

## Gender Study in Jordan - Desktop Survey

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### PREFACE

The Public Action for Water, Energy and Environment Project (PAP) is a public education and behavior change communication program developed to support USAID's technical and policy investments in the Jordanian water and energy sectors, and to support specific initiatives in the environment, in particular with regard to solid waste. The project has been awarded to ECODIT, a US small business holding the Prosperity, Livelihoods and Conserving Ecosystems, or PLACE, Indefinite Quantity Contract with USAID.

PAP is a five years program that has been designed in three phases:

- 1. Data collection and assessment phase of 9 months ending July 31, 2010;
- 2. Participatory strategic planning phase of 3 months that will include dialogue with the relevant stakeholders; and
- 3. Implementation phase lasting about 4 years.

The first phase of the project (Assessment and Baseline Phase) is to be completed by the summer of 2010. As part of this phase, ECODIT is conducting numerous surveys, including 12 or more research efforts, and it is from the totality of these efforts that the project will determine its direction and focus for behavioral change. ECODIT has divided this phase into the several rapid assessments.

This report presents the findings of a desktop survey conducted to review gender studies in Jordan. The overall goal of the survey at hand is to ensure that gender is adequately addressed throughout project research, analysis and activities.

In general, the purpose of the all the surveys that the project is undertaking in Phase I is to bring a behavioral perspective to the technical knowledge that already exists. It will do this in three ways:

- 1. Examine past and recent educational and social marketing efforts by USAID and other donors to see what worked, what remains of earlier initiatives and tease out the determinants for success
- 2. Review current needs and expectations in the three thematic areas (water, energy and environment in particular solid waste) that will help guide the project in changing behaviors durably in the future
- 3. Examine the implementation process itself to ensure that knowledge gained about the process of behavior change is institutionalized into the Jordanian agenda.

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### ACRONYMS AND ABBREVIATIONS

Although an effort was made to reduce the number of acronyms used in this text, in some cases this was necessary. Whenever the acronym or abbreviation appears the first time it is defined in the text. The following list is provided for ease of reference by the readers of this document.

AED	Academy for Education Development
CBOs	Community Based Organizations
ESDs	Energy Saving Devices
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
NGOs	Non-governmental Organizations
PAP	Public Action in Water, Energy, and Environment Project
WEPIA	Water Efficiency and Public Information for Action
WSDs	Water Saving Devices
USAID	United States Agency for International Development

### I.0 INTRODUCTION

The Public Action for Water, Energy and Environment Project (PAP) has a mandate to encourage water and energy conservation and to support behavior change towards more conservation and efficient practices both at the household level and in the commercial, industrial and civil society arenas using social marketing behavioral methods.

To ensure that gender is adequately addressed throughout project research, analysis and activities, PAP contracted Development & Training Services, Inc. (dTS) to conduct a gender desktop review of existing research on gender and natural resource management in Jordan. There is a growing body of research on gender across sectors in Jordan, including natural resource management. The purpose of this report is to capitalize on this research and apply findings to PAP project activities, rather than conduct a duplicative study. To that end, this report seeks to aggregate and synthesize the research conducted on gender and NRM in Jordan and the Middle East and identify findings that can be adapted and applied to PAP project activities. Research findings may be applied to PAP program activities and guide the integration of gender throughout PAP.

This report is divided into 6 sections as follows:

- <u>Section 1: Introduction and approach</u>: Discusses the objectives and methodology underlying the report
- <u>Section 2: Background on gender</u>: Briefly reviews some findings on gender in Jordan, including gender and natural resource management
- <u>Section 3: Water resource management and gender</u>: reviews gender specific information related to water resources management in Jordan and provides illustrative activities for PAP
- <u>Section 4: Energy management and gender</u>: reviews gender specific information related to energy management in Jordan and provides illustrative activities for PAP
- <u>Section 5: Waste management and gender</u>: reviews gender specific information related to waste resources management in Jordan and provides illustrative activities for PAP
- <u>Section 6: Recommendations</u>: Overarching recommendations for the PAP project are presented.

#### 1.1 Overview of the survey approach and methodology

Although a desk study, the gender review aimed to generate practical findings and recommendations for ongoing PAP work in the field. As such, the review sought to address the following:

- Do women and men have the same knowledge about environmental issues in Jordan?
- Are women and men aware of conservation methods that they could apply in their daily lives?
- Is there a difference in how open women and men are to changing behavior to conserve resources?
- Are there particular resources that women and men seem to be particularly open to conserving?
- Are there particular conservation methods that women or men would be open to adapting?

