

**BUREAU FOR DEMOCRACY, CONFLICT, AND HUMANITARIAN ASSISTANCE (DCHA)
OFFICE OF U.S. FOREIGN DISASTER ASSISTANCE (OFDA)**

**SUCCESS STORY:
MITIGATING DROUGHT AND CYCLONE EFFECTS IN MOZAMBIQUE**

In recent years, Mozambique has suffered from frequent and prolonged droughts as well as periodic cyclones. Such natural disasters not only harm crops, thus affecting livelihoods and resulting in food insecurity, but also deprive communities of access to safe water, increasing the risk of waterborne diseases. From 2006 to early 2009, USAID/OFDA provided more than \$1.4 million to implementing partner International Relief and Development (IRD) for activities supporting community management of water-harvesting systems and conservation farming to mitigate the effects of droughts and cyclones in Inhambane Province, southern Mozambique.

WATER HARVESTING TO MITIGATE DROUGHT

IRD organized the construction of water-harvesting structures at schools and in villages throughout disaster-prone areas of Inhambane Province to help communities mitigate the effects of drought through access to potable water. While IRD provided the construction materials and training, community members built the structures, and village or school water committees perform upkeep and maintenance, ensuring sustainability. At Liondzuanne, a village in Massinga District, residents can now access water during a drought thanks to a catchment dam—measuring 40 m by 30 m, and roughly 2 m deep—that captures water runoff during the rainy season. According to Saulina Mapulango, a grandmother of eight, village women previously had to walk great distances during dry periods to fetch water. “Twice a week,

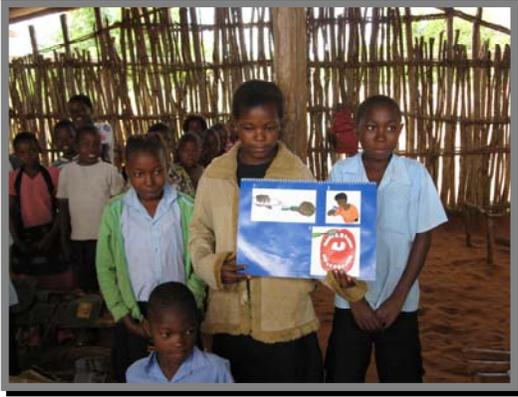


Residents harvest water from a USAID/OFDA-funded catchment dam in Liondzuanne village (photo by Johs Pierce, USAID/OFDA).

we used to walk all the way to the Rio das Pedras, a river on the other side of the national highway,” said Mrs. Mapulango, “a distance of 30 to 40 km. We would leave our village at 4:00 p.m., walk to the river, build a fire, and camp in the open overnight—staying together for security. In the morning, we would collect water, every woman carrying 10 to 20 liters distributed in one container on the head and one in each hand, with a baby on the back. We traveled approximately 6 to 8 hours each way.” Now, with the dam in place, community members need not travel long distances or depend on water trucks or unreliable boreholes during dry periods; instead, each of the nearly 9,000 total households in Liondzuanne and three nearby villages is able to harvest up to 50 liters per day for family needs.



IRD staff pump stored rainwater from the cistern at Putene school, Massinga District (photo by Johs Pierce, USAID/OFDA).



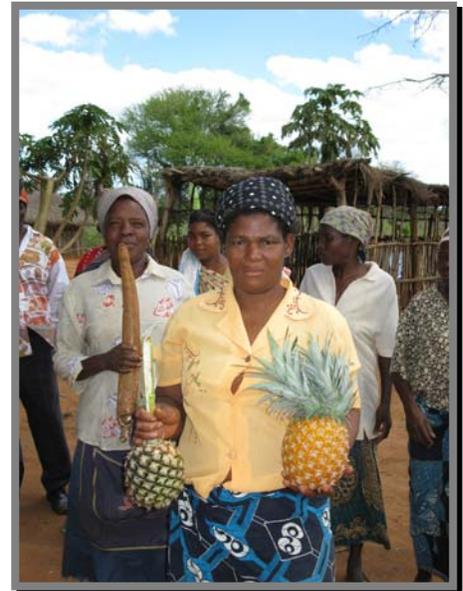
Student peer hygiene trainers at Macarringue school display USAID/OFDA-funded materials (photo by Johs Pierce, USAID/OFDA).

At the school in Macarringue, a village in Massinga District, headmaster Calisto José Chuquela noted that IRD’s installation of rooftop rainwater harvesting systems—including gutters, pipes, a cistern, and a pump—have greatly improved conditions for students and teachers alike. Now, said Mr. Chuquela, “students are no longer required to bring their own one-liter bottles of water to school every day during dry times,” since stored rainwater meets the school’s needs. IRD not only helped disaster-affected communities gain access to potable water, but also provided educational materials and trained teachers in hygiene instruction to help reduce the spread of waterborne diseases. Teachers at three Massinga District schools reported conducting hygiene lessons twice a week using USAID/OFDA-funded materials.

In addition, teachers train gifted students to be peer hygiene instructors.

CONSERVATION AGRICULTURE TO IMPROVE FOOD SECURITY

Droughts and cyclones harm crops, thus eroding food security and reducing livelihood opportunities. Through USAID/OFDA support, IRD trained farmers and agricultural associations in Inhambane Province in conservation agriculture techniques, which provide yields approximately 25 percent higher than traditional methods and reduce soil degradation. In addition, IRD provided agricultural inputs for sorghum and cassava cultivation, as both sorghum and cassava not only resist drought better than the maize traditionally farmed in the province, but also allow for harvesting outside the usual harvest season. Members of the agricultural association in Mabiliahal village, Massinga District, which IRD supported with training and inputs, reported that the sale of sorghum, cassava, eight types of beans, pineapples, and other produce has helped improve the community’s quality of life during times of disaster. For instance, community members could afford to purchase medication and children’s schoolbooks.



Mabiliahal agricultural association members demonstrate produce for sale (photo by Johs Pierce, USAID/OFDA).

LOOKING AHEAD TO DISASTER RISK REDUCTION

Between mid-2009 and 2011, USAID/OFDA is providing nearly \$3.9 million to IRD for disaster risk reduction (DRR) activities in Inhambane Province that build on the successes and knowledge gained through the 2006–2009 program. Planned program activities will serve to increase the production of drought-resistant crops such as sorghum, cassava, and legumes; expand access to safe water; promote hygiene