



Masanga Centre

Water Supply Improvement Project

February 2020 - August 2020

MASANGA CENTRE

Masanga is located in the north western part of Tanzania 8 km from the Kenya-Tanzania border in a hilly, isolated and poor area covering 8 villages. The population of the area is about 40,000.

Located in Tarime District of the Mara region, Masanga Centre includes a Health Center, DREAM Program, Sisters' Convent, a Church, St. Catherine Laboure Day & Boarding School, Association for Termination of Female Genital Mutilation (AFTGM), Lindalva VTC, Gorong'a Secondary School and Masanga Primary School. It has a population of approximately 2,000 people.

The Bikira Maria Mama Wa Tumaini Health Center and DREAM Center offer a variety of valuable services to the people of Masanga including outpatient and inpatient services, surgery, maternity services, ultrasound, HIV/ AIDS treatment, laboratory services, home care, outreach and mobile clinics. The Health Center currently treats approximately 344 patients each month.

The recently completed water supply improvements project has positively impacted over 4,000 lives and will continue to do so through the empowered communities of Masanga. In addition to the water system improvements, the communities received operations and maintenance training and water, sanitation and hygiene (WASH) awareness education to help ensure long-term sustainability of the water system and the importance of WASH practices. Access to reliable and safe water helps reduce infections, minimize illness, and saves lives!



