## PROMISING RESILIENCE PRACTICES





# Improving Clean Water Access through Construction of Community Owned Water Harvesting Structures

Community members in selected woredas of Oromia and Southern Nations, Nationalities and Peoples (SNNP) regional states were trained and supported to construct and manage water harvesting structures. During severe droughts, communities continue to have access to potable water because humanitarian organizations use the constructed water structures for emergency water distribution

### Introduction

Due to limited access to clean water, members of many pastoralist communities in Ethiopia are affected by water borne diseases. Members of pastoralist households, especially women have to travel long distances in search of water. This has had an adverse effect on health, education and livelihood of pastoralist communities in general, particularly the women.

A project intervention which aimed at improving clean water access for pastoralist communities through construction of water harvesting structures was implemented by a nongovernmental organisation called Action for Development in selected woredas of Oromia and Southern Nations, Nationalities and Peoples (SNNP) regional states.

The intervention used a participatory approach to identify the appropriate design of water harvesting structures, which is a ground catchment called cistern. Selected members of the

communities were trained to construct the water harvesting structures. Even though these structures are constructed mainly for harvesting rain water, it was decided that they should be constructed in locations that are accessible to emergency water distributors and water traders.



#### Methodological approach

- Participatory needs assessment (involving both male and female members of the communities) was conducted. Water shortage emerged as the critical problem to be addressed.
- Participatory vulnerability and capacity assessment approach was used to map the frequency of hazards, the most affected community members, the communities' coping strategies, their resources and capacity. This information was used to identify the appropriate intervention (constructing water harvesting structures) and to select the sites.
- Community members were trained so that they could get the skills to construct and maintain the water harvesting structures. The project employed a mason that coached and provided technical support and guidance to community members during the construction process.
- Water management committees were established to oversee and manage the water harvesting structures and regulate water use. The members were trained on health and sanitation and book keeping. The water management committees collect fees from users, carry out maintenance activities and other administration tasks to ensure equitable distribution of water to users.
- Stakeholders and beneficiaries hold regular review meetings on the water management challenges encountered and sustainability of the water harvesting structures.

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#### Results

Field visits undertaken by Action for Development and regional and local authorities together with implementing stakeholders and beneficiaries have evaluated and identified the following results that can be attributed to the establishment of community water harvesting structures:

- Due to access to clean water that is safe for consumption, the potential exposure to water borne diseases has reduced, leading to improved health.
- During severe droughts, communities continue to have access to potable water because humanitarian organizations use the constructed water structures for emergency water distribution.

- Improving clean water access has had a positive impact on school attendance.
- Access to safe water helped to reduce the time spent by women and girls in search of water, which has freed up time for education and other gainful activities.
- The level of potential conflict with neighbours also reduced due to improved water access in the community.

#### Constraints

- Demand for clean water is high, while resources available to construct the water harvesting structures are limited. This is associated with declining financial support from donors. To respond to this constraint, Action for Development limited the project intervention areas.
- The rising cost of construction material inflated the cost of construction. It was necessary to mobilise additional resources to complete the intervention.
- Social unrest made it difficult for project staff to carry out frequent follow up and supervision visits. Instead, they used grassroots and community representatives.

#### **Sustainability**

For sustainability of the practice described above, the following elements are essential:

- Establishment of water management committees and institutions that govern water use.
- Extensive consultation of community members to decide the design and location of the water harvesting structures.
- Establishment of a maintenance system that will be adhered to after project completion.
- Promotion of a water saving culture so that the available water can be used efficiently.

#### **Replicability and upscaling**

The following are essential conditions for successful replication and upscaling:

• The area has to receive minimum harvestable rain.

- The size of the water harvesting structure should be determined depending on the demand for water and annual rainfall amount.
- Community members should be trained on construction and maintenance of water harvesting structures to create a higher sense of ownership and responsibility.
  Where necessary, masons should be deployed to provide guidance to the community members.
- Communities should be trained on financial record keeping, equitable water use, and health and sanitation.
- Water management committees are best placed to regulate water use and carry out maintenance activities. These committees should have adequate representation of both men and women.

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