and community leaders. These activities are designed to focus on water education and awareness, and on sustainable water management.

Programs are developed through joint collaboration of GWN staff in the Israeli, Palestinian, and Jordanian offices, and are implemented in the communities primarily by the field staff. The field staff frequently receives the assistance of their project coordinator, as well as the help of local volunteers. The programs described in this report represent a variety of GWN activities developed in the communities during 2002-2005, a period of continued conflict and peacemaking attempts in the region.

To facilitate the use of GWN as a model for other projects, activities are presented under general categories such as education and awareness, and urban development. The peace dividend is highlighted throughout, and recommendations are offered for successful program implementation. The case studies and the lessons learned by GWN can be used as guidance for organizations and donor agencies who work on environmental, social, and economic development in various regions of conflict.

Clean up campaign, Baka al Sharkia

1. Local Activities

The activities conducted on a local level are designed to meet the GWN objective #1:

"Identify pilot communities in Israel, Palestine, and Jordan to raise awareness of their own water reality, and to promote sustainable water management at the municipal and household level."

Education and Awareness

School Programs

A central program of GWN is the Water Trustee program – student groups that work closely with field staff to learn about local water issues and to promote environmental awareness in their communities. Water trustees range from the fourth grade through high school, and meet regularly in their local schools or community centers. Each community has a Water Trustee group.

BAKA AL SHARKIA, PALESTINE

- Water trustee meetings are conducted biweekly to learn about sustainable water and environmental issues in the community. Through site visits, questionnaires, and lectures, water trustees learn where their drinking water comes from, how water is allocated between different sectors (mainly domestic and agriculture), what happens to the sewage they produce, and about the water situation in their partner community. Water trustees have participated in various activities in their school, including tree plantings and clean-up campaigns, with a special focus on the shared water source of their community partner - Wadi Abu Nar.
- Field staff has worked with the Omar Ibn El-Khattab school to transform it into a water-saving model building. Renovation involved the installation of a collection and pumping system to collect water from the roof of the school to be stored in a well. The water is used for drinking purposes, flushing of toilets, and irrigation of the school garden. As a result of the water-saving system, the school has been able to use the collected rainwater for all of its operations. As of March 2005, the school no longer needs to purchase water from the municipality during the rainy months, and has become self-sufficient in water consumption during the winter. This has

Identifying neighboring communities

saved the school a significant amount of money that can now be reallocated to other urgent needs.

BEIT SHEAN, ISRAEL

- Water Trustees meet once a week at the local community center to learn about their water situation and the water reality of their neighbor communities, Bardala (Palestine) and Sheikh Hussein (Jordan). Participants study water resources in the area, and focus on the conservation and rehabilitation of the Harod River, a tributary that flows into the Jordan River. Activities include creating posters that call on the community to save water, monitoring water quality, and conducting clean-ups and field activities near the Harod River.

- Field staff worked together with students and teachers at Meir Elementary School to develop a plan to transform their school into a model water use center. The proposal called for collecting rainwater from the roof of school buildings to be used to flush toilets and irrigate the school garden. In 2005, a ceremony was held to dedicate the water-saving system that was installed in the school. As part of the water-saving program, students check the amount of water saved in the system after a rainfall, and prepare graphs showing rainfall levels in the Beit Shean valley. The janitor of the school has managed to convince the municipality to purchase additional rainwater containers for the school to increase the water collection potential. This saves the municipality money on water charges for the school.

Workshops & Site Visits

Workshops are held in each community to empower residents, both adult and youth, to address local and regional water problems.

TULKAREM, PALESTINE

- Empowerment workshops have been conducted in cooperation with the Palestinian Environmental Quality Authority to increase community awareness of local water and sewage issues. A workshop was held in the Al-Khawaja school and was attended by thirty women, in addition to the school

Community workshop, Tulkarem

Visit to Al-Auja Spring, Bardala community

Visit to Wadi Be'er Sheva, Eshel Hanasi

principal and teachers. Topics included local water resources, water conservation methods, water and air pollution, and solid waste collection and dumping specific in the Tulkarem area. A second workshop was held at the Al-Adawiyya school and was attended by forty students, the school principal, and teachers.

ESHEL HANASI, ISRAEL

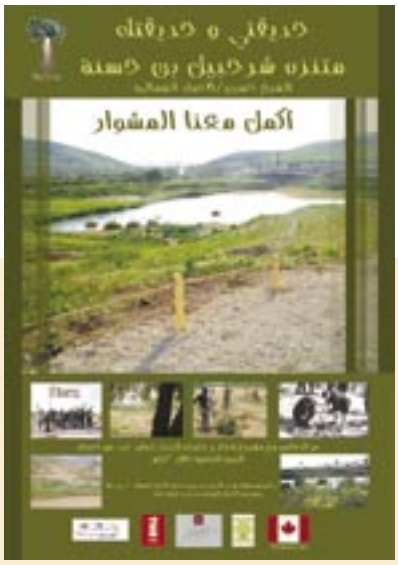
- Water trustees, together with students from nearby Kibbutz Hatzerim elementary school, toured Wadi Be'er Sheva / Wadi Gaza and its surroundings. The students also visited the Netafim factory, where drip irrigation pipes and other water-saving agricultural systems are developed and manufactured.

BARDALA, PALESTINE

- Water trustees visited the Al-Auja Spring that is part of the Jordan River water system. The children learned about the pollution of the Jordan River, and conducted a clean-up campaign of the area.