Masanga



Borehole Development

Pipe Rehabilitation

Pumping Station
Rehabilitation

Rainwater Harvesting
Improvements

Construction of Tank Towers

Spring Protection

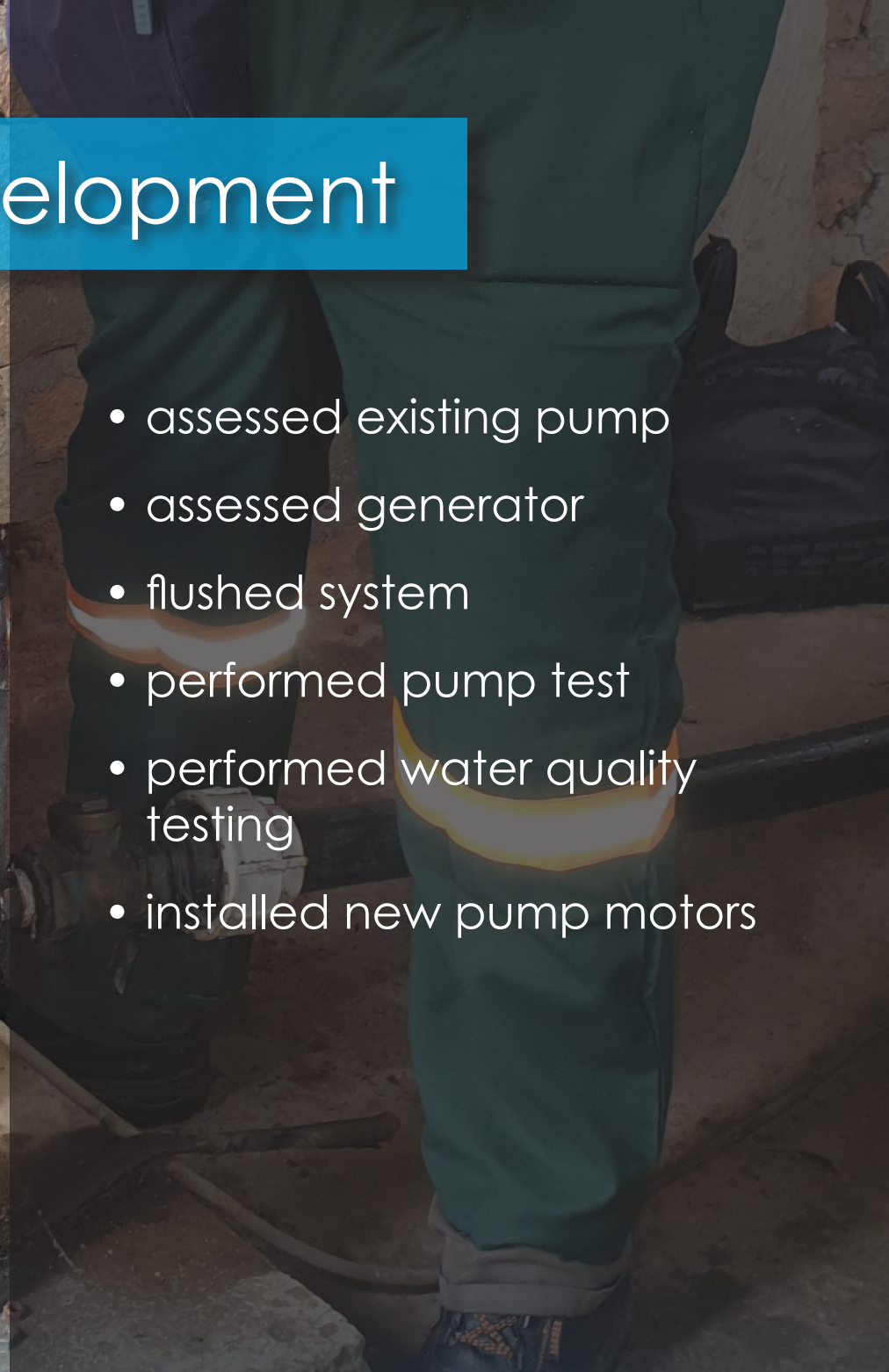
Well Rehabilitation

Community WASH
Education and Awareness

Borehole Development



- assessed existing pump
- assessed generator
- flushed system
- performed pump test
- performed water quality testing
- installed new pump motors



