



Friends of the Earth Middle East



Environmental Peacebuilding Theory and Practice

A Case Study of the Good Water Neighbours Project
and In Depth Analysis of the
Wadi Fukin / Tzur Hadassah Communities

January 2008

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

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Part One:

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Part Two:

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Foreword

The “Good Water Neighbors” (GWN) project was established by EcoPeace / Friends of the Earth Middle East in 2001 to raise awareness of the shared water problems of Palestinians, Jordanians, and Israelis. The GWN methodology is an original idea that is based on identifying cross border communities and utilizes their mutual dependence on shared water resources as a basis for developing dialogue and cooperation on sustainable water management. There are clear indicators that confirm that GWN has created real improvement within the water sector by building trust and understanding that has led to common problem solving and peace building among communities in the midst of conflict.

Initially eleven Israeli, Palestinian, and Jordanian communities were selected to participate in Phase I of the project from 2001 to 2005. The project has successfully been expanded to seventeen communities. Each community is partnered with a neighboring community on the other side of the border/political divide to work on common water issues. On the local level, GWN works with community members to improve their water situation through education and awareness activities, and urban development projects. On the regional level, GWN works to encourage sustainable water management through information sharing, dialogue, and cooperative ventures. Program participants include youth, adults, environmental professionals, and municipal leaders. Several thousand people have directly been involved in the GWN project activities and tens of thousands have had indirect contact as friends and neighbors of those involved.

Much was achieved by the project. The following constitute some of the more important results:

- It contributed to the coalescence of a group of youth volunteer water trustees in each community by gaining support from the local school, community groups and municipalities and educated/empowered them about their water realities and wise water use;
- It invested in a public building, such as a school in each community, and transformed it into a water wise model building by identifying and partnering with a local institution in order to maximize community involvement and ownership;
- It launched a public petition concerning a common cross border water problem that needs to be solved for each pair of neighboring communities;
- It created an ecological garden in each community;
- It organized workshops on water wise issues at the community and regional level focusing on different stakeholders;
- By hiring a planner for each community, it launched a process of public participation in planning at the local level by creating community involvement in planning and new sustainable grassroots initiatives;
- It generated a series of “Memorandums of Understanding” regarding the need for cooperation on environmental issues have been signed by mayors of the paired neighboring communities;
- It organized exchange of information and gathering of individuals from the neighboring communities, such as experts, water trustees, professionals and decision makers.
- It generated a rich variety of campaign materials; and
- **It dramatically enhanced public awareness and commitment to preservation of water resources.**

GWN has been the cause of real progress in the environmental awareness of communities and the development of cooperative initiatives. In each community, field staff have worked in close partnership with youth and adults to improve their environment, and to create awareness of their own and their neighboring community’s water reality. In each community water-saving devices were installed in all public buildings and schools were transformed into water-saving model buildings. The water trustees themselves carried out surveys of all taps in public buildings within their community. Then by installing the devices the amount of water used in public buildings was cut by a third.

In each school involved in the project the principal, teachers, students and even the janitor helped design a model system designed specific to their needs that might catch rainwater falling on the roof of school buildings, or collect the wastewater of drinking fountains or the water condensation created by air-conditioning systems, all to be re-used for the flushing of toilets, the school garden and in some schools to provide additional water for drinking purposes. These schools now serve as examples for renovating other schools throughout the respective education systems.

Real advances were made in encouraging community leaders to develop common solutions to their water management problems. Having gained the trust of residents the project was able to focus on policy level changes by involving municipal leaders. Many of the participating GWN communities were situated along the banks of the Jordan River and around the Dead Sea. After researching the issues facing the Jordan River and Dead Sea, publishing reports and holding stakeholder meetings, a mayor's network was created by the project. The purpose of the network is to express the common concern of the mayors involved, in the sorry state of the Jordan River. The River's water is dominated by sewage rather than clean fresh water flow especially in its lower sections. The steady demise of the Dead Sea, which is falling by a meter each year due to the diversion of the fresh water from the River Jordan is another alarming symptom of the present neglect. In January of 2007 Jordanian and Israeli municipalities agreed to create a peace park where the Jordan and Yarmuk Rivers meet. The park is planned to include a bird sanctuary, visitor's center, eco-lodges and nature and cultural heritage trails. Creation of the park would be a first concrete step towards rehabilitating the river valley as a whole.

Once trust is gained, there is no limit to the extent of possibilities open to communities to work 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 therefore 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.

To many people, both in the communities and the public at large through media attention received, the project constitutes an example of hope, proving that the regions' people can live together and constructively address the crucial environmental problems facing them. There has been wide recognition of the importance of this project over the years. At various stages the project has been presented at meetings and seminars held in the European Parliament, the US Congress, aid agency gatherings and in the U.N.

The success of the project in the midst of violence has also attracted the attention of many researchers. They seek to evaluate and learn from the experience in order to draw out the lessons that could be applied elsewhere. The summary research reports of two esteemed researchers, Nicole Harari from Switzerland and Jesse Roseman from the US are compiled together and published in this report.

The work of Nicole Harari importantly contributes to the greater understanding of the theory of environmental peacemaking and how it is being applied in the case of the GWN project. The report of Jesse Roseman details the experience of a single pair of GWN communities, Wadi Fukin and Tzur Hadassah -- going well beyond the theory and offering insights into the thoughts of the residents and why the project works for them.

As a long time board member of EcoPeace / Friends of the Earth Middle East and an evaluator of the GWN project, I am delighted to recommend to you these two reports that broaden our understanding of the importance of investing in environmental peacemaking.

Professor Alon Tal
Ben Gurion University

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Part One:

Environmental Peacebuilding Theory and Practice

A Case Study of the
Good Water Neighbours Project

1. Introduction

According to LEDERACH (1997:20) peacebuilding is “a comprehensive concept that encompasses, generates, and sustains the full array of processes, approaches, and stages needed to transform conflict toward more sustainable, peaceful relations”. LEDERACH (1997:20) adds that “the term [...] involves a wide range of activities and functions that both precede and follow formal peace accords”.

Using this idea of peacebuilding, “environmental peacebuilding” may be named as a subcategory of peacebuilding, as one possible approach to peacebuilding besides other, political, economic, social and cultural efforts. It is therefore closely related to theories and concepts of peacebuilding in general. Due to the fact that nature has no boundaries and thus environmental cooperation has the opportunity to go beyond political borders it becomes apparent that ecological or environmental peace efforts can make an important contribution to the field of peacebuilding. LEDERACH (1997:67) emphasizes that conflict is viewed as a “dynamic process” and consequently in the process of building peace a “multiplicity of interdependent elements and actions” is needed which all contribute to the “constructive transformation of the conflict”. The environment is definitely one of these elements. Its corresponding action, environmental cooperation, plays a significant role when aiming at transforming a conflict in a constructive way as it literally constructs new and better environmental realities in regions where either the environment was devastated or concern for environmental hazards was put aside due to the conflict situation.

LEDERACH (1997:75) underscores the importance of the concepts of transformation and sustainability. When building peace the primary goal is to move a population from “a condition of vulnerability and dependency to one of self-sufficiency and well-being”, the latent stage is, during a process of confrontation and negotiation, transformed into dynamic and peaceful relationships. In order to maintain these, sustainable processes have to tie in with this transformation, peace and development have to be capable of regenerating themselves over time. In other words, during the process of building peace the goal is to achieve a sustainable transformation which necessitates, unlike the needs of crisis-oriented disaster management, a long-term time frame in order to be constructive and sustainable.

Environmental cooperation is part of a long-time solution to conflict. It offers sustainable solutions for the future. It contributes to the improvement of living conditions, such as for instance the supply of water, and it fosters the building of confidence and trust among adverse societies. Environmental issues and the mutual ecological dependence across territorial borders facilitate and encourage cooperation, cooperation that often is a first step toward the initiation of an ongoing dialogue, which would be difficult to mediate through political channels. As shared management of environmental resources develops and parties to a conflict are integrated in cooperative negotiation processes political tensions can be overcome and due to the establishment of mutual trust a creation of a common regional identity and the idea of mutual rights and expectations are likely to emerge (CARIUS 2006:11).

The Israeli-Palestinian conflict has no specific ecological cause. Nevertheless, ecological issues such as water supply, pollution of groundwater, solid waste management and others are of major importance to the region and are a shared burden on both societies. Solving these common ecological challenges through cooperative solutions offers therefore an outstanding opportunity to bring about an initial dialogue between the parties to conflict, a dialogue which for once is not directed at political issues but in fact at shared problems and concerns. This interaction has the potential to converge the two adverse societies and consequently is an essential first step to foster and build sustainable peace in the region.

In the area of Israel, Jordan and the Palestinian Authority different approaches and efforts are taken by different organizations in the field of environmental peacebuilding. Although they share the idea that nature ignores political boundaries and therefore has great potential to contribute to the building of peace in the Middle East they all have their own modus operandi and a history of success, progress and failure. One outstanding and promising example for environmental cooperation is the Good Water Neighbours Project led by the trilateral non-governmental organization EcoPeace / Friends of the Earth Middle East. An insight into the project and its achievements provides us with valuable data and information on how to successfully manage a cross-border environmental project in an area of protracted conflict.

The present paper first reviews different theories and concepts that are relevant in the field of environmental peacebuilding and secondly aims at connecting theory with practical examples, focusing on the work of Friends of the Earth Middle East and its Good Water Neighbours Project. Finally it attempts to draw conclusions by evaluating the further potential of environmental peacebuilding in the area of the Middle East.

2. Environmental Peacebuilding – Theoretical Approaches

Environmental peacebuilding is a very new subject in the field of development and cooperation though with little research and only a few case studies conducted so far. Until recently, the environment was considered a cause of conflict and not of reconciliation and peace. Many studies were devoted to the relationship between environmental degradation and violent conflicts and not to environmental cooperation and peacebuilding. However, since Kofi Annan's speech at the World Day for Water 2002 this notion has changed. He emphasized that:

"[...] the water problems of our world need not be only a cause of tension; they can also be a catalyst for cooperation. [...]. If we work together, a secure and sustainable water future can be ours."¹

With the establishment of the Environmental and Security Initiative (ENVSEC) through the combined auspices of the United Nations Environment Programme (UNEP), the United Nations Development Programme (UNDP) and the Organization for Security and Cooperation in Europe (OSCE) a first important step was done to highlight the significance of environmental cooperation and bring ecological issues into political initiatives. Since then the idea of environmental peacebuilding has gained recognition and importance.

Theoretical approaches to environmental peacebuilding, although not numerous, can be considered an independent concept. Still, before examining these more in-depth, it is necessary to outline two essential concepts, cooperation and peacebuilding², on which theories of environmental peacebuilding are based.

2.1 The Concept of Conflict and Cooperation

The several social theories that highlight social conflict have roots in the ideas of Karl Marx (1818-1883), his theory of class struggle and revolution. Conflict theory emphasizes the importance of interests over norms and values. It states that a society or organization functions so that each individual participant and its groups struggle to maximize their benefits. A continual struggle exists between all different aspects of a particular society which contributes to social change. Life in a society is therefore characterized by conflict rather than consensus, the relationship between and within groups is tenuous. This idea is perpetuated by the realist school of thought that today, together with the liberalist school of thought dominates the debate on the subject of cooperation versus conflict in social theory. Although both schools define stakeholders of cooperation as purposive and rational actors, realists describe the relations between stakeholders as based on fear and mistrust. They believe that anarchy is the norm. Liberals, in contrast, believe that engagement in cooperation is the norm and that conflicts are only a periodic anomaly (ALI 2003:2).

The following pages will draw on the liberal school of thought believing that the relationship between parties involved in protracted conflict is marked by fear and mistrust as a result of the conflict - within which certain negative perceptions of "the other" have been developed and internalized - but that the human being per se is naturally prone to cooperate.

2.2 The Concept of Peacebuilding

"The greatest resource for sustaining peace in the long term is always rooted in the local people and their culture." (LEDERACH 1997:94)

LEDERACH (1997:24) emphasizes the importance of seeing peacebuilding as a dynamic process which has to be closely linked to "the experiential and subjective realities shaping people's perspectives and needs." Every situation of protracted conflict is unique and has its own characteristics, peacebuilding therefore has to adapt to this different substantiality. He concludes that "the conceptual paradigm and praxis of peacebuilding must shift significantly away from the traditional framework and activities that make up statist diplomacy" (1997:24).

As the central component of peacebuilding and challenge posed by contemporary conflict LEDERACH (1997:24) considers reconciliation. The idea of reconciliation is where realism and innovation meet. The claim we have to peacebuilding is the creation of a catalyst for reconciliation which is able to be sustained in a divided society³ (1997:25).

¹ http://www.unesco.org/water/water_celebrations/water_day_2002.shtml

² The review of the concept of peacebuilding is based on LEDERACH's work: Building Peace. Sustainable Reconciliation in Divided Societies.

³ Divided societies are defined as „societies experiencing armed conflict at one of the three levels delineated by Wallensteen and Axell" (1993) (LEDERACH 1997:11).

Parties to a conflict have experienced over generations violent trauma that they associate with their enemies. The relationship to their counterpart is affected by enmity and grievance and has a long, deep-rooted history which is based on fear and severe stereotyping (1997:23). Still, conflicting groups live as neighbours and therefore the relationship of hostile interaction which is the basis of conflict is as well the basis of its long-term solution (1997:23). Reconciliation therefore aims at establishing mechanism that put parties to a conflict in a human relationship with each other whereby the conflicting groups' affiliations don't have to be minimized (1997:26).