Brochures & Posters

Brochures have been published in each GWN community to raise awareness of local water problems, and to empower community efforts to address pollution of water sources. Brochures are produced in the local language, and are distributed by the water trustees in each community.



Park poster, Sheikh Hussein

BAKA AL GHARBIA, ISRAEL

- A community brochure was produced calling for the rehabilitation of Wadi Abu Nar. The brochure was distributed to all residents – approximately 10,000 homes. The local Islamic college was involved in the development of the brochure, and its students provided quotes from the Koran and Sunna that illustrate the importance of water conservation, a ban on contamination, and other conservation ideals.

ABASAN, PALESTINE

- Water trustees worked together with the field staff to prepare a brochure for the community about Wadi Gaza. 1,000 copies were distributed to organizations and municipalities located near Wadi Gaza. The brochure has information about the river, and includes photos of water trustees visiting the river wearing hats and t-shirts with the logo "Protect Wadi Gaza."

Community brochure, Abasan

SHEIKH HUSSEIN, JORDAN

- To encourage community involvement in the development of the Sharhabil Bin Hassaneh Recreational Park, 1,000 posters with the slogan "My Garden and Your Garden, Continue the Journey with Us" were distributed in schools and public buildings along the Jordan Valley. The park is the first to be established in the community, designed and developed by the local residents.

Additional education and awareness activities:

- Community newsletters
- Community websites
- Exhibitions of student / water trustee work
- Informational booths at community events
- Presentations at conferences
- School curriculum development
- Public information campaigns, e.g. murals about water saving or cross-border campaigns

Public awareness campaign, Wadi Abu Nar


Student drawing 'Catch the Water'


Student drawing 'Save Every Drop of Water, Because it Belongs to Everyone'

Urban Development

Infrastructure and Water Efficiency

Several initiatives have been developed to improve water efficiency in schools, public buildings, and homes. GWN has also worked with residents to create gardens, plant trees, and clean up trash in public spaces. These activities make a real impact on communities, and contribute to improvements in the quality of life of residents.

BAKA AL GHARBIA, ISRAEL

- Water Trustees received significant municipal support for the "City of Baka Conserves Water" program, which installed water-conserving devices in all the water taps of the city's public buildings. The municipality nominated a supervisor to oversee this project, and devices were provided by the office of the Israeli Water Commissioner at no cost. The installed water devices reduced water consumption by approximately 30-50%.


Rehabilitation of ancient well, Baka al Gharbia

- To attract public support for the GWN project, the field staff identified the rehabilitation of an ancient well as a means to encourage pride in the community's water heritage. Prior to this, the well site was used as a dumping ground. Water trustees cleaned the area with the help of heavy equipment donated by local residents. The well has been transformed into an attractive community site and symbol of regeneration, and the mayor frequently brings guests of the city to view the rehabilitated site.

Cleaning water tanks, Wadi Fukin

WADI FUKIN, PALESTINE

- The field staff taught the water trustees at the Wadi Fukin school how to clean the school water tanks. Samples were collected from the bottom of the tanks and the water quality was tested. A community brochure was distributed to raise awareness for the need to keep water tanks clean.
- GWN worked together with a civil engineer to install a water-efficient system and garden at the school. A cistern with the capacity of 50 cubic meters was installed to collect rainfall from the roof of the building, and a garden was constructed and prepared for agricultural activities. A drip irrigation system was installed to use the gray water collected from the drinking fountains.

EMEK HEFER, ISRAEL

- An inter-school competition was held for students to design a water-efficient system for their schools. The winning plan, designed by two students from the regional high school, captures water condensation from the school air conditioning units and uses the water to irrigate the school garden. The students calculated how much water could be saved, and arrived at surprising results. The system was installed in the school and currently provides up to one cubic meter of water a day in the summer months. At the dedication ceremony, the students presented their system to representatives of the Ministry of Education, as well as representatives from the U.S. Embassy and the European Union.
- Further plans have been made to expand the school garden into an organic, water-saving ecological garden. Meetings have been held with community members who are interested in contributing to the building and maintenance of the garden, including city planners, water experts, nurseries, school staff, and representatives from the municipality.

Student designers of school water-saving system, Emek Hefer

School garden, Emek Hefer

Students install water-saving devices, Sheikh Hussein

School water-saving system, Sheikh Hussein

SHEIKH HUSSEIN, JORDAN

- GWN worked with the municipality to install water cisterns in two schools. Prior to this, the schools had drinking water only 4 out of 6 days a week. On the days without water, students would have to come to school carrying their own water bottles, and the toilets were closed. Each new cistern provides nine cubic meters of water storage, and is a significant step towards transforming the schools into model water-efficient buildings. The schools now have water every day, and water coolers have been installed to provide cold drinking water - a considerable relief when temperatures can reach over 40ºC. Sheikh Hussein municipal engineers supervised the installation of the cisterns.

- A gray water network was established in Sheikh Hussein Mosque. The network consists of a cistern that collects water from the washing basin, which is then used to irrigate the garden around the mosque. Water-saving devices were also installed in the Sheikh Hussein Hashemite Center for Human Development. A water survey was conducted to identify the water exit of each tap, suitable water saving devices, estimated water flow per minute, and leaks in the network.