The gender review relied on several tools or elements:

- Desk study review of gender and NRM studies conducted in Jordan and in the Middle East, including project documents as well as gender and NRM studies conducted by a range of organizations in Jordan.
- Phone consultation with PAP staff to understand perceived opportunities and challenges to integrating gender into program activities.
- Desk study synthesis and recommendations as to how to address gender issues in Phase II (Design) and Phase III (Implementation).
- Review and feedback on Drivers of Change Focus Group Guides and questionnaires to ensure they are gender sensitive and seek to gather data that is gender specific. This review to be conducted before the end of Phase I.

### 2.0 BACKGROUND ON GENDER

A background of the status of women and gender relations in Jordan is presented below. Findings on gender and natural resources (taken as a whole) from the desk review are also presented in this section. Existing gender issues and the different roles of men and women in Jordanian society may present challenges as well as opportunities for behavior change around water, energy, and waste management. Sector-specific recommendations are presented in the following sections.

#### 2.1 Education and employment

In Jordan, primary education is nearly universal; however, at higher levels, boys tend to drop out at higher rates than girls. At the secondary level and beyond, girls make up a higher number of students than boys. (Jordan in Figures, 2007) Reasons for dropping out of school are different for boys and girls. While girls may drop out of school to get married, boys are more likely to do so to seek employment. Girls at the secondary level are more likely to choose an arts/ literature stream while boys are more likely to choose science. (Gender Assessment for USAID/ Jordan, p. 7)

It is clear that higher levels of education for girls do not translate into higher levels of employment. In 2007, only the refined activity rate for females over 15 years was 14.7 as compared with 64.4 percent for males. For that same year, women made up 15.7 percent of employed people above 15 years of age. Women's unemployment stood at 25.6 percent compared with men's unemployment at 10.4 percent. (Jordan in Figures, 2007) Cultural norms and a shortage of employment opportunities both contribute to low levels of women's economic activity.

In 2007, the unemployment rate in Jordan overall was estimated at 13.1 percent. (Jordan in Figures, 2007) According to available research, young men and women are most likely to be unemployed or underemployed. Recent studies estimate that 13 percent of the country lives below the poverty line. (Study of Benefits to the Poor of MCC Financed Projects in the Water Sector, p. 21) As Williams and Nimri note, gender norms constrain women in Jordan, whereas the primary constraint facing men is poverty and lack of economic opportunity.

#### 2.2 Social issues and public participation

Constraints on Jordanian women's mobility primarily arise from social norms and may vary according to rural and urban populations and by class; however, there are a few notable legal restrictions. For example, women are legally prohibited from working between 8 pm and 6 am. (SIGI. Gender Equality and Social Institutions in Jordan)

Social norms around mobility are important to consider when developing communications and outreach programs that target women.

Women are legally able to marry after the age of 18, although the chief justice may lower this to 15 in cases if it is decided that early marriage is in the best interests of the bride or groom. A 2004 UN study estimated that eight percent of girls between 15 - 19years were married, divorced, or widowed. (SIGI. Gender Equality and Social Institutions in Jordan) This may have implications for the definition of "youth" that is a target population under the PAP project. Categories of youth may be a function of age as well as gender, since men tend to marry later than women.

Jordan's civil society is a vibrant, thriving sector where NGOs have waged successful campaigns to elect women to public office, lobby for legal change to address gender inequities, and promote social change. Both the Jordanian National Commission for Women and the Jordanian Women's Union are large umbrella NGOs that may be useful in reaching a large segment of Jordanian women. There is a clear gap between women's active participation in the NGO sector and their very low representation in government decision-making bodies.

#### 2.3 Natural resources

In Jordan, rapid population growth and urbanization both impact consumption of resources such as energy and water. Families are spending a larger share of their income on fuel, electricity, transportation, and telecommunications while the percentage of income spent on food is declining. (Study of Benefits to the Poor of MCC Financed Projects in the Water Sector, p. 21) Water shortages in particular lead to tension within the family when male heads of house are not able to secure enough water to meet their family's needs. Lack of water also causes to tension between families, as neighbors blame each other for wasting water and contributing to shortages. (Study of Benefits to the Poor of MCC Financed Projects in the Water Sector, p. 29)

Women are typically associated with managing water consumption in the home for activities such as washing, cooking, or bathing. Similarly, women are typically associated with energy consumption to meet basic needs in the household for cooking and heating. They are also most involved in generating and managing household waste. For this reason, women and girls are often target groups under donor-funded projects that address water, energy, and solid waste management.

