

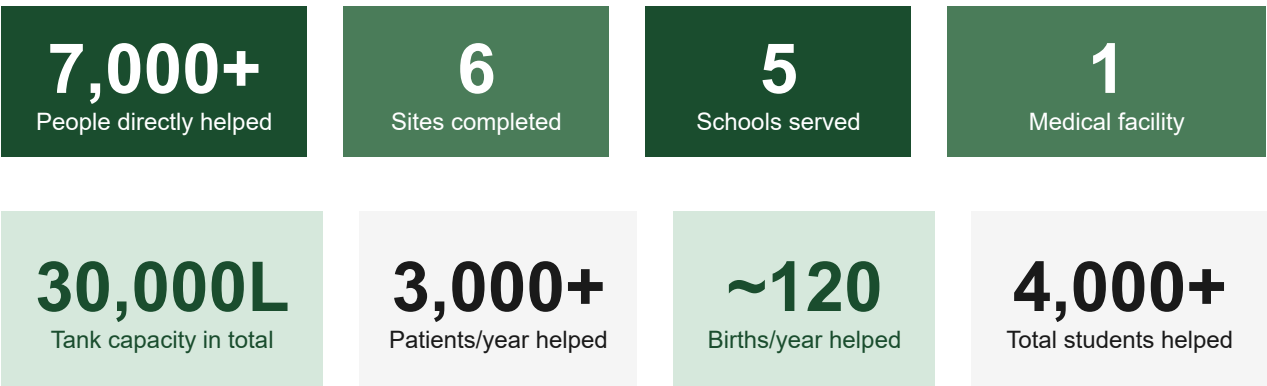
Msomera Water Project — Phase 2

Rainwater Harvesting Infrastructure · Handeni District, Tanga Region, Tanzania

Organisation: Retuno E Maa Organization (REMO)
Project: Msomera Water Access Project Phase 2
Status: ✓ **Completed**
Report Date: May 2026



1. Impact at a Glance



Phase 2 of the Msomera Water Project has been successfully completed. Six rainwater harvesting systems — five schools and one medical facility — now serve over 7,000 students, teachers, patients, and community members with direct access to safe, stored rainwater. Each system was designed for long-term community ownership and maintained in coordination with local government representatives.

2. Context & Background

The Community

Msomera Village is located in Handeni District, Tanga Region, in north-eastern Tanzania. The village is home to a significant number of Maasai families who were resettled from the Ngorongoro Conservation Area. These communities arrived with disrupted livelihoods, in a region with a harsher climate and limited water infrastructure — making reliable, safe water access one of the most pressing unmet needs.

Existing Infrastructure

Several sites in the Msomera area had additional water infrastructure prior to this project — donated by other organisations (including DORCAS) or installed through large-scale development programmes (incl. the government). In all cases, existing infrastructure was either insufficient for current demand, in a state of disrepair, or entirely absent. This project did not seek to duplicate existing provision but to close the gap at the most underserved sites.

Site Selection

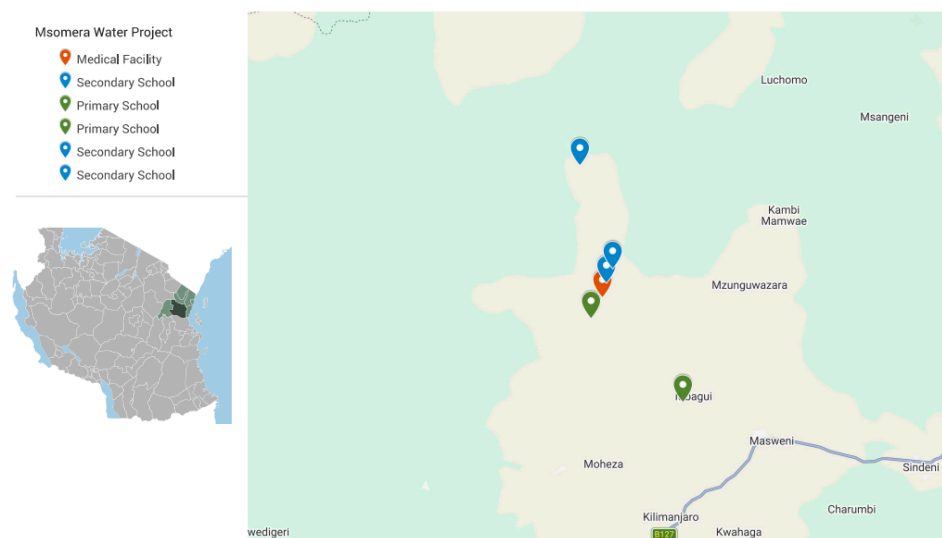
All project sites were evaluated and selected jointly by the REMO team and local government representatives, based on documented need and infrastructure gap. The dispensary targeted in this phase is a smaller facility relative to a larger medical institution also present in Msomera — it was specifically chosen because it lacked water infrastructure compared to the larger site.

