



Ethiopia



## Innovative Water Harvesting Systems

Rural Agency for Community Development and Assistance (RACIDA)



RACIDA provides environmentally and financially sustainable access to water through solar-powered water pump systems and rainwater harvesting in communities and schools in Ethiopia.

Launched in 2007, Not-for-profit , Agricultural Water Management , Drinking Water , Menstrual Hygiene Management , Water Storage , Cross-sector , Cross-sector: Agriculture / Nutrition , Cross-sector: Climate / Energy , Cross-sector: Education , Women's Empowerment , East Africa: Ethiopia , East Africa: Kenya , Other: Somalia

Partners: UNICEF, Cordaid, UN Habitat, USAID- OFDA, Norwegian Church Aid and ACT! Alliance.

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### Problem Addressed

RACIDA's WASH Program addresses the lack of access to safe drinking water in low income households and among rural and hard-to-reach populations, lack of proper sanitation facilities and poor hygiene practices in schools, high rates of child mortality related to diarrheal episodes, and helminthic infections among school children. RACIDA also addresses the food insecurity facing riparian communities of the River Da'ua.

In addition, RACIDA saw that many organizations were only digging boreholes to provide water to communities, which break down easily and require high investment. This is because boreholes are government-subsidized, which has encouraged dependence. Every year resources are going in to these inefficient and fragile systems and RACIDA knew they had to provide water to more households with both financial and environmental sustainability in mind.

### Innovative Approach

RACIDA is innovative in its focus on an holistic approach to water supply in rural Ethiopia. Its investment in solar-pumped water systems ensures that water production costs are reduced over the long term and communities do not require diesel fuel, which is dirty and expensive. Rainwater harvesting tanks are additionally used as a low-tech option for households to easily store large quantities of water at low cost.

### Program Solution

RACIDA undertakes a number of initiatives to improve access to water and sanitation and hygiene practices in rural communities in Kenya, Somalia, and Ethiopia.

First, RACIDA works to improve sanitation and hygiene practices and facilities in schools. They teach students about good hygiene and sanitation practices, and these students in turn educate their parents about these issues. RACIDA also supplies soap and sanitary towels for girls, and establishes separate sanitation facilities for boys and girls complete with a

water supply. These initiatives improve access to education and retention of students.

Second, RACIDA works to improve the water supply of rural communities. They undertake drilling, equipping and commissioning of solar-powered boreholes to ensure a constant and reliable water supply to schools and communities. They also promote rain water harvesting technologies as climate change adaptation strategies by constructing water harvesting reservoirs and excavating earth pans and roof/rock catchments. The water tanks have enough capacity to sustain a household for two to three months. They also set up ponds lined with sheets that control seepage which have a guarantee of 20 years and are only one millimeter thick. They also help to establish water kiosks at strategic positions in order to reduce the time people spend fetching water. In order to improve food security and general nutritional status among beneficiary communities, they provide generator sets to riparian communities and help them to construct suspended irrigation lined canals for irrigation.

To ensure the long-term sustainability and functioning of these initiatives, RACIDA has helped to establish and build the capacity of community Water Management Committees.