

Global Water Institute

Sustainable Village Water Systems

Tanzania Today, Sub-Saharan Africa Tomorrow



The Challenge – Access to Clean Water

Over 300 million people lack access to clean water¹, impacting food, sanitation and hygiene across Sub-Saharan Africa. In Tanzania, 18 million people (one in three residents) face this reality daily², and 21 million people are food insecure³.

For decades, people have been working to meet the critical need for clean water. Unfortunately, efforts have often been short-lived and sometimes destructive. There are 46,000 non-functional water points in Tanzania alone.

Our Solution – The Sustainable Village Water Systems Model

A single clean water source has a ripple effect within a community, positively impacting health and well-being for generations to come.

The Ohio State University's Sustainable Village Water System (SVWS) model is a scalable, evidence-based comprehensive systems solution that seeds economic empowerment and promotes healthy communities.

SVWS is centered on local ownership and governance and builds upon community assets. Leveraging expertise and resources from vested partners, SVWS operates at the nexus of water (solar-powered water systems), food (agricultural extension), and sanitation and hygiene (schools and clinics). Our solution focuses on long-term outcome measures not short-term metrics.

How it Works



Water and Power Infrastructure

Installation of boreholes, solar-powered pumps, storage tanks, and metered distribution at population centers, schools, and health-care facilities



Climate-Smart Agricultural Practices Training

Empowering women and families, leading to improved food security and cash crops for sale at local markets



Training and Education

Skills training for operators, technicians, and entrepreneurs with links to formal education opportunities



Private Operator Model

Water tariff collection with region-appropriate pricing policies generates funds for maintenance, capital needs, and increased employment opportunities

1. Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG Baselines. Geneva: World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), 2017.

2. WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene. 2019, "Estimates on the use of water, sanitation and hygiene in United Republic of Tanzania," available from: <<https://washdata.org/data/household#!/>>.

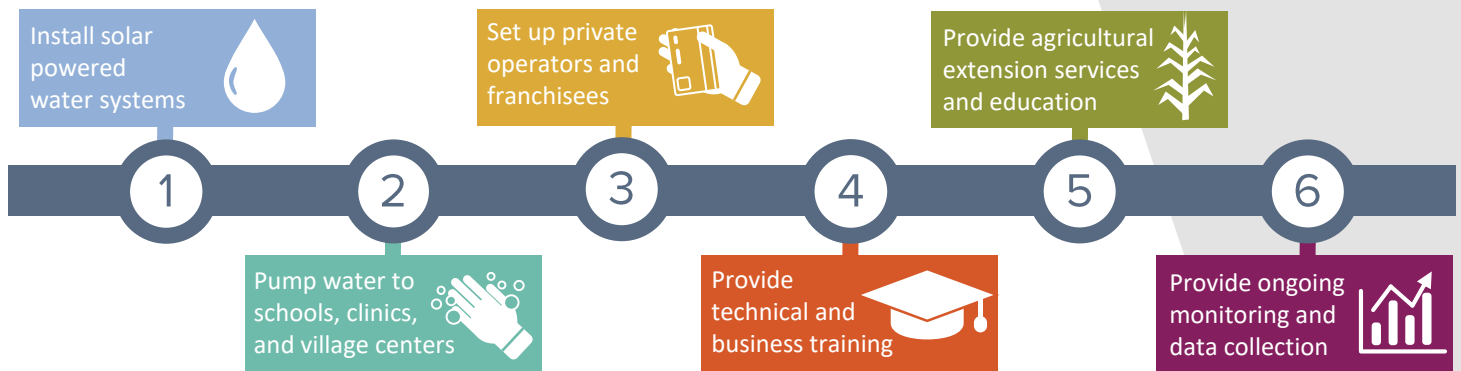
3. Food and Agricultural Organisation of the United Nations, FAOSTAT database, United Republic of Tanzania, available at: <http://www.fao.org/faostat/en/#country/215>

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Sustained Impact

SVWS has been developed with the full support of the Tanzanian government. Local ownership of water systems ensures system maintenance and community-wide economic growth. Remote monitoring of wells allows district water managers to maintain operations and monitor borehole replenishment. By investing in education and training, we are empowering local entrepreneurs who not only support their own families, but who also reinvest into their community.



The Opportunity

Reliable access to clean water supports healthy communities. Clean water leads to improved sanitation and decreased exposure to water-borne illnesses and infectious diseases, and water is fundamental to growing fresh crops that improve nutrition and generate income for women and families.

With the support of our partners, The Ohio State University team is currently deploying sustainable village water systems in 27 villages in Tanzania. Please join us in bringing water, food, health and sanitation to even more communities by making an investment in this critical work.



Visit globalwater.osu.edu to learn more.



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