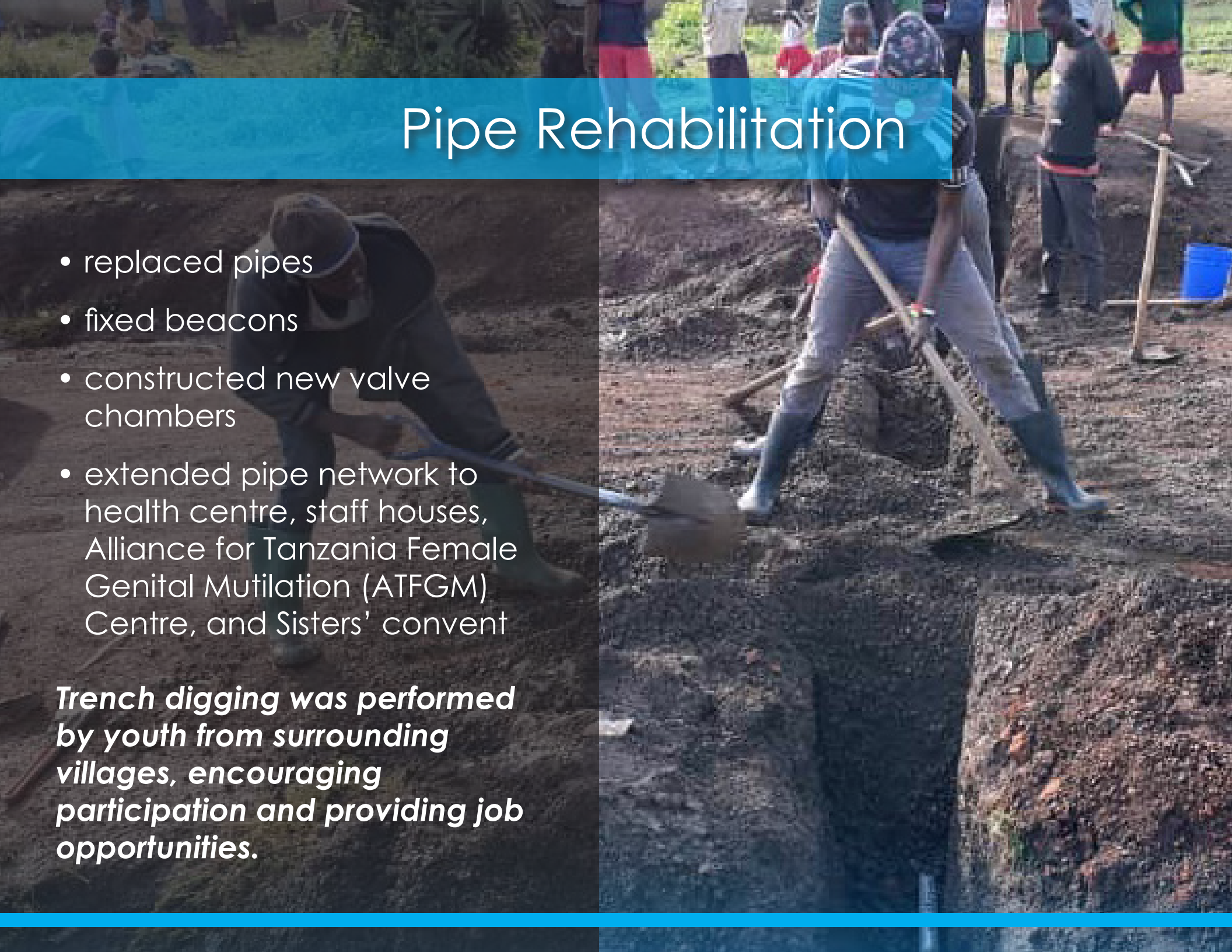
Borehole Development



Pipe Rehabilitation

- replaced pipes
- fixed beacons
- constructed new valve chambers
- extended pipe network to health centre, staff houses, Alliance for Tanzania Female Genital Mutilation (ATFGM) Centre, and Sisters' convent

Trench digging was performed by youth from surrounding villages, encouraging participation and providing job opportunities.



Pipe Rehabilitation





Valve Chamber Construction & Rehabilitation

- rehabilitated **8** existing valve chambers
- installed **5** new water flow meters
- constructed **6** new valve chambers



Valve Chamber Construction & Rehabilitation



Pumping Station Rehab

- constructed by **2** masons and **2** helpers over **10** days
- plastered roof and interior of building to prevent leaking
- improved flooring and top slab
- added ventilation for generator
- painted interior

Due to poor road conditions and vehicle inaccessibility, donkeys were used to carry sand and cement to the site.

Pumping Station Rehab



Rainwater Harvesting Improvements

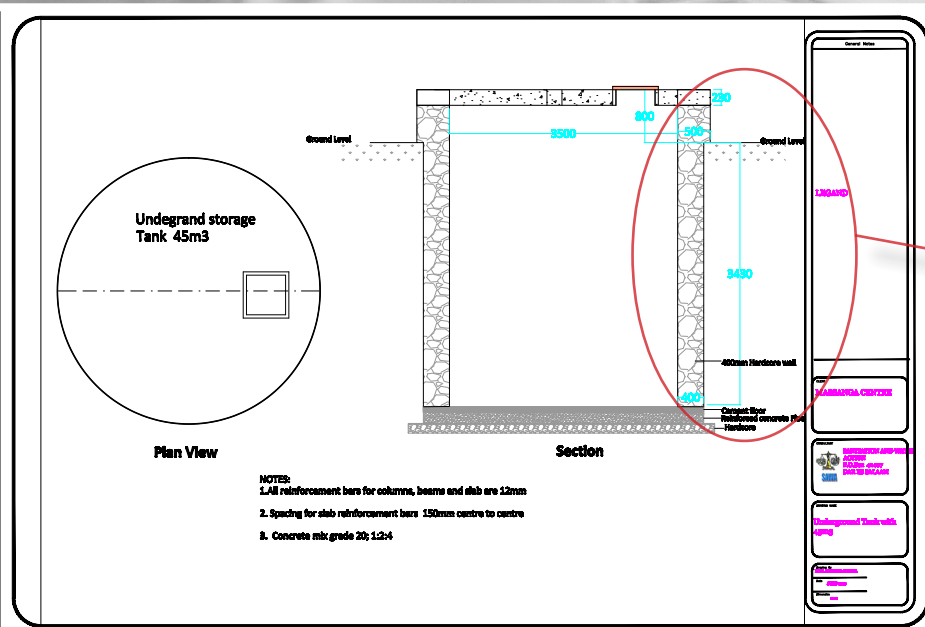
- constructed **3 ten-thousand gallon underground tanks** with submersible pumps for St. Catherine school, health centre and Sisters' convent
- installed **9 new water storage tanks** for Garang'a Secondary School, Masanga Primary School, Kenyamosabi Primary School and St. Catherine Labour Primary School
- installed **3 new water storage tanks** at the health centre, ATFGM centre and the Sisters' convent
- connected roof/guttering system to tanks for rainwater catchment

Students often spend valuable class hours searching for water.