SAUNDERS and SLIM (1994:1) claim that in order to change conflictual relationships the establishment of a sustained dialogue is necessary. A sustained dialogue is "more than just good conversation and less than a structured negotiation. [...] [It] is a political process in which participants probe the dynamics of even the most destructive relationships and gradually develop a capacity together to design steps to change them. Dialogue by its very nature provides the context for developing and changing relationships". SAUNDERS and SLIM describe a dialogue that develops through the following five stages: stage one: deciding to engage; stage two: mapping the relationship together; stage three: probing the dynamics of the relationships; stage four: experiencing relationships – building scenarios; stage five: acting together. The authors offer a valuable checklist of what parties to a conflict have to go through if dialogue shall be successful and produce a change in the conflictual relationships.⁴

LEDERACH (1997:30) stresses the importance of common new perceptions and shared experiences in a conflictual relationship. He defines reconciliation as both a „focus“, a perspective that "is built on and oriented toward the relational aspects of a conflict" and a „locus“, "a space, a place or location of encounter, where parties to a conflict meet". The „locus" is a place of encounter "where people can focus on their relationship and share their perceptions, feelings, and experiences with one another, with the goal of creating new perceptions and a new shared experience".

The concept of environmental peacebuilding adopts the idea of „focus" and „locus" as essential parts of the reconciliation process. Environmental cooperation both changes the mode and the character of the relationship between parties to a conflict. It offers a platform for dialogue as well as a place of encounter with the perspective and goal of improving common environmental grievances and additionally ameliorating livelihoods. Thereby the common dedication for a better future leads to the formation of shared perceptions, thoughts and experience.

Although peacebuilding approaches that are based on relationship building and reconciliation are most likely to have an enduring and sustainable impact on regions of protracted conflict they are not only the least developed and understood but also difficult to design, implement and evaluate (LEDERACH 1997:93). In spite of these difficulties every single effort is likely to have a positive impact in a way or another.

Two essential things every peacebuilder should keep in mind (LEDERACH 1997:135):

- „Peacebuilding is about seeking and sustaining processes of change [...] rebuilding relationships and finding new ways to be in relationship.
- Peacebuilding requires changes across multiple levels and perspectives. We must understand, create, and sustain the space for change along a continuum that includes personal, relational, structural, and cultural dimensions."

2.3 Why Use the Environment to Build Peace?

As mentioned in the introduction, different approaches and ways to build peace exist; political, social, economic, cultural and ecological ones. Focusing on ecological efforts, what are the advantages environmental issues have in comparison to the other approaches? Of what significance is the environment in the process of building peace in a region of protracted conflict?

DABELKO (2006:2) delineates the following advantages that environmental issues hold and that facilitate cooperation between adverse parties:

- Environmental issues ignore political boundaries.

In order to sustain and manage natural resources or mitigate negative environmental impacts parties must work together. This cooperation originates a connection between different people, areas, regions and countries.

⁴For a detailed description on the five stages of a sustained dialogue read SAUNDERS and SLIM (1994): Dialogue to Change Conflictual Relationships.

- Environmental issues require long-term cooperation for their solution.

During the long-term process of cooperation and consultation, which is necessary if shared environmental conditions want to be managed effectively, a platform for an ongoing dialogue and interaction is being created which fosters the building of trust between adverse societies.

- Environmental issues lend themselves to people-to-people interactions.

Interactions among civil society can be seen as a pre-stage for an ongoing dialogue between states. Their ability to act on environmental issues enables cross-border linkages that may serve as precursors to state-to-state engagement.

- Environmental issues constitute “high” and “low” politics.

If environmental issues such as water are of a high political priority and parties to a conflict are forced to come together and devote a lot of political attention to the environmental issue we talk of “high” politics.

If the issues are “low” politics, of low political priority, they can serve as a field of dialogue and cooperation within a larger conflict. In this case, environmental issues do not threaten the most contentious issues in the relationship between states and thereby may provide a safe first step for dialogue.

ALI (2003:5) mentions the problem of governments still considering environmental issues to be “low” politics. “There is still a propensity for political decision makers to think of environmental problems as “luxury” agenda concerns that are deemed to be exogenous to the immediate needs of the populace.”

We can deem this on the one hand as a constraint, like ALI, or, on the other hand, as an opportunity for local initiatives and grassroots environmental cooperation. If certain environmental issues were on the daily agenda of governments, people-to-people activities related to these issues would probably be suppressed.

CARIUS (2003:26) emphasizes the importance of environmental cooperation in strengthening regional cooperation and fostering political convergence of parties to a conflict. According to CARIUS cooperation on environmental issues is likely to lead to:

- The internalisation of shared norms;

- The creation of a regional identity and regional interests;

The creation of a regional identity is related to the way people see and understand geographical spaces and communities. Environmental cooperation has, in the long term, the potential to replace the traditional concept of mutually exclusive and politically defined identity with a concept of an ecological community (CARIUS 2006:12) if the creation of shared perceptions, experiences and goals is fostered.

- The operationalisation of information routines; and

- The reduction of the use of violence.

Like DABELKO and CONCA, ALI (2005:2) highlights that the recognition of common environmental threats is likely to lead to a positive interaction which builds trust between adverse societies. He adds the essential statement that “[...] focusing on common environmental harms (or aversions) is psychologically more successful at producing cooperative outcomes than focusing on common interests, which may instead lead to competitive behaviour”.

The fact that environmental concerns have certain characteristics that are conducive to consensus catalysis is also approved by HAAS (1990) (In: ALI 2003:3). HAAS “states that since environmental issues are often predicated on scientific knowledge, they can lead to the emergence of “epistemic communities” which are able to dissociate themselves from political bickering and catalyze cooperation. Environmental issues have therefore a potential for infecting a degree of objective and depoliticized discourse in negotiations”.

ALI (2003:2) further stresses that the inclusion of environmental issues in negotiations will lead to a more lasting peace than what otherwise might be obtained as environmental cooperation is sustainable in two ways: First, it promotes “environmentally viable outcomes in terms of planning criteria” and second, it is “able to maintain a cooperative bond among potentially adversarial parties”.

2.4 Four Environmental Pathways to Peace and Confidence Building

DABELKO (2006:2-5) refers to four different roles the environment may play in a situation of conflict:

a) It can help to prevent conflict.

The management of natural resources can lead to better living conditions among societies and therefore help to relieve tensions between parties to a conflict. This pathway doesn't pertain to parties that are engaged in outright hostilities but applies for adverse societies whose bilateral or multilateral relationships may be unsettled or tense. Addressing grievances that are probably stemming from poverty or perceived inequalities in natural resource use may constitute a peacemaking strategy.

A frequently cited example is the Nile Basin Initiative⁵, a transboundary river basin cooperative endeavor which is facilitated by the UN Development Programme, the World Bank, and the Canadian International Development Agency and includes all River Nile riparians in ministerial-level negotiations to formulate a shared vision for sustainable development within the basin. Although this initiative was not explicitly framed as a peacemaking effort the program offers avenues for dialogue and advancement in development, which can be essential in reducing tensions among the river riparian states.

b) It can act as a lifeline during conflict.

Environmental issues can provide a safe and productive area for dialogue when considered "low" politics. When they are "high" politics and critical to survival they may be too important to fight over.

DABELKO mentions the example of Jordan and Israel, where cooperation on the water issue has persisted even during conflict.

c) It can help to end conflict.

Common environmental management, even if the environment may not have been the cause of a conflict, helps to foster dialogue between societies which may be a first essential step towards reconciliation.

d) It can help in making peace sustainable and long-lasting.

Relations can remain unsettled even if peace or a peace treaty exists. Transboundary management of natural resources leads to ongoing cross-border interaction that may facilitate and encourage post-conflict economic development in border areas from which both parties can benefit.

The relationship between Jordan and Israel offers a good example for this pathway. Although a peace agreement has been reached by the two former parties to the conflict the relationship between them remains unsettled. Therefore different efforts are taken by various organizations to approximate the two peoples through cross-border projects and the promotion of economic development in the region. The NGO EcoPeace / Friends of the Earth Middle East for instance is developing the idea of establishing a peace park in the area of the former Rothenberg hydropower station⁶ that will benefit the Jordanian as well as the Israeli local population. The common management of the conserved area and the development of eco-tourism will not only generate income but also foster cross-border cooperation and improve the relationship between the two parties. A more controversial project is the construction of the Red Dead Conduit which is supposed to cement peace between Israel and Jordan and to bring water and economic development to the area. The project is controversial as to its environmental impacts and therefore its long term sustainability.

For the Middle East the second, third and fourth pathway are relevant as the environment is not the cause of the conflict but environmental issues, especially the issue of water, have always been contentious points between the adversaries. Environmental problems, especially the lack of water is a major concern common to the whole population of the Middle East and therefore has the potential to act as a lifeline during the conflict, to initiate an ongoing dialogue and finally to be part of a solution for a sustainable and long-lasting peace in the region.

2.5 Environmental Peacebuilding as a Long Term Process

ALI (2005:2) emphasizes that the impacts of environmental cooperation in peacebuilding must be considered over a long-time horizon. Furthermore he states that one cannot imagine environmental peacebuilding as a linear process, in fact, considering "the de-escalation process as a nonlinear and complex series of feedback loops" is necessary".

Similar to LEDERACH (1997:97) who outlines that in order to build peace "[...] long-term commitment, relationship building, and consistency are crucial" ALI (2005:2) delineates a series of steps that are crucial in the process of building peace by means of environmental issues. Obviously not all of them may happen according to the following pattern, in every conflict situations different elements will come to the fore.

⁵ <http://www.nilebasin.org/>

⁶ <http://www.foeme.org/projects.php?ind=128>

- a) "Sharing a unified information base about a mutual environmental threat;
- b) Recognizing the importance of cooperation to alleviating that threat;
- c) Making a cognitive connection and developing trust due to environmental cooperation;
- d) Continuing interactions due to environmental necessity;
- e) Clarifying misunderstandings as a result of continued interactions; and
- f) De-escalating conflict and building peace."

2.6 Pivotal Elements in Environmental Peacebuilding

2.6.1 Importance of the Future

Central to the process of environmental peacebuilding is people's perception of the future. According to AXELROD (1985) (In: ALI 2003:4) "mutual cooperation can be stable if the future is sufficiently important relative to the present". People who consider the future as important as the present attach value to environmental issues whereas someone who has a very short time horizon will usually show much less care for the environment. In order to be able to ascribe importance to the future people are in need of some general conditions. An international conference on the subject of cooperation held at Princeton University in 1984 (OYE 1985, In: ALI 2003:4) concluded the following key ways to enlarge the shadow of the future:

- a) "Long-time horizons for agreements;
- b) Regularity of stakes;
- c) Reliability of information about the others' actions; and
- d) Quick feedback about changes in the others' actions."

These conditions provide people living in an uncertain environment of protracted conflict with future perspectives and knowledge on their and the others' situation which both help to create a feeling of security and continuity.

The stability of cooperation will be even more assured if people are given the opportunity to look forward and envision their shared future. As "in all contemporary internal conflicts, the futures of those who are fighting are ultimately and intimately linked and interdependent" and therefore peacebuilding and "reconciliation must envision the future in a way that enhances interdependence" (LEDERACH 1997:27).

LEDERACH (1997:76-77) distinguishes four time frames and types of peacebuilding activities whereas the generation of a vision of a commonly shared future is located in the fourth circle:

- First circle: Immediate Action (2-6 months). Short-term crisis intervention.
- Second circle: Short-Range Planning (1-2 years).
- Third circle: Decade Thinking (5-10 years). Design of social change.
- Fourth circle: Generational Vision (20+ years). Desired Future.

The central element in the time frame of the fourth circle is the thinking of generations and the provision of a more peaceful and socially harmonious future. BOULDING (1991:529) is using the term "imagining a responsible future" and emphasizes that in order to facilitate a vision of a shared future the knowledge of the past is essential, the understanding of the catastrophes adverse societies have faced and the ways they have dealt with them. LEDERACH (1997:77) highlights that "conflicting groups in settings of protracted conflict often have more in common in terms of their visions of the future than they do in terms of their shared and violent past" hence the development of a shared vision is crucial. The vision of the future provides the societies with a horizon for their journey, if they can imagine where they are going, it is much easier for them to get there.

2.6.2 Importance of Trust

The building of trust between adverse societies is the most important element of cooperation. The development of trust in a slow and sustainable manner is a pre-requisite for long-lasting and persisting cooperation. Ongoing interaction over environmental matters will foster and improve communication and bring parties closer to resolving other disputes.

2.6.3 Creation of a Shared Identity

During a successful process of environmental cooperation not only does the building of trust occur, but also the establishment of a regional identity is facilitated due to the development of shared values, norms and practices.

ADLER (1997:4-5) speaks of so-called “community regions” which are “made up of people whose common identities and interests are constituted by shared understanding and normative principles other than territorial sovereignty and

- a) who actively communicate and interact across state borders,
- b) who are actively involved in the political life of an (international and transnational) region and engaged in the pursuit of regional purposes, and
- c) who, as citizens of states, impel the constituent states of the community-region to act as agents of regional good, on the basis of regional systems of governance”.