Despite their relationships with water, energy, and household waste, women are less knowledgeable than men about technologies and methods that would promote conservation. According to the PAP project's KAP Household Baseline Study, women were more likely to mention media outlets, particularly television, as an important source of information about water and energy conservation (tables 50 and 103). However, women had less overall understanding of water and energy saving methods and technologies than men (tables 42 and 96). In particular, men were more familiar than

women with "hi-tech" technologies such as water and energy saving devices and appliances. However, women demonstrated greater sensitivity to "low-tech" methods of water and energy saving, such as using a bucket instead of a hose or turning off lights when leaving a room. The notable exception to this would be women's greater knowledge of solar water heaters, discussed further below. Thirty-six percent of women optimistically believed that collected waste would be separated and reused, as opposed to 21 percent of men (KAP Baseline Household Study table 146).

The findings from the KAP Baseline Household Study are confirmed by other studies, such as the USAID-funded Water Quality Improvement and Conservation Project Behavioral Impact Study- Phase II. The authors of this study found that, although women were not as conversant as men about technical issues surrounding water, they showed an improvement in awareness levels after a concerted effort was made to reach women through information dissemination campaigns. They also showed an ability to influence other family members' attitudes toward water management.

Women's lower levels of familiarity with water and energy saving methods and technologies may be one reason that women lag behind men in naming water and energy conservation measures that they take in the home (KAP Baseline Household Study tables 45 and 99). The disparity in women and men's awareness of water and energy saving devices is likely a product of the differences in their mobility due to cultural norms. Men have fewer restrictions on their mobility, and so are more apt to be exposed to information through informal and social networks. Depending on their socio-economic status, women may also lack access to news media and other sources of information about water and energy saving technologies. Despite the fact that women were less apt to name water and energy conservation measures that they are actually taking, they were more likely than men to point to individual action as important to overcoming shortages (KAP Baseline Household Study table 21).

According to other PAP reports, male youth demonstrated more critical understanding of environmental issues, while female youth were more likely to participate in efforts to alleviate pollution and promote ways for others to be involved (KAP Survey Finding of Young People's Knowledge Attitudes & Behaviors: Gaps in Environmental Education Curricula & Teachers' Competencies. Formal Sector. Final Report, Figure 8). Female youth are also more likely than male youth to suggest action that could be taken by individuals and to implement methods they themselves proposed. Young men, despite demonstrating more overall understanding of environmental issues, expressed less willingness to act and change individual behavior.

The Haya Cultural Center provides for varied extracurricular programs for school aged children. Additional programs support mothers to empower and reinforce their children's development. As such, the Haya Cultural Center may be a place where women and their younger children can come to learn about natural resources and conservation methods together.

Although donors primarily cite women's roles in society and responsibility for managing household water, energy, and waste, the findings above suggest that there are additional important reasons to target women and girls under the PAP project. Women and girls express a willingness to participate in conservation efforts and change behavior more than men; however, females are less likely to actually take action to conserve water and energy. This discrepancy may in part be explained by findings that females tend to have less understanding of water and energy saving methods and technologies. By improving females' understanding of and rationale for conservation, the PAP project has an opportunity to tap a group with potential for positive behavior change around resource use.

In reaching men, the PAP project may face a different sort of challenge. Although men's awareness of environmental issues and conservation methods is higher than women's, they do not name individual actions that they themselves could take as being important to conservation of resources. Men and young men in particular, may not appreciate the importance of their own actions in overcoming a collective problem when compared with women. Men, who feel responsible for their families' financial wellbeing, may also view the capital required for investing in conservation technologies as an obstacle, preferring to use this money to pay for daily expenses or to save it for emergencies. This may be particularly true for men who face economic hardships or those who do not own their homes. The challenge, then, would be to motivate men to use and implement their knowledge of conservation methods in their homes and daily lives.