*Access to drinking water through rainwater harvesting will **increase** class attendance and **improve** the learning environment.*

Rainwater Harvesting Improvements

construction of 10,000 gallon (37 cubic meters) below grade tanks



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Construction of Tank Towers

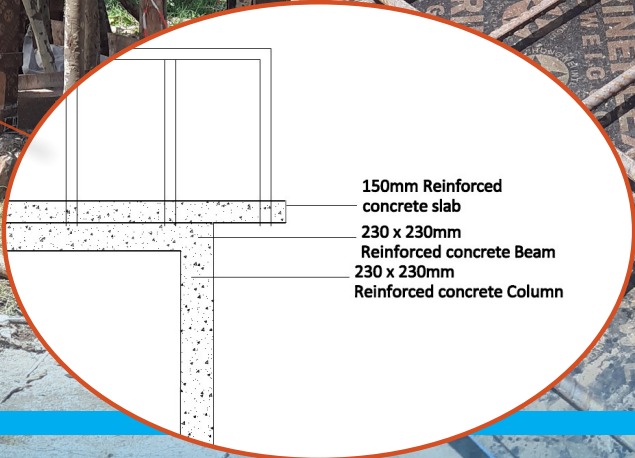
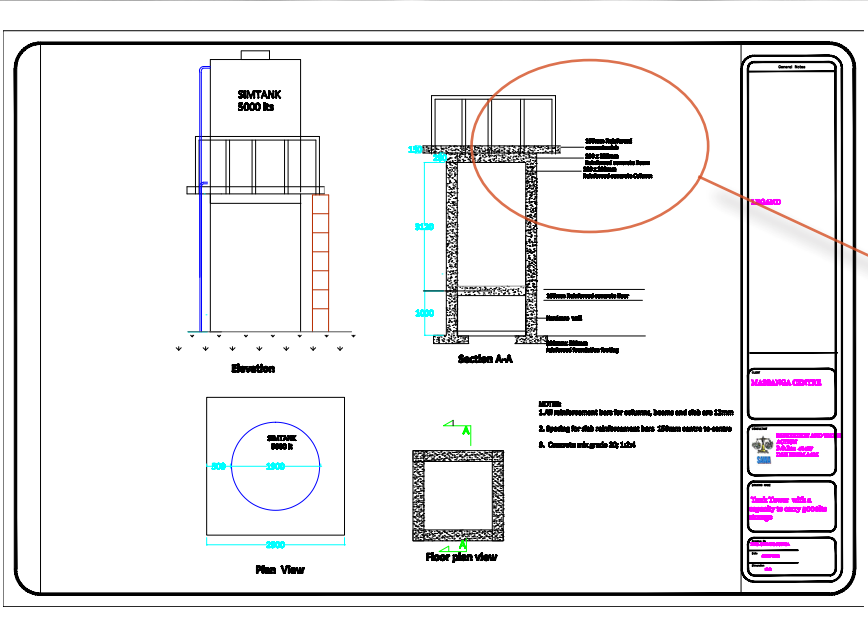
constructed 4 tank towers
(1,321 gallons/5,000 liters)

- 2 at the health centre
- 1 at the Sisters' convent
- 1 at the ATFGM centre

water supply
comes from
well and below
grade rainwater
catchment system



Construction of Tank Towers



Construction of Tank Towers



Construction of Tank Towers



Spring Protection

Without protection, springs are susceptible to contamination.

protected **2** springs

Muhomoni Spring and Kemchage Spring

- installed piping for water conveyance
- installed taps for water collection
- installed security fencing to prevent human encroachment

*These two springs serve over **500 households.***

Spring Protection



Spring Protection



BEFORE Spring Protection



AFTER Spring Protection



Spring Protection

children carrying water from the new protected source



A woman in a patterned dress is operating a manual water pump. The pump is yellow and mounted on a concrete base. A large white container is positioned to collect water. In the background, there are tall green plants, likely corn. Two other people are visible: one in an orange safety vest and another in a blue shirt. The scene is outdoors under a clear sky.

Well Rehabilitation

rehabilitated **2** wells

*Kenyamosobi Well and
Ngonche Shallow Well*

- repaired pumps
- removed sediment
- opened aquifers
- tested water quality
- performed disinfection
- rehabilitated apron
- improved drainage