Societies integrated in environmental cooperation correspond to ADLER's definition hence the idea of community regions can be used in the concept of environmental peacebuilding. Yet in the process of environmental cooperation the establishment of community regions occurs only in a later stage after the creation of initial mutual trust has been enabled. This trust will then be strengthened as the communities may “gain the ability to more or less predict one another's behaviour and come to know each other as trustworthy”. On this note community regions are “not merely a physical place [...] [but] cognitive regions or cognitive structures that help constitute the interests and practices of their members” (ADLER 1997:6). The cognitive structures themselves develop in a cognitive process through which common identities are created. It is important to note that communities are not a matter of feeling, emotions and affections but they exist on the basis of expectations held collectively by the group, common duties and obligations (ADLER 1997:13).

2.7 Environmental Peacebuilding versus Environmental Conflict Resolution

The term environmental peacebuilding can be adapted to two different concepts. The first one is the concept that has been described in the previous pages, using the environment as one possible linking element between parties to a conflict to foster peace in an area of protracted conflict. The other one is the much more often discussed and researched idea of the resolution of environmental conflicts through the common management of natural resources.⁷

Environmental Conflict Resolution	Environmental Peacebuilding
<p>Cause of Conflict: Scarcity or abundance of natural resources (crucial issues: water, land, oil, forests, diamonds, minerals).</p> <p>Idea: Resolution of environmental conflicts through the common management of natural resources.</p> <p>Range: Regional to global. Importance of top-level leadership, national and international stakeholders.</p> <p>Goals: Fair allocation of natural resources. Equitable access to natural resources. Shared management of disputed resources. Cooperation on conflictual environmental matters. Cooperation leads to environmental security.</p>	<p>Cause of Conflict: Other than the environment.</p> <p>Idea: Resolution of conflicts through cooperation between adversaries on environmental issues.</p> <p>Range: Local and regional. Importance of grassroots and mid-level leadership, local stakeholders.</p> <p>Goals: Creation of cross-border societal linkages through trust-building, the generation of a shared vision of the future and the establishment of common gains and benefits. Creation of a shared collective identity. Change of perceptions and behaviour towards environment, cooperation and peace. Effectuate the establishment of intergovernmental relations.</p>

⁷ Differentiation made by the author.

Environmental Conflict Resolution	Environmental Peacebuilding
<p>Means: Creating agreements on cooperative use and management of resources. Changing existing laws concerning the use of resources and land.</p>	<p>Means: Creating long-lasting bonds between communities. Foster trust and confidence through ongoing cooperation in common projects. Developing shared knowledge on common environmental threats and possible solutions.</p>
<p>Potential: Just distribution and use of natural resources as a prerequisite for sustainable peace. Shared benefits of cooperative management may settle conflict.</p>	<p>Potential: Building source of dialogue and creating long-lasting harmonious relationships. Abandoning negative stereotypes and perceptions of adverse society. Envisioning a common future. Environmental cooperation exemplifies cooperation in other fields and provokes further dialogue between adverse parties.</p>
<p>Limitations: Complexity between scarcity and abundance of natural resources and conflict. Interdependence with context: Other, less visible issues may be part or even source of conflict.</p>	<p>Limitations: Decisions by national policy-makers or military may hinder or prevent cooperation. Crucial political events may have negative impacts on long and sensitive process of trust and confidence building. Difficulties to gain financial support for local endeavours.</p>

Figure 1: Comparison of the two concepts of Environmental Conflict Resolution and Environmental Peacebuilding.

2.8 Survey of Environmental Peacebuilding

The following figure summarizes the main elements of the concept of environmental peacebuilding extracted from the different theoretical approaches used in part two of this paper.

Due to the existence of a multitude of different interpretations for “peace” one definition is chosen which moreover represents the general aim of peacebuilding: Effectuating a process in which first a point is reached where violence is absent and at a later date the idea of violence becomes unimaginable for former societies to a conflict.

Furthermore the figure highlights the importance of a change of perceptions and behaviour within and between former adverse parties: the final aim of environmental peacebuilding and the crucial element for a sustainable and long-lasting peace.

The overall aims of environmental peacebuilding may be connected with the four processes that are, according to BAR-TAL and TEICHMAN (2005:391-392), necessary if change on a cognitive-affective level shall happen. As in regions of protracted conflict “years of homogenous negative stereotyping, including delegitimization, prejudice, fear, and hatred” have dominated, reconciliation requires “legitimization, equalization, differentiation, and personalization of the rival group members, as well as moderation of negative feelings and evolvment of hope and acceptance” (2005:391).

First, a process of **legitimization** is aspired where the parties to the conflict do approve each other as “belonging to an acceptable category of groups behaving within the boundaries of international norms, with which it is possible and even desirable to terminate the conflict and construct positive relations” (2005:391). The groups acknowledge that they both have the same right to exist and moreover to live in peace. This process lays the cornerstone for trust-building and the establishment of peaceful relations.

Equalization is the second process. It implies that people – leaders as well as ordinary people - recognize each other as equals. Through turning the rival into an equal partner, the process of equalization enables significant interaction between past rivals.

In the third process of **differentiation** the fact of heterogeneity of the opponent group is acknowledged. The other group is no longer viewed as a “homogenous hostile entity” but as “made up of various subgroups, which differ in their views and ideologies” (2005:392). Subgroups with similar values and beliefs are identified and recognized as partners for establishing peaceful relations.

The fourth process, personalization, “allows one to view the rival group not as a depersonalized entity but

as made up of individuals with ordinary human characteristics, concerns, needs, and goals” (2005:392). Similarities and commonalities such as shared feelings, beliefs or features are perceived and allow identification with some of the needs or aspirations of the opponent group. Personalizing the past rival fosters the creation of personal, peaceful relationships.

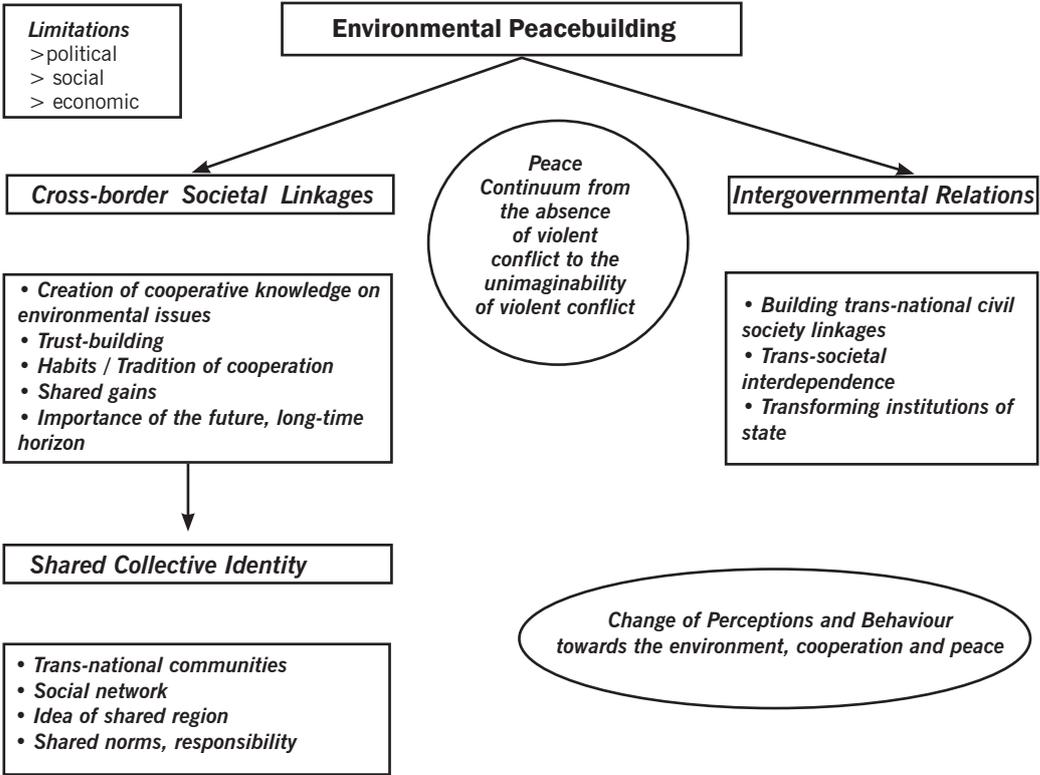


Figure 2: Survey of the focal points in the concept of Environmental Peacebuilding

3. Related Social Theories

3.1 Social Learning Processes

Applying the concept of social learning processes to the concept of Environmental Peacebuilding is self-evident as we are dealing with processes of social change; creation of new norms of interaction, change of perceptions, values and finally behaviour towards “the other”. Both concepts are actor-oriented and define social processes as non-linear and non-deterministic (WOODHILL and RÖLING (2000). In: RIST et al. (2006:220)).

A central element of the social learning approach is the theory of communicative action by HABERMAS (1984) implying that actions are coordinated through a process of joint definition of action-relevant situations (or communicative action) and not on the basis of a calculation of egocentric success (or strategic action). HABERMAS (1990:88-89) highlights the necessity of the freedom of all participants to question or introduce any proposal, to express any attitude, wish or need in communicative action. According to RIST et al. (2007:26) “social learning approaches – more than just being participatory – must contribute to creating spaces for transforming strategic into communicative action”. However the shift from strategic to communicative action requires specific conditions such as the symmetrical distribution of opportunities and capacities of expression of all participants (HABERMAS (1984:25). In: RIST et al. (2007:27)).

The theory of communicative action is closely related to the principle aim of Environmental Peacebuilding to generate common solutions for shared environmental problems. Adverse societies define, in a process of sustained dialogue, jointly the cooperative efforts that are necessary for the improvement of the environmental situation. Institutions (NGOs) offer a platform for dialogue, where people have the possibility and freedom to express their needs and wishes and where shared interests and benefits are identified. On this note, a social learning process is fostered where opportunities for communicative action are created. The actors establish a commonly shared value base which is a prerequisite for successful cooperation and realization of common objectives.

RIST et al. (2006:226) generate some general features of social learning processes which coincide with the focal points in the concept of Environmental Peacebuilding (see Figure 2, p. 16):

- Mutual trust building
- Transformation of attitudes and patterns of communication
- Reshaping of perceptions and preconceptions of other participants
- Recognizing differences and complementarities of different forms of knowledge
- Emergence of more common values for development and interaction
- Re-defining roles and responsibilities of local external actors
- Creation of a joint language ("narrative")

At the beginning of a social learning process, the building of mutual trust among the participants is essential. Through the generation of more trustful relationships new forms of communication and interaction develop which foster changes in attitudes. The achievement of a final change in mutual perceptions and preconceptions of "the Other" is a long-winded process that happens only after ongoing cooperation and participation in each other's life.

The close interrelation of the two approaches supports the proposition that Environmental Peacebuilding can be regarded as a social learning process that is taking place when parties to a conflict come together to discuss common solutions for shared environmental problems. The process happening requires time and social energy and is to a great extent dependent on the availability of institutional and financial resources for its maintenance. A clear limitation and obstacle to the process poses the fact that not all actors involved in a platform have the same interests and dispositions for participating in communicative action (RIST et al. 2007:35).

3.2 Social Capital

Social learning processes are closely related to a transformation of social capital. As developed by BOURDIEU and COLEMAN, social capital is understood as an attribute of relationships. PORTES (1998:7) defines social capital as follows: "[...] social capital inheres in the structure of relationships. To possess social capital, a person must be related to others, and it is those others, not himself, who are the actual source of his or her advantage". Furthermore PORTES (1998:6) states that "the consensus is growing in literature that social capital stands for the ability of actors to secure benefits by virtue of membership in social networks or other social structures".

Social capital is transformed among participants of social learning processes due to the changes that occur in the patterns of interaction (RIST et al. 2006:230). Processes of trust building and cooperation and changes in attitudes, norms and values intensify the relationship between the actors. A social network is established, individuals accrue benefits by virtue of participation and consequently, social capital is enhanced. The transformation of social capital has further outputs: "actors can gain direct access to economic resources; they can increase their cultural capital through contacts with experts or individuals of refinement; or, alternatively, they can affiliate with institutions that confer valued credentials" (PORTES 1998:3). PORTES (1998:3) moreover highlights that social networks and structures are "not a natural given" and therefore "must be constructed through investment strategies oriented to the institutionalization of group relations, usable as a reliable source of other benefits".

Efforts in the field of Environmental Peacebuilding that bring together parties to a conflict to cooperate on environmental issues are an example for an institutionalization of group relations. A framework for dialogue and interaction is created which fosters the establishment of relationships from which participants can benefit. This transformation of social capital implicates other positive, economic, cultural or political outputs that play a significant role in the actors' life.

4. Environmental Peacebuilding In The Middle East

More than 50 years ago the Government of the United States already suggested what today different NGOs in the Middle East attempt to realize: Using the common dependency on scarce water resources to foster the building of cooperation and peace in the region. LOWI (1993:114), delineating the Johnston Mission to the Middle East (1953-1956), writes: "There were both Arab and Israeli officials who had thought that a more realistic solution to water development in the Jordan basin would be the separation of the system into two independent parts, so that Arabs and Israelis would not have to interact on such a crucial issue. However, the United States Government rejected this suggestion; it was water-sharing as the gateway to peace and cooperation. The Eisenhower Administration, echoing the functionalist theory of spill-over, hoped that by

regional economic development people in the area will begin to talk with each other and eventually this would lead to better relations for all.”

This thought is carried on today by the NGO EcoPeace / Friends of the Earth Middle East (FoEME) that is among other things focusing on the Jordan River basin, the shared water resource of the Jordanian, Palestinian and Israeli peoples. FoEME has recognized the potential of cooperation between the parties not only for the rehabilitation of the Lower Jordan River, which currently is little more than a sewage canal, and the saving of the Dead Sea - both crucial resources for the three societies - but also for establishing an ongoing dialogue, long-lasting harmonious relations and finally a long-lasting peace in the region.