# 3.0 WATER RESOURCES MANAGEMENT AND GENDER

#### 3.1 Background on gender and water in Jordan

Limited resources, a rapidly growing population, and urbanization all contribute to relatively scare water resources and unsustainable management of water in Jordan. The current consumption of water exceeds the renewable supply, with aquifers being mined at unsustainable rates. Agriculture in Jordan accounts for the majority of water consumption at 70 percent of the total; for some of this water, the quality is not up to the standards of drinking water. Following this, household and residential use consumes 25 percent, and industry (particularly the high-end tourist industry) at about five percent. According to the KAP Household Baseline Survey, more women than men rated the water shortage in Jordan as a very critical problem (table 15).

In Jordan, as elsewhere, household responsibility for water consumption is still considered to be the responsibility of the female head of house. Most women in Jordan do not work outside the home, and are therefore primarily responsible for household tasks involving water. Women cook, clean, bathe children, do the washing, and determine how much water to use on each task. Water shortages and resultant poor water quality lead to water borne illness, especially diarrhea in children. The care of those who have fallen sick as a result of poor water quality is also the woman's responsibility. Women are also typically responsible for the maintenance and weeding of kitchen gardens just outside the home. Despite their overall household management of water, women do not absolutely control water management decisions in the home. For example, men primarily make decisions regarding the purchase and use of water saving devices, since this requires expending the household's capital resources.

Men, as noted above, are important to household water management. Men often are the point of contact for the water utility or company, order and purchase water, and use water in washing outside the house (i.e. car, walkway, etc) and to irrigate kitchen gardens. Recently, however, women have increasingly been making decisions about buying extra water, ordering the waste disposal truck to pick up household waste, and lodging complaints with the water utility. Women, particularly women who are heads of their household, have been reported to have difficulties with access to water and dealing with water utilities. This is significant in light of the fact that 11 percent of households are headed by women. (Hendessi, 2007)

As mentioned earlier, women do not report being as active as men in using water saving methods and technologies; however, in several studies women expressed more willingness to act at the individual level than men. It may simply be that women's lack of awareness about ways to save water prevents them from undertaking many water conservation measures within the household or that they are unable to control capital required to purchase water saving devices. Perhaps it is for this reason that women clearly expressed a desire for cheap, easy to use water saving technologies to be made widely available (KAP Household Baseline Survey, table 81).

Women also were less aware than men of how their water bill is calculated (KAP Baseline Household Survey, table 66), and were less likely to understand the importance of an increasing block system. If women were made to understand that there are financial incentives to conserving water in the household, they may be more likely to actively conserve water. Men and women responded in roughly equal proportions that information about water scarcity and an increase in water prices are the two things that would most likely encourage them to voluntarily save water (table 75). Interestingly, neither men nor women mentioned that it conserving water was important so that Jordan's children would have a viable source of water in the future.

According to Ratherberger and Motzafi-Haller, women are more active in all aspects of farming in more rainfed areas. The KAP Household Baseline Study suggests that women in general may be more attuned to rainfall and weather patterns. For example, from the KAP Household Baseline Study, more women than men identified rain-water as a source of water in Jordan (table 12), and many more women than men see lack of rainfall as a reason for the water shortage in Jordan (table 18). Given this information, it may be that women are particularly open to using methods for collecting, storing, and using rainwater. A previous GEF small grants project has worked in this area, funding the Women's Society in Rakin village to manage a revolving loan system for construction of water cisterns and water harvesting systems. The project was

successful in both securing additional water resources for Rakin village as well as in improving the status of women in the community.

The above example demonstrates that women, given the resources and support are able to mobilize and take action both collectively as well as at the individual level to conserve water resources. Another example of this is the GTZ funded Water-wise Women project. The Water-wise Women projects worked to train women in water resource management and to be change agents within their community. Training topics under this project included rationing, using grey water, water protection, tank hygiene, plumbing and storage, and how to conduct water assessments. Women reported success in changing their communities' attitudes and behaviors around water management following the trainings.

The USAID funded Water Education and Public Awareness for Action (WEPIA) project is a third example of women's ability to be change agents and master the technical aspects of water management. The WEPIA program elaborated on water conservation messages originating from Islam. Using Islam as a religious framework for water management, the WEPIA program worked to reach women through Islamic sermons and provide information on water conservation, ultimately reaching about 50,000 women around the country. Topics during these sermons included information on water saving devices, network maintenance, and water reuse.