- GWN has participated in the development of Sharhabil Bin Hassaneh Recreational Park, the first park in the community. An opening ceremony for the park was held in January 2005 and was attended by representatives from the Ministry of Agriculture, Jordan Valley Authority, North Shouneh municipalities, and hundreds of local community members. Water trustees contributed to the installation of park facilities, and joined other volunteers in planting 1,000 trees. GWN has contacted a volunteer landscape architect to develop a park plan that would include educational facilities, areas for sustainable agriculture, and an area for a Beduoin campsite.

Visit to Netafim drip irrigation company, Eshel Hanasi

TSUR HADASSAH, ISRAEL

- A system was installed in a local school to collect wastewater from drinking fountains to be used in an ecological garden built in the schoolyard. The garden has local plant species that do not require large amounts of water. In addition, a rainwater harvesting system collects the rainwater from the roof of the school to be used in the school toilets.

TULKAREM, PALESTINE

- The UNESCO–German Commission approved funding to convert three additional schools into water-saving model buildings. Funding was granted after a visit by the UNESCO-German Commission director to schools that had already been retrofitted with water-saving systems through the GWN project.

Partnerships

A significant component of GWN is working together with other community groups and institutions. Partnerships have been made with local business groups, community centers, NGOs, and religious institutions.

ESHEL HANASI, ISRAEL

- Netafim, a private sector company and a world leader in drip irrigation technology, is FoEME's partner in the Eshel Hanasi school. The company has provided drip irrigation equipment for the school and has given lectures and tours to students and staff.

SHEIKH HUSSEIN, JORDAN

- GWN has established a partnership with the INJAZ program. INJAZ ('achievement' in Arabic) fosters entrepreneurship and community involvement among Jordanian youth. In 2005, Water Trustees and INJAZ students worked together to help build Sharhabil Bin Hassaneh Park. They assisted in the installation of toilets, chairs, tables, gates, a car park, and instruction boards and signs for the playground and sporting fields. Students created a contour map, and continue to work on the development of the park site.

EMEK HEFER, ISRAEL

- The GWN youth group has worked together with a local professional volunteer group called the Alexander River Trustees. Joint activities have included a botanical hike along the river led by the River Trustees, and joint volunteering at the public information booth at the river. A pair of volunteers – one child and one adult - worked together at the information booths on the weekends, providing environmental information to visitors.

Earth Day clean up campaign, Sheikh Hussein

BAKA AL GHARBIA, ISRAEL

- Imams at several local mosques have included environmental issues in their Friday sermons. Topics covered include water conservation, cessation of river contamination, better management of garbage, and the encouragement of residents to keep the city clean.

Additional urban development activities:

- Clean up campaigns
- Water testing
- Planting flowers in road dividers
- Planting trees in parks and public spaces
- Installation of water-saving devices in homes

Experts from University of Texas visit communities

Further Needs

Partial funding has been received from the European Union Partnership for Peace program to continue GWN for another two years. Matching funds are still being sought. The extension of the program for Phase II includes the addition of six new communities from the Jordan River Valley area who will focus on water issues connected to the Jordan River and Dead Sea.

Partner communities (Phase II):

Israeli	Palestinian	Jordanian	Shared Water Resource
Jordan Valley Regional Council		North Shuneh	Jordan River
	Jericho	South Shuneh	Jordan River, Dead Sea
Tamar Dead Sea Regional Council		Al Safi/Fifa	Dead Sea

- When the project was launched in 2001, it was not easy for FoEME to identify communities willing to work with the 'other' side. FoEME is now regularly approached by schools and communities who have visited participating communities or heard about program activities, and want to know how they can be included in the project. Further funding is needed to expand the project and involve even more communities.

- GWN recognizes the value of institutionalizing its educational efforts. Further educational objectives include incorporating regional water programs in school curriculums, and creating a partnership with the Ministries of Education in all three countries to ensure that new schools will be built with water-saving systems in place.

Regional workshop, Kibbutz Lotan

2. Regional Activities

The activities conducted on a regional level are designed to meet GWN objective #2:

"Advance trans-boundary cooperation between the selected neighboring Israeli/Palestinian/ Jordanian communities in order to exchange information concerning each other's water reality, and to seek to advance specific cooperation on common water problem solutions."

Regional activities promote education and awareness of the partner communities' water situations, and foster cooperative activities related to water treatment, conservation, and land use.

Education and Awareness

Regional educational programs are designed to promote a broad environmental perspective. This is necessary to provide a comprehensive portrait of the region and to identify the shared water and environmental situation of partner communities. Regional education activities have been conducted for youth, adults, professionals, and municipal leaders.

Regional Meetings, Workshops, Site Visits

Kibbutz Lotan Ecological Workshops

Two regional workshops have been held at the Kibbutz Lotan Center for Creative Ecology in the Arava region. Students from neighboring Palestinian, Israeli, and Jordanian communities attended three-day workshops where they learned about different environmental concepts, how to build functional facilities from mud and solid waste, and techniques for composting. The workshops provided an opportunity for students from neighboring communities to spend time with each other, and learn more about each others' daily life and environment. The students trained in the program were encouraged to lead small environmental building projects in their own communities.

Regional Summer Camp

In the summer of 2004, forty children from seven Israeli, Palestinian, and Jordanian communities attended a three-day summer camp in northern Israel, where they toured and hiked in the area. The children learned about wetland ecosystems, water resources and usage, and the human impact on water and the environment. The social activities allowed participant to get acquainted with each other and make direct contacts with their peers from neighboring communities. All explanations, instructions, and learning material were given in Hebrew and Arabic.

