

The Environment and the Middle East



New Approaches and New Actors

Volume II

Middle East Institute Viewpoints

April 2011

© Middle East Institute 2011. All rights reserved. Distribution of this work is permitted for non-commercial use, unmodified, with attribution to the Middle East Institute.

The Middle East Institute does not take positions on Middle East policy; the views expressed in this publication are those of the author(s) alone and do not necessarily reflect the views of the Institute, its employees, or its trustees.

Cover photos, from left to right: Flickr user World Bank Photo Collection, Wikimedia user Heimobich, Flickr user Sparkjet

For more publications from the Middle East Institute:
<http://mei.edu/Publications/WebPublications.aspx>

The Middle East Institute
1761 N St. NW
Washington, DC 20036

Tel: 202-785-1141
Fax: 202-881-8861

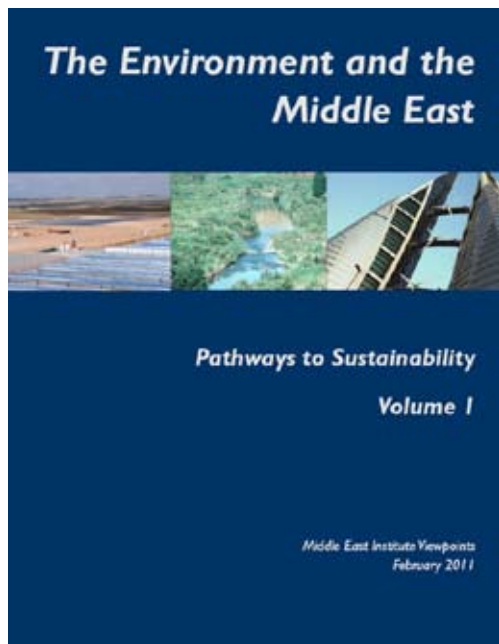
www.mei.edu



The mission of the Middle East Institute is to promote knowledge of the Middle East in America and strengthen understanding of the United States by the people and governments of the region.

For more than 60 years, MEI has dealt with the momentous events in the Middle East — from the birth of the state of Israel to the invasion of Iraq. Today, MEI is a foremost authority on contemporary Middle East issues. It provides a vital forum for honest and open debate that attracts politicians, scholars, government officials, and policy experts from the US, Asia, Europe, and the Middle East. MEI enjoys wide access to political and business leaders in countries throughout the region. Along with information exchanges, facilities for research, objective analysis, and thoughtful commentary, MEI's programs and publications help counter simplistic notions about the Middle East and America. We are at the forefront of private sector public diplomacy. *Viewpoints* are another MEI service to audiences interested in learning more about the complexities of issues affecting the Middle East and US relations with the region. The views expressed in these *Viewpoints* are those of the authors; the Middle East Institute does not take positions on Middle East policy.

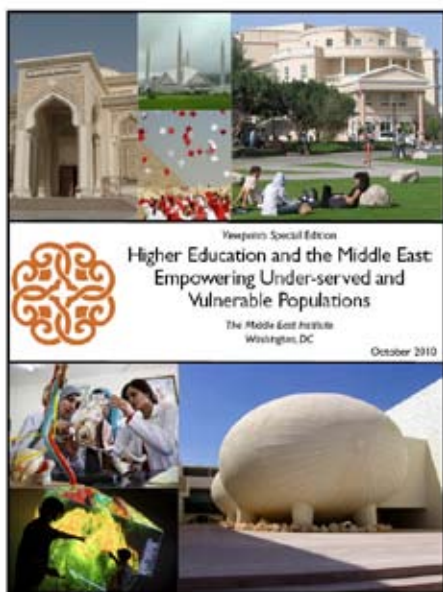
Recent Viewpoints



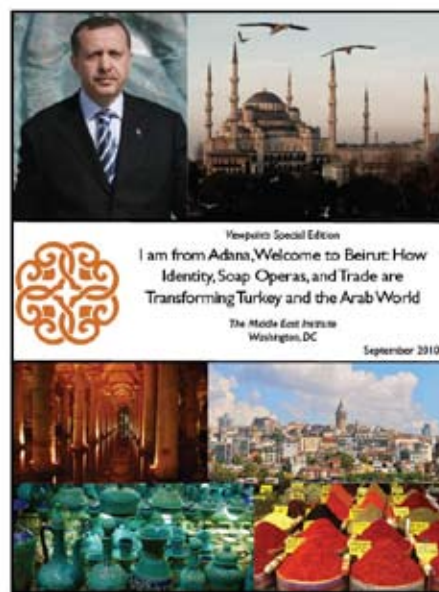
February 2011
The Environment and the Middle East: Pathways to Sustainability



December 2010
Higher Education and the Middle East: Building Institutional Partnerships



October 2010
Higher Education and the Middle East: Empowering Under-served and Vulnerable Populations



September 2010
I am from Adana, Welcome to Beirut

Click on the images to view these editions online!



Table of Contents

About the Authors	6
Introduction	8
The Role of NGOs in Tackling Environmental Issues, <i>Razan Al Mubarak and Tanzeed Alam</i>	9
Transboundary Conservation and Peacebuilding, <i>Saleem H. Ali</i>	14
Environmental Peacebuilding in the Eastern Mediterranean, <i>Stuart Schoenfeld</i>	18
Arava Institute for Environmental Studies: Teaching Environment as a Bridge to Peace and Understanding in the Middle East, <i>Sharón Benheim</i>	23
Local Initiatives Prepare the Ground for Sustainable Development in the Middle East: Preliminary Lessons from Egypt, <i>Domenica Preysing</i>	28

About the Authors



Tanzeed Alam is the Policy Director for EWS-WWF. Previously, Tanzeed worked with Climate Change and Sustainability, the Royal Society in London (the UK's independent national academy of sciences), CarbonSense (an independent think tank) and Asociacion ANAI (a Costa Rican NGO). Tanzeed holds an MSc in Conservation from University College London and a BSc in Zoology from the University of Edinburgh.

*Saleem H. Ali (<http://www.uvm.edu/~shali/>) is Professor of Environmental Studies at the University of Vermont and the director of The Institute for Environmental Diplomacy and Security (<http://www.uvm.edu/ieds/>). His books include *Treasures of the Earth: Need, Greed and a Sustainable Future*; *Islam and Education: Conflict and Conformity in Pakistan's Madrassas*; and the edited volume *Peace Parks: Conservation and Conflict Resolution*. He was chosen by the National Geographic Society as an "Emerging Explorer" in 2010 and by the World Economic Forum as a Young Global Leader in 2011. He received his doctorate in environmental planning from MIT, a Master's degree in environmental studies from Yale and an BSc in Chemistry from Tufts University. You can follow him on Twitter: @saleem_ali.*



Razan Al Mubarak has been with Emirates Wildlife Society - World Wildlife Fund for Nature (EWS-WWF) since its inception in 2001, establishing the local EWS office and its partnership with WWF, and is currently its Managing Director. In 2011, she also took up the position as Secretary-General of the Environment Agency — Abu Dhabi. Razan holds a MSc in Public Understanding of Environmental Change from the University College London and a BA in Environmental Studies and International Relations from Tufts University. Razan is a board advisor to the Abu Dhabi Music and Arts Foundation, a board member to the African Wildlife Foundation, the managing director of the Mohamed Bin Zayed Species Conservation Fund, and advisory council member for TAWTEEN — a federal initiative that aims to promote the employment of UAE citizens in the private sector.

