



Ethiopia



Shinle Pastoral Development and Resilience Building Project

Pastoralist Welfare Organization (PWO)   

The Pastoralist Welfare Organization (PWO) provides innovative solutions to water scarcity in arid lands through the harvesting of run-off rainwater.

Launched in 2012, Not-for-profit , Agricultural Water Management , Irrigation , Conflict/Fragile States , Cross-sector , Cross-sector: Climate / Energy , Women's Empowerment , East Africa: Ethiopia

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Problem Addressed

Pastoralist communities in Shinile district of Somali Regional State of Ethiopia suffer from erratic rainfall and prolonged drought, resulting in very limited access to water. Furthermore, communities suffer from severe degradation of natural resources, like poor grazing lands, poor livestock productivity, and the subsequent reduction of livelihoods. This weakens resiliency to climatic shocks such as droughts, and forces pastoralists and agro-pastoralists to frequently move to different places. This movement aggravates competition over scarce pasture and water resources and causes conflicts as well as premature depletion of resources. Drilling boreholes, a traditional solution to providing water for a community, is expensive and not always effective or reliable.

Innovative Approach

The Pastoralist Welfare Organization's innovative zero-evaporation underground water cisterns have increased water security for pastoralist communities in rural Ethiopia. They require low-cost technologies, cisterns, and irrigation canals so that they can be easily managed and repaired by unskilled community laborers. PWO's low-tech innovations also ensure that communities have a much more reliable source of water and therefore food and water security, even during periods of drought. Their double silt traps have reduced the amount of silt and debris entering the main cisterns. The cisterns also have built-in water fetching man-holes and in-let doors with fixed wire-mesh, and the cisterns are covered with corrugated iron sheets to avoid evaporation.

These zero-evaporation underground water cisterns have been so successful that they have been adopted by the government, who has now installed more than 700 of them. Local water committees manage the cisterns, and households are required to pay a small fee for their water use; this ensures a steady stream of income to pay for repairs and maintenance. PWO is also engaged in building cement catchments to collect runoff from watering fields, further integrating water resource management between human and agricultural needs.

Program Solution

As a national NGO founded and operating in these very arid lands, Pastoralist Welfare Organization (PWO) has designed

alternative and innovative WASH interventions. These interventions are separate for human and livestock populations and focus on harvesting run-off rainwater. Under this program, 18 underground cisterns (336 m³ capacity), 6100 meters of concrete irrigation canals, and 5 public water points were developed. The underground cisterns have double silt traps, and each cistern provides water to 50-100 households for an average of 98 days. Each household receives approximately 60-80 liters per day.

The underground cisterns, public taps and irrigation canals are institutionalized under water/irrigation water management committees (WASHCOs) with 7 members each, including 3 women. The WASHCOs are trained on cistern repairs, sanitation and hygiene practices, catchment rehabilitations, fee collections and management. They also promote public health practices, including safe water chains, jerry can washing, community cleaning campaigns, hand washing, breast washing before feeding, and more. The WASHCO management committees lead various activities to mobilize the community on the periodic de-siltation of cisterns, canals, water management and fee collections, catchment rehabilitations and the cleaning and fencing of cisterns and public taps. The concrete canals have reduced percolation and seepages, particularly during drought periods. More than 150 hectares of irrigable lands are now under irrigation and food security has largely improved.

The water harvesting intervention has relieved pastoralists and agro-pastoralists from displacement, competition over resources elsewhere, and the loss of lives and assets through conflicts. The spring development and usage both for drinking and irrigation has contributed to the food security, hygiene and sanitation practices in these areas. More than 400 families are enabled to grow diversified food and fodder crops. These households have also increased hygiene and sanitation practices through various community sensitization and awareness raising sessions. These communities now have more resilient livelihoods particularly during critical water and food deficit months.

Please visit this program profile at:

<https://washinnovations.r4d.org/program/shinle-pastoral-development-and-resilience-building-project>