3. Project Sites

The following six sites were identified, evaluated, and completed in Phase 2. All installations consist of a reinforced concrete base, a 5,000-litre rainwater storage tank, and gutters mounted on existing metal roofing to channel collected rainfall directly into the tank.

#	Site Name	Type	Users	Notes
1	Msomera Dispensary	Medical Facility	3,000+ patients/yr and ~120 births/yr	A larger medical facility nearby has more infrastructure. This one also serves maternal and primary care.
2	Samia Suluhu Hassan Primary School	Primary School	15,10 students	Largest school in this phase.
3	Msomela Primary School	Primary School	534 students	Primary-level education; one of two primary schools in this phase.
4	Msomera Secondary School	Secondary School	405 students	Secondary-level education serving the broader Msomera resettlement community.
5	Dr. Philipp Mpango Secondary School	Secondary School	90+ students (rapidly growing)	Relatively new and expanding quickly.
6	Mbagwi Primary School	Primary School	1,500+ students	Among the largest sites by number of beneficiaries.

Total students enrolled across all school sites: approximately 4,039 (based on reported figures). Total beneficiaries including medical facility users, staff, and community members: 7,000+. Please note that some of these numbers might overlap with each other and might change over time.



This figure shows the different project sites of this phase and broadly where this is in Tanzania.

4. Technical Design

Each of the six installations follows a standardised design, selected for durability, low maintenance requirements, and community manageability.



Concrete Base

Reinforced concrete foundation raises the tank off the ground, protecting against flooding during the rainy season and providing structural stability for the full weight of a 5,000-litre filled tank.



5,000L Storage Tank

High-capacity polyethylene tanks store and collect rainwater. Capacity is mainly to aid people during the long dry period after the rainy season.



Roof Guttering

Gutters mounted on existing metal roofing channel rainfall directly into the tank. Utilises the existing roof structure — no new building required. Simple to clean and maintain locally.

Design principles

- Community-maintained — no specialist equipment or external technicians required for routine upkeep.
- Government-coordinated — all sites selected in collaboration with local government representatives.
- Flood-resilient — concrete bases protect infrastructure during the strong rainy season.
- Scalable — the standardised design can be replicated at additional sites with minimal adaptation.
- Exit-ready — community caretakers are identified at each site from day one.

5. Photo Documentation

These photos serve as insights into the different project sites. More documentation, including videos and photos, can be found on our socials (YouTube, Instagram, LinkedIn) and on our website (www.retunoemaa.org).



Site 1 — Msomera Dispensary



Site 2 — Samia Suluhu Hassan Primary



Site 3 — Msomela Primary School



Site 4 — Msomera Secondary School



Site 5 — Dr. Philipp Mpango Secondary



Site 6 — Mbagwi Primary (during construction)



Construction — Concrete Base



Community — Government Coordination

6. Budget Summary

All financial figures below are in USD and estimated from TZS. Please note that a lot of prices during this phase were inflated by high fuel prices in Tanzania. Also note that some costs were covered by REMO directly (2 water tanks and connectors), while other materials and supplies were donated to REMO through the GoFundMe initiative. Costs from other projects (Women's Economic Initiative) or more indirect costs (e.g. Wi-Fi) are excluded from this breakdown.

Category	Amount (USD)	Notes
5000L Water Tanks (6)	3218	2 covered by REMO directly
Gutters and related materials	1231	Includes pipes, connectors, joints
Cement, bricks, sand and tools	717	Tools include screwdrivers, etc.
Labour costs	731	Construction & supervision
Transport (Personal & Materials)	1078	This includes fuelling (high prices)
Admin & Fees	375	Bank fees and other adm. costs
Other	159	Food, water and any other costs
TOTAL PHASE 2 (actual)	7509	Est. cost per installation: 1251.5

7. Sustainability & Handover

Each installation is designed to be community-owned and maintained from day one. The following measures ensure long-term sustainability without dependency on REMO's continued involvement:

- Local caretakers identified — responsible for routine inspection, cleaning, and maintenance.
- Government coordination — all six sites are known to and registered with the local government
- Simple, locally-repairable design — no specialist parts or external technicians required.
- Designed as a complement to, not a replacement for, government water infrastructure responsibilities.

8. Acknowledgements

This project was made possible by the support of individual donors via GoFundMe through Tim Plückebaum, further help from *Kipepeo - Entwicklung in Afrika e.V.*, the commitment of the REMO on-the-ground team, and the cooperation of local government representatives in Msomera and the Handeni District. REMO is grateful to every person who contributed financially, practically, or by sharing our work. Special thanks to the community members of Msomera Village — students, teachers, patients, and families — whose trust in REMO makes this work possible.

Tim Plückebaum, Co-Founder & Volunteer



Emmanuel Saitoti, Founder & Director