Sharón Benheim (MA in Public Policy: Mediation and Conflict Resolution) currently serves as Director of the Arava Institute's Alumni Projects, including the Arava Alumni Peace and Environmental Network (AAPEN).



The views expressed in these Viewpoints are those of the authors; the Middle East Institute does not take positions on Middle East policy.

About the Authors (cont.)



Prior to joining the Global Public Policy Institute in Berlin as Research Associate, Domenica Preysing spent several years in Egypt working as a researcher and consultant on local development.

Stuart Schoenfeld is Associate Professor and Chair of the department of sociology, Glendon College - York University (Toronto). He works on the sociologies of environment and religion, with continuing interests in transnational networks in both areas and in the potential for the emergence of cosmopolitan identities and empathy. With Itay Greenspan, he moderates the blog "Environment and Climate in the Middle East."





Introduction

The tumultuous political changes taking place across the region dominate the news — deservedly so. Yet, there are other changes taking place throughout the Middle East which, though less prominent, also merit attention. Indeed, the region has no shortage of creative and committed “change agents” who in ways great and small have taken meaningful steps to address the myriad challenges to the sustainability of the region’s physical environment. Volume II in this series offers snapshots of a small selection of the many efforts aimed at cultivating responsible environmental stewardship.

The Role of NGOs in Tackling Environmental Issues

Razan Al Mubarak and Tanzeed Alam

This article outlines the important role that can be played by non-governmental organizations (NGOs) in helping to tackle environmental issues in the Middle East. Using the work of the Emirates Wildlife Society in association with the World Wildlife Fund for Nature (EWS-WWF) as an example, the article explores the challenges facing NGOs in the United Arab Emirates (UAE) and recommends ways in which these obstacles can be overcome.

Many countries in the region are facing the profound environmental, social, and economic impacts of rapid population growth, development, and natural resource constraints. Having a strong NGO community with a clear mandate to engage civil society, businesses, and the public sector can help countries to tackle these issues more successfully. However, NGOs face many barriers in pursuing their missions, such as a lack of understanding about their role in civil society and public perception that the government alone is responsible for the well-being of its citizens and residents.

Environmental NGOs can play a crucial role in helping to plug gaps by conducting research to facilitate policy development, building institutional capacity, and facilitating independent dialogue with civil society to help people live more sustainable lifestyles. While some of the barriers are beginning to be lifted, there are still many areas which require further reform and support in order to assist NGOs, such as EWS-WWF, to conduct their work. These areas include: the need for a legal framework to recognize NGOs and enable them to access more diverse funding sources; high-level support/endorsement from local figureheads; and engaging NGOs in policy development and implementation.

NATURAL RESOURCE CONSTRAINTS ARE LEADING TO ENVIRONMENTAL, SOCIAL, AND ECONOMIC IMPACTS

The Living Planet Report 2010 (LPR) outlined that the UAE, Qatar, and Kuwait were three of the top ten ranked countries in the world in terms of their Ecological Footprint per capita.¹ This means that if every person in the world lived and consumed natural resources such as food, fiber, energy, and timber at the same rate as an average resident from the United Arab Emirates or Qatar,² then you would need six planet earths to sustain that level of consumption, which is four times the world average. This is clearly unsustainable.

There are many reasons for this:

- The Gulf states are experiencing rapid growth and development, which is resource intensive, especially as desert conditions lead to higher than average consumption of energy to cool buildings and desalinate

1. WWF, ZSL, GFN (2010) *Living Planet Report 2010*, http://wwf.panda.org/about_our_earth/all_publications/living_planet_report/
2. Saudi Arabia and Oman also feature in the top 30.

water.

- Due to a lack of resources (apart from hydrocarbons), Gulf states also need to access resources from outside their own borders.
- Low levels of public awareness on how to maintain more sustainable lifestyles.

Having such high natural resource consumption patterns has profound environmental, social, and economic impacts. Countries in the Middle East could face temperature rises of over 3°C by the end of the century, a changing climate, and associated repercussions on water resources, food, coastal cities, infrastructure, human health, and wildlife.³ The UAE's commercial fish stocks declined by 80% from 1978–2002 due to overfishing.⁴ Many countries in the region are also facing a situation where demand for power and water is beginning to exceed supply. Left unchecked, climate change, collapsing fisheries, and power shortages will not only affect economic growth and development, but also threaten social stability, business viability, and the well-being of society.

Countries in the Middle East could face temperature rises of over 3°C by the end of the century, a changing climate, and associated repercussions on water resources, food, coastal cities, infrastructure, human health, and wildlife.

THERE IS A NEED FOR NGO ACTORS

While governments and businesses are beginning to take action on some of these issues, there are many gaps. The government's role in these countries is changing from “Do it all, nearly everything” organizations, to more streamlined and regulation-focused institutions. Hence, they need partners to help implement policies and participate in the development of the country. In the UAE, there has been increased recognition by the government of the need for additional actors/partners. Indeed, it was actually at the request of the government that the WWF was asked to open an office in the UAE in 2001.

There is now also an increasing interest within civil society in environmental issues. This interest is leading to a need for more independent research, communication, and grassroots outreach. NGOs can play a very significant role in leading and promoting such initiatives. Moreover, the ability of NGOs to provide an independent view is crucial to building trust in the issues/causes and help enact behavioral/cultural change in communities.

Given this context, EWS-WWF has been active in the UAE in three key areas:

PROVIDING INDEPENDENT SCIENCE-BASED POLICY ADVICE

EWS-WWF's policy unit has been conducting independent scientific analysis to inform policy making. Through the

3. Tolba and Saab, *Arab Environment Climate Change: Impact of Climate Change on Arab Countries*. Arab Forum for Environment and Development (2010), www.afedonline.org.

4. Based on a study conducted by the Environment Agency-Abu Dhabi. Further information available at www.ead.ae.

UAE's Ecological Footprint Initiative, we have been partnering with academic institutions, such as the Masdar Institute, to develop science-based tools to assist policy making.⁵ At the same time, we have been working with the government to ensure the research answers policy-relevant questions. This feedback is crucial to ensure that work is robust, relevant, and useful for policy makers.

The Initiative is now on the government's agenda at both federal and emirate levels and is beginning to facilitate policy changes. We have developed a unique power and water scenario model that assesses the impact of different policies on the UAE's carbon dioxide (CO₂) emissions and per capita footprint up to 2030. Results show that by implementing a portfolio of policies targeting supply and demand of power and water resources, the Emirate of Abu Dhabi could reduce its CO₂ emissions and per capita footprint by up to 40% and 1 global hectare, respectively, by 2030.

BUILDING INSTITUTIONAL CAPACITY

EWS-WWF includes capacity-building activities in all its programs and projects as that is vital for the long-term sustainability of the project. In 2009, we finished a three-year project to map and assess coral reefs in Abu Dhabi and eastern Qatar and developed a management plan for their conservation. By partnering with the government environmental agencies in both countries, we trained a total of 20 UAE and Qatari nationals on coral reef conservation. Now that the project is finished, we left behind two very competent units at the respective agencies to continue with the work.

... the ability of NGOs to provide an independent view is crucial to building trust in the issues/causes and help enact behavioral/cultural change in communities

FACILITATING INDEPENDENT AND OPEN DIALOGUE WITH CIVIL SOCIETY

Facilitating independent and open dialogue with civil society on the environmental implications of growth and development is crucial. In 2009, EWS-WWF in partnership with the Environment Agency — Abu Dhabi, launched an award winning awareness campaign “Heroes of the UAE.”⁶ This campaign aims to raise awareness about the UAE's footprint and inspire society to tackle it by conserving energy and water. This has been complemented by the development of a short animation as well as awareness events and workshops for government departments, businesses, schools, and the general public. In 2010, we also launched a campaign on sustainable fisheries, called “Choose Wisely,”⁷ encouraging consumers to choose species of fish that are not overfished in order to protect fish stocks.