The idea of using common environmental issues to create convergence and foster the building of peace in the area has been used by different NGOs in Israel, Jordan and the Palestinian Authority. Every effort is unique and has its own history of success and reversal but all of them have the belief in common that environmental issues can play a pivotal role in bringing the societies closer together.

The next chapter of this paper will focus on one of these efforts, namely the NGO EcoPeace / Friends of the Earth Middle East and its Good Water Neighbours Project. More than any other organization or project reviewed by this researcher, the Good Water Neighbors project offers a good example of the full extent to which environmental peacebuilding can successfully be implemented in regions of protracted conflict. A short evaluation of the project will help to draw conclusions on both the possibilities and constraints of efforts taken in the field of environmental peacebuilding.

5. EcoPeace / Friends of The Earth Middle East

5.1 The Role of an NGO as Peacemaker

“In the aftermath of international war, post-conflict peace-building may take the form of concrete cooperative projects which link two or more countries in a mutually beneficial undertaking that can not only contribute to economic and social development but also enhance the confidence that is so fundamental to peace. I have in mind, for example, projects that bring States together to develop agriculture, improve transportation or utilize resources such as water or electricity that they need to share, or joint programmes through which barriers between nations are brought down by means of freer travel, cultural exchanges and mutually beneficial youth and educational projects. Reducing hostile perceptions through educational exchanges and curriculum reform may be essential to forestall a re-emergence of cultural and national tensions which could spark renewed hostilities.” (UN Agenda for Peace 1992:5)

The UN Agenda for Peace highlights the essential elements of peacebuilding which are also of main importance to the concept of environmental peacebuilding: The establishment of concrete cooperative projects and the utilization of common resources within these, the enhancement of confidence and the development of mutual understanding and trust through educational exchanges.

The work of FoEME takes these pivotal elements into account and therefore offers a good example for how to successfully implement projects in the field of environmental peacebuilding in an area of protracted conflict. The NGO helps to advance the peace potential in the region through the empowerment of Palestinian, Jordanian and Israeli communities and the support of shared dialogue and cooperation between them. It builds up community partnerships with the aim of raising the awareness of shared environmental issues and developing common solutions. Education and the creation of cooperative knowledge on common environmental threats play a central role in the design of every project. The final aim is not only to produce a feeling of a shared region and responsibility - neglecting for once political issues and boundaries - but to change the environmental behaviour and create shared gains and benefits. These efforts build linkages between societies that are the cornerstone for confidence and trust-building between parties to a conflict.

LEDERACH (1997:66) emphasizes that “[...] peacebuilding [...] should be understood as a process made up of roles and functions rather than as an activity that resides in the person of the mediator or intermediary team”. Using the definition composed by MITCHELL (1993:147) concerning roles and functions of external peacemakers the following four roles may be ascribed to the NGO Friends of the Earth Middle East:

- “Enskiller (empowerer): Develops or equalizes skills and competencies needed to enable parties to reach a mutually acceptable and sustainable solution.

- Envisioner (fact finder): Provides new data, ideas, theories, and options for adversaries to select or adapt. Develops fresh thinking on range of possible options or outcomes that might lead to a solution.
- Enhancer (developer): Provides additional resources to assist adversaries reach a positive-sum solution.
- Reconciler: Undertakes long-term actions to alter negative attitudes, stereotypes, and images held at large within adversaries. Builds new relationships across remaining divisions.”

As an Enskiller FoEME creates knowledge and abilities to improve the environmental situation in Israel, Jordan and the Palestinian Authority and proposes sustainable solutions from which all the societies may benefit. As an Envisioner FoEME provides different new ideas and options for solving environmental threats within and in cooperation with partnering communities. As an Enhancer FoEME allocates the communities on the one hand with financial resources and on the other hand with knowledge on their own and the other’s situation, their future prospects and possibilities. And finally, as a Reconciler FoEME fosters the change of negative perceptions and images and the establishment of long-lasting relationships and cooperation between the societies. The building of new relationships is seen as one of the core elements of peacebuilding as relationships “in their totality form new patterns, processes and structures” (LEDERACH 1997:85) which means that they have the potential to alter existing schemes and effectuate changes within societies, generate processes of social change. A pivotal condition for the creation of a long-lasting relationship between adversaries is the common “need to move [...] toward a desired and shared vision of increased interdependence” (LEDERACH 1997:84).

5.1.1 Capacity and Relationship Building

As an Enskiller FoEME does what LEDERACH is calling “capacity building”. “The word “capacity” [...] is linked to a concept of empowerment [...]. [...] empowerment is related to a fundamental challenge of peacebuilding: How to create and sustain within individuals and communities the movement from “I/we cannot effect desired change” to “I/we can”. [...] capacity building therefore refers to the process of reinforcing the inherent capabilities and understandings of people related to the challenge of conflict in their context, and to a philosophy oriented toward the generation of new, proactive, empowered action for desired change in those settings” (LEDERACH 1997:108-109). Capacity building is a first fundamental step in the long-term process of developing understanding and abandoning negative stereotypes and has a greater impact if it is applied in and by groups and communities.

Empowering communities is one of the main efforts taken by FoEME. Local field staff (teachers, social workers and others) are appointed to work within the communities, involving youth, adults, schools and different local stakeholders such as mayors in different projects. The success of the projects emerges on the one hand from the realization of concrete environmental and educational projects within the communities and on the other hand from cooperation with partnering communities which suffer from similar environmental hazards and therefore have shared intentions to improve the present situation.

With the example of FoEME it becomes apparent how capacity building is closely related to relationship building. It is essential not only to develop an individual’s capacity and skill but also to build relationships in and across the lines of the division in a context of protracted conflict (LEDERACH 1997:109).

Sustainable peacebuilding requires a change in relationships in which the vision of a shared future is created and an understanding of, and practical responses to, the existing realities and crises are established (LEDERACH 1997:112). FoEME has devised an infrastructure for its projects that both fosters the development of a common vision for the future and realizes improvements in the environmental situation of the communities.

5.1.2 Grassroots, Middle-Range and Top-level Leadership

FoEME combines bottom-up community work with top-down advocacy which together lead to a successful implementation of projects. LEDERACH (1997:137) mentions the importance of the horizontal and the vertical integration of people and processes for the emergence of social change and the establishment of a sustainable peace.

Nevertheless in recent time more and more emphasis is put on the grassroots which often turn the balance for ending conflict. “One could argue that virtually all of the recent transitions toward peace – such as those in El Salvador and Ethiopia, as well as the earlier one in the Philippines – were driven largely by the pressure

for change that was bubbling up from the grassroots. In fact, at times it seems that exhaustion, rather than innovative planned transformation, is chiefly responsible for ending conflicts” (LEDERACH 1997:52). Special attention may be given therefore to the empowerment of the grassroots in projects such as the Good Water Neighbours (see 5.3.) that strengthen the bottom of a society and facilitate action.

Not less important than the grassroots level is the middle-range leadership. Middle-level leaders are positioned so that they are connected both to the top and the grassroots level. They have the advantages of not being controlled by the authority and knowing the context and the experiences of people living at the grassroots level. Furthermore middle-range leaders do not seek to capture any political or military power but instead they derive their status and influence from ongoing relationships. As they are neither in the international nor the national limelight they tend to have greater flexibility of movement and action than top-level leaders. This flexibility is useful for making vertical and horizontal connections that are necessary to sustain a process of change (LEDERACH 1997:41-42/81). Believing that middle-range leaders exhibit a determinant location in a conflict situation and might be part of achieving and sustaining peace, FoEME closely works with the mayors of the communities and regions involved in the Good Water Neighbours project. The mayors of the partnering communities sign Memorandums of Understanding in which they adhere to cooperation and the common engagement for shared environmental problems. Although these Memorandums of Understanding are not official agreements they are a first step in the establishment of a long-lasting bond and trust between communities and a statement to the outside world that will and belief for cooperation and a peaceful coexistence do exist. Moreover with signing this document the mayors are showing their residents that cooperation with the former adversaries is the desirable and right pathway to the resolution of the conflict and the building of sustainable peace in the region.

5.2 Approach of EcoPeace / Friends of the Earth Middle East

As mentioned above FoEME combines two types of work which together help the NGO to meet all the criteria of peacebuilding: bottom-up community work and top-down advocacy.

An important part of the top-down advocacy is the composition of academic and policy papers which aim at displaying in detail the severity of the cross-border environmental problems. Written by experts from the relevant societies the policy papers have the potential to gain credibility and support of local and regional stakeholders. The policy papers, based on common research, are designed to create a single regional vision concerning the solution to the cross boundary problem at hand. Policy papers focus on transboundary ecosystems such as the Jordan River, Dead Sea and Mountain Aquifer and highlight the importance and necessity of a common management and vision as a solution for the environment and conflict situation in the region. Each office led by their director and local staff then advocate / educate decision makers and their respective public, the common vision espoused. The strength of this approach is that Jordanians advocate the position to Jordanians, Palestinians to Palestinians and Israelis to Israelis. In each case it is the same position, but in the cultural context and manner that maximizes local influence. Furthermore the NGO includes Israeli, Jordanian and Palestinian media in its endeavours using media coverage as a means of creating political pressure and placing shared environmental issues on the daily political agenda. A successful example is the large public and media attention raised for the public hearing of the World Bank, concerning the Red-Dead Canal, which brought about that the alternative of the Jordan River may be included in the Terms of References of the World Bank feasibility study. The establishment of a shared academic and policy vision is essential for the development of community understanding and leadership as people may use scientific knowledge to both diffuse and defend their undertakings. Moreover it creates an overall accepted vision for a better common future which generates a process of trust-building, the cornerstone of peacebuilding.

Consistency, creativity and flexibility constitute the fundament for the strength and success of the NGO. Although FoEME has been focusing on the same issues for over 15 years its work is characterized by the steady generation of new ideas which often originate from one community and are then applied to other communities all over the region (see 5.3 The Neighbours' Path). In contrast to any governmental organization the NGO has a very broad room for manoeuvre and can gain community belief and support though the realization of concrete projects such as for instance the successful introduction of gray water / rain water harvesting systems in schools and municipal buildings of the communities participating in the Good Water Neighbours project.

5.3 Good Water Neighbours Project

The Good Water Neighbours (GWN) project is one outstanding example of a successful effort in the field of environmental peacebuilding in the Middle East. The general idea behind the project is that the dependence on the same water resources can create one community out of adverse users and stakeholders. This community on

the one hand benefits environmentally and economically from cooperative management and on the other hand builds up long-lasting relationships which will, in a long-term perspective, facilitate the establishment of trust and the feeling of a shared collective identity. Basically the project strives for achieving two main goals. First, a change of perception towards the environment and at a later stage towards cooperation and peace and second a definite change in behaviour towards the aforesaid issues which will assure sustainability and endurance.

The Good Water Neighbours project was established in 2001 working until 2005 (Phase I of the project) with 11 Israeli, Palestinian and Jordanian Communities, expanding in the present Phase II, 2005-2008, to 17 communities. The intention is to further increase the number of communities until a critical mass is achieved. Not surprisingly when the project was first launched it was difficult to convince communities to join. Today, however, there is demand from new communities to come on board but sadly lack of funding is the current impediment.

Each community has a neighbouring partner community which is located on the other side of the political divide / border and shares and depends on the same water resource. A local staff person, coming from the community, is hired to work for FoEME and carry out the project activities. Local staff is chosen on the basis of their ability to work with the community and their acceptance in the community. Peace activists and environmentalists are not sought for this position but rather an individual that knows how to speak in the local community context. The project aims at raising environmental awareness and developing initiatives for the improvement of the environmental situation within and between the partnering communities.

Led by the local staff person, the project works with three groups of stakeholders: youth, adults and mayors. In each community local field staff works in close partnership with youth and adults, through local schools, youth clubs, community centres and community based organizations. The program benefits from a common text book on shared water issues, called WaterCare. It is a text book written by Israeli, Palestinian and Jordanian teachers as part of the Multilateral EXACT program. It is the same text book in Arabic and Hebrew. The use of the WaterCare text book combined with field visits in the community, across to the neighbouring community and regional tours held, helps participating youth understand the water issues of their community and their neighbour's community. One youth group decided to initiate a petition calling for action to improve the water reality in their and their neighbour's community. This led to all youth water trustees developing petitions specific to their cross border issues and collecting in total over 15,000 signatures from local residents.

To both gain the trust of the community and empower youth that they can be themselves the catalyst for change; concrete projects are undertaken in each community, led by the youth. In each community school buildings were transformed into wise-water buildings re-using grey or rainwater for the flushing of toilets and watering of school gardens, being able to cut by a third the amount of water used in the buildings. Furthermore ecological gardens were built, creating a common environmental learning process and training among youth and serving as an example of how to handle scarce water resources. Another educational program, the building of ecological wetlands, was introduced in 2007, an effective way of cleaning sewage and other wastewater in small communities or single households. All these efforts on the one hand empower the youth to improve the environmental reality in their community by establishing the necessary knowledge and tools and on the other hand facilitate dialogue and the creation of a cooperative knowledge on environmental hazards and possible solutions.