Environmental Professionals and Engineers

A workshop entitled *Best Practices in Decentralized Water Management* was held in Jerusalem for engineers and environmental activists concerning water issues on the municipal level. The workshop sought to increase awareness of low-cost water saving technologies and water management options that can be applied at the municipal and residential levels. The meeting brought together international experts; government officials from Jordan, Israel, and Palestine; representatives from the EU delegations and the U.S. embassy; environmental professionals; and members of the public.

Regional summer camp

"We are very thankful to those who decided to arrange this activity, because we want our children and all the generations in the region to live peacefully together without hatred and violence."

Letter from parents of Jordanian children who attended the regional summer camp

"I had no expectations before the journey of much communication with the Palestinian children. But, to my surprise, that wasn't so at all. In my opinion, we had a very good communication with them. I was impressed by the Wadi Fukin children. I would like to know them better and to have many more journeys with them. I think it would do only good."

Letter from an Israeli child who attended the regional summer camp

Tsur Hadassah and Wadi Fukin residents visit proposed site of separation barrier

Tsur Hadassah – Wadi Fukin Work Together Beyond Water Issues

In June 2005, residents of Tsur Hadassah and Wadi Fukin met in the area between their towns where the Israeli military separation barrier is to be built. Approximately fifty adults had the opportunity to see precisely where the fence is planned to be constructed, and to share their concerns about the potential economic and social impacts. Residents of Tsur Hadassah expressed support for the residents of Wadi Fukin to petition the Israeli Supreme Court against the barrier, calling for the barrier to be moved several hundred meters back towards the Green Line. This would avoid the separation of olive groves from farmers, and allow space for the natural growth of the village in the future. Residents decided to publicize this issue among their own neighbors, and made plans to submit two petitions of signatures - one from Tsur Hadassah and one from Wadi Fukin - to support an appeal to the Supreme Court.

In addition to their work surrounding the separation fence, Tsur Hadassah and Wadi Fukin residents are currently developing a master urban plan to include environmental, economic, and social considerations for the development of the area. As part of the plan, residents are also working on a sustainable tourism initiative.

Farmers Network in the Jordan River Valley

A series of regional meetings have been held for farmers in the Jordan River Valley. The first meeting was held in the summer of 2004, when farmers visited a drip irrigation company and learned about water saving possibilities in the agricultural sector. They also learned about organic farming methods. A second meeting was held in the fall of 2004 on the Jordanian side of the Valley, to share professional knowledge and to propose ideas for cooperative initiatives. Farmers visited an agricultural research center, as well as an organic farm. A third regional meeting took place in the summer of 2005, also in Jordan, with additional activities related to water saving techniques and organic farming.

Regional farmers workshop

Regional workshop, Jordan

Tulkarem – Emek Hefer Meetings

GWN has helped facilitate a close relationship between the mayors of Tulkarem and Emek Hefer. Prior to the launch of the GWN project, FoEME had organized the first joint visit of municipal representatives along the entire length of the Alexander/Schem River, from its origins in the Nablus area in Palestine to the Mediterranean Sea on the shores of Israel. The activities undertaken by the GWN project in the two communities allowed the mayors to renew their contact, despite the occurrence of the second intifada. In 2002, municipal representatives participated in a joint delegation to the U.S. Upon their return, they began to discuss plans to build a joint sewage treatment facility (see Municipal Cooperation below for further details).

Regional Workshop for Adult Residents

In August 2005, a three-day regional workshop was held in Jordan. Participants included GWN community residents who had attended lectures in their communities over the past year. Residents from neighboring Palestinian, Jordanian, and Israeli communities sat together to discuss the environmental concerns of their communities, and how they could work together to address these issues. Participants also toured relevant sites such as a wastewater treatment facility, and attended lectures about community involvement. In addition to promoting joint efforts to solving environmental problems, the workshop allowed participants to get acquainted with each other on a social level.

Delegations

Several educational trips have been organized for community members to learn about water issues and cross-border cooperation in other areas of the world. GWN delegations have been sent to Canada, Japan, the U.S., and Europe, and have included youth, adults, and community leaders. The missions encourage local stakeholder commitment to program activities, and offer opportunities to learn about experiences of other regions and various methods of sustainable water management. No less important, the trips are occasions for participants to establish good personal contacts and can set the stage for the development of cooperative cross-border projects upon return to the region.

World Youth Parliament for Water, Canada

A delegation of nine students, three each from Israeli, Palestinian, and Jordanian communities, participated in the 2002 World Youth Parliament for Water in Quebec, Canada. The students jointly presented their communities' water and sewage situations, and participated in discussions about an international water bill.

Good Water Neighbors staff visits U.S.-Mexican border area

U.S. - Mexican Border

Two delegations have visited the U.S.-Mexican border area. The first mission, in 2002, brought together municipal leaders from Emek Hefer, Tulkarem, Baka al Gharbia, and Baka al Sharkia. The GWN community leaders met with U.S. and Mexican officials, academics, and NGO organizations to learn about the shared water problems related to the Rio Grande. During the second mission, in 2005, GWN regional staff members visited the University of Texas at El Paso (UTEP) to learn about the American-Mexican experience in cross-border water management. The group met with public officials, organizations, and community members, as well as UTEP students and faculty members. UTEP students learned about the GWN project, and plans have been made for them to design environmental projects that can be implemented in the GWN communities.