Both campaigns have reached many thousands of people via targeted communications, advertisements, and community outreach events and activities. Furthermore, businesses are also participating, from companies pledging to reduce

5. Further information online at: www.ecologicalfootprint.heroesoftheuae.ae.

6. Further information available at: www.heroesoftheuae.ae.

7. Further information available at: www.choosewisely.ae.

their carbon footprint to supermarkets pledging to label sustainable species of fish.

CHALLENGES FACED BY AN NGO — WHAT MORE IS NEEDED

There is incredible potential for the region to develop in a more environmentally sustainable way. While the above examples demonstrate that NGOs can play a major role in helping to address some of the region's environmental issues, there remain a number of challenges.

The first is that the role of the NGO is not well understood and recognized. NGOs, whose mandate is to contribute to causes such as environment, art, and education are misunderstood because they are seen as lobbyists against governments or even competitors.

... the role of the NGO is not well understood and recognized ... because they are seen as lobbyists against governments or even competitors.

The second challenge is a somewhat popular view in the region that NGOs are not needed because the government is seen as solely responsible for the welfare of its citizens and residents. This is exacerbated by a lack of faith in the ability of non-governmental actors to drive change in our countries — *if governments with all their strengths and funding aren't doing their job then how can an NGO do it?* This perception is exemplified by the fact that there is no legal framework for NGOs to establish themselves in the region, which significantly hinders their work.

The following actions would help to lift these barriers and enable NGOs to fulfil their potential:

- **Ease regulatory and legal burdens by enshrining the definition of NGOs in national law.** Legally recognizing and establishing NGOs would help them to operate more smoothly. A legal mechanism would also help to overcome bureaucratic and administrative hurdles when dealing with different government departments such as when renting office spaces and obtaining necessary permits and papers to connect to utility and telecommunications services. In the UAE, legally allowing NGOs to raise funds from individuals would help to diversify income sources and provide more financial security.
- **Funding — without money, we cannot survive.** Supporting NGOs is crucial to ensure they can maintain relevance and continue to function. This can include philanthropic donation, pro bono skills provision, or more strategic funding for programmatic areas and activities.
- **High-level support and endorsement from local figureheads.** Without senior level commitment from prominent local figureheads in government and/or business, NGOs cannot be as successful in influencing policy, raising awareness, and raising funds. Having good links with trusted people and institutions are crucial foundations upon which NGOs can thrive.
- **Actively engaging NGOs in policy development.** Sometimes NGOs can shed light on complex prob-

lems more quickly than government agencies, due to them being less internally bureaucratic. Moreover, having an independent body investigate a complex problem with key groups (e.g., government, academia, business) can help facilitate data and knowledge exchange and greater collaboration. NGOs can not only provide science-based policy insights for decision-makers, but also assist with implementation.

Further information about EWS-WWF can be found online at: www.ewswf.ae.

Transboundary Conservation and Peacebuilding

Saleem H. Ali

Various Track Two approaches to peacebuilding in the Middle East have been pursued through ecumenical dialogue and educational programs such as The University of the Middle East Project.¹ Yet the direct use of environmental conservation as a mutually agreeable way to approach territorial conflict resolution has thus far not been seriously deliberated. Some “realists” might be dismissive of such a prospect, but the concept of “peace parks” has shown practical promise in resolving territorial disputes. Warring parties can be made to realize quite pragmatically that joint conservation is economically beneficial and also a politically viable exit strategy from a conflict.

The US used such a strategy in the mid-1990s to resolve a decades-old armed conflict between Ecuador and Peru in the Cordillera del Condor region.² The Obama Administration’s deputy envoy to the Middle East, Fred Hof, proposed the Golan “peace park” effort as a means of peacebuilding with Syria in a formal paper written for the US Institute of Peace in 2009.³ In Hof’s plan, water guarantees to Israel (which currently gets 30% of its water from the region) could be exchanged for return of sovereignty to Syria. Syrian-American negotiator Ibrahim Suleiman and former Director-General of Israel’s Foreign Ministry Alon Liel discussed this prospect in 2007 when they met with the Israeli Knesset’s Foreign Relations and Defense Committee to develop a plan to establish a jointly administered peace park between Syria and Israel in the Golan.

THE GOLAN SETTING

The original Druze inhabitants of the region see themselves as distinct from Israelis and Palestinians since their religious group has its own culture and ethnic identity. The Golan Heights has a population of about 38,900, of which 19,300 are Druze, 16,500 are recently settled Jewish immigrants, and about 2,100 are Muslim. The Golan is also an environmentally sensitive region with a cool and moderately wet climate that has allowed fruit orchards to flourish. Underscoring the unique environmental conditions of this area, Israel has allowed Druze farmers to export some 11,000 tons of apples to Syria each year since 2005.

This confluence of interests makes the region an ideal case for implementing a novel dispute resolution strategy known as “environmental peacebuilding.” The strategy involves transforming disputed border areas into transboundary conservation zones with flexible governance arrangements. Such territorial arrangements are increasingly called peace parks.

1. University of the Middle East Project, <http://www.ume.org/home>.

2. C.F. Ponce and F. Gheri, “Cordillera del Condor (Peru-Ecuador),” <http://www.tbpa.net/docs/WPCGovernance/CarlosPonceFernandoGheri.pdf>.

3. Frederic C. Hof, “Mapping Peace between Syria and Israel,” *United States Institute of Peace Special Report* (March 2009), <http://www.usip.org/files/resources/mappingpeace.pdf>.

To some commentators, this term may suggest idealistic or naive notions of conflict resolution, but it is championed even by military officers, such as retired Indian Air Marshal K.C. “Nanda” Cariappa, a former POW who has called for such a strategy to resolve India and Pakistan’s dispute over the Siachen Glacier.

The proposal was initially motivated by Robin Twite’s work at the Israel-Palestine Center for Research and Information during the 1990s. Now the strategic plan for the effort has been laid out in detail and there is momentum to move forward on this solution, which is feasible in the Golan, given the demographics of the region. According to one plan, Syria would be the sovereign in all of the Golan, but Israelis could visit the park freely, without visas. In addition, territory on both sides of the border would be demilitarized along a 4:1 ratio in Israel’s favor.

The Golan Heights has a population of about 38,900, of which 19,300 are Druze, 16,500 are recently settled Jewish immigrants, and about 2,100 are Muslim ... Underscoring the unique environmental conditions of this area, Israel has allowed Druze farmers to export some 11,000 tons of apples to Syria each year since 2005.

TWO-SIDED SKI RESORT? SKIING FOR PEACE?

The spectacular Mount Hermon area could be of particular conservation and recreational importance. Herer Israelis and Syrians could visit without visas, but when exiting this special zone visas would be required. Israel already has a major ski resort on one side and Syria is planning to build a resort on its side of the divide. The summit of Mount Hermon is still under Syrian sovereignty, and including this in the proposed peace territory would give Israelis an incentive to also come to the negotiating table since it would give them friendly access to a unique ecological region. This would be similar to the status of the eastern Sinai under the Israeli-Egyptian peace treaty and also similar to the status of Hong Kong and Macau in China whereby there are separate entrance concessions for these areas as compared to mainland China.