The next group of stakeholders is the adults of the respective communities whose support and belief in the project is essential for its success. Their involvement in the project makes them not only partners of the NGO but in fact defenders of cooperation and of reconciliation efforts. Adult forums have been created, offering a platform for discussion with local professionals and planners on environmental problems and possible solutions. In the partnering communities Tulkarem and Emek Hefer the received support of the local community by the mayors was fundamental for their motivation to move forward in the issue of sewage cooperation. In the communities around the Dead Sea the shared problem of the fly plague is being discussed and the idea of composting manure has been developed. The Jordan River communities are very much involved in the process of establishing a Peace Park in the area of the former Rotenberg hydropower station whose cross-border management will not only improve and deepen the relationships across the border but also bring eco-tourism and therewith economic development to the region. The concrete realization of ideas, visible to the whole community, is of main importance within the project framework. Prosperities play an important role in the building of trust first of all in the NGO, the project, its ideas and ideals and later within and between the communities. Through exchange and ongoing cooperation between the locals of the neighbouring communities a common dedication

to the solution of shared environmental problems is established which fosters the creation of a desired common responsibility and vision for the future.

The idea of the Neighbours' Path was developed by the adult's forum in one of the communities of the GWN project, Tzur Hadassah, and is today implemented in all the other 16 communities participating in the project. A trail is established during whose visit the natural and cultural heritage of each one of the GWN communities is shown. Following the path of water, ending at the border, the trail highlights the connection between the communities and their water resources, revealing degradation and pollution, and provides insights to the water reality across the political divide. The Neighbours' Path emphasises the need for cross-border solutions in protecting water resources by displaying the mutual dependence on and interrelation between the water resources. The idea behind the project is to mobilize the local community in support of cross-border cooperation and the protection of the local ecosystem and to promote local entrepreneurship. The involvement of local businesses not only deepens the locals' involvement in the GWN project but also generates alternative income from the tourism visitation of the path. The Neighbours' Path aims at attracting local, national and foreign tourists showcasing the benefits of cooperation. At this stage of the project the main focus lies in getting local residents, students and adults, and people from the big cities to undertake tours in their own country to get to know the water and environment reality of their own and the neighbouring societies. The goal is to carry out 30 tours in each and every community over the coming two years. At the same time interested groups from Europe and the USA will visit the different communities' paths while participating in a regional cross-border tour. The communities will be able to benefit economically from these visitations.

Stemming from the grassroots the Neighbours' Path has the potential to develop into a nation-wide example for successful cross-border cooperation. It includes many of the different aspects of environmental peacebuilding: Firstly, it highlights the interdependence of environmental issues and creates cooperative knowledge on environmental issues whereby it establishes a feeling of a shared region and a shared responsibility for the present and future situation. Secondly, it strengthens the linkages between the partnering communities by creating shared gains and benefits. And finally it educates local and foreign people on the environment and cooperation and supports the process of changing perceptions towards these issues.

The third group of stakeholders is the mayors. The importance of the involvement of mid-range leaders has been mentioned already in chapter 5.1.2. Being located in a position between the grassroots and the top-level leaders they are not only able to make political statements and raise political attention for the joint efforts but also they act as ambassadors for the vision of a shared future. Events such as the Big Jump -mayors of the Jordan River Valley jumping together in the waters of the Yarmouk River- are on the one hand very effective in raising public awareness and interest in the ongoing disappearance of the Jordan River and the urgent necessity of its rehabilitation and on the other hand act as an official and operative statement that cooperation and a peaceful get-together in fact is possible.

This year for the first time the partnering municipalities Tulkarem and Emek Hefer are cooperating on the issue of olive mill waste. Until now the waste from the olive mills located in the Tulkarem area was dumped into the Alexander River which flows from Tulkarem through Emek Hefer into the Mediterranean, polluting not only the river and killing flora and fauna in the river bed but also the sea and the coastline. Today the waste from the mills is placed in a truck and taken to Israel for treatment reducing to a big extent the pollution of the shared water resource.

The success of this endeavour is owed on the one hand to the initiative of the local field staff, the project coordinators and planners but moreover also to the local stakeholders within the municipalities. Due to ongoing cooperation between the neighbouring communities trust has been built over the years, mutual trust that facilitates and simplifies the implementation of such a cross-border project and is the cornerstone for its success. People from both communities were committed to realize shared goals and now mutually benefit from the reached gains. The recognition of the shared responsibility for the present and future situation has been fruitful.

5.3.1 Evaluation of the GWN Project

In order to assess the GWN project from a more internal perspective a questionnaire was handed out to the Palestinian, Jordanian and Israeli field staff and to the water trustees (youth). The results help to evaluate the project and its contribution to the building of peace in the area and provide us with valuable local suggestions and inputs on how to possibly upgrade the project framework.

The field staff questionnaire was answered by 13 people, all working locally in the different communities of the GWN project. The 13 are made up of five Jewish Israelis, four Palestinians, three Jordanians and one Arab-Israeli. The youth questionnaire was answered by 27 water trustees, 9 Jordanian, 3 Arab-Israelis, 5 Palestinians and 10 Jewish Israelis.

	Very much	Somewhat	Not at all	Not relevant
Does the GWN project lead to a better understanding of environmental problems in your community/area?	77%	33%		
Has the GWN project helped to improve the environmental situation in your community/area?	46%	54%		
Is it difficult to change people's / children's attitudes towards the environment in your community?	23%	46%	31%	
Do you notice a change in behaviour towards the environment in your community?	31%	69%		
Does the GWN project contribute to a better understanding of your and your neighbour's shared environmental problems?	77%	33%		
Does the GWN project offer solutions for shared environmental problems?	85%	15%		
Does the GWN project help to improve the relationship between the neighbouring communities?	62%	38%		
Do the group meetings and activities help to build trust between the neighbouring communities?	69%	31%		
Does the GWN project contribute to the building of peace in the area?	62%	38%		

Figure 3: Extract from the GWN Field Staff questionnaire (N=13)

In general all the field staff agree that the GWN project has led to a better understanding of environmental problems within his/her community. More efforts have to be taken to actually improve the environmental situation satisfyingly in each and every community, only half of the field staff assuring that the environmental situation in her/his community was very much changed indeed since the involvement in the project. However this is partly to trace back to the fact that six of the communities have been integrated in the GWN project only since 2005. Asking about the actual changes and improvements that have been taken place in the communities all the field staff mentions the "green thinking" that has been dispersed in the communities. Children, adults and even the municipalities have much greater awareness of nature in general and particular environmental issues that constitute a risk for the community. Moreover they are all involved in concrete environmental projects and therefore carry a certain kind of responsibility. Many field staff emphasise the importance of the improved water supply in schools and the ecological gardens that support the environmental education and contribute to the understanding of the water reality. Other noted improvements are for instance the prevention from further environmental destruction by Israeli communities in Wadi Fukin, the coordination of waste disposal in Baqa, the improvement of the water quality of the shared Alexander River, the advancement of agriculture, wise water use (farmers, schools) and many others.

Asking about the difficulties to change people's attitudes towards the environment opinions diverge whereas it is mostly the Palestinian field staff that considers it difficult, most Jordanians and Israelis don't and therefore the NGO is seen as an essential stakeholder in this fundamental process. Everyone agrees that the project activities, the meetings between the communities, the workshops, the distribution of papers help a lot to change people's attitudes. Still most of the field staff believes that if the activities were even more numerous it would be able to reach more individuals and hence be more effective.

Changing the behaviour towards the environment is a long-winded process, achievements are visible only after a certain period of time. This is definitely being felt in all the communities. Still the field staff is optimistic,

especially because environmental issues are becoming part of the public discourse and environmental friendly ideas are being produced within the communities. Positive changes are obvious especially with schoolchildren as they are enjoying environmental education and participating in different projects. Children's awareness and action may furthermore have positive impacts on the whole family and household.

The GWN project definitely leads to a better understanding of the communities' shared environmental problems and offers appropriate arrangements to solve them. Most of the field staff thinks that the project very much offers solutions to common environmental hazards. Moreover its activities indeed build connections between adverse societies, most of the respondents saying that the project helps to build trust between neighbouring communities. According to the field staff the most effective activities are the development of common projects and businesses, the meetings of children and adult groups and the cooperation between the mayors.

Whether the connection between the communities will last in the future seems to be controversial although half of the field staff is positive about this. Still, the rest argues that it very much depends on the political situation. It's obvious that the newly built harmonious relationships are still contingent on political events despite cooperation and trust-building. Therefore the communities are in the need of an ongoing support, an institutional structure, as long as the conflict is there, otherwise the conflict will overpower them. The GWN project is one possibility, as a stable institution it supports the communities and fosters the institutionalization of cooperation.

Most of the respondents agree that the current political situation complicates or forms an obstacle to cooperation and that political events very much influence the possibility of building trust between the communities. Still on the whole people are convinced that the project does contribute to the building of peace in the area and that their communities are much more involved in the process of building peace since their participation in the GWN project. Very important to everyone is the process of getting to know each other, the establishment of amicable relationships, the recognition of the other side's problems and fears and the losing of the own fears towards cooperation. Through the GWN project the other side, the neighbour becomes a face of a human or even a friend with whom cooperation becomes possible or even desirable.

5.3.2 Water Trustees – Youth

The significance and the achievements of the GWN project become particularly apparent through the evaluation of the youth questionnaire. By learning about their own and the neighbour's water reality the youth becomes sensitized to the mutual dependence on the same water resources and the necessity for a cooperative management and shared solutions. Furthermore during youth camps the water trustees have the opportunity to get to know their counterparts, being able to establish amicable relationships and to realize that they resemble them much more than they were actually thinking. Negative stereotypes are abolished, convergence is taking place and the idea of a common future becomes imaginable. The GWN project empowers Palestinian, Jordanian and Israeli youth to influence not only the present and future environmental situation in the region but also to head for a common reconciliation process. With this the project follows the demand of sustainable development to enable future generations to meet their own needs.

	Very much	Somewhat	Not at all	Not relevant
Did you enjoy meeting and getting to know better students from the neighbouring communities?	93%	7%		
Was it difficult to communicate with each other?	4%	70%	26%	
Did you become friends with youth from neighbouring communities during the workshop	78%	18%	4%	
Did you learn something about the water and environmental situation in your and your neighbouring community?	66%	30%		4%
Do you think it is important that the communities work together?	96%	4%		

Figure 4: Extract from the GWN Youth questionnaire (N=27)

In general the water trustees have a very broad knowledge of the different environmental problems their own and the other communities are facing. Most of them mention water shortage, environmental pollution, especially the pollution of rivers, wadis and groundwater and uncontrolled sewage disposal. The youth living in the Jordan River Valley and around the Dead Sea are very much concerned about the declining water level there. Many children state that due to the youth camp and the visits to different affected places they started to understand the severity of the situation and the need to take action.

The youth camps were very successful in building up relationships between the youth of the different societies, language seems to have been the main obstacle they had to overcome. All the water trustees understand the importance of cooperation if an improvement of the present situation shall be achieved.

A few citations of the water trustees may demonstrate the thoughts of the youth, what they have learned during the camp and how they want to apply this knowledge in the future.

“We should organize meetings and workshops to educate and guide people how to use the water and manage it properly.”

Palestinian boy, 15 years old.

“God has given us all this good and all this beauty, we have to protect this and we should even make it more beautiful.”

Arab-Israeli boy, 14 years old.

“We should introduce more ideas that will bring benefits to all societies.”

Jordanian boy, 15 years old.

“It is important that communities work together because only like that you can stop wars and solve problems.”

Jewish Israeli girl, 14 years old.

“We should love to work together hand in hand and increase the endurance and patience.”

Jordanian boy, 15 years old.

“I have learned that we, Israelis and Palestinians, are not significantly different and that to build connections between us can be a great pleasure.”

Jewish Israeli boy, 15 years old.

“We should put signs to guide people how to protect our nature.”

Palestinian boy, 15 years old.

“We should keep our eyes on how we are using our water at home and we should be using it in a wise way.”

Jordanian boy, 16 years old.



6. Conclusion

This paper deals with the concept of environmental peacebuilding as one possible element of building peace in regions of protracted conflict. Compared to other possible - social, political, economic or cultural - efforts in the field of peacebuilding the environment has certain characteristics which turn it into an important stakeholder in the process of settling down conflict.

As environmental issues are an integral part of the basic needs of every human being, an insecure and unhealthy environment is a mutual harm borne by all the societies living together in the same ecological region. Environmental depletion and the mutual dependence on shared resources can therefore be used as a connecting element between parties to a conflict, regarding the improvement of the environmental situation as a common benefit to all the societies. Obviously nature knows no boundaries, the interdependence of natural resources requires a region-wide, cross-border management, otherwise common urgent matters such as water scarcity and the pollution of water resources may not be solved. Here lies the potential of environmental peacebuilding to contribute to the process of building peace in a region of protracted conflict. Initiating cooperation on shared environmental issues implicates ongoing dialogue between parties to a conflict, a dialogue which offers the opportunity to exchange different perceptions and



perspectives and is a cornerstone of trust-building between societies. The establishment of cross-border societal linkages, such as the ones between the partner communities of FoEME's Good Water Neighbours project, facilitate the creation of shared practices, values and norms which in the long-run lead to the development of a mutual responsibility for the common ecological region, neglecting political and highlighting natural borders. In order that environmental cooperation can develop into broader forms of political cooperation and generate a social and political dialogue going beyond environmental issues bottom-up community work has to be combined with top-down advocacy, incorporating the grassroots, the middle-range and the top-level leadership. The NGO EcoPeace / Friends of the Earth Middle East offers a good example on how to implement this holistic approach successfully.

