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WATER RESOURCES INTEGRATION DEVELOPMENT INITIATIVE (WARIDI)

SUCCESS STORY

Ensuring quality at all levels of WARIDI's 16 water supply construction schemes

When implementing a project that has the potential of providing safe and clean water to more than 135,000 people in 16 water schemes in rural Tanzania, quality assurance on construction and materials is a top priority. Thus, the Water Resource Integration Development Initiative (WARIDI) project has developed a rigorous quality assurance program as a centerpiece of its activities.

Early in the project, the WARIDI team engaged engineering and construction experts from Tetra Tech Inc., USAID's Implementing Partner for WARIDI, to provide multiple assessments of its water systems construction to guarantee that approved standards are being met at all 16 schemes.

The focus of the most recent assessment, led by Tetra Tech Senior Engineer Matt Harder, was to observe the ongoing construction work at multiple sites. Additionally, Matt organized and conducted a two-day workshop with WARIDI engineers, engineering interns, and site supervisors to share lessons learned, discuss challenges, and collaborate on solutions to continue meeting quality construction standards. Points addressed at the workshop included contractor performance, the effectiveness of community engagement, and the project's internal quality assurance process.

"Based on the responses from the site supervisors during the workshop, the local contractors' attention to quality is positive and no serious issues were reported," said Matt. "Lessons learned at the workshop will be replicated across the rest of the project as WARIDI expands its regions and reach over the next 12 months. The workshop also provided us with valuable information that can be applied to and scaled up on future USAID water projects in Tanzania, as well as other countries in Africa."

The quality assurance report also observed that communication between site supervisors and the engineers has been productive with necessary direction, guidance, and feedback provided when needed. There were no issues with scope or cost control and all projects were reported to be on schedule. One of Matt's initial suggestions was the use of an engineer's journal to document work each day in more detail so WARIDI can continue to closely monitor its progress and the meeting of quality standards.

Quality standards have been implemented since the beginning of the project, especially at the procurement phase. When purchasing materials like pipes, WARIDI worked with experts at the University of Dar es Salaam's hydraulics laboratory (part of the Water Resources Engineering Department) to test the thickness, material quality, and overall durability of the pipes that would eventually be installed at the 16 schemes to supply clean water to villages.

In the testing report, the experts from the University of Dar es Salaam concluded that samples had met the requirements for the pipe wall thickness. They also met pressure testing standards, per Tanzania's requirements.

The project has also put a system in place for random sampling of items delivered to the field so that the quality of pipes and materials is being done at all levels – purchase, procurement, delivery, and implementation. Ensuring the lasting quality of construction materials is imperative to the sustainability of the project and its activities.

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