When one examines the *status quo* between Israel and Syria over the Golan Heights, it is clear that neither side is willing, at present, to relinquish its claim to this vital region. Syria has a legitimate claim on the basis of recent history, while Israel has a claim based on the ruins of 29 ancient synagogues and perhaps more consequentially as a security buffer. As argued by Rabbi Michael Cohen of the Arava Institute for Environmental Studies,⁴ “one way to break through this stalemate of legitimacy is to phrase the dynamic in a different way. That is to say, it is not so much that Israel wants to keep the Golan Heights, but that they don’t trust giving the Heights back to Syria.”

This understanding of the dynamic opens up possibilities for a new scenario whereby a third party is involved. In addition to the peace park proposal, it is also possible to set up a Druze Autonomous Area that is neither Israeli nor Syrian

4. <http://www.greenprophet.com/tag/arava-institute/>.

but jointly administered by a commission.

Similar proposals have also been initiated by Friends of the Earth Middle East⁵ along the Jordan River, where there is already a “peace island” that Israelis and Jordanians can visit without visas and where the original peace treaty between the two countries was signed and is currently under deliberations for expansion.

This case is particularly intriguing since, under the treaty, there is an Israeli *kibbutz* which is allowed to grow crops on Jordanian sovereign territory. A Yale University architecture class has already been working on the design of the expanded park in collaboration with neighboring Jordanian and Israeli communities. There is also a marine peace park agreement between Jordan, Israel, and Egypt in the Gulf of Aqaba (which was established as part of the first round of Oslo negotiations). The Golan proposal is geographically much more significant in terms of its joint-management potential and also as a means for instrumental conflict resolution between two states that currently do not recognize each other.

OPPONENTS AND PROPONENTS OF LAND-FOR-PEACE

A conference on the proposed peace park effort, held at Tel Aviv University in January 2010⁶ showed that the fractures are still quite acute. On one hand, there was a speaker from the “settlers association of the Golan” who fervently opposed any land for peace. On the other hand, there was a resident farmer and academic scholar from the Golan Heights, Yigal Kipnis, who expressed a willingness to relocate if peace involved giving land back to Syria in exchange for security and joint environmental monitoring. Academics were also highly polarized in their approach to the issue, with some resurrecting ancient narratives of Judaic habitation in the area and others acknowledging that under international law the territory is definitely “occupied.”

As the Obama Administration considers its legacy in the Middle East, it should give priority to the Golan conflict and creative approaches to conflict resolution. Using the environment in this context is very promising but we must also be cautious and appreciate that conservation has also been used historically as a means of land appropriation.

As the Obama Administration considers its legacy in the Middle East, it should give priority to the Golan conflict and creative approaches to conflict resolution.

Arabs are highly suspicious of conservation efforts in this context, just as Native Americans have been suspicious of the US National Park system, whose establishment often excluded them from their land. Thus, any peace park must be one where access and economic development are concurrent with conservation. At the same time, the resolution of the Golan conflict cannot be considered in isolation from the Palestinian issue for too long. Ultimately, to cement lasting

5. <http://www.greenprophet.com/2009/06/foeme-flies-israel-jordan/>.

6. <http://www.uvm.edu/ieds/node/330>.

peace the Palestinian issue will also need to be resolved. Otherwise, the peace between Israel and Syria might end up being just as cold as the one between Egypt and Israel has become of late.

TREATIES AND REGIONAL MECHANISMS

A means of strengthening environmental cooperation and peacebuilding through international means which have thus far not been used extensively are existing treaties to which countries in this region are signatories. By linking the use of transboundary conservation to conflict resolution through such treaties, we can also provide greater resilience to any agreements.

Table 1 provides a list of some of key environmental treaties and the status of regional signatories to these agreements which could be used constructively towards transboundary conservation initiatives. The countries and territories in the immediate border proximity of Israel are considered for the purposes of this analysis, given the potential for physical transboundary conservation.

Table 1: Regional Signatories to International Environmental Treaties

Entities in Conflict Zone	Convention on Biological Diversity	Convention on Migratory Species	Ramsar Convention on Wetlands
Egypt	Ratified 1994	Ratified 1983	Ratified 1988
Israel	Ratified 1995	Ratified 1983	Ratified 1997
Jordan	Ratified 1993	Ratified 2001	Ratified 1977
Lebanon	Ratified 1994	Non-party	Ratified 1999
Palestine	Meetings attended	Meetings attended	Meetings attended
Syria	Ratified 1996	Ratified 2003	Ratified 1998

In addition to these treaties, regional agreements based on ecosystem conservation that could be expanded to build trust as well include the Programme for the Environment of the Red Sea and Gulf of Aden (PERSGA), which was initiated by the Arab League and the United Nations Environment Programme in 1974 but has thus far not included all countries bordering this ecoregion for political reasons. The United States has tried to facilitate cooperation over the Gulf of Aqaba between Israel and Jordan through the “Red Sea Marine Peace Park” (RSMPP) effort. Continuity and linkage to long-standing conflicts is important for cooperation of such programs even between countries that recognize each other diplomatically. Ultimately, ecology defies political borders and the governments of the Middle East will need to become aware of this natural reality which can ultimately lead to lasting cooperation.

Environmental Peacebuilding in the Eastern Mediterranean

Stuart Schoenfeld

Environmental peacebuilding is both the theory and practice of identifying environmental initiatives that promote a sustainable peace between those who have previously been adversaries, and implementing those initiatives. Environmental peacebuilding combines two elements. First, it draws from the insights of conflict resolution that sustainable peace involves, as well as the cessation of violence, processes of conflict management and mutual cooperation.¹ Second, it draws on the growing awareness of worldwide environmental stress and the growing awareness that effectively responding to environmental stress requires international cooperation — globally and within regions. Responding to shared environmental challenges can be a foundation for sustained mutual cooperation.²

Almost 20 years ago, multilateral and bilateral negotiations put environmental peacebuilding on the Middle Eastern agenda. In the Eastern Mediterranean, environmental peacebuilding involving Israelis, Palestinians, and Jordanians is now primarily sustained by civil society organizations. Recent studies show its importance and potential.

PUTTING ENVIRONMENTAL PEACEBUILDING ON THE AGENDA

In the early 1990s, international negotiations brought together peace, development, and environmental agendas. Regional peace was promoted as a strategy for diverting resources from destruction to development. Within that perspective, environmentally sustainable development was identified as a shared regional concern and opportunity.

After the collapse of the USSR and the first Gulf War, the US worked with its allies to convene the 1991 Madrid conference involving Israel, Syria, Lebanon, Jordan, and the Palestine Liberation Organization (PLO). The Madrid framework included multilateral negotiations in five tracks. Working groups in each track produced proposals that framed issues as regional ones, with solutions to be similarly regional. The refugee and regional security tracks dealt with the high-profile contentious issues — refugees, borders, Jerusalem, recognition by Israel of the legitimacy of Palestinian statehood, and recognition of Israel by surrounding states. The less contentious water, environment, and economic development tracks were opportunities to develop peacebuilding strategies.

I would like to thank Itay Greenspan for comments on an earlier draft.