European Mission, 2003

In 2003, community leaders from the three communities near the Jordan River participated in a joint mission to Europe, co-organized by the European Environment Bureau (EEB). Members of the delegation included senior water management officials from Sheikh Hussein and Beit Shean, and the head of the Bardala village council. Delegates visited the border area of Belgium, France, and the Netherlands to learn about trans-boundary water conflict and resolution from a European perspective.

Tulkarem water treatment ponds

Urban Development

Municipal Cooperation

Emek Hefer – Tulkarem

Both Tulkarem and Emek Hefer have experienced pollution caused by untreated sewage. Even after the separation barrier was constructed between the two communities, untreated sewage from Tulkarem continued to flow into the municipality of Emek Hefer and pollute the Alexander/Schem River, which flows through both communities on its way to the Mediterranean Sea. Over the past years, GWN has worked closely with each municipality to consider joint solutions to the pollution.

In July 2003, water trustees from Emek Hefer and Tulkarem met with representatives from the German Development Bank to submit a petition concerning the environmental impact of untreated sewage on their communities. Over 4,000 residents from both communities signed the petition. A subsequent agreement was signed between Israeli and Palestinian authorities concerning the problem of Tulkarem sewage, and the German government committed resources to rehabilitate the Tulkarem sewage treatment site as a first step towards solving the problem of untreated sewage in the communities.

In February 2005, a ceremony was held to launch the newly rehabilitated aeration ponds of Tulkarem. The ties established between the mayors of Tulkarem and Emek Hefer, and their expressed mutual interest in finding solutions to their shared polluted environments, resulted in a close working relationship that was crucial for the successful implementation of the project. Close cooperation continues to date, and the mayors have traveled together to Germany to seek further funding for additional joint sewage solution projects.

Baka al Gharbia – Baka al Sharkia

Wadi Abu Nar runs through both communities of Baka al Gharbia and Baka al Sharkia, and is heavily polluted due to illegal trash dumping and the discharge of untreated sewage. Each community has initiated an awareness campaign to clean up the wadi. In Baka al Sharkia, signs have been put up along the river to discourage illegal dumping, and rallies have been held to attract community support. On Earth Day, the local scouts group marched towards the wadi playing instruments to raise awareness of the importance of cleaning up the wadi. In Baka al Gharbia, the field staff has conducted tours of the wadi for high school students and teachers, and the mayor has met with the Hadera Municipal Union for the Environment to discuss implementing plans to rehabilitate of the wadi. After three years of community campaigns, common petitions, clean-ups, and site visits, the mayor of Baka al Sharkia and the deputy mayor of Baka al Gharbia have met to coordinate the needs of both municipalities regarding water, sewage, and solid waste disposal. A memorandum of understanding was signed between the municipalities, with plans to build one

Earth Day, Baka al Sharkia

treatment plant on the Israeli side to handle the sewage treatment needs of both communities. Matching funds for the rehabilitation of the wadi and the building of recreational areas along the length of the wadi have also been offered.

Jordan Valley Mayors Network

A mayors network has been established for Jordanian, Palestinian, and Israeli mayors of communities in the Jordan River Valley. A regional mayors conference was held in March 2005, bringing together municipal representatives to discuss cooperative efforts to rehabilitate the Jordan River as the basis for improved livelihoods of local residents. Cooperative ideas discussed at the meeting include tourism, sustainable agriculture, sewage treatment, pest control, and other health-related issues. In addition to mayors from the GWN communities, mayors from other communities in the Jordan Valley and Dead Sea region participated. At a subsequent event, several mayors participated in the Big Jump at the Jordan River. The Big Jump is an international river awareness campaign; eight municipal representatives participated in the Big Jump at the Jordan River, jumping into the water to bring attention to the serious need for the rehabilitation of the river. Another mayors network event is planned for the fall of 2005, with the goal of identifying common interests and advocacy measures to be taken to rehabilitate the Jordan River.

Further Needs

Investment in municipal infrastructure is urgently required, particularly in Palestinian and Jordanian communities. Many of the communities do not have complete water networks, and none have adequate sewage treatment. Solid waste disposal also remains an issue of major concern. As the Emek Hefer / Tulkarem case exemplifies, where there is community support for cross-border cooperation, mayors are willing to take action. Cooperative efforts have proven to be instrumental in overcoming the political and conflict-related barriers to infrastructure development in the region.

Regional water petition event

3. Policy Activities

The activities conducted on a policy level are designed to meet GWN objective #3:

"Utilize the results and experience gained at the community level for region-wide public awareness and policy activities on wise water use and water equity issues."

GWN has introduced several strategies to affect change on the policy level. These include petitions, awareness events, and presentations to national and international policy forums.

Petitions

Community Petitions Against Sewage Pollution and for Water Sharing

In 2003, fifty children from Israeli, Palestinian, and Jordanian communities attended a ceremony in Jerusalem where they submitted petitions to their respective water authorities regarding water supply and sewage pollution. Each pair of communities developed a common petition about their shared water source. A total of 15,000 signatures were collected from residents in all communities. At the ceremony, the children called for their national water authorities to solve water supply and pollution issues near their homes, and for the help of the international community. The ceremony was attended by representatives of the Israeli, Palestinian, and Jordanian water authorities, and representatives from the local EU delegation and American Consulate. The event received considerable attention from the Hebrew and Arabic media.

Petitions Supporting the Construction of a Collection Pond in Abasan

Water trustees collected 1,000 signatures to support the completion of a storm water collection system in Abasan. In 2003, a storm water collection system was built in the residential area of Abasan, through the assistance of donor funds. The petition recognized the need for an additional reservoir that would collect rainwater for agricultural use, and thereby complete the community's water collection system.