Environmental peacebuilding is a very new subject in the field of development and cooperation, neither a broad selection of profound theories nor case studies are available for being able to assess the potential of cooperative management of shared resources to initiate a process of amicable dialogue and reconciliation in regions of protracted conflict in general. Moreover long-time experience and research are necessary to review the results of projects in terms of building peace.

Nevertheless efforts such as the Good Water Neighbours project may be used as a showcase of a six-year-old successful implementation of the concept of environmental peacebuilding and serve as an example for environmental security, reconciliation and peace in other regions of protracted conflict on our planet.



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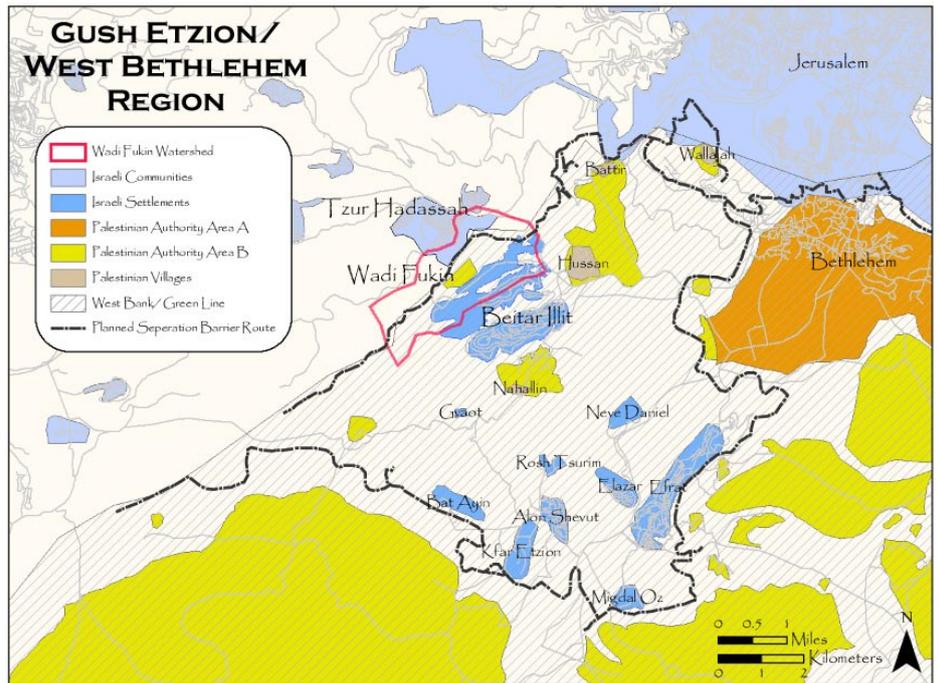
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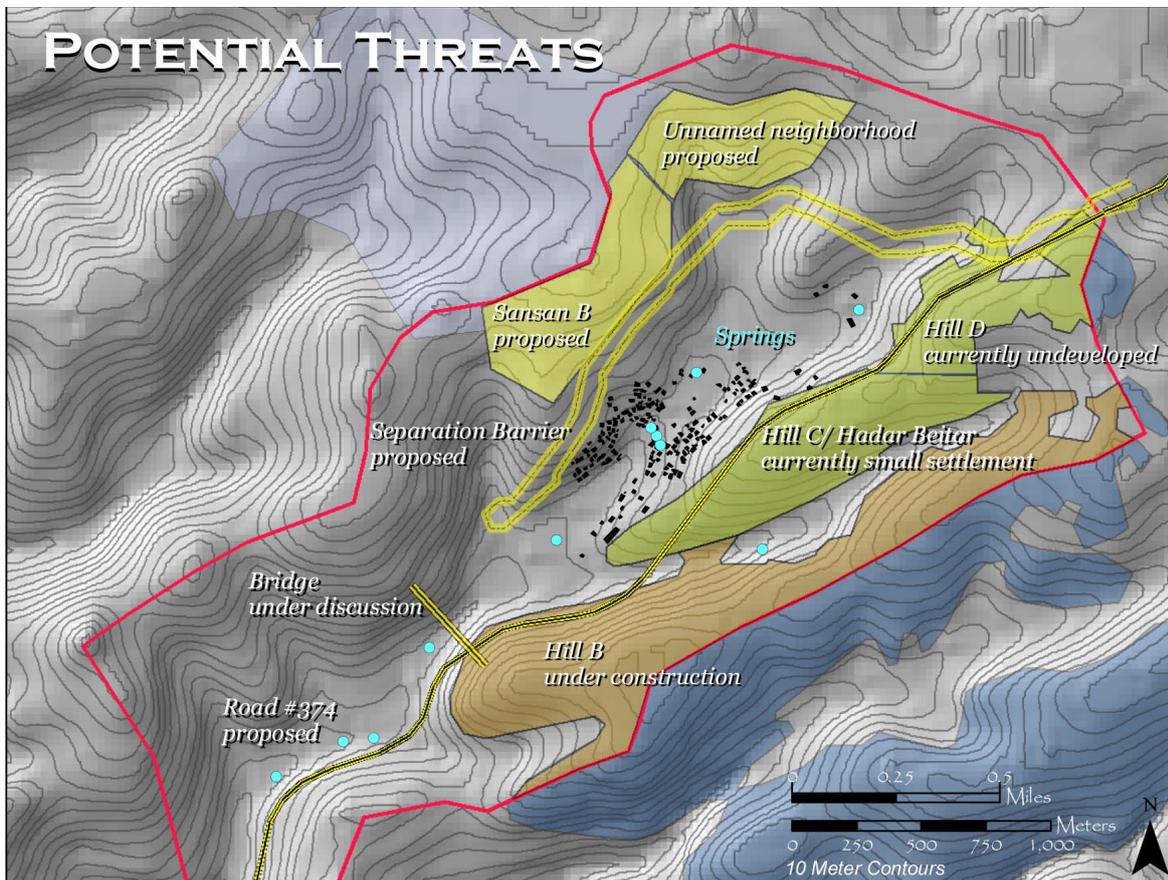
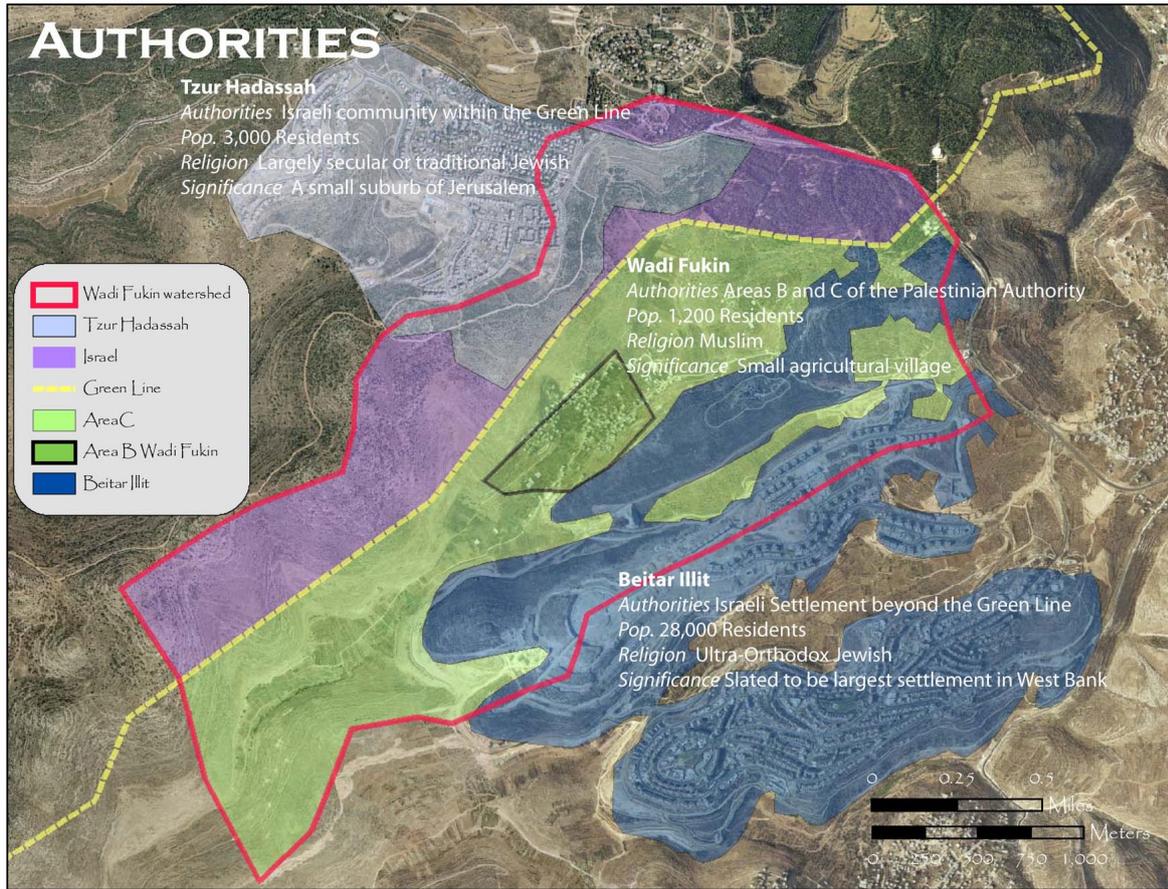
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Part Two: In Depth Analysis of the Wadi Fukin / Tzur Hadassah Communities





1. Introduction

The Wadi Fukin valley, located on the Green Line 12 kilometers southwest of Bethlehem, has been the site of one of FoEME's most innovative Good Water Neighbor projects. Three communities are at least partially within the project area: the Palestinian agricultural village of Wadi Fukin, the Israeli community of Tzur Hadassah, and one of the largest Israeli settlements in the West Bank, Beitar Illit. Tzur Hadassah and Wadi Fukin were among the first communities chosen to participate in the Partnering Communities Project. Beitar Illit was not invited to participate because of its contested political status.

The primary shared water issue between these communities is protecting the unique spring system of Wadi Fukin. According to a hydrological survey carried out by residents of Tzur Hadassah, the only source of water for the springs is rainfall that falls within the six square kilometer Wadi Fukin valley¹. This rainfall feeds a shallow perched aquifer that in turn supplies the springs, in addition to a portion of the Mountain Aquifer. Water from the springs is channeled to terraced agricultural fields, providing an excellent example of an ancient system of agriculture indigenous to this area of the Judean Mountains.

Currently the recharge area for the springs is largely undeveloped, and consists primarily of Israeli controlled territory surrounding Wadi Fukin. Proposed development within the watershed by Israeli authorities, however, threatens the quantity and quality of Wadi Fukin's spring flows. Tzur Hadassah is proposing building two new neighborhoods, Sansan B and an unnamed neighborhood. Beitar Illit is planning major expansions on Hill B and eventually Hill C. Four lane Road #374 is being planned to run between Wadi Fukin and Beitar Illit. Finally, and perhaps most destructively, a portion of the Separation Barrier, typically 60-100 meters wide and consisting of a combination of roads, fences and trenches, is proposed to run between Tzur Hadassah and Wadi Fukin. Construction has already begun on Hill B of Beitar Illit, resulting in spoils stretching right to the edge of village agricultural lands.

In total, proposed new developments are estimated to cover approximately half of the aquifer recharge area. The significant increase in impermeable surfaces will potentially reduce the amount of water entering the aquifer, decreasing spring flows². This reduction in water will reduce the area available for irrigated agriculture, negatively impacting an important source of identity and economic development for the village's residents. Proposed development also threatens the quality of life of Wadi Fukin's residents, and their right to have a voice in developments that impact them.

FoEME's work in the Wadi Fukin watershed has progressed through a series of steps carefully designed to maintain both local support for transboundary cooperation and momentum for practical measures to protect the springs. Advancing from water conservation and awareness activities in each local community, to shared projects addressing watershed issues, and finally to policy advocacy at the national level, FoEME has catalyzed a core group of activists in each community on a range of activities including activism, environmental studies and legal advocacy.

With the goal of addressing land use in the watershed, there is now an effort to move beyond a reactive approach to threats, and collaborate on a transboundary land use plan that would proactively guide development³. FoEME and related organizations and individuals have identified multiple policies that should be implemented

as part of a watershed plan. These policies include preserving the hillsides on either side of the village by canceling the majority of development planned for the watershed, or at least reassessing it based on its environmental impacts. In particular, deep trenching is to be avoided within the valley as this could disturb the shallow subsurface groundwater flows. An overarching goal is to preserve Wadi Fukin as a Palestinian World Heritage Site under UNESCO, or alternatively to establish the entire valley as a protected transboundary Biosphere Reserve.

There are other threats to the health of the watershed. The use of cesspits in the village as depositories for sewage waste threatens the quality of the springs. A key proposal (originally made by a



¹ Haviv, Itai and Lior Asaf. 2005. The Hydrological System of Wadi Fuqeen Springs. Unpublished (October 21).

² For a discussion of the potential impact of development on aquifers, and ways to minimize damage through appropriate urban design, see Carmon, Naomi, Uri Shamir, and Meiron-Pistiner. 1997. "Water Sensitive Urban Planning." *Journal of Environmental Planning and Management*. 40(4): 413-434.

