

PROMISING RESILIENCE PRACTICES



PEACE, PROSPERITY AND REGIONAL INTEGRATION



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Water Harvesting using Pond and Micro-Basin Structures

Water harvested through micro-dams and ponds increased the availability of water for domestic use, watering livestock and improving forage production. As a result of demonstrated impact, the regional government increased the annual budget allocated for natural resources management activities from 2,000 birr to 15 million birr

Introduction

Pastoralism is a primary source of livelihood for the pastoral communities in the Afar region, and access to water and pasture is critical. Recurrent drought is therefore a serious threat to their livelihoods. The 2016 El-Nino induced drought, which is believed to be the worst in nearly half a century, severely impacted livestock assets, and majority of the Afar region's woredas were classified as priority one, meaning they faced the greatest levels of food insecurity.

Due to severe water and feed shortages, pastoralists in the region lost a significant proportion of animals. Some reports indicated that affected pastoralist households lost up to 80 percent of small ruminants and 40 percent of cattle in 2015 and 2016 (FAO, 2016). This loss resulted in a high level of disruption of communities' livelihoods.

In response, the federal government and the Afar regional government proactively responded to the situation by

initiating and implementing a water harvesting scheme in five hardest hit woredas of the region. The project involved construction of water harvesting structures (six micro-dams and 17 ponds) to harvest the floods that come from the highlands of the neighbouring Tigray and Amhara regions.



INTERVENTION AREA

Water resources development and management



LOCATION

A total of 13 kebeles in Elidear, Kori, Bidu, Afedera and Ayseata woredas, all located in the Afar region



STAKEHOLDERS AND PARTNERS

Local communities, water management committees, department of major works



BENEFICIARIES

Pastoral communities in the Afar region

Methodological approach

- Clan leaders across all targeted woredas were consulted before a decision on where to construct the pond and micro-basin structures was made. These clan leaders were involved throughout the construction process.
- The federal government allocated a budget of 24 million birr for the construction.
- The regional government deployed an excavator and various heavy-duty construction machines to construct check dams on the flood gullies to trap the water that flows from the neighbouring highlands of Amhara and Tigray regions.
- The federal ministry of agriculture and natural resources deployed technical experts to supervise the works.

Results

Water harvested through micro-dams and ponds increased the availability of water for domestic use, watering livestock and improving forage production. This directly contributed to the improvement of the livelihoods. Besides, this water was used for road construction, which reduced the cost of water trucking and contributed to the provision of infrastructure for local development.

As a result of the impact that the project demonstrated, the regional government increased the annual budget allocated for natural resources management activities. Prior to the project, the budget allocation was only 2,000 birr; and it has now grown to 15 million birr.

15 Million

The budget that the regional government now allocates for natural resources management

Constraints

- Machinery maintenance services are not adequately available due to the remoteness of the locations. Therefore, technicians from different organisations were brought to Semera town and deployed to work on the project as a short-term measure.
- The high temperatures, and generally harsh environment makes it difficult to deploy long-term professionals to the area. However, tremendous effort was made to encourage experts' commitment to the project, which resulted in its successful execution.

Sustainability

The following elements were identified as being necessary for similar practices to be socially, economically and

environmentally sustainable:

- The technical capacity of community members to maintain the pond and micro-basin structures should be built.
- As the pond and micro-basin structures are communal resources, clan leaders must take lead in their management so as to ensure that they are shared in a way that does not cause conflict and damage.
- Projects should address the priorities of communities; for example in the Afar region, water is a crucial requirement for the livelihood of pastoral communities.

Replication and upscaling

As a result of the positive impacts of the water harvesting structures, there was high demand for the development of new water harvesting structures in many other pastoral communities in the region. This has a direct implication on scalability potential of the project into other areas.

The Afar regional government and DRSLP have decided to expand the project into new areas and these two stakeholders have already allocated a budget to finance design studies and start construction of additional structures.

Additional information

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