Well Rehabilitation

Kenyamosabi Well

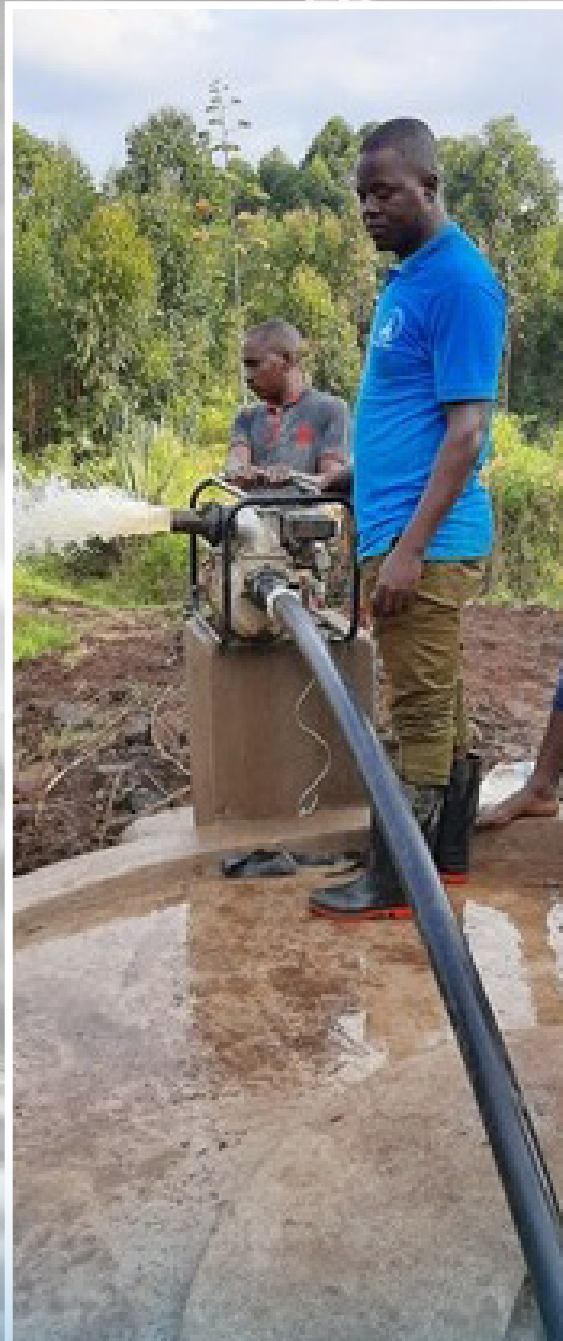
After 22 years of not working, the *Kenyamosabi Well* is now completely functional and expected to serve over **73 households** throughout most of the year.

Ngonche Shallow Well

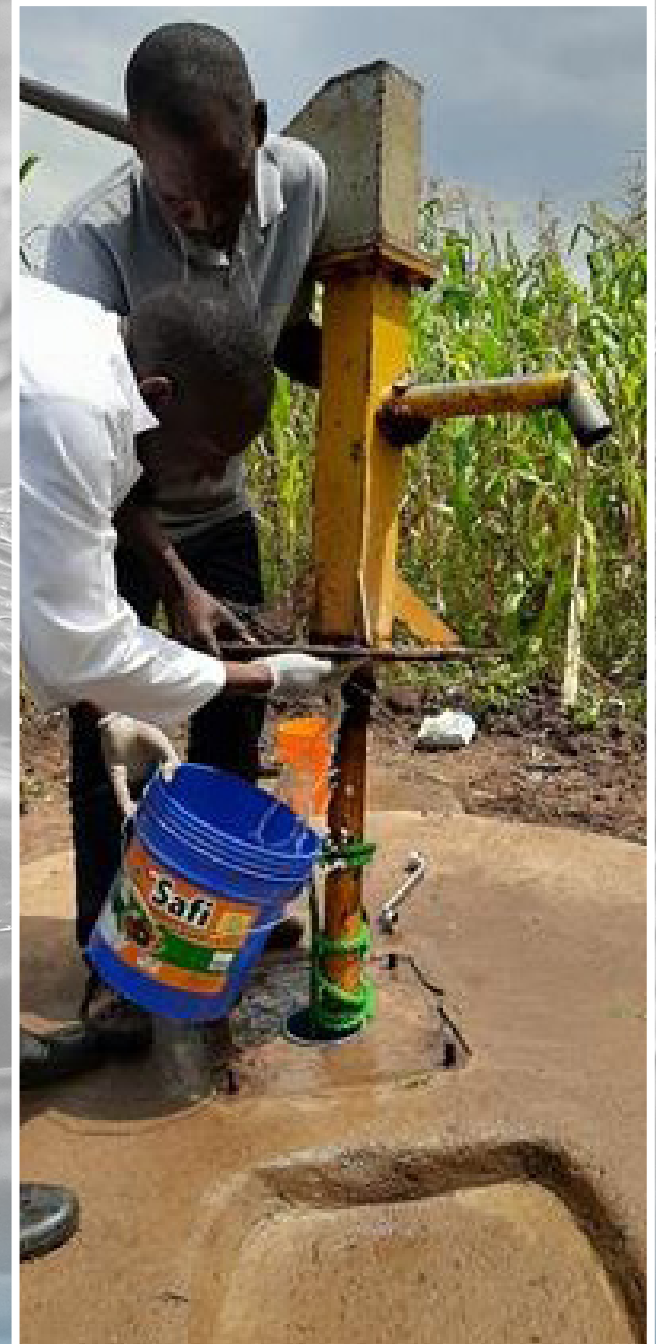
Because of the overwhelming response by the community with volunteer labor and transportation of building materials, the *Ngonche Well* was included for rehabilitation after project mobilization.