Awareness Events

World Water Day

On World Water Day 2003, FoEME presented a session to the Environment Committee at the Knesset (Israeli Parliament) to introduce the GWN project and highlight the need for cross-border cooperation on water and environmental issues.

Thirty children from Baka al Gharbia and Emek Hefer participated in the session, and raised a toast for healthy water. The head of the Committee responded positively to the session, and

Knesset ceremony

expressed interest in visiting communities to view trans-boundary sewage problems. In 2005, the Knesset Committee gave awards to all the participating GWN Israeli schools in recognition of their achievement in water conservation and regional cooperation.

Media Tour of the Separation Fence

In 2003, together with several peace organizations, FoEME organized a media and activist tour along the separation barrier put up between Baka al Gharbia and Baka al Sharkia. The tour was held to raise awareness of the environmental and social impacts of the fence, and of its potential affect on joint municipal development projects. The GWN communities of Wadi Fukin and Tsur Hadassah are currently working together to ensure that if the separation fence is to be built between their communities, it should only be built along the Green Line.

Presentations to the U.S. House of Representatives and the European Parliament

In 2004, the GWN project manager was invited to testify before the U.S. House of Representatives' International Relations Committee. The purpose of the hearing was to inform House members on the usefulness of supporting regional cooperation through water issues. The project manager presented water and peace issues, and used GWN as an example of a project that builds cross-border partnerships based on water issues. In 2005, the three FoEME directors presented the GWN project at an event at the European Parliament organized by European Member of Parliament David Hammerstein (Spain). These presentations generated much interest, and hopefully serve as a positive factor in encouraging further U.S. and EU funding for similar programs.

Replacing damaged water tanks

Campaigns

Humanitarian Appeal for Replacement of Damaged Water Tanks

In 2002, during the height of the second intifada, FoEME initiated a humanitarian appeal to replace 2,000 damaged Palestinian water tanks in the Bethlehem area east of Wadi Fukin. FoEME raised funds from foreign sources, as well as the Israeli public, to replace the damaged water tanks.

Rehabilitating the River Jordan

In 2003, a Jordan River petition led to the launch of a regional and international campaign to rehabilitate the Jordan River. A concept document entitled 'Crossing the Jordan' was prepared and an international conference was held under the auspices of HE Prince Hassan of Jordan. The demise of the holy river has received coverage from major international media outlets, and further actions have been planned with UNESCO to gain local government support for the World Heritage status of the Jordan River Valley.

Government Partnerships

Baka al Gharbia and the Ministry of Environment

GWN worked closely with the Israeli Ministry of Environment to solve pollution problems in Baka al Gharbia, including untreated sewage and inadequate garbage and sanitation programs. Meetings between the field staff and representatives of the Ministry of Environmental were held, along with several tours of the community. The advocacy work resulted in legal proceedings issued by the Ministry of Environment against the mayor for pollution violations. As a result, the mayor requested meetings with FoEME to begin working together to solve the town's environmental problems. This has subsequently led to a change in the municipal contract for solid waste collection, and the preparation of a contract for a sewage treatment network to be completed in the city. Considerable positive change has been made in the community, and FoEME now works closely with the mayor on further community improvements.

International Events

World Summit for Sustainable Development

GWN had an exhibition stand at the Water Dome during the 2002 World Summit for Sustainable Development in Johannesburg, South Africa. Information about the program was distributed to visitors, and a side event was organized to present water issues in the Middle East, and the GWN project in particular. The presentation attracted considerable attention of the media, donor agencies, government representatives, and NGOs.

UN Session on Water and Security

The GWN project was presented at a 2004 UN Secretary General panel session on water and security. The UN Foundation and the Woodrow Wilson Center for Scholars organized an experts meeting on water and security issues, and GWN was presented as an example of how water issues can be a bridge to understanding and peace building.

Jordan River mayors participate in Big Jump

UN Commission on Sustainable Development

In 2005, FoEME staff presented the GWN project at two sessions at the UN Commission on Sustainable Development. The first presentation was part of the launch of the World Watch Institute's report *State of the World 2005: Redefining Global Security*. GWN was included as a case study in this report. The second presentation was part of a UNEP, UNDP, and Heinrich Boll Foundation session on water and security.

Further Needs

In only four years, GWN has succeeded in establishing strong relationships with many local and regional policy makers. To maintain these connections and expand its network, GWN will continue to present its program activities to local water authorities and ministries of environment, and to national parliaments when possible. In addition, GWN will continue to develop programs for community leaders, such as the Jordan River Valley mayors network that is working to rehabilitate the Jordan River.

IV. CHALLENGES & RECOMMENDATIONS

In each community, field staff have worked in close partnership with youth and adults to improve their environment and create awareness of their own, and their neighboring community's, water reality. Significant progress has been made in the installation of water-saving devices in public buildings and in the transformation of schools into water-saving model buildings. This work could not have been done without the assistance and enthusiasm of water trustees, students, principals, teachers, municipal engineers, and community leaders. These schools now serve as practical examples for renovating other schools throughout the respective education systems.

Real advances have been made in encouraging community leaders to develop common solutions to their water management problems. The joint initiatives of Emek Hefer and Tulkarem, the Jordan River Valley mayors, and Baka al Gharbia and Baka al Sharkia provide evidence that direct funding is available for cooperative projects, and real solutions - with immediate benefits - can be found to ease the water and sewage problems of all residents.