1. Johan Galtung, “Three Approaches to Peace: Peacekeeping, Peacemaking and Peacebuilding,” *Peace, War and Defence — Essays in Peace Research*, Vol. 2 (1975), pp. 282–304; John Paul Lederach, *Building Peace: Sustainable Reconciliation in Divided Societies* (Washington, DC: US Institute of Peace, 1997); and Boutros Boutros-Ghali, “An Agenda for Peace: Preventive Diplomacy, Peacemaking and Peace-keeping” (1992), <http://www.un.org/Docs/SG/agpeace.html>.

2. Alexander Carius, “Environmental Peacebuilding: Cooperation as an Instrument of Crisis Prevention and Peacebuilding,” *Adelphi Report*, No. 3 (2007), http://ecc.adelphi.de/PDF/Carius_Environmental_Peacemaking_06-07-02.pdf; Silja Halle, ed., *From Conflict to Peacebuilding: The Role of Natural Resources and Environment* (2009), http://www.unep.org/pdf/pcdmb_policy_01.pdf; and Ken Conca and Jennifer Wallace, “Environment and Peacebuilding in War-torn Societies: Lessons from the UN Environment Programme’s Experience with Postconflict Assessment,” *Global Governance*, Vol. 15, No. 4 (2009), pp. 485–505.

Back-channel Palestinian-Israeli negotiations led to the 1993 Oslo Declaration of Principles. The Declaration of Principles envisaged Palestinian-Israeli cooperation in water, energy, and environmental protection and listed possible projects: joint exploitation of the Dead Sea, a canal connecting Gaza to the Dead Sea, desalination and other water development projects, regional agricultural planning (including coordinated efforts around desertification), and regional cooperation on gas, oil, and other energy resources. The subsequent Palestinian-Israeli Interim Agreement developed the details of cooperation in economic development and agriculture and established joint committees on water, electricity, nature reserves, and environment.

The 1994 Jordanian-Israel peace treaty included the goal of “a comprehensive and lasting settlement of all the water problems” between the two states and noted the “great importance” of “matters relating to the environment,” with detailed Annexes on these topics.

The initiatives for regional intergovernmental cooperation and for bilateral Palestinian-Israeli cooperation on environmental issues have languished, as regional politics continue to flounder on unresolved core issues. The Palestinian-Israeli Interim Agreement did not lead to peace, and there have been more Middle East wars and civil strife.

The initiatives for regional intergovernmental cooperation and for bilateral Palestinian-Israeli cooperation on environmental issues have languished ... Nevertheless, the introduction of environmental peacebuilding into the region has had positive consequences.

Nevertheless, the introduction of environmental peacebuilding into the region has had positive consequences. The Jordanian-Israeli negotiations came to a successful conclusion. On the Palestinian-Israeli track, officially sanctioned teams of Palestinian and Israeli water experts produced four shared volumes from 1994 to 1996.³ Expert cooperation went as far as proposing a specific water management structure based not on the political calculations that produced the Interim Agreement but on expert knowledge about how cooperative water management could actually work.⁴ The Palestinian-Israeli Joint Water Committee has continued to meet, with an important but restricted agenda. Many regional experts who established personal relations during the period of formal negotiations on water and environment have maintained contact. Regional civil society organizations have played an important role in sustaining these contacts and the vision of environmental peacebuilding.

3. Eran Feitelson and Marwan Haddad, eds., *Joint Management of Shared Aquifers: The First Workshop* (Jerusalem: The Truman Institute for Advancement of Peace and the Palestine Consultancy Group, 1994); Eran Feitelson and Marwan Haddad, eds., *Joint Management of Shared Aquifers: The Second Workshop* (Jerusalem: The Truman Institute for Advancement of Peace and the Palestine Consultancy Group, 1995); Eran Feitelson and Marwan Haddad, eds., *Joint Management of Shared Aquifers: The Third Workshop* (Jerusalem: The Truman Institute for Advancement of Peace and the Palestine Consultancy Group, 1996); and Eran Feitelson and Marwan Haddad, eds., *Joint Management of Shared Aquifers: Final Report* (Jerusalem: The Truman Institute for Advancement of Peace and the Palestine Consultancy Group, 1996).

4. Eran Feitelson and Marwan Haddad, *Identification of Joint Water Management Structures for Shared Aquifers: A Cooperative Palestinian Israeli Effort*, World Bank Technical Paper, No. 415 (1998).

CIVIL SOCIETY PERSEVERES

Civil society groups brought regional environmentalism into their peacebuilding work, at first in the mid-1990s while the formal negotiations were taking place, and after that sustaining them on their own. With support from the European Union, the United States, and private foundations, some of these groups have persevered for over a decade using a multi-dimensional strategy of environmental peacebuilding.

The Israel-Palestine Center for Research and Information (IPCRI),⁵ which opened under joint Israeli and Palestinian directors during the First Intifada, created a Water and Environment Division in 1994. IPCRI published a book on Palestinian and Israeli perspectives on water, followed by three volumes based on environmental workshops. IPCRI's Water and Environment division took the lead in organizing the 2004 International "Water for Life" Conference held in Turkey. In this ambitious endeavor to foster a regional water community, Palestinian and Israeli co-chairs and a balanced steering committee brought together about 130 participants from the region and 50 international water experts over five days, with two volumes of papers subsequently published.⁶ IPCRI currently participates in the Israeli, German, Jordanian, and Palestinian GLOWA study on the impact of climate change on the Jordan River basin, and has a West Bank demonstration project on ecological, low-cost, low-maintenance sewage treatment.

Friends of the Earth Middle East (FoEME),⁷ founded in 1994 as EcoPeace, a meeting place for environmental NGOs, became an affiliate of Friends of the Earth in 1998. Its three co-directors operate out of offices in Amman, Bethlehem, and Tel-Aviv. FoEME works on a wide range of projects. The Good Water Neighbors project, which began in 2001, works on water education, awareness, and development with Israeli, Palestinian, and Jordanian communities that are mutually dependent on shared water resources. The project uses dependence on shared water sources as a basis for dialogue and cooperation and has been written about as a model of environmental peacebuilding.⁸ FoEME has received several honors and awards for this work.

Other projects deal with particular geographic features (the Jordan River Valley, the Dead Sea, the Gulf of Aqaba / Eilat), water (the Red Sea-Dead Sea Conduit, the mountain aquifer, water privatization), and environmental policy (sustainable development, climate change, trade and environment, solar power, and healthy food). Most projects combine research, policy development, and advocacy. The FoEME

Civil society groups brought regional environmentalism into their peacebuilding work, at first in the mid-1990s while the formal negotiations were taking place, and after that sustaining them on their own.

5. See <http://www.IPCRI.org>.

6. Hillel Shuval and Hassan Dwick, eds., *Water for Life in the Middle East: Proceedings of the 2nd Israeli-Palestinian International Conference on Water for Life in the Middle East* (Berlin: Springer-Verlag, 2007).

7. See <http://www.foeme.org>.

8. N. Harari and J. Roseman, "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," EcoPeace Friends of the Earth Middle East (2008), http://www.foeme.org/index_images/dinamicas/publications/publ93_1.pdf.

website itself is a valuable resource, containing publications, background data on regional accords and initiatives, and links to regional organizations active in environmental work.

In contrast to FoEME's explicit transnational structure, the Arava Institute for Environmental Studies,⁹ which opened in 1996, is an Israeli institution with a regional mandate. The Institute's initial program was university-level undergraduate environmental studies, with a focus on the environmental challenges of the Middle East. For one or two semesters students live and study together on Kibbutz Ketura in a remote part of the Negev desert south of the West Bank and just across the valley from Jordan. In addition to its mix of Israeli, Palestinian, and Jordanian students, about a third have been North Americans studying abroad. Enrollment is capped at 45, and students live in shared quarters for four or eight months. Under these conditions, students are challenged to develop the intellectual skills of understanding others and the emotional skills of empathy. The daily intercultural experience is supported by a weekly peacebuilding seminar.¹⁰ Since it opened, about 600 students have studied at the Institute.