This second well has successfully been restored and will serve over **165 households** in Ngonche and surrounding sub-villages year-round.

Well Rehabilitation



Well Rehabilitation



Well Rehabilitation



WASH Education

Water, sanitation and hygiene (WASH) awareness was communicated through meetings with village health committees, village health workers and the government in addition to public events. **Over 1,500** people were reached during these efforts.

Students were provided WASH training in the classrooms which included Menstrual Hygiene Management (MHM) for adolescent girls. Training in the schools also focused on awareness and developing student SWASH clubs. (Skills on Water, Sanitation, Hygiene).



WASH Education





Empowering the Community

Systems often fail due to lack of capacity to operate and maintain the water facilities.

To **ensure sustainability** of the water systems in place, multiple training sessions were provided for the community.

These sessions included operations and maintenance training, community roles and responsibilities, financial management and use of water funds, in addition to water source conservation and protection.

Masanga Centre

Water Supply Improvement Project

constructed
4 tank towers

rehabilitated
2 wells

installed
5 new water flow
meters

rehabilitated
and constructed
14 valve
chambers

protected
2 springs

installed
12 new water
storage tanks

assessed and
improved
1 borehole

rehabilitated
1 pump station

facilitated
community WASH
education events

installed
3 underground
rainwater
harvesting tanks

IMPACTED OVER 4,000 LIVES!



DAUGHTERS OF CHARITY
OF ST. VINCENT DE PAUL

INTERNATIONAL
PROJECT SERVICES

Daughters of Charity of St. Vincent de Paul International Project Services (DCIPS) facilitates international funding and other resources, and develops relationships that support Daughter of Charity projects that minimize human suffering and foster sustainable solutions to global poverty at the local level.

Project Role

DCIPS facilitated the connection and relationship between the donor, technical experts and the local Daughters of Charity Sisters that run the Masanga Centre facilities.

www.daughtersips.org

Water Engineers for the Americas & Africa (WEFTA) is a nonprofit organization comprised of professional engineers, technical advisors and volunteers working together with in-country partners to develop ways to alleviate the problems associated with unsafe water systems and inadequate sanitation for communities in need in Latin America and Africa.

Project Role

WEFTA provided technical expertise, engineering oversight and project management.

www.wefta.net

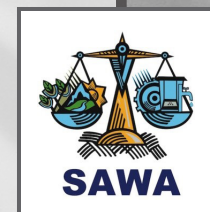


Sanitation and Water Action (SAWA) is an indigenous Tanzanian NGO supporting communities, government and the private sector to identify cost-effective, innovative solutions for WASH projects and sustainable water resources management in Dar es Salaam, Morogoro, Dodoma and Njombe regions.

Project Role

SAWA provided on-site engineering and facilitated local partnerships and project construction.

www.sawatanzania.org



PETER J. KING
FAMILY FOUNDATION

The mission of the **Peter J. King Family Foundation** is to provide bricks and mortar funding to organizations whose activities are dedicated to the improvement of children's health, education and welfare, and to building a stronger family environment.

Project Role

The Peter J. King Family Foundation provided the necessary funding to complete this project.

www.pjkingfamilyfoundation.org

Special thanks to the **Walter J. Fant Family Fund** that helped start the project by funding the feasibility study for the Centre.



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OF ST. VINCENT DE PAUL PROJECT SERVICES



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Making connections. Empowering communities. Changing lives.

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