The current work to develop a master plan for the Tsur Hadassah and Wadi Fukin area, and to prevent the separation barrier from being built beyond the Green Line, illustrates how water can create the initial trust that is the basis for cooperative work on other issues such as land use and economic development.

Community Participation and Acceptance

A basic challenge of community development programs is community participation. To ensure community participation, it is crucial to develop a program that fulfills a specific need within a region and its communities.

Once a theme has been developed and a target audience identified, it is important to gain genuine community acceptance. One strategy is to work with other community institutions to develop program activities. Creating partnerships with local institutions helps build trust among community members and provides access to an existing community infrastructure. GWN has gained significant benefits through its partnerships with other community organizations, including the expansion of its audience for program activities, the ability to use community centers for meeting spaces, and receiving matching funds from other community development organizations.

To gain a true understanding of a community's needs, and to avoid the impression of imposing outside views upon residents, it is important to hire staff from within the area and the communities. Local staff members are familiar with a community's situation and have often already established working relationships with schools, community groups, and municipalities. Community members feel more comfortable working with a local resident, and the staff person has a better sense of how to develop alliances, introduce sensitive topics, and minimize the impact of potential detractors. On an operational level, staff members who live within a region will not be affected by travel and

Regional workshop

border restrictions - often a key obstacle in conflict areas. GWN field staff live in the communities they work in, or in the local surrounding area.

In a conflict area, it is important to have staff members that are representative of the different peoples involved in the conflict. FoEME hires Israeli, Palestinian, and Jordanian staff for GWN who together develop project goals and activities. This lends a position of strength to decisions, since they are arrived at through mutual consideration of each country's concerns. A common message is sent out to each community, but is communicated by a local citizen.

It was important for FoEME to include an Israeli Arab community in the project so that there would be an accurate representation of the Israeli population. As the project progressed, it became apparent that residents of Baka al Gharbia could play a particular role within regional activities. They frequently served as a cultural bridge between the other Israeli communities and the Palestinian and Jordanian communities. In addition, the community partnership between Baka al Gharbia and Baka al Sharkia offers a unique opportunity for close collaboration between Israeli and Palestinian Arabs.

V. LESSONS LEARNT

Through its experience in working over the past four years in a region of conflict, GWN has learned several valuable lessons. These lessons could be applied to projects that deal with various themes, and in other regions of conflict around the world.

- In conflict areas, a different development model is required to contribute to both development and peace building. Development and community assistance projects should incorporate conflict prevention and peace building methods into their programming. The peace dividend should be identified and incorporated into local and regional programs and strategies. Donor agencies should integrate the peace dividend into calls for proposals, and help implementing agencies and NGOs identify the peace building opportunities in their projects.

- Through a carefully planned and implemented program, individuals can be encouraged to lead their communities, take actions that will improve livelihoods, and deal with the urgent needs of their community through working with the 'other' side. Water issues are an excellent bridge to promote cooperation between neighboring communities due to the interdependent nature of water resources.

- Broad cross-border strategies need to be developed and implemented that encompass awareness activities, dialogue, and infrastructure development. Stakeholders, donors, and NGOs should support an integrated approach to development. In the case of water issues, for example, it is crucial to address water supply, sewage treatment, and habitat protection.

Regional workshop, Kibbutz Lotan

- Community level development and programming is close to the hearts and minds of individuals. Investment in peace building at the community level creates the necessary foundation towards a long lasting peace.

- While at a national level a conflict can prevent progress in problem-solving, at the community level there can remain a willingness to cooperate, especially if it is the residents of the community who suffer from the lack of cooperation. This is often the case concerning water supply and pollution problems.

- Methods employed to operate a project must be practical and flexible enough to respond to the rapid changes in circumstances that can be expected in conflict areas, and appropriate technologies must be employed to bring early, positive results.

- Once trust is created between members of partner communities, their cooperative endeavors tend to extend beyond one particular issue, as they begin to identify the 'other' side as their neighbor, and peace building as part of developing good neighborly relations.

VI. APPENDIX - Partner Communities

Bardala – Sheikh Hussein – Beit Shean

Bardala is in the Jordan Valley area of Palestine, and has an estimated population of 3,000. The area has fertile land, and substantial groundwater potential. Mekorot, the Israel national water company, has a pumping station in the middle of the village that supplies water to the residents, but also to nearby Israeli settlements - an issue that causes animosity. The village water network has recently been upgraded to reduce leakage and improve service, but remains inadequate. There is no sewage treatment system, and residents depend on cesspits for sewage disposal, which leads to contamination of the groundwater. The main industry of the village is agriculture.

Sheikh Hussein is in the Jordan Valley area of Jordan. The population is 8,000, with most people working in the agricultural sector. Sheikh Hussein is known for its agricultural products, particularly citrus and vegetables. The main water resources for agriculture are the King Abdullah Canal, Ziglab Dam, and Wadi Al Arab dam. The main source of drinking water is Wadi Al Arab well, and water is pumped directly to a reservoir in North Shuneh. Environmental concerns include lack of proper sewage systems and health problems due to fertilizer use.

Beit Shean is in the Jordan Valley area of Israel, and has a population of 16,000. The Beit Shean region is extremely fertile, and agriculture is a leading source of industry. Local wells supply the area with water. Most of the towns in the region, including the city of Beit Shean, have no sewage treatment facilities. After only primary treatment, sewage flows into the Harod stream and eventually to the Jordan River, contributing to the severe contamination of the Jordan River. A sewage treatment plant is currently being built for the region.

