



Success Story: Receiving First-Time Access to Reliable Water & Energy

Being cut off from safe and clean drinking water for weeks at a time is a reality at the Tanobchi Orphanage, located in the Republic of Tajikistan in Temurmalik district— about 250 kilometers (150 miles) from the capital city of Dushanbe. Outside Dushanbe, rural areas face tough water and energy situations, where parts of the country do without stable electricity, and lack access to clean water, sanitation, and hygiene services.

Energy and water are intricately connected. When water comes from an electric-powered pump, water stops flowing the moment power is lost. The majority of Tajikistan’s existing water and sewage infrastructure was built before the 1980s, and has not been fully maintained or renovated since. The water crisis is further exacerbated during winter, owing to a combination of frozen water sources, freezing pipes, and loss of electricity.

Tajikistan is one of the poorest countries in Central Asia, with a population of roughly nine million people. About one million people who live in rural areas or small settlements lack access to electricity. Electricity production in Tajikistan primarily comes from hydroelectric power, which becomes insufficient in the winter. When water flow decreases in the winter, hydropower plants cannot fully operate, leaving much of the population without power. Consequently, and sadly, 134 children and more than 60 faculty and staff at the Tanobchi Orphanage know what it is like to go without electrical power and potable water.



Photo credit: USAID Central Asia Energy Links Project

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– Faizullo Saidov (Director, Tanobchi Orphanage)

USAID Central Asia Energy Links Project Overview

Period of Performance: October 2014 – September 2019

Value: \$23 million

Client: The United States Agency for International Development (USAID)

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The orphanage only receives potable water for a couple of hours a day due to broken, leaking and inefficient water supply infrastructure, which negatively impacts their living conditions, educational opportunities, and sanitation conditions. When there isn't any water, children and staff at the orphanage resort to drinking, bathing, and irrigating their communal vegetable garden with dirty water from a nearby river, which leaves them vulnerable to diseases and negatively impacts their wellbeing.

This all changed when the USAID Central Asia Energy Links Project teamed up with Tajikistan's Ministry of Energy and Water Resources, district local authorities, a local water supply company, and the Open Joint Stock Company "Systemvtomatika" to tackle energy and water supply issues and resolve them to the benefit of the orphanage and its surrounding community. Energy Links is a five-year (2014 - 2019), \$23 million program supported by USAID and implemented by ECODIT. The program promotes cross-sector collaboration by working with various stakeholders including governments, public utilities, and the private sector to boost energy, trade, and security in the region. The program advances intra-and inter-regional energy cooperation to increase energy efficiency across countries in Central Asia.

Under this partnership, a team of ECODIT experts tested, shaped, and scaled solutions to reduce inefficient energy and water consumption, improve the quality and reliability of water supply, and reduce the consumption of electricity at the Tanobchi Orphanage. They then installed an improved water supply system that would not only conserve water and energy, but provide the orphanage with a 24-hour supply of potable water. They installed a new energy efficient water pump, replaced old water pipes from a pumping station connected to the orphanage, and fixed solar collectors on the rooftops of the orphanage to allow for hot water. All renovations were closely monitored to ensure compliance with local environmental and safety requirements.



Photo credit: USAID Central Asia Energy Links Project

"We are very pleased to now have around the clock access to clean drinking water," said the Director of the Tanobchi Orphanage, Mr. Faizullo Saidov. "The internal water supply system significantly improved in just under six months. Now, we also have access and control over water for irrigating our vegetable garden, which is used for consumption at the orphanage during the fall and winter seasons."

In addition to improving the quality of life for all the children and staff of the orphanage, the project's work is also impacting nearly 2000 other individuals in the surrounding community. The investment will help eliminate 15 percent of water losses inside the orphanage, reduce electricity consumption by up to 63,000 kilowatts per year, and cut carbon dioxide emissions by 500 kilograms annually.

The development outcomes achieved at the Tanobchi orphanage serves as a model to improve efficiency of energy use throughout Tajikistan. This model underscores the importance of scaling solutions that contribute to economic growth and poverty reduction. The project will replicate these efforts in 70 other social and public institutions to promote energy conservation and increase access to clean, safe, and reliable water—so that more communities are supported with opportunities that help them to flourish.