

Innovation to Solve Problems and Promote Sustainability



▲ A house covering the treatment units, solar panels on the roof



◀ Asha Kimoro, farmer, Sangara Chini, holds the eWATER token which pays for water in a transparent and efficient way

Introduction

The Government of Tanzania implements the Water Sector Development Program (WSDP 2025) framework which aims at ensuring 100% of Tanzanians have access to safe water supply and improved sanitation services. Among issues highlighted in various reports include;

- Low technical and financial management capacity of water schemes/services
- High initial Water Technology investment costs, leading to prolonged cost recovery and related challenges in meeting operational and management.
- Communities' attitudes and behavior to water access and safe sanitation services including willingness to pay for water services.

WaterAid Tanzania has continued to embrace innovative WASH technologies and practices and take opportunities to adapt new approaches developed by others to tackle existing challenges and provide sustainable solutions for improved access to WASH services.



Approach

Addressing the root cause of the above challenges, WaterAid Tanzania in collaboration with key partners implemented a replicable project for sustainable rural WASH services for access to water in rural area, Arusha District – Arusha region and Babati District – Manyara region;

- Construction of pump house.

- John Lohay, the chair of the COWSO, stands out of the pumping house, where the borehole is. Solar panels pump water to the tanks, which is then distributed to the village by gravity.



- Installation of pumps, storage tanks and chambers construction and gravitational water points meters.

- One of the water storage tank constructed in Arusha District



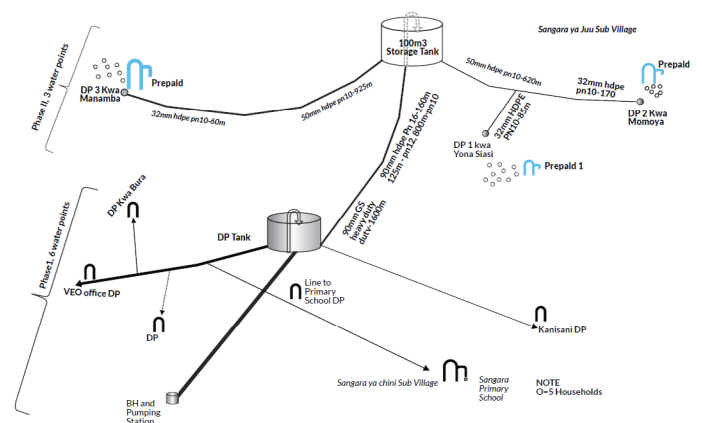
- Installation of the electronic prepaid system.

- One of the new water points, fitted with the prepaid meter



- Hybrid water pumping (combination of solar and electric power whereby the two complement each other in reducing operational costs).

- Water Supply Project Layout, Sangara Village In Babati



- Up scale the utility and/or the Community Owned Water Supply Organizations (CoWSOs) federation model including practical trainings on water scheme life cycle cost recovery for operation and maintenance (O&M).
- Community awareness events on prepaid water use /resolving issues related in systems use.
- Built the capacity of Water Utility staff on water governance, water scheme operation and resource management through on job training and mentorship programs.



▲ One of the Community awareness event on eWater pay technology in one of the five villages in Arusha district.

Successes at glance

- Modelled the viability and scalability of solar-powered e-taps in rural settings in Tanzania.
- Eliminated the need to hire a water point operator and enabled access to revenue records.
- The prepaid meters allow access to data which supports utilities to better understand their customer base and plan and budget according to demand and water usage.
- The prepaid meters reinforce better data management, transparency, and create efficiencies in securing water sales revenue.
- The CBWSO revived the bank account for revenue collections. This exercise established the inventory users lists and developed a three-year projected budget for the scheme operations. This budget then served as the basis for developing users' tariffs at the e-taps.
- The electronic prepaid system (e-taps) resulted to water access 24/7.
- Reduced the longest distance community members must walk to collect water from four hours (roundtrip) to less than 30 minutes.
- Reached about 25,000 individuals with access to clean water through a water network expansion, and one public school.
- The completion of the Arusha project contributed 15% of water accessibility in Arusha District council. The current status of water service has improved from 57% to 72% . public school.



"What a change, I used to walk for over an hour at 6 a.m. to fetch water in a nearby village," said Neema Daudi, 30-year-old resident of Sangara village who has benefitted from this project. Neema is happy that she no longer has to wake up at 6am to fetch water. "I use the time to do other household chores, and most importantly to care for my little one." Neema has also started to prepare a vegetable garden for her family outside her house, previously she relied on the rainy season to plant vegetables or bought them from the market. The installation of four inclusive water points is transforming lives and livelihoods, bringing access to water to 2,500 people in the village of Sangara in Babati, reducing the burden on women walking miles to fetch water



"We have seen a significant reduction of waterborne diseases and improved hygiene of our people. We feel a deep sense of responsibility to ensure projects like these thrive and continue to benefit our people for many years to come" said Dickson Matei, Community Development Officer, Babati District Council



"I feel so happy now that I can get water near home, my family is happy and there is peace at home" Yasinta Koringo – Lengivaje Village – Arumeru District.

Challenges and mitigation

- Vandalism of the infrastructures such as pipe cuts, destruction of water chambers, stealing of e-taps' solar panels and etaps' batteries, and destruction of water points. The Community Based Water Supply Organization (CBWSO) and Rural Water Supply Authority (RUWASA) managed to stop vandalism incidents and promote community ownership.
- The community's readiness and willingness to pay for water was a major challenge during implementation. Community engagements, trainings using government laws were very supportive to ensure project acceptability and ownership.

Lesson Learnt

The project provided a range of lessons to WaterAid and her partners from the point of project planning and programming at the time of implementation and commissioning, through coordination processes and at the time of operationalization;

- Community behaviour change is a gradual process which needs regular engagements, defined road map of meetings and situational flexibilities.
- Active engagement of stakeholders at the local level, including the CBWSOs and Utilities enables resolving conflicts, monitoring, and promoting ownership of their specific roles and responsibilities towards achieving the wider goals beyond the project lifecycle.
- The investment in engagement and capacity building of CBWSO ensures learning by doing, preparing for future projects; and ensuring sustainability of the water points after the project ends.
- The technical capacity of the implementing partner is of essential to attaining the high-quality program, the organization with innovative vision is highly recommended to the complex projects of these sorts since the solutions are usually not premeditated.



Baraka's father Lucas Omari says before this water point was installed, it took them 2 hours to fetch water. "We will do our best to protect the water points, ensure kids don't play on the taps, and animals don't come nearby." Lucas Omari, Sangara Village - Babati DC



"We appreciate various efforts done by WaterAid and other development partners to provide safe and clean water to citizens especially in rural Tanzania. We are welcoming emerging technologies including the solar-powered pump mechanisms introduced by WaterAid" Said Eng Walter Kirita, RUWASA Regional Manager- Manyara

About WaterAid



Since 1983, WaterAid has been working closely with global and local partners to put access to safe water, sanitation and hygiene (WASH) at the center of national development to transform lives of the poorest and most marginalized people by improving their access to WASH in communities across Tanzania. Our work focuses on programmatic work that is innovative and sustainable, with an emphasis on using lessons and experiences on the ground to advocate for key policy issues and influence national level change. To date, WaterAid has directly reached more than 8 million Tanzanians across 11 regions of both the mainland and Zanzibar with access to WASH. We make a bigger impact because we bring people together, actively encouraging collaboration so that many voices can be heard, and ideas can spread. Together, we will change millions of lives for the better – and change normal for everyone, everywhere within a generation.