Project:	Restoring degraded lands to reduce rural poverty in Ethiopia
Location:	South Omo Zone, Ethiopia
Timeframe:	September 2021 – February 2023
Grant:	£82,868
Agency:	Excellent Development Isle of Man Ltd
Implementing Partners:	Action For Development (AFD), Ethiopia Africa Sand Dam Foundation (ASDF), Kenya
Report Period:	Year 1: September 2021 – February 2022
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Introduction

South Omo Zone in southern Ethiopia faces severe environmental challenges: chronic soil erosion, land degradation, inadequate water resources, loss of biodiversity, natural hazards (repeated droughts and flash floods), and climate change. Water is now increasingly scarce in large parts of South Omo Zone, posing the greatest threat to livelihoods, food security, ecosystems and the economy.

This three-year programme of which IOM is generously supporting years 2 and 3 (September 2021 – February 2023), and was launched in March 2020 is supporting four communities to each build a sand dam (with three being built during the IOM project period), providing 7,200 people with long-term water security. Conservation and farming activities will enhance the benefits of the sand dams (proven to increase drylands' adaptive capacity to climate change) to help restore degraded land, protect biodiversity, improve food security, and enhance their resilience.

Aims & Objectives

The overall purpose of this project is to reverse environmental degradation and strengthen the resilience of communities dependent on the land, to reduce rural poverty in South Omo Zone, Ethiopia.

The key outcomes will be:

Outcome 1.0	Understanding of the potential for sand dams to become a solution to communities' food, water, and health challenges, and to form part of land conservation practices in the South Omo Zone context
Outcome 2.0	Reduced land degradation within four watersheds
Outcome 3.0	Four communities have year-round, local, safe water supplies from the pilot sand dams, with associated improvements to: 1) the quality of water available for drinking, 2) the availability of water to support livestock, irrigation and vegetable crops, 3) availability of water for WASH purposes
Outcome 4.0	Increased pastoralist and agropastoralist resilience to climate change and drought through enhanced food security
Outcome 5.0	Strengthened learning, innovation and best practice among NGOs and regional/local governments in Ethiopia for how to use sand dams as a rural water solution and climate adaptation technique
Outcome 6.0	Improved hygiene practices, health and well-being among beneficiary communities

The key activities to deliver these outcomes are:

- A feasibility study in South Omo Zone (completed in 2020/21), to assess the potential for sand dams
- Implement land conservation measures and community-managed tree planting

- Construct four sand dams: one in each watershed
- Train farmers in conservation agriculture
- Deliver two workshops: a regional workshop for actors across Ethiopia on the implementation of sand dams, and an international workshop for actors across east and southern Africa on integrating sand dams within land conservation and livelihood development strategies
- Capacity building to strengthen AFD's ability to build sand dams, and engage with a range of stakeholders in Ethiopia to promote the project's approach, share impact evidence and lessons learnt
- WASH training, including on improved water handling and storage, and raising awareness of waterborne diseases and water-related illnesses

These activities are pursued in an effort to address the following Sustainable Development Goals (SDGs):

SDG1 No poverty
SDG2 Zero hunger
SDG6 Clean water and sanitation
SDG13 Climate action
SDG15 Life on land

Beneficiaries

Three of the four communities have been identified. These are: Altealgude, Mukecha, and Gurmmamaro. Baseline surveys have been completed with Altealgude and Mukecha. Baselines for the third and fourth communities are scheduled for March/April. Key findings from the baseline surveys include:

Average water use per person is 9 litres, and 8% of the respondents had access to less than 3 litres per person per day. To give this some context; the average for Ethiopia is 15 litres per day per person, but WHO's recommended minimum is 50 litres of water per person per day. Although it should be noted that this includes water for washing clothes, and most people in rural Ethiopia wash their clothes at the water source, so therefore the amount used to wash clothes was not counted as part of the total amount of water each person has access to.

Amount of water available for communities is a very significant issue. For example, only 1 household had enough water available to bathe daily all year round. For 92% of respondents, there was never enough water to bathe daily and for a small number of beneficiaries (6.7%) they only had enough water for some of the year to bathe daily. None of the respondents ever had enough water for all of their livestock.

Project Activities & Achievements

Sand dams

To date two sand dams have been constructed (one during the IOM funding period): the Altealgude (completed in August 2021) and Mukecha (completed in November 2021) sand dams. These sand dams will enable 2,040 people to gain access to clean water.

Altealgude sand dam

Mukecha sand dam (as the dam matures, sand will fill behind the wall where water is stored)

ASDF, our strategic partner and technical consultant for this project, were on-site throughout construction of the dams in order to train AFD in dam construction and support them to adapt their techniques to help ensure that the sand dams they build are to ASDF's specification.

As well as reducing time spent collecting water, the sand dams will reduce the amount of money community members have to spend on water. Elsewhere, water is typically charged at 60 - 70 ETB per jerry can. To access water from the sand dams however, community members have to pay just 10 ETB per month. This money is collected by the Water Management Committees, and will be put towards handpump maintenance.