In addition, the WEPIA project worked with the Jordan Forum for Business and Professional Women to promote the use of water saving devices. Women trained were reported to be successful in marketing water saving devices and convincing other women to use them. The WEPIA project also engaged women by conducting a woman plumber program. Some women completing this program then asked to be given further support in obtaining a license to work as a professional plumber. The various initiatives under the WEPIA project demonstrate that women are able to use and maintain water saving devices as well as implement water conservation. During WEPIA, 95 grants were disbursed to community organizations. Although the criteria for proposal selection did not explicitly include gender, preferential treatment was given to women's community organizations. (WEPIA Final Report, Appendix B) WEPIA demonstrated that women could be important agents of change in their communities.

#### 3.2 Illustrative activities for water

The following are illustrative activities that seek to address differences in gender vis a vis water resources management.

• Engage women's NGOs to brainstorm about how best to disseminate information to women on the status of Jordan's water resources and individual actions that may be taken to alleviate shortages.

- Promote messages about the importance of saving water for future generations that may resonate with women and youth in particular.
- Identify community leaders who may influence men's willingness to conserve water and engage them in reaching out to men.
- Target men in motivational campaigns that highlight the importance of individual action.
- Talk with GEF and other donors to see what potential there may be for initiatives that promote the awareness of rainwater harvesting methods and its importance.
- Connect with GTZ and the Water-wise women project to see if PAP may build on or complement their work.
- Building on the WEPIA program's experiences, continue programs that augment women's technical competencies around water management and also provide income-generating opportunities for women as well as youth.
- Identify potential water saving devices that may be provided at low cost and that women may easily install and maintain in their homes. Provide this information through media outlets and television broadcasting that would reach women.

### 4.0 ENERGY MANAGEMENT AND GENDER

#### 4.1 Background on gender and energy in Jordan

There are several different sources of energy available to residential consumers including diesel, electricity, propane gas for heating and cooking, and kerosene for home heating. All energy sources are imported at great expense by the Jordanian government. Women are most closely linked to management of propane gas since they use it for cooking and heating. Propane gas canisters are also replaced during the day when vendors circulate around the neighborhood. Since women are mostly home during the day when propane is delivered, they are responsible for both using and managing this resource. By virtue of being at home more than men, women are more likely to use and manage electricity and kerosene for home heating and lighting. Electric appliances are not widespread in Jordanian homes.

Some observations on gender and energy can be made based on the KAP Household Baseline Survey. Although both men and women named a variety of energy sources in Jordan, women were almost twice as likely to mention solar energy (table 93). Men were comparatively more knowledgeable about energy saving methods and technologies, particularly "hi-tech" options such as fluorescent lights or energy saving light bulbs (table 96). A notable exception to this was women's greater levels of awareness of solar water heaters as a technology for saving energy. This may be because men, attuned to the capital costs of purchasing and installing solar water heating, are less willing to invest in such a technology as discussed earlier. Women were not as likely to mention energy saving activities in which they were involved, with the exception of using solar water heaters (table 99). Both men and women said that the best way to encourage voluntary energy saving would be to increase energy prices. It is not clear, however, how well both women and men understand how their energy bill is calculated.

Another PAP study found that youth males and females displayed considerably less knowledge of energy issues as compared to water issues in Jordan (PAP Survey Finding of Young People's Knowledge Attitudes & Behaviors: Gaps in Environmental Education Curricula & Teachers Competencies. Formal Sector. Final Report., p. 20). Young males, however, did show higher levels of concern for conservation of energy than females and knew more about energy saving methods. This may be because they are more aware of the costs of energy.

#### 4.2 Illustrative activities for energy

The following are illustrative activities that seek to address differences in gender vis a vis energy resources management.

- Discuss behavior change strategies in adopting renewable energy technologies with institutes in Jordan working on renewable energy sources.
- Engage women's NGOs to brainstorm about how best to disseminate information on energy saving and roles that women and women's groups may play in further promoting renewable technologies, such as solar energy.
- Work with media outlets to promote television and other campaigns disseminating information to a female audience on energy saving methods.
- Work with educational institutes and other institutions serving youth to raise awareness of energy conservation and foster opportunities for youth and women to learn together.
- Create opportunities for young men to collectively act on their concern for energy conservation in their communities, perhaps for a nominal stipend. For example, by distributing pamphlets on energy saving methods, posting signs in public places, or other forms of action.
- Discuss consumer education programs with utilities, so that men and women understand how their energy bill is calculated and simple ways to save energy around the home.