Baka al Sharkia – Baka al Gharbia

Baka al Sharkia is located in the West Bank, with a population of approximately 3,000. There are five privately owned artesian wells in the village that are used for irrigation and domestic purposes. The village lacks a water network, and water is supplied to houses through cisterns and water tankers. There is no sewage system in the village; residents rely on cesspits to dispose of sewage. Solid waste and sewage are disposed in open areas around Wadi Abu Nar, causing pollution of the stream and of the area.

Baka al Gharbia is located in Israel, to the west of Baka el-Sharkia, and has a population of approximately 21,000. Land use is divided between agriculture (55%), housing (30%), and public buildings and other uses (15%). Since the 1950's, Mekorot has provided water to the town. There is no sewage system in the town, though 35% of the houses have pipes installed for a sewage network that does not yet exist. Domestic garbage is collected once a week and transferred to a solid waste treatment plant in the area. Garbage collection services have been less than sufficient and many illegal garbage dumpsites are in the town and in Wadi Abu Nar, which is still polluted from garbage and sewage.

Tulkarem – Emek Hefer

Tulkarem is a major Palestinian city, with a population of over 113,000. The city is known for its fertile land and for its agricultural production. Groundwater is the only source of water supply. Domestic water is supplied through 10 water wells, of which the municipality owns 4, and 6 are privately owned. The water network is old and water losses can reach up to 35%. The sewage

network is outdated and covers 56% of the population, and the sewage flows into the Alexander/ Schem River. The main public dumping site is located upstream of Tulkarem. The soil is not sealed, and no protective measures have been taken to avoid infiltration into groundwater resources.

Emek Hefer is a regional municipality in Israel with a jurisdiction of 130,000 dunams, of which 80,000 are agricultural, irrigated, and cultivated. The municipality is comprised of 30,000 residents from 29 kibbutzim (collective villages) and moshavim (cooperative farms). Agriculture and small factories are the main industries. The Alexander/Schem River flows through the middle of the region, and suffers from pollution due to domestic, agricultural, and industrial sources. The four communities in the Emek Hefer municipality that directly participate in GWN are Borgata, Haniel, Olesh and Beerotaym, with an overall population of 1,000.

Wadi Fukin – Tsur Hadassah

Wadi Fukin is located in the West Bank, to the west of Bethlehem, and has a population of approximately 1,200. Drinking water is supplied to residents by Mekorot. The water supplied by Mekorot does not currently meet the needs of residents due to an increase in population and the small diameter of the water supply pipeline. There is no sewage collection network, and sewage is disposed in cesspits which are major sources of pollution to the village's springs and groundwater. The water of the local springs is therefore only used for irrigation purposes. Agriculture is a main source of the residents' income.

Tzur Hadassa is located in the Jerusalem district, in the Judean Hills of Israel. The town has a population of approximately 4,000. Drinking water is pumped from wells on the west side of the Mountain Aquifer into a local water reservoir. Sewage is pumped through a main pipeline to the Nahal Soreq sewage treatment plant. The community is considered to be relatively well-off, with most residents working in the service sector in the Jerusalem area.

Abasan – Eshel Hanasi

Abasan (Abasan Al-Kabira) is located to the east of Khan Younis in the Gaza Strip. The population is estimated at 17,800. Half of the domestic water supply is provided through Mekorot, and half is supplied through wells controlled by the Eastern Water Council. Local wells are of high salinity. Water for agriculture use is supplied through 6 wells, in addition to water imported from the Al-FAO Company. Wastewater is disposed through cesspits, which are emptied by municipal and privately-owned tankers. Solid waste is collected by the Solid Waste Council located in Deir Al-Balah.

Eshel Hanasi is a regional school and youth village for students from the northern Negev rural communities in Israel. The school emphasizes community service, tolerance, professional training, and personal development. Work is considered a key educational component and each student spends one day a week working on the school's farm. As a GWN community, Eshel Hanasi's water focus is centered on the Beer Sheva stream, the largest water basin in the country. The Beer Sheva stream flows into Wadi Gaza. The stream is mainly polluted by solid waste, urban wastewater, and quarry waste.

Friends of the Earth Middle East (FoEME) was established in 1994 under the name of EcoPeace. It is a non-governmental, non-profit environmental organization with the primary objective of promoting co-operative efforts to protect the shared environmental heritage of the Middle East. In doing so, FoEME seeks to advance sustainable development and sustainable peace. FoEME has offices in Amman, Bethlehem, and Tel Aviv.

www.foeme.org

Amman Office:

EcoPeace / Friends of the Earth Middle East (FoEME)
P.O. Box 840252 Amman 11181, Jordan
Tel: + 962-6-586-6602, Fax: +962-6-586-6604
Email: foeme@go.com.jo

Tel Aviv Office:

EcoPeace / Friends of the Earth Middle East (FoEME)
85 Nehalat Benyamin St., Tel Aviv 66102, Israel
Tel: + 972-3-560-5383, Fax: + 972-3-560-4693
Email: info@foeme.org

Bethlehem Office:

EcoPeace / Friends of the Earth Middle East (FoEME) c/o WEDO
P.O. Box 421, Bethlehem, Palestine
Tel: + 972-2-274-7948, Fax: + 972-2-274-5968
Email: wedo@p-ol.com