The Institute, in cooperation with Ben Gurion University, has added graduate level studies. It has organized regional conferences on Integrated Water Management and on Water Resources and Infrastructure in Areas of Conflict and Extreme Conditions. The Institute has developed an active research division, with notable projects on dry lands agriculture and solar power, and has ties to a major Jordanian university. The Institute has a vision of fostering "a new generation of sophisticated professionals that will meet the region's environmental challenges with richer and more innovative, peace-building solutions" and consequently takes a strong interest in its alumni. It has supported the formation of the Arava Alumni Peace and Environment Network not only to assist individual alumni but also especially to assist those from different cohorts to develop projects together.

... the Arava Institute for Environmental Studies ... [has hosted a] mix of Israeli, Palestinian, and Jordanian students ... [and] North Americans studying abroad ... Since it opened, about 600 students have studied at the Institute.

People connected to IPCRI, FoEME, and the Arava Institute are also involved in the environmental networks of their respective societies, where they act as advocates of a regional perspective. Professional contacts also continue outside of these organizational settings. A recent book with joint Israeli-Palestinian editors reflects current thinking on how to move to cooperative and sustainable water management.¹¹

Recent policy institute studies¹² argue for the importance of environmental cooperation in the Middle East, and in the

9. See <http://www.Arava.org>.

10. Ilan Alleson and Stuart Schoenfeld, "Environmental Justice and Peacebuilding in the Middle East," *Peace Review*, Vol. 19 (2007), pp. 371–379. Asaf Zohar, Ilan Alleson and Stuart Schoenfeld, "Environmental Peacebuilding Strategies in the Middle East: The Case of the Arava Institute for Environmental Studies," *Peace and Conflict Review*, Vol. 5 (2010), p. 1.

11. Alon Tal and Alfred Abed Rabbo, eds., *Water Wisdom: Preparing the Groundwork for Cooperative and Sustainable Water Management in the Middle East* (New Brunswick, NJ: Rutgers University Press, 2010).

12. Mostafa K. Tolba and Najib W. Saab, *Arab Environment: Future Challenges*, Report of the Arab Forum for Environment and Develop-

Eastern Mediterranean in particular. These studies document how the environmental costs of regional conflicts become human and social costs. They underscore the projected severe impact of climate change and give examples of benefits that could be achieved through regional cooperation. These studies indirectly but powerfully support the work of the civil society groups that persevere in environmental peacebuilding, and they show its importance and potential for regional diplomacy, negotiations, and intergovernmental relations.

ment (2008), <http://www.afedonline.org/afedreport/Full%20English%20Report.pdf>; Mostafa K. Tolba and Najib W. Saab, *The Impact of Climate Change on Arab Countries*, Arab Forum for Environment and Development (2009), <http://www.afedonline.org/afedreport09/Full%20English%20Report.pdf>; Mohamed El-Ashry and Najib Saab, *Water: Sustainable Management of a Scarce Resource*; Arab Forum for Environment And Development (2010), <http://www.afedonline.org/Report2010/pdf/En/introeng.pdf>; Oli Brown and Alec Crawford, *Rising Temperature, Rising Tensions: Climate Change and the Risk of Violent Conflict in the Middle East*, International Institute for Sustainable Development (2009), http://www.iisd.org/pdf/2009/rising_temps_middle_east.pdf; Vicken Cheterian, Otto Simonett, and Raul Daussa, *Environment and Security issues in the Southern Mediterranean Region: Exploring and Mapping the Issues*, MEDSEC (2010), http://www.medsecnet.org/images/stories/medsec_scr_updt.pdf; Mari Luomi, ed., *Managing Blue Gold: New Perspectives on Water Security in the Levantine Middle East*, Finnish Institute of International Affairs (2010), http://www.fiaa.fi/assets/publications/UPI_FIIA_25_Luomi_web.pdf; Strategic Foresight Group, *The Cost of Conflict in the Middle East* (2009); and Strategic Foresight Group, *The Blue Peace: Rethinking Middle East Water* (2011).

Local Initiatives Prepare the Ground for Sustainable Development in the Middle East: Preliminary Lessons from Egypt

Domenica Preysing

Using Egypt as a case study, this essay argues that the pathway to sustainability in the Middle East is to gradually reconcile competing economic development and environmental agendas. However, broader economic and political forces are inimical to setting about such a sustainable development trajectory. An exception to this adverse trend is the existence of innovative local development initiatives, which connect the livelihoods of the poor and marginalized with their physical environment in a productive way. Findings are based on the launching conference and information collected as part of the WinWin Initiative (www.winwininitiative.net), a Middle East and North Africa (MENA) initiative to build a network of local practitioners and researchers who work to improve people's lives and the environment.

Acute environmental challenges increasingly affect people's lives in Egypt: the environmental impact of uncontrolled urban expansion in the Nile Delta, the health threats posed by polluting industries, loss of arable land and declining yields due to desertification and increasing soil salinity, pollution in coastal and maritime areas, and the shrinking of freshwater resources. Many Egyptians no longer take for granted the environment's carrying capacity to support Egypt's current economic development trajectory into the long-term.

The only way out of this impasse in Egypt, as elsewhere in the Middle East, would be a paradigm shift towards treating the environment as an asset, not just a collateral cost of economic development. If policy makers treated the environment as an asset they would take a more balanced approach to trade-offs between competing economic development and environmental agendas and seek out more win-win opportunities where development meets both human and environmental interests.

Yet, such a shift cannot yet be observed. To the contrary, four broader economic, political, and institutional obstacles lie in the way towards sustainability in Egypt.

First, the prevailing economic development paradigm in Egypt favors foreign direct investment-led economic growth at the expense of both local environmental and developmental concerns.¹ A case in point is the government-backed plan by the Canadian consortium EAgrium to build a large fertilizer plant near the Mediterranean port city of Damietta. For fear that pollution from the plant would affect their main sources of income in the area — tourism, real estate, and fishing — a broad public coalition mobilized in protest in 2008, although to little avail.²

1. Roger Zetter and Hassan Al-Moataz, "Urban Economy or Environmental Policy? The Case of Egypt," *Journal of Environmental Policy and Planning*, Vol. 4 (2002), p. 182.

2. For a detailed analysis of the Damietta case, see Sharif Elmusa and Jeannie Sowers, "Damietta Mobilizes for Its Environment," *Middle East Report Online*, October 21, 2009.

Second, pressing development challenges usually take precedence over the environment. Public investments into housing, education, and employment creation are much more urgent from a development and political standpoint. This is why they tend to crowd out environmental investments. The current political impasse in Egypt is likely to reinforce this obstacle in the near future.

Third, amidst socio-economic and political instability, pricing the use of natural resources such as water and energy to incentivize more sustainable use has become virtually impossible from a political standpoint. As a consequence, the Egyptian government has recently stalled its gradual removal of energy subsidies for certain types of industries for fear that consequent price hikes could fuel social unrest.³



Finally, although the government of Egypt recognizes its responsibility to tackle pollution and environmental degradation and has a body of environmental law, structural problems stand in the way of more sustainable solutions. Conflicts in cross-sectoral policy formulation and poor line ministry coordination are major stumbling blocks to effective mainstreaming of environmental considerations into national policy making. When it comes to implementing environmental policies, Egypt's increasingly unsteerable, rent-seeking bureaucracy presents great problems. For example, pervasive corruption prevents the comprehensive, serious application of environmental laws and regulations, particularly to key industrial players.

