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USAID provided support to develop a water treatment system at Massara Village in Asuit Governorate.
Photo credit: USAID/Egypt

Providing Safe Water in the Desert

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Engineer Atef Abdel Sayed is proud of his work to bring clean water and sanitation services to 25 million people in Egypt. “We have achieved much more than just construction,” says the [2020 USAID Water Warrior](#) award winner.

Access to clean water and sanitation services is an ever-present challenge for Egyptians. While 97 percent of the population has access to potable water, consistent quality is a major concern, particularly in the rural areas that depend on groundwater wells. With just 25 percent of rural residents connected to sewer lines, groundwater contamination from leaky septic tanks is a constant threat.

Since 1978, USAID has invested more than \$3.5 billion in water and sanitation services for more than 25 million Egyptians. One of the most recent examples is the Egypt Utilities Management program (EUM). The \$440 million EUM program focused on water-related infrastructure projects, including more than 30 water and wastewa-

ter facilities. The program worked in two other key areas — sectoral reform at the national level and institutional development of the water and sanitation sector. “Early on, Egypt realized they can’t manage the facilities as a centralized governmental authority,” says Sayed, water, sanitation, and hygiene lead for USAID/Egypt. “Through EUM, USAID and the Egyptian Government started discussing a complete national reform of the water and wastewater sector.”

This national reform led to the decentralization of the water sector and the creation of a new water management platform. The government established a quasi-governmental National Holding Company for Water and Wastewater (HCWW) to improve operations, maintenance, planning, and expansion of water infrastructure. USAID worked with the HCWW to create 25 local, public utilities (companies) — and to transfer utility management from the central HCWW to these autonomous water and sanitation companies. “You must start with a legal and regulatory framework for the service provider to ensure sustainability, first of all for the services to the people and the quality, and then to ensure the sustainability of the taxpayers’ money that will be pumped into the sector,” explains Sayed. “This is not just for water, but every sector.”

Establishing a legal framework for decentralization of the new public utility sector and regulating water and wastewater services served as a critical first step on the path to self-reliance and sustainability. Next, USAID helped automate operations and billing systems while providing technical assistance and training for these local companies. As a result, the public utilities are able to forecast and budget for service expansion and can now recover at least 80 percent of their costs with revenues. In fact, many of the utilities have fully recovered their costs.

This will be increasingly important in 2021 when the Egyptian Government ends water subsidies. “These companies have to bring the resources to ensure that they cover their operation and maintenance costs and rehabilitation and replacement,” says Sayed. “If they do this, it will be the end of our program, and this will be a success.”

USAID continues to work with the local water companies through a new EUM-like program, which is scheduled to end in September 2024, to increase access to water and sanitation for nearly half a million people in the underserved communities of rural Upper Egypt, including Beni Suef, Minya, Assiut, Sohag, Qena, Luxor, and Aswan. USAID supports the construction of wastewater facilities to provide basic sanitation services, the installation and improvement of pipelines and household connections as well as to work with utility companies to improve their management.

Sayed stresses that building of both infrastructure and capacity are vital for a program’s success. Local people must understand how to properly manage the infrastructure and the systems that support it, and feel confident to innovate new solutions for their specific challenge. “You can’t just fund the infrastructure,” he says. “That would be a big failure.”

Sustainability of programs is the ultimate goal. For example, Sayed explains that a woman in rural Upper Egypt doesn’t care about the 100 kilometers of pipeline that USAID installed or the training that her water company staff completed. “She only knows one thing: she can open her tap and she can drink the water,” he says. “The

service is our focus.”

Delivering Water Where It is Most Needed

Accessing a consistent and reliable supply of clean water has historically been a challenge for the Bedouin people of Egypt’s Sinai Peninsula. Thanks to USAID’s \$50 million, six-year North Sinai Initiative, 450,000 people on the Sinai Peninsula no longer face this challenge. Six desalination plants, seven deep wells (up to 4,000 feet deep), regular truck deliveries, and three water reservoirs now provide year-round, potable water in this 10,000 square mile isolated region. In addition, USAID supported the procurement of 20 wastewater vacuum trucks for safe removal of wastewater in the Sinai’s urban areas.

The Egyptian government requested assistance to bring water infrastructure to an area with considerable security issues. Once USAID funding for the 16 separate infrastructure projects was in place, the Egyptian government and private companies did the work. In just four years, and under continued serious terrorist attacks in North Sinai and the resulting very tight security measures by the army and security forces, the Sinai Company for Water and Wastewater awarded and completed 35 different contracts. These interventions included four engineering contracts for design and construction management, several delivery contracts to procure trucks and equipment from the United States, and more than 25 construction contracts in all aspects from pipelines, deep well drillers, desalination specialists, water structures, and finally a solar power specialized firm. “They achieved the real goal,” says Sayed. “They did everything for themselves with USAID’s support and funding.”

The Sinai Company’s ability to complete these large scale infrastructure projects in such a short time can be attributed not only to their commitment and perseverance but also to USAID’s Egypt Utilities Management program which helped create the company and provided technical assistance and training to ensure the sustainability of the water sector in Egypt.

By Christine Chumbler



Additional Resources:

- [Project Profile: Egypt Utilities Management Program and North Sinai Initiative](#)
- [USAID Recognizes Water Warriors Award Winners](#)

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