### 5.0 WASTE MANAGEMENT AND GENDER

#### 5.1 Background on gender and waste management in Jordan

Again, in this area there was scant information on gender and waste management in Jordan. Some observations can be made on the basis of PAP documents reviewed. For example, women were more likely to segregate household waste than men, particularly glass and plastic (KAP Household Baseline Study, table 140). This is in keeping with the idea that women are primarily responsible for managing waste generated within the household. As with information on water and energy conservation, women and men learned about separating waste primarily through television and also from family members. Interestingly, a far greater proportion of women than of men believed that household waste is separated and reused after it has been collected (KAP Household Baseline Study, table 146). Both men and women believed that the best ways to encourage voluntary waste separation are to provide special containers at collection point and sacks for each type of material (KAP Household Baseline Study, table 155).

#### 5.2 Illustrative activities for waste management

The following are illustrative activities that seek to address differences in gender vis a vis waste management.

- Work with municipalities to pilot potential glass and plastic recycling programs with separate collection bins for each and supported by information dissemination programs to educate the women about how to recycle waste generated in the home.
- Engage NGOs in exploring opportunities to involve women in income generation and home based reprocessing of waste, especially in refugee communities.
- Conduct an information dissemination program to educate the public about the benefits of waste management covering topics such as recycling or not littering. Engage young men in their communities to work collectively in this promotion campaign.

### 6.0 RECOMMENDATIONS

The recommendations below provide overall recommendation for the PAP project on initiatives that would help integrate gender considerations. The gender review's findings suggest that women are willing to act and change behavior, but that their awareness of water and energy saving methods is lower than men's. Men, on the other hand, have higher levels of awareness about environmental issues and how to conserve, but may not recognize the importance of their individual actions. It is anticipated that integrating gender into the PAP project will help leverage participation at the individual and household level.

# Initiate discussions with donors on previous projects successful in integrating gender in natural resource management projects such as Water-wise Women and WEPIA.

Donor collaboration is important to see how to capitalize on previous work. Building on or complementing was has already been accomplished by other donors will help more efficient, targeted use of PAP resources. Engaging donors to share best practices on gender integration may also allow PAP to focus on the most effective interventions.

#### <u>Create opportunities for women to enhance their technical competencies around water</u> and energy management.

There are several ways the PAP project could boost women's knowledge of water and energy saving methods. First, learning opportunities for women through television programming or other media outlets may help reach large numbers of women and help widely disseminate information on conservation methods that may be done at the household and individual levels. Second, PAP could link with universities and other institutes to provide scholarships or mentoring programs for women in engineering or sciences related to water and energy conservation. Third, exposure visits of women leaders to different model communities, such as Rakin village, may help women understand their own potential for creating change in their communities.

#### Develop income-generating opportunities for women and young men to promote energy and water saving as well as in processing of waste materials.

Work with organizations such as the Jordan Women's Business and Vocational Club to promote and support income generation opportunities for small, women-owned business promoting water and energy saving technologies. PAP may want to explore collaboration with projects such as the USAID-funded Sustainable Achievement of Business Expansion and Quality (SABEQ) project to implement this intervention. In addition, a value chain analysis of waste reclamation may help identify entry points for

refugee and immigrant women in particular to generate income through informal waste reprocessing in their homes. Working with local NGOs, create opportunities for young men to act collectively in their communities disseminating information about promoting conservation technologies.

# Engage women's NGOs and create a platform for them to work with their constituencies on conservation issues.

As mentioned earlier, women's NGOs are one of the most vibrant and active segments of Jordan civil society. National level as well as local NGOs may be instrumental in disseminating information to their constituents. In addition, the support and collaboration of these NGOs may be useful in monitoring the situation on the ground and gathering feedback on the project's performance in reaching women.

Explore learning opportunities with the Haya Cultural Center and other institutions whereby women and mothers may learn about environmental issues alongside youth and children.

Learning alongside one another, women, children, and youth will have the opportunity to reinforce what the other has learned about conservation and think of ways to apply it in the home. As part of this, messages about the intergenerational impacts of resource depletion and environmental degradation may resonate strongly with women and youth, catalyzing behavior change by both.

Promote alternative technologies such as rainwater harvesting and solar energy to which women are particularly open.

Jordan's per capita consumption of water is already low. Therefore, activities such as rainwater harvesting may improve standards of living and access to water, particularly in rural areas. As noted above, women may be especially open to adapting methods such as rainwater harvesting or solar energy.

Continue to collect gender-disaggregated data, along the lines of that presented in the KAP Household Baseline Study, to monitor any differential impacts of the project on women and men.

The PAP project has already developed a good framework by gender disaggregating much of the information it has gathered. The project is well positioned, therefore, to monitor differential impacts on women and men as well as take advantage of gender differences to positively impact PAP equity, effectiveness, and sustainability.

# Create PAP focal points for gender within streams of water, energy, and waste management.

Focal points for gender in different work streams may help to institutionalize gender within PAP and take advantage of opportunities for gender integration that will improve project performance. Gender focal points may be resource people as well as advocates for how to integrate gender within PAP. It is helpful if the responsibility of the gender focal point rotate among PAP staff so that gender becomes the responsibility of the entire staff rather than any one person. Resources on gender for the gender focal point should be made accessible and available.

#### Consider a small grants program for community-based organizations.

Local organizations may be best positioned to understand and affect behavior surrounding resource use in their communities. A small grants program may be a good vehicle to reach local women's and youth groups and encourage mobilization efforts from within the community. An open solicitation for proposals, with specific guidelines and criteria for integrating gender and targeting youth, could spawn a variety of different activities emerging from community and local needs. A small grants program could also empower and motivate a large number of people and organizations to become active locally.

### APPENDIXES

#### Appendix I

Academy for Educational Development. Water Efficiency and Public Information for Action (WEPIA) Program Final Report. May 2005.

Department of Statistics and Millennium Challenge Unit, Prime Ministry. Indicators of the 2009 Water Use and Socio-Economic Survey for Zarqa Governate. April 2010. Draft.

DevTech Systems and World Learning. Gender Assessment for USAID Jordan. March 2003. <u>http://www.usaid.gov/our\_work/cross-</u> cutting\_programs/wid/pubs/Jordan\_Gender\_Assessment.pdf

EcoConsult. The Study of Benefits to the Poor of MCC Financed Projects in the Water Sector. Draft Diagnostic Report. 8 March 2010.

European Training Foundation. Unemployment in Jordan. 2005.

Hashemite Kingdom of Jordan Department of Statistics. Jordan in Figures. 2007. http://www.dos.gov.jo/jorfig/2007/jor\_f\_e.htm

Mandana Hendesi, Jordan Gender Assessment, Sustainable Achievement of Business Expansion and Quality (SABEQ), 18 January 2007.

Taylor Luck. Jordan Times. Water-wise Women work to raise community awareness. 8 August 2008. <u>http://www.jordantimes.com/?news=9783</u>

Eva Rathgerber and Pnina Motzafi- Haller. Engendering Water in the Middle East: Some Preliminary Thoughts. (in Integrated Water Resources Management and Security in the Middle East. NATO Science for Peace and Security Series - C: Environmental Security. Eds. Lipchin et al, 2007.)

SIGI (Social Institutions and Gender Index). Gender Equality and Social Institutions in Jordan. <u>http://genderindex.org/country/jordan</u>

Samira Smirat/ Environment, Community participation, Gender, & Socio-economic specialist (PLAN: Net), Role of Women in Water Demand Management & Conservation in Jordan. Jordan, Amman.

http://www.idrc.ca/uploads/user-S/11514844941Gender\_&\_WDM\_in\_Jordan.doc.

Batir Wardam. Jordan: Rural Women Securing Household Water Through Installation of Water Cisterns in Rakin Village. Tuesday 12 December 2006.

http://www.genderandwater.org/page/5672

Winkie Williamson and Eman Nimri. Jordan Hashemite Fund for Human Development. Insights into Gender Dynamics in Marginalized Urban Communities. April 2009.

ECODIT. Public Action Project for Water, Energy, and Environment documents:

- Report #2. KAP Household-Baseline Survey. April 2010.
- Report #3. Water and Energy Related Interviews for Large Jordanian Consumers. April 2010.
- Report #7. Survey Finding of Young People's Knowledge, Attitudes, & Behaviors on Environmental Issues: Water & Energy Conservation & Solid Waste Management. Informal & Non Formal Sectors. Final Report. May 2010.
- Report #8. Survey Finding of Young People's Knowledge, Attitudes, & Behaviors: Gaps in Environmental Education Curricula & Teachers' Competencies. Formal Sector. Final Report. May 2010.
- Report #10. Solid Waste Behaviors Within the Formal and Informal Waste Streams of Jordan. June 2010.
- Report #11. Public Attitudes Towards Waste and the Informal and Formal Waste Management Systems of Jordan. June 2010.