Considering these obstacles to introducing a more sustainable development paradigm in Egypt, the prospect for getting on a sustainable development path would be bleak, were it not for the work of local change agents. In areas such as solid waste management and agriculture, their innovative local projects succeed at connecting the livelihoods of the poor and marginalized with their physical environment in productive ways. On a local scale, they prove to decision makers that it is not only desirable but also possible to reconcile developmental and environmental agendas.



3. "Al-hukuma tatajah li-ta'jeel 'al-marhala al-thalatha min ziyadat as'ar al-taqa khowfan min irtifa' s'ar al-sila' wal-muntajat" ["The Government Delays the Third Phase of the Increase of Energy Prices, Fearing a Rise in the Prices of Goods and Products"], <http://www.almasry-alyoum.com/article2.aspx?ArticleID=284486&IssueID=2014>.

THE MOKATTAM RECYCLING SCHOOL IN CAIRO

Initiated by the Egyptian CID Consulting firm⁴ in the early 2000s, this social enterprise in and for the garbage collector [*zabbaleen*] community of Mokattam has been run by a local non-profit organization since 2005, in partnership with Procter & Gamble (P&G) and other non-profits in the area.



The Mokattam recycling school is an innovative learning-while-earning project that connects the brand interest of a large multinational company with the interests of poor youth and the environment to create an unconventional win-win situation. P&G pays young *zabbaleen* for every empty shampoo container they collect and hence remove from the counterfeiting cycle in Egypt. The collected plastic bottles are then recycled and the granules sold on to the local industry. The returns cover the schooling of the young *zabbaleen* who would otherwise stay out of education and work under hazardous conditions.

To scale these initiatives up and show how international donors could best support them, more information about the characteristics, success factors, and challenges of these projects is necessary.

Finding and systematically collecting information on all the local initiatives in the MENA region is one of the key objectives of the Cairo-based WinWin Initiative. Initiated by the German Hanns Seidel Foundation and run in partnership with the Egyptian State Information Service (SIS) and the United Nations Environment Programme (UNEP), the WinWin Initiative has set about the development of an interactive MENA network of local practitioners, researchers, and the interested public who search for practical ways to improve people's lives and safeguard the environment.



While the initiative is still young and has yet to achieve the coverage and level of know-how exchange it aims for, there are five preliminary lessons learned that seem worth sharing already. They indicate ways to scale up local initiatives as well as ways for international donors to best support them.⁵

4. <http://www.cid.com.eg>.

5. Findings are based on the launching conference and information collected as part of the WinWin Initiative, a MENA initiative to build a network of local practitioners and researchers who work to improve people's lives and the environment. For more information, see <http://www.winwininitiative.net>.

First of all, it is possible. Socio-economic development and environmental protection can and should go hand in hand. This is especially true for sustainable agricultural development in the arid climates of the MENA, where raising productivity in the long-term is impossible without more efficient usage of natural resources.

COMMUNITY-BASED WATER MANAGEMENT IN ABU MINQAR, WESTERN DESERT

Since 2006, the Desert Development Centre (DDC) of the American University in Cairo supports the sustainable development of the agricultural community of Abu Minqar, through participatory research, community-based initiatives, and environmentally-sound basic infrastructure investments, as well as technical advice on the efficient use of available natural resources. The result is greatly improved agricultural productivity without using up more water (“more crop per drop”).



Cultivated since the late 1980s as part of a government land reclamation and resettlement program, the oasis community of Abu Minqar, which for its water supply relies entirely on finite groundwater resources, faced major challenges, including gross inefficiencies in the irrigation system, soil salinity, and a lack of basic public services like electricity.

The initiative has led to significant improvements: the introduction of simple water-efficient irrigation techniques, power generation through solar technology, the use of crop types that are adapted to arid environments, and know-how transfer on modern agricultural practices, such as grafting and local seedling production.⁶

Second, the onus of leadership for change is on the privileged members of society. The innovative local win-win projects that have been identified so far all originate with outstanding individuals from the narrow upper class of Egyptian society or from the international community in Egypt. Moreover, many projects would not be as successful without additional funding and in-kind support from third parties. Ordinary people generally do not have the means or the convening power to act as change agents for sustainability.



Third, sustainable local initiatives cannot make up for continued bad governance. Most local initiatives address local environmental and development issues that arise because state interventions are absent or wrong. During implementation, many encounter constraints originating from the state bureaucracy. Decentralization reforms could create more

6. For more information, see <http://www.aucegypt.edu/research/ddc/research/WDM/Pages/default.aspx>.

responsive local administrations and incentivize sustainable local development more generally. Previous reform pilots in the Fayoum and Ismailia governorates show this.⁷ Stalled decentralization reforms in Egypt should therefore be re-activated as soon as possible.

Fourth, adapting international financial assistance to the needs of local change agents could make a significant contribution to sustainability in the MENA. Because of their incremental and often voluntary nature, local projects can achieve much with very little funding. But they require such funds for much longer time periods, which exceed the average planning horizon in contemporary international development assistance to local projects by far.



And finally, the international community could play a more effective role as facilitator of local sustainability learning, exchange, and replication. Most local change projects that have been identified by now run in a fairly independent and informal manner, with little capacity for lobbying and networking. More easily accessible and flexible international support could boost local change agents' capacity and have positive spillover effects along the difficult path to sustainability in the Middle East and North Africa.

7. Interviews with senior experts for decentralization at the Egyptian Ministry of Local Development.

Arava Institute for Environmental Studies: Teaching Environment as a Bridge to Peace & Understanding in the Middle East

Sharón Benheim

The Arava Institute for Environmental Studies (AIES) is the premier environmental studies institute in the Middle East and is accredited under the auspices of the Ben Gurion University (BGU) of the Negev. Since 1996, the Institute has been teaching environmental studies to university students from the Middle East and other parts of the world. The unique approach of the Institute is to teach the environment, in which all share, as a bridge to cooperation and peacebuilding in the Middle East.

Students come to the Arava Institute from Israel, Jordan, and the Palestinian Authority, as well as from the US and Canada. Students fluent in English can also come from any other place in the world. The Institute's focus is on the immediate Middle East region of these three focus countries. While others are more than welcome, the Institute's resource development program ensures scholarships for students from these areas. Typically, students may be Israelis who have completed army service but not yet begun university studies (in their early 20s) or students from elsewhere who have finished their first-degree program, are looking for specific knowledge, or are looking for a master's program that suits them. Some students are enrolled in a two-year master's track shared by the Arava institute and BGU. North Americans often come for a semester or a year study abroad. The costs are comparable or even lower than their normal university fees, so this is the largest non-Middle Eastern sector at the Arava Institute. Other students may be curious about the environment or the opportunity to "meet the other." Average ages are between 20 and 35 with many exceptions — including an occasional retiree taking classes. An average semester includes 30–40 students.