³ Amir, Shaul, A. Frankel, H. Law-Yone, D. Shefer, and T. Trop. 1997. "Integration of Environmental Assessment into the Regional Development Planning Process of the Galilee." *Environmental Management* 21(1): 59-68. This is described as a preventative rather than corrective approach to solving development-environment conflicts. Under a preventative or proactive approach, integration of environmental concerns is done at the beginning of plan making, rather than at a later stage in formal Environmental Impact Assessments or Reports.

visiting delegation from the University of Texas, El Paso) is therefore development of a sewage infrastructure to channel and treat Wadi Fukin's wastewater. Another issue affecting environmental quality has been a sewage overflow outlet from Beitar Illit that empties onto the fields of Wadi Fukin. FoEME organizers and residents of both communities have therefore lobbied for flows to be eliminated from this pipe.

Assessing the peacebuilding impact of this local level environmental cooperation project is not as straightforward a process as for instance a strictly economic development project. Nevertheless, certain indicators, as gathered from resident interviews and other sources, are used in this case study to show the peacebuilding impact of this project. The number of joint meetings held, new friends made, and changes in perception of the other side, along with the effective building of joint institutions that display local ownership over the process, all provide examples of the project's influence. Because Wadi Fukin and Tzur Hadassah's efforts to protect the springs are rooted in the development of a shared understanding of the hydrology of their small local area, and have had a variety of peacebuilding impacts, or peace dividends, this project provides a good case study of the use of transboundary environmental cooperation at the local level to build peace.

2. The Wadi Fukin/ Tzur Hadassah Communities

2.1 Youth Programs

The project began in both communities with youth activities. Community organizers in both communities initiated environmental education programs as part of the Water Trustees program, which encourages awareness of water issues. Schools began with water conservation measures that included capturing rainwater and using it on school grounds. In Wadi Fukin, the organizer worked with school children to plant a garden with native plants important for cultural and traditional uses.

There were also joint youth trips and a shared summer camp. One Palestinian participant described the positive experience of meeting Israeli children and traveling in Israel. The places he visited within Israel were "wonderful" and although he reports he hasn't stayed in touch with the Israelis, he says that he would like to continue talking to them.

2.2 Activism

The next stage of projects was initiated at the watershed, or regional, level as a response to several threats to the health of the springs and village. In 2002, plans for building on Hill B of Beitar Illit were announced. Building of the Separation Barrier also began along the Green Line after numerous attacks on Israeli civilians during the al-Aqsa Intefada.

By 2003, planners had decided to build essentially a double barrier for the region south of Jerusalem. One fence was planned to run between Tzur Hadassah and Wadi Fukin, with another much larger fence route planned to surround the entire area of Gush Etzion / West Bethlehem. Development of the barrier in the Wadi Fukin watershed was seen by residents of both communities as a threat to their joint effort to resolve issues peacefully and build relations.

In the summer of 2005, FoEME arranged a number of meetings with top Israeli officials to address the environmental impacts of proposed development around Wadi Fukin. On June 19th, 2005 FoEME organized a joint tour for Tzur Hadassah and Wadi Fukin residents of the Barrier's route between their communities. Subsequently, Tzur Hadassah residents organized a petition drive opposing development of this section of the barrier, or proposed at a minimum moving its route to the Green Line.

Beginning in the December of the same year, on increasingly regular occasions, an overflow sewage outlet from Beitar Illit began pouring sewage onto the wheat field of Ataf Sucar, a resident of Wadi Fukin. Following complaints from individuals in the village, an official from Beitar Illit responded that its pipe system was oversized and until growth caught up with this infrastructure, sewage overflows would continue to be a problem.

As a result of the pollution, Mr. Sucar didn't harvest wheat



from that field. He worked with activists from Tzur Hadassah, however, to lodge a complaint with Beitar Illit, and since mid 2006 the number of overflows has been reduced significantly. It is not surprising then that he reports “to an extent the project impacts our impression of Israelis, some of whom we see as good.” He still views the residents of Beitar Illit negatively, however.

Two new neighborhoods that would be located within the watershed have been approved in the most recent Tzur Hadassah town plan. Their development has been opposed, however, by community activists in Tzur Hadassah. In coordination with the FoEME organizer, the activists arranged meetings with the Israeli Minister of Housing to stop the new neighborhood development. Due to community insistence, the Housing Ministry has appointed a group of architects to work with Tzur Hadassah to develop an alternative plan for the town, based on an Israeli law requiring community involvement. So far, neither neighborhood has been built, although this could also be partially due to their location next to the planned route of the Separation Barrier.

In 2006 FoEME and Tzur Hadassah activists worked to develop a joint plan for working with Wadi Fukin, and develop municipal level connections between the two communities. The FoEME organizer prepared a coalition document with other NGOs active in the Wadi Fukin watershed including the NGO Worldvision, and its local counterpart Futurevision. Tzur Hadassah residents have also participated in joint demonstrations with Wadi Fukin villagers opposing confiscation of their land for various purposes by Israel.

2.3 Economic Development and Tourism

FoEME has worked to develop economic opportunities in Wadi Fukin based on tourism, the agricultural identity of the village, and the surrounding natural and archeological attractions. FoEME's organizer made economic development a focus as he felt it would provide Wadi Fukin immediate benefits from cooperation.

The first economic development effort was to team up with Chefs for Peace, an NGO that seeks to use the culinary arts as a strategy to facilitate coexistence between Israelis and Palestinians. The project was aimed at developing home restaurants in both communities. FoEME organized the initial meetings between individuals from Chefs for Peace and Wadi Fukin residents. Unfortunately, because some women participants from Wadi Fukin were identified on a web page describing their efforts, they subsequently quit out of concern that they would be recognized as participants in a “normalization” project.

Another economic project that has been more successful is the planning and building of a Neighbor's Path linking Tzur Hadassah and Wadi Fukin. Ideologically, the trail is the opposite of the Separation Barrier- rather than dividing, when completed it will unite the two communities. The route for the trail begins outside Tzur Hadassah at the archeological site of Khirbet Geres, continues to the nature reserve of Sansan Mountain, and finishes outside the village of Wadi Fukin.

On the Wadi Fukin side the trail begins beside the main spring in the middle of the village, before meandering through the village and its terraced agricultural fields. The otherwise bucolic scene is marred, though, by the large earthworks of the settlement expansion on the adjacent hillside. Although the trails do not meet, the local schools from each community have walked along the trail, family days have been held for local residents, and groups of 30 to 50 people at a time have come to visit the trail from urban centers all over the region.

Another successful economic development project grew out of discussions for the Chefs for Peace project. Tzur Hadassah activists who had a personal relationship with a farmer in Wadi Fukin initiated a Community Supported Agriculture (CSA) style project in which produce from the village is boxed and distributed to residents of Tzur Hadassah on a weekly basis. Residents of Tzur Hadassah visit the village to assist with packing the boxes. These times are seen as highlights by participants, as children from both communities are present, and there is a shared sense of comradery and purpose. Traditional Palestinian food has on occasion been served as a sign of hospitality, which is appreciated by their Israeli neighbors. Pre-existing relationships have been strengthened, and new ones formed. The CSA project is jointly planned and operated by participants from the two communities. It is seen as very successful by participants from both communities, and operated throughout the summer of 2006.

2.4 Legal Challenges

Another response to the threats facing Wadi Fukin has been mounting legal challenges to planned development. A total of three lawyers have worked with the village. As one resident said, this is because they're a small village, and can't deal with these issues alone.

Wadi Fukin initially hired well known Palestinian lawyer Osama Halabi to file legal objections in the Israeli Supreme Court (Bagatz) to the planned Barrier and Beitar Illit Hill B development. Israeli attorney Shlomo Lecker has also filed cases on behalf of Wadi Fukin residents. Michal Sfrad, hired by FoEME, also filed an

appeal with the Civil Administration against development of the stretch of barrier between Tzur Hadassah and Wadi Fukin.

There is another lawsuit filed by Durit Nasser against the entire route of the Gush Etzion barrier. The main point of this particular suit is that Palestinian residents of the five West Bethlehem villages, Hussan, Nahallin, Wallajah, Battir, and Wadi Fukin, will be separated from Bethlehem, which is their mercaz ha-chaim (center of life in Hebrew). This lawsuit came out of meetings Wadi Fukin held with the other villages to coordinate strategy. Residents from Tzur Hadassah have supported these legal challenges, and have also hired other lawyers to stop planned development.

Despite legal challenges, construction began on Hill B of Beitar Illit in 2004. Construction has involved explosions, removing soil, and building earthworks that extend right up to a road in the village. During consideration of the appeal filed by Michal Sfrad, however, the Civil Administration's planning for development of this stretch of the Barrier has stopped.

2.5 International Aid

There have been several projects in Wadi Fukin as a result of international aid. As part of the implementation of the Wye River Agreement between Israelis and Palestinians, the United States gave a grant to FoEME to initiate the Good Water Neighbors project. The grant came from the Public Affairs Section of the United States Embassy through the Wye River People-to-People Exchange Program. The European Union then also provided funding support through the SMAP program. Many other funders now also support the GWN project.

The residents of Wadi Fukin, like the majority of Palestinians, are not connected to a sewerage network⁴. The US State Department, Cultural Exchange Bureau, at the request of FoEME, sent a team from the University of Texas, El Paso to the village to help develop a sewage infrastructure plan. The Palestinian Wastewater Engineers Group has also worked on this project.

Other countries have been involved generally in the Bethlehem region. Australia and Canada donate heavily to the NGO Worldvision. Norway has sent engineers to prepare plans for other villages near Bethlehem including Obaydiyah and Tekoa, and Japan has also funded various projects in the area.

2.6 Media Coverage

FoEME has successfully gotten several media stories to focus on the plight of Wadi Fukin, and the activities of the cooperative project. There have been articles in the Israeli newspaper Haaretz, for instance⁵. PBS Frontline did a web story on the village⁶. A Science article discussed the benefit to the peace process of scientific cooperation, and used the Wadi Fukin project as an example⁷. There has also been coverage on Israeli television of the potential impact of Israeli development on the village. TV coverage also reported on a joint tree planting along the Green Line between the communities in honor of the Jewish holiday of Tu B'shevat.

2.7 Environmental Studies

In 2006, two scientific reports by residents of Tzur Hadassah documented the threats to Wadi Fukin. These studies have raised the visibility of the issues in Wadi Fukin, and validated the importance of protecting the valley. PhD hydrologists from Hebrew University prepared the hydrology report on the Wadi Fukin watershed, focusing on the impact of proposed development. An employee of the Society for the Protection of Nature in Israel prepared that NGO's first transboundary landscape survey on the Wadi Fukin watershed, rating the current natural condition very highly. The Palestinian Wildlife Society was also involved in preparing a complementary biological report, which hasn't yet been published. In the summer of 2006, another Israeli NGO, Bimkom (Israeli Planners for Human Rights), began preparing a report on planning issues in Wadi Fukin. All these NGOs were brought in at the invitation of FoEME.

2.8 Joint, Watershed Based Land Use Planning

FoEME began to focus on developing a joint land use plan during the summer of 2005. The planning process developed primarily in response to the variety of pressing land use threats to the Wadi Fukin watershed. The goal of the planning process was to address the multiple threats in one step, and began with an enumeration of the threats to the village. The experiences of the nearby Palestinian village of Wallajah, which had also begun

⁴ Only 25% of Palestinian households are connected to sewage networks according to United Nations Conference on Trade and Development 2001.

⁵ Rinat, Zafir. 2006. "Construction plans clog Palestinian village's water" Haaretz website, January 16, http://www.foeme.org/docs/Wadi_Fuqin_15_1_06_english.pdf.

⁶ Schiller, Jakob. 2006. "Portrait of a Palestinian Town" Frontline World Online. From PBS website, http://www.pbs.org/frontlineworld/stories/palestine503/dispatch_jakob.html.

⁷ Bohannon, John. 2006. "Bridging the Divide in the Holy Land." Science 312(April) : 352-356.

to prepare its own Master Plan, were also studied.

The Society for the Protection of Nature in Israel, Jerusalem chapter (SPNI) began a collaborative planning process in 2005 loosely modeled on a process they had led for the Gazelle Valley in Israeli West Jerusalem⁸. The planner encountered challenges in traveling to Wadi Fukin, which she described as “like another country,” even though it’s less than ten miles away from Jerusalem. As a result, all contact with the village went through the Israeli FoEME organizer, who had pre-existing relationships and was more comfortable visiting Wadi Fukin.

SPNI’s involvement resulted in an evening workshop on the issues of Wadi Fukin held at SPNI headquarters in Jerusalem. Tzur Hadassah and Wadi Fukin residents, FoEME representatives, and Israeli government officials were all invited. Although Wadi Fukin residents had a hard time attending the meeting due to travel restrictions, a few residents who were particularly active in the project did make it. The Tzur Hadassah scientists that had prepared the hydrological and landscape analyses presented their findings at the meeting, and Wadi Fukin residents also spoke about the challenges their village faces.

Beginning in the summer of 2006, another Israeli architect volunteered to work on the preparation of a master plan for the watershed largely based on the results of the hydrological and landscape surveys, and the identified threats. The goals of her plan were preventing more damage to the village, maximizing the infiltration of water to the aquifer, including from the proposed Road #374, and redesigning this road so it would not come into the village. She also depended on the Israeli and Palestinian FoEME organizers to engage with the community of Wadi Fukin, and planned on doing the necessary community involvement through FoEME. A draft master plan has subsequently been completed and is now the basis for discussion on future development in both communities and with the authorities.

3. Government and Community Positions

FoEME has been careful to cultivate the support of local government officials. The Governor of the Bethlehem region Zuhar Manasreh has given his support to the project. The head of the Wadi Fukin village council and a member and local resident of the Tzur Hadassah regional council have both expressed support for the project and have met regularly. The mayor of the regional council where Tzur Hadassah is located and the head of the village council have only met one time, however, and in general, cooperation hasn’t yet reached the high political level.