Community member collecting water at Altealgude

Construction of the third sand dam is scheduled to take place in May/June 2022, and the fourth in November/December 2022. The third sand dam has already been sited and designed, with plans for the fourth dam underway.

2 WASH committees (7 members per committee, and 3 per committee are female) have received training in the Management, Operation and Maintenance of the water points. In addition, 14 female villagers and 2 Health Extension Workers have received hygiene and sanitation training, and have since cascaded their learning to 230 households within the community. Already, this has resulted in community members excavating 30 latrines at the household level, demonstrating that the community want to improve their health and hygiene and change their practices.

Land conservation works and conservation agriculture

To date 166 community members (100 from Altealgude and 66 from Mukecha) have received training in the importance of and implementation of land conservation measures. Land mapping has identified 166 Ha of seriously exposed lands where soil and water conservation techniques will be implemented. Techniques being used include half-moons, soil and stone bunds, bench terracing and micro-trenches, as appropriate to the local environment. Already, community members have implemented measures covering 96 Ha.

In addition, 2,410 agro-forestry trees have been planted, using climate adaptive and drought-resistant varieties. Species planted include papaya, moringa and kolla bamboo. In addition to helping protect and restore the local environment, the trees will provide a source of food and income for the communities, as well as shade for people and livestock.

Trench excavation (left) and tree planting (right)

In addition to receiving training in environmental protection works, beneficiaries are being trained in conservation agriculture. To support the training 2 demonstration plots have been established (0.5 Ha each) where beneficiaries will be able to trial new techniques and grow communal crops. Tools such as pick axes, mattocks, shovels and digging hoes have also been distributed to the communities.

Workshops

We had planned to deliver a regional workshop (with this element being funded by Jersey Overseas Aid) however due to ongoing travel restrictions, in October 2021 we delivered a remote workshop for all our partners that was not aimed so much at the technical side of sand dams; but the activities that sand dams enable, and how partners' different areas of expertise and programmes can be complemented by sand dam technology. It was delivered over 3 days using Zoom, and different partners presented on topics that they were particularly experienced in, which was then followed by group discussions. Topics included: the role of sand dams in restoring degraded drylands, organic agriculture, and ensuring gender inclusion across programmes.

The workshop was well received, with a number of participants saying how useful they found it; *"The workshop was informative and beneficial"* and *"This was a workshop with new information for me so I really found it helpful."*

We are hopeful that the international workshop scheduled to take place in January 2023 will be able to run as planned. The focus for this workshop will be conservation, and the role sand dams can have in complementing conservation work. This workshop will be open to all interested partners, including ED's sub-Saharan African partners.

Challenges to Implementation

The Covid-19 pandemic had a significant impact on project delivery when this programme was launched in 2020, most notably the restrictions to international travel preventing our technical partner ASDF travelling to Ethiopia to provide capacity building support for AFD. However last year, following the easing of travel restrictions, ASDF were able to join the team in Ethiopia, and sand dam construction and on-the-ground training for the AFD team could commence. We continue to monitor the situation closely, however at present project activities are now progressing as planned.

Although the conflict in northern Ethiopia hasn't directly affected project activities, indirectly there is a risk it could impact project implementation through rising inflation rates, affecting food and fuel prices. ED and AFD continue to monitor the situation closely, and if necessary, we will consider revising fundraising budgets so that more co-funding can be raised to cover increases.

Currently southern Ethiopia is being impacted by a severe drought, with significant impacts to local communities. In neighbouring Borena region for example, 62,000 people have required emergency food assistance, and 12,000 livestock have died. The project area has not been suffering to the same degree, nevertheless it emphasises again why it is so important to deliver this project. Some project activities have been affected by the drought. Tree-planting planned for the second rainy season in 2021 for example was unable to take place, as these rains failed (tree-planting takes place at the onset of the rains). AFD have also experienced some difficulties engaging community members with environmental and conservation activities, as some migrate to other areas in search of water and pasture. AFD have been working to help educate community members on the role land resource management has in enhancing agricultural productivity, food security and income, and in the short-term have distributed livestock feed, whilst providing seeds to sow forage grasses for pasture. In the long-term however, together, these activities will help ensure that these communities have year-round access to water, a healthy environment which supports their livelihoods, and increased resilience to climate-related hazards such as drought.

Project Activities & Achievements

Complete the following activities with the four watersheds:

- **Construction of two sand dams**
- Implement **environmental management** and community-managed **tree planting**
- Training of communities in **conservation agriculture**
- **WASH training** to ensure the community use safe practices for collecting and using water from dams
- **Capacity building and certification of AFD** in sand dam siting, designing and construction
- Deliver an **international workshop** on conservation
- **Project scale up and planning** to decide if, where and how sand dams can be scaled up across Ethiopia
- External audit and evaluation

Project Expenditure

Year 1 finance report attached

Report compiled by:
Sarah Joseph, February 2022