

Sand Dams Worldwide



Project	Sand dam construction
Location	Tawa, Southeast Kenya
Dates	06 – 19 March 2027
Group size	14

Aim and context of the project

This project will support a subsistence farming community in Ukambani (a region of southeast Kenya comprising Machakos, Makueni and Kitui Counties) to build a sand dam to provide a reliable, year-round water source. Sand dams are a sustainable, cost-effective, nature-based rainwater harvesting solution built across seasonal riverbeds, that capture and store up to 40 million litres of rainwater, protected from contamination and evaporation by sand, and replenishing every rainy season to provide communities with year-round access to clean water. Over the last 20+ years, sand dams have proven highly effective at transforming lives in this part of Kenya.

The project area suffers frequent droughts and unreliable rainy seasons exacerbated by climate change, leading to environmental degradation, severe water shortages, and failed/reduced harvests. Since most households rely on small-scale farming, these conditions result in widespread hunger and high levels of poverty. Over two thirds of families live in poverty – 20% more than the national average – and about the same proportion also has no access to safe water. The constant search for water leaves people with little time to invest in improved agriculture, trapping them in a cycle of aid dependence. The sand dam is expected to address the key issue of water scarcity and provide families with the time and opportunity needed to focus on food production and income generation.

Project details

Volunteers will work with a community-based Self-Help Group (SHG) to build the sand dam, experiencing first-hand how it is done and what it means. It will be hard work, but there is a job to suit every ability. Tasks may include digging trenches, shovelling sand, mixing cement, moving rocks and carrying water.

One sand dam will directly benefit approximately 175 people, ie. the SHG members and their households. A further 1,000 people who live in the wider community are also expected to benefit either by access to the sand dam themselves and/or reduced pressure on existing water sources.

Participation on this project will enable volunteers to learn about beneficiaries' daily lives, their challenges and hopes; how sand dams work and their role in our approach to development; and see the impact of JOA's previous support to other communities in this area.

Responsibilities/activities: The project will support this SHG and its wider community to have a new local and reliable source of clean water. SHGs are self-formed groups of male and female farmers from the same village or community who have joined together for the purposes of community development, motivated by *Mwethya*, a Kenyan philosophy of working together to achieve a common goal. The average size of a SHG is approximately 35 farmers and experience shows 70% are female.

Accommodation: The volunteer team will stay at the Jambo Village Hotel in Tawa, a small town in Northern Makueni County about 2 hours' drive from Nairobi. Tawa is the closest town to the project site in northern Makueni and southern Machakos counties.