3.1 Opposition

Several residents of the village, NGO employees, and Palestinian Authority officials stated that while there is significant support for cooperative activities, there is also a vocal opposition. Several Palestinians stated that the opposition stems from a difficulty of Palestinians to work with Israelis in a normal way when the situation itself is not normal.

Opposition to cooperative projects has manifested itself in several ways. Some Palestinian and Jordanian FoEME organizers have felt the need to keep their employment relatively hidden out of fear for their safety. As an example of the risk, shots have been fired at the FoEME office in Amman. Organizers relate that they can’t always organize openly around cooperative projects because of opposition to normalization. Israeli authorities also play a role in impeding participation in collaborative projects due to the prohibition on travel to Palestinian Authority Areas A and B, and on at least one occasion the Israeli army has disrupted meetings between Tzur Hadassah and Wadi Fukin residents in the village.

Some Wadi Fukin residents also doubt the sincerity of Tzur Hadassah’s efforts. One resident believed that Tzur Hadassah was being friendly out of an interest in Wadi Fukin’s water. A village elder stated that Israel had even already been tapping into the water in the valley, and as proof said that water flows in one of the springs had reduced in recent years.

While there was a diversity of opinion within Wadi Fukin regarding cooperating with Tzur Hadassah, there was a uniform opposition among Palestinian interviewees to formally cooperating with Beitar Illit. This is despite the fact that many residents of Wadi Fukin have worked there in construction and other fields. Governor Manasreh, for example, stated his support of cooperation with Tzur Hadassah, but not with Beitar Illit, because it is “a settlement.” He is willing to talk to Beitar Illit about taking away its sewage waste, but not about its legality.

⁸ Information on the Gazelle Valley process is in Efron, Raz and Yael Hammerman. 2005. Toknit av l'emek ha'tsvaim (Plan for Gazelle Valley). Jerusalem: Society for the Protection of Nature in Israel (in Hebrew).

FoEME has a general policy of not working with the Civil Administration or settlers, but has arranged meetings with representatives of the Civil Administration who have control over development near Wadi Fukin. These meetings have included an engineer from Beitar Illit, and the main planner for the Separation Barrier route, Danny Tirza.

3.2 Defending Cooperation

Despite the difficulties and differing opinions, relationships have developed between residents of the two communities through the aegis of the project. The desire to build relationships is supported by slightly differing personal motivations on both sides. Tzur Hadassah residents, for example, reported being motivated by an interest in human rights. Dudi Yehuda Tzfati, one of the Israeli organizers stated, "I didn't want to feel that I witnessed what was going on and didn't do anything about it. I feel responsible as an Israeli for what I see as crimes being done in my name."⁹ This matches other studies that have shown this as a primary concern of Israelis in relations with their Palestinian neighbors¹⁰.

Memories of the earlier destruction of the village in the 1950s, which was precipitated by ongoing hostilities between Palestinians and Israelis across the border, guides some residents towards cooperation today. One Wadi Fukin resident described his father's efforts to encourage neighborly relationships at that time. Israelis had come to the village in 1948 to try to establish peaceful relations between them and the neighboring border village of Wadi Fukin, and the father had encouraged residents to accept their entreaties. The residents were ultimately allowed to return following the 1967 war, and are the only Palestinian village allowed to return in this fashion. This resident concluded by saying that now the Israelis have come again seeking peace, and "we shouldn't reject them a second time."

Wadi Fukin participants also reported that they partner with Israelis to magnify their strength, but at the same time they keep a low profile. Despite the fact that all activities are seemingly approved by officials from the Palestinian Authority (as reported in interviews), there are still individuals and groups that oppose any normalization before, as they see it, there is an end to occupation.

A Palestinian FoEME organizer related that overall, because of the sensitivity of cooperative projects and the Intifada, Palestinians are often quiet about their relationships with Israelis. She continued that joint projects need publicity, but only at the right moments. People are finding new ways to cooperate despite the conflict situation. Each group that is active in cooperation has a different solution. Cooperative projects raise awareness that the settlements, wall, and checkpoints are not normal, and have definite negative impacts to the Palestinian population. This will lead to an end of occupation, she states, which is the goal also of those who oppose cooperative, so called "normalization" projects.

4. Assessing The Peace Dividend

Peace dividends resulting from environmentally based, conflict resolution programs are by nature difficult items to measure. They can be conceptualized as an increase in goodwill and mental shifts in opinions of the neighboring community. They are also the benefits of the project which serve as positive interventions in the complex reality of a conflict situation. As shown in the broad range of interviews with experts, participants, and government officials, the project has had these impacts. The two communities have developed a certain amount of trust in each other, as reflected in joint legal and activist opposition to large infrastructure projects such as the Separation Barrier and Road #374, as well as opposition to neighborhood expansion in Tzur Hadassah and Beitar Illit. The project has also garnered the support of local government officials.

Based on interviews, adult participants from both sides are very aware that their activities are ultimately aimed at building and improving relationships, with the ultimate goal of peace. Community organizers for FoEME also believe that the project "helps to create conditions for peace." In an article by the NGO Worldvision, Palestinian farmer and resident Abu Ibrahim states that "for him, this is a good example of co-existence and peace between the two peoples." He hopes that one day all Palestinians and Israelis will, "be able to live side by side in harmony and peace as good neighbors."¹¹

⁹ Schiller, Jakob. 2006. "Portrait of a Palestinian Town" Frontline World Online.

¹⁰ Feitelson, Eran. 2002. "Implications of shifts in the Israeli water discourse for Israeli-Palestinian negotiations." *Political Geography* 21:293-318.

¹¹ Razzouk, Wadi. 2005. "Jerusalem-West Bank-Gaza: Palestinian farmer advocates peace, despite demolition threat to his land." World Vision Reliefweb website, May 2, <http://www.reliefweb.int/rw/RWB.NSF/db900SID/RM01-6C35A5?OpenDocument&rc=3&emid=ACOS-635PFR>

There have been several quality of life benefits resulting from the project. Sewage flows from Beitar Illit have been reduced. The CSA project has brought tangible economic benefits to Palestinians, and high quality food for residents of Tzur Hadassah. The neighbor's path tours promise to do the same. Based on relationships developed in the project, Tzur Hadassah residents have worked on behalf of Wadi Fukin residents for various favors. One has worked to help a Palestinian colleague get a travel permit based on their shared professional work on the environment, while another has tried to secure travel permits for a resident to visit relatives in Jerusalem.

Cooperation has brought in extensive professional analysis of conditions in the Wadi Fukin watershed by respected Israelis, Palestinians and internationals. These environmental studies have propelled the effort to move beyond a reactive approach to threats to a more proactive, planning based approach. The hydrology study in particular has added to the unpopularity of the adjacent section of the Separation Barrier by the Army. Construction of the Barrier in the area has as a result so far been delayed.

While the final impact of the communities' activism and joint planning on Israel's infrastructure decisions is still unknown, the project has led to community partnerships and cooperative ventures that have in turn created relationships between individuals. Shared activities, such as the youth summer camp, joint actions and tours, have engaged larger segments of the community.

The CSA project, which largely came out of a personal initiative between Israeli and Palestinian participants in the FoEME project, shows that the communities have developed local ownership over the process. Further, as producing food depends on preserving spring flows and access to agricultural land, the CSA project has also created a common economic interest.

The joint project has produced studies, facilitated collaborative meetings, and ultimately worked to develop economic opportunities and produce a land use plan best suited for the region's resources. Thus functional cooperation and frequent interactions have fostered interdependencies and multiple transformative opportunities.

There are several aspects of the spring fed water supply in Wadi Fukin that have the potential to lead to violent conflict¹². There is a high level of dependence on a common property resource that is difficult to replace and at risk. The continued health of Wadi Fukin's springs is also highly dependent on Israel, a militarily powerful upstream riparian, to act appropriately in managing the watershed. There has been a relatively rapid division of management authority in the newly internationalized basin¹³. Finally, the basin is located in a marginal climate with highly variable hydrologic conditions. That violence has not broken out supports the argument that the project has played a role as a social reconciliation intervention. These gains could be risked however, without success in blocking the multiple large infrastructure projects planned for the valley.

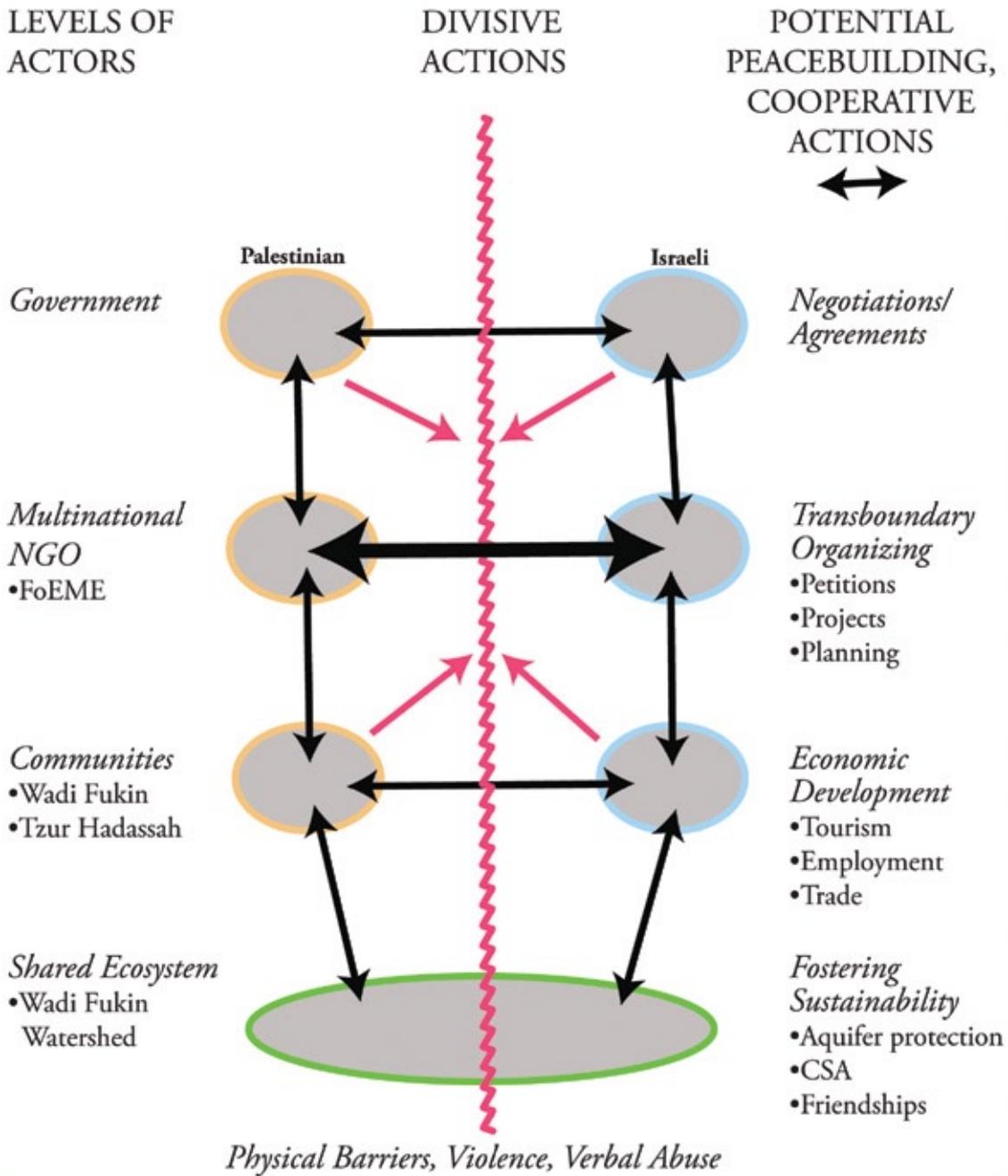
During a period of decreased bi-national cooperation and increased hostility, the transboundary NGO EcoPeace / Friends of the Earth Middle East has been a crucial intermediary and convener for environmental cooperation. While there is potential for cooperation on the government, NGO, and local level, due to the conflict situation, connections at the national and local level have become more difficult. The FoEME project has therefore managed to bring together local communities around common water issues during a period when in general there has been little contact between the two sides.

FoEME has used the connecting power of the environment to help two communities, which are increasingly divided physically and mentally, come together. Undoubtedly, with the threat of the construction of a physical Separation Barrier, and other new Israeli housing and infrastructure development, NGO level contacts that address these divisive actions will continue to be important in the continued maintenance of peaceful relations between Tzur Hadassah and Wadi Fukin.

¹² Gleick, Peter H. 1992. "Water and Conflict." Occasional Paper Series of the Project on Environmental Change and Acute Conflict. University of Toronto and the American Academy of Arts and Sciences (Number 1, September).

¹³ Wolf, Aaron T., Kerstin Stahl and Marcia F. Macomber. 2003. Conflict and Cooperation within International River Basins: The Importance of Institutional Capacity. Transboundary Freshwater Dispute Database at Oregon State University website, http://www.transboundarywaters.orst.edu/publications/Wolf_2003.pdf.

FoEME BUILDS CONNECTIONS ACROSS BOUNDARIES OF DIVISIVE ACTIONS





Mayors "Big Jump" into the Yarmouk River, July 2007

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 so doing, FoEME seeks to advance sustainable development and sustainable peace. FoEME has offices in Amman, Bethlehem, and Tel Aviv.

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