At the Arava Institute, students are asked to bring their whole selves into the program. No one checks his or her identity at the door, and the staff invest a tremendous amount of energy working with students to bring their personal history, experience, and knowledge to bear on all discussions. The student's personal or family experiences inform all discussions and include voices from Muslim, Jewish, and Christian communities as well as those whose families have immigrated before or during their lifetime and whose town of origin often defines their personal identity. For example, a student may state "my family is from Hebron" even though the last four generations were born in Kuwait, Jordan, and Saudi Arabia. Another student will state "I am Israeli" despite having been born in Argentina and brought to Israel with her family at age five. Each family and each culture has a different attitude towards answering even a seemingly simple question such as "where are you from"? These attitudes are explored and shared by the students as part of learning about identity in the framework of a special seminar (explained in more detail later in this essay).

There are many aspects of the experience of the students at the Arava Institute that extend well beyond the usual confines of a classroom. The staff and faculty invest tremendous attention and energy in making students feel welcome, informed, and safe. The base of the program is the high-level university coursework in environmental issues, using the re-

gion and real life examples to bring the material to life. The environment studies courses include: Transboundary Water Resource Management, Comparative Environmental Law, Environmental Economics, Chemistry and Physics for the Environment, Human Aspects of Environmental Science, Applied Sustainability, Organic Gardening, Environmental Ethics, Sustainable Development, Environmental Policy, Eco-health, Environmental Mediation, Ecology, Environment Science, Environmental Politics, Sustainable Agriculture, Environmental Education, and others.

In addition to academic courses, students pursue independent research in which they are guided and mentored by professionals in the field. Very often this research can be incorporated into a future graduate research project or may link into an existing project of the Arava Institute. All students review research methodology, prepare research questions, and conduct their work. The location of the Institute and network of faculty, ongoing environmental activity in the immediate area, and alumni from previous years provide opportunities for students to be very creative in choosing and carrying out these research projects. Presentations at the end of the semester are very informative and well attended.

The Arava Institute is much more than just another university — it is a place of learning infused with values where students get a loud, clear message that they are expected to be themselves and to learn about the other(s), and that they are expected to work to make the world a better place.

Within the framework of the Arava Program, all students participate in field trips that take them out of the classroom and theoretical studies and deepen their connections to regional environmental issues and efforts to prevent and reduce these problems. These field trips are adapted each semester to the current situation, and may include travel within Israel, to Jordan, and, situation permitting, to areas in the Palestinian Authority. A trip might include a visit to installations along the Dead Sea and the Jordan River in order to see the agreements about water allocation between Israel and Jordan in action, and to see the state of the river at more than one point along its path. Another trip may include Jerusalem and a meeting with major government officials or journalists about their view of the political and environmental situation in the region. Visits to communities that face unique environmental challenges are included in order to allow students to fully appreciate the issues. Most students never realized that if one lives in Tel Aviv or Boston water comes from the tap at a reasonable price any time you want, but if one lives in Bethlehem or Amman, water is available only once or twice a week and tanks store each family or business' water allotment until the next time.

The Arava Institute is much more than just another university — it is a place of learning infused with values where students get a loud, clear message that they are expected to be themselves, to learn about the other(s), to work to make the world a better place. An additional component of the student experience is the required course called the Peace-building and Environmental Leadership Seminar (PELS). The PELS is an original compulsory course designed and implemented by the Arava Institute for the Arava Program. The PELS Coordinators, Michelle Shachar and Dr. Uri Gordon, work closely with other coexistence organizations and bodies in the region in order to ensure the content of the course is constantly updated and is sensitive to the diversity of the student body.

The PELS is an excellent forum for mitigating tension arising from differences in political or religious beliefs, as well as misunderstandings arising from cultural and social interactions. With each year of its implementation, evaluations from the course have highlighted the positive effect PELS has had on students' perceptions of each other. The PELS sessions offer a safe and facilitated forum for discussions that encourage self-expression

while building mutual respect across the religious, political, and social differences that are strong elements of each student's identity. Skills acquired by participants during the course are indispensable throughout their professional careers as they pursue solutions to environmental conflicts after they finish their studies at the Arava Institute.



THE GOALS OF THE PELS PROGRAM

The PELS program provides a framework for dialogue and tools to communicate, creating a shared vision of the Middle East together. It offers encounters with role models and training in a wide array of skills (emotional, cognitive, and technical) to empower future action.

The students will develop:

- Cultural understanding, respect, empathy, and self-reflection
- A sense of empowerment, agency, and initiative
- A sense of shared community, even during times of conflict

The students will acquire:

- Skills for effective and open communication
- Skills for effective environmental campaigning and advocacy
- Informed perspectives on the politics of the Middle East and the politics of the environment
- A general understanding of coexistence initiatives and environmental campaigns today

Participants emerge from the PELS better equipped to manage cultural differences that inhibit environmental collaboration as they reach new understandings of each other's cultures, backgrounds, and traditions. First and foremost, they gain the understanding that each person has a cultural and family narrative and that their belief system is impacted by how and where they have been raised and educated. The PELS seminar opens the students' minds to the understanding and existence of other narratives while allowing them the safety to maintain their own. Throughout the course participants also build their competency as leaders in order to face the challenges presented by the search for environmental justice in the Middle East.

Students are trained to apply the principles of PELS to their future professions through exercises, discussions, and lectures.

In PELS sessions, students explore differences related to nationality, race, religion, age, politics, region, language, and social norms. There is a focus on internal group dynamics, stereotypes, politics and coexistence, religion, and “heritage” events including cuisine, music, and story-telling. An emphasis is placed on developing students’ individual leadership skills and building trust through teamwork. In addition to the sessions facilitated within the Institute, professionals from other programs and projects are invited to talk to the participants. Several workshops facilitated by experts in communication, dialogue, historical perspectives, conflict resolution, and leadership training are also included. This broad range of lectures and workshops encourage a thorough examination of conflict in relation to political identities and cultural diversity.

An additional component of the Peace-building and Environmental Leadership Seminar is a number of visits incorporated into the field trips mentioned above or as a separate PELS trip. During these trips, coexistence and conflict resolution organizations and activities throughout Israel are visited and experts in these fields heard as part of the PELS. These visits emphasize the complexities associated with coexistence projects in the region and encourage the students to examine the impact of the Arab-Israeli conflict on different areas of society.

The Arava Institute aims high — the Institute’s dream is that the future Environmental Minister for Israel, the PA, and Jordan will all be graduates of the Arava Institute programs and will be able to work together because of their shared experiences.

The Arava Institute invests in the social capital of its students, faculty, and staff as well as in building the necessary personal and academic relationships for long-term cooperation in the field of environment. The Institute brings students together for a semester, while many are together for a year or two years. At the Institute, students spend so much time together, real long-term relationships and contact continue even after they finish the program. The Arava Institute aims high — the Institute’s dream is that the future Environmental Minister for Israel, the PA, and Jordan will all be graduates of the Arava Institute programs and will be able to work together because of their shared experiences. The personal and professional contacts they make as well as what they learn and experience help them turn ideals into tangible results and realities.

In conclusion, the Arava Institute gives its students both training and experience in environmental subjects and the chance to build and benefit from personal relationships and a network rich in human resources. This network of alumni, faculty, researchers, and friends enables the larger Arava Institute family to be part of positive change in the region. Gradually, the alumni are taking their places in their home communities in research and business and are able to utilize the network for the benefit of their new positions and hopefully for the benefit of the region. In addition, alumni and the Arava Institute staff have influenced other NGOs and organizations in the region to adopt the use of environmental cooperation as a tool for peace-building. The Institute is also seeking to expand in order to increase the number of students and researchers impacted each year. Alumni currently living in the Middle East, and the multiplying effect of more organizations adopting this model of cooperation, have a very real potential to be part of the creation of a sustainable Middle East.



Middle East Institute