

2007-2011 WRE/SO15 Results Statement

Strategic Objective: Enhanced Integrated Water Resources Management

Jordan's increasing population and a growing economy drive increased demands on the country's scarce water resources. The availability of fresh water supplies necessary for both human needs and economic development is therefore a critical issue in Jordan. Readily available freshwater supplies are fully utilized and now groundwater supplies are being extracted too fast to allow for natural replenishment. Compounding this situation, scarce water is treated as if it were abundant. Water revenues are minimal and demand is excessive. Water allocation also is a problem: about 60 percent of the country's fresh water is provided at heavily subsidized prices to low-value agricultural production. The cost to the nation of such policy choices is very high and the return on investment low. In addition, population pressures, poverty, and industrial development increase water pollution, thereby diminishing the availability of clean water at moderate prices. This situation poses serious threats to the environment of Jordan, people's health, and economic development. Furthermore, official water institutions do not have departments with the capability to perform rigorous economic analyses that can establish the true cost of water supply alternatives. Finally, a country-wide common understanding of the seriousness of the water situation does not exist.

Solutions to these problems are complicated by the absence of a national vision with broad public support on sustainable water usage and environment protection. The Government exhibits great reluctance to conduct comprehensive long-term planning for water resources management and lacks the will to reconsider its commitment to agriculture even when agriculture's negative impact on water availability undercuts the economic sustainability of the nation. To address this situation, activities proposed under this strategic objective will focus on maximizing the benefit Jordan receives from its limited water supplies and on helping Jordan put in place proper plans, policies, management, systems, and capacities to ensure water supplies for future generations.

Developing new water sources is increasingly expensive. It is therefore imperative to minimize the misuse of existing water sources. Hence, USAID will continue to fund rehabilitation and new construction of water and wastewater treatment plants and distribution and collections systems to better use existing supplies. USAID also will continue to provide technical assistance to Ministry of Water and Irrigation staff to build technical capacity in promoting and implementing programs for water demand reduction through better water use practices and to prepare an economically sound pricing/tariff structure for all water resources users. The Ministry will also receive assistance in preparing public awareness materials to inform the public about the country's water dilemma, thus building grassroots momentum for change. Work with the Ministry will involve putting in place a high quality data base of Jordan's water resources, streamlining management, and improving the legal and regulatory foundations of water resources

management. Finally, USAID will provide technical assistance to help farmers adjust to changes in water quality, as first use of fresh water moves to the urban and industrial sectors and agriculture increasingly receives treated wastewater.

Management of the environment can directly affect water resources. A small volume of high strength pollutant can render economically unusable a very large volume of fresh water. Recognizing this vulnerability, USAID will continue to build the capacity of Ministry of Environment staff to improve regulations, track industrial wastes, and protect the watersheds vital for the recharge of groundwater aquifers. Part of this effort will involve leveraging private sector funds for treatment and disposal of industrial wastes.

The USAID program will not fully address all of Jordan's water needs during the Strategy period. The Government of Jordan is currently considering a number of projects to increase water availability in the Kingdom. These include the Red-Dead Project to move water approximately 180 kilometers from the Red Sea in Aqaba to the Dead Sea. The U.S. Government has pledged \$1.5 million of the \$15.5 million required to complete a feasibility study for this project. The total project cost is estimated at \$5 billion. The Government is also moving forward with a plan to move water from a non-renewable fossil aquifer in southern Jordan to Amman. This \$900 million project would represent only a short-term solution to Jordan's water problems by increasing water supplies by ten percent over a limited number of years, but at a very high cost that could make it unaffordable to residential users.

These efforts, if implemented, would be expensive and would not fully meet the needs of today's users. Therefore, over the next five years, USAID's vision for the water sector in Jordan is to fundamentally shift public policy and practices regarding water resources. Despite massive investments over the last few years, the status quo between supply and demand – fueled by a growing population and industrial sector – has simply been maintained. We will encourage and support analysis and planning efforts to identify and test alternative water supply programs, and develop a plan to meet Jordan's water needs in the future.

The USAID program is designed to run from FY 2007 to FY 2011. Annual funding of approximately \$45 to \$55 million will be needed to achieve progress in the components described. The total estimated funding level for this strategic objective during the strategy period will be about \$250 million.

Program component 1: Improve sustainable management of natural resources and biodiversity.

Current demand for fresh water greatly exceeds replenishable water supplies. Addressing this situation, USAID will draw on lessons learned in other arid regions of the world to improve Jordan's management of scarce water supplies. Specifically, USAID will help the Ministry of Water and Irrigation design and implement comprehensive long-term planning for water resources management. USAID also will provide technical assistance to help the Ministry develop the necessary tools to optimally manage water resources, including a legal and regulatory framework for all aspects of the water sector, a trained

professional water sector staff, an integrated database of high quality water resources data and information, and tools such as tariffs to manage demand. In addition, USAID will also help the Ministry to encourage efficient water use, ensure the sector remains on a sound financial footing, and develop the management ability to move water resources between sectors as required.

Since women bear the responsibility of managing water sanitation, supply and use, empowering women is a key theme of this component. USAID will continue to work with women managing fishing ponds, drip irrigated farms and household water use. Activities will include the development of training and awareness materials for improved water management that targets female students.

Complementing the activities above, USAID will provide capacity-building for Ministry managers and decision-makers to enable them to use the improved information and water management skills to optimize use of Jordan's scarce water resources. This program will require the commitment of the Government to make the hard decision to move away from subsidization of water for agriculture.

Program component 2: Improve access to clean water and sanitation.

USAID will continue to fund the underlying physical infrastructure that permits optimal management of affordable existing water resources. This effort will include modern infrastructure for water treatment, wastewater treatment, and water transmission. This effort will be complemented by the construction of at least five low-cost, low-technology wastewater treatment facilities. USAID will also continue to improve wastewater collection and freshwater transmission in poor and underserved areas. This part of the construction portfolio will shift focus to rural, small community support during this strategy period.

Program component 3: Reduce, prevent and mitigate pollution.

The new Ministry of Environment lacks capability to control disposal of liquid and solid wastes hazardous to the environment. USAID will build on prior work with industrial and medical waste disposal to assist the Ministry to improve its capacity to monitor, prepare, and enforce regulations to mitigate practices that damage the environment and water supplies. An important focus will be improper waste disposal practices of Jordan's growing industrial sector. Targeted assistance will help the Ministry develop and implement procedures and mechanisms for auditing industrial water use, assisting industries to improve water use practices, tracking waste generated by industry to ensure proper disposal, constructing treatment plants for industrial liquid wastes, and identifying and using appropriate landfills for solid wastes.

These actions have high potential for cost-sharing, and in the case of waste disposal, USAID will help the Ministry exploit opportunities to leverage funding by private sector industries that would benefit from the investments. Programs to increase citizen awareness of household, farm, and trade waste problems will continue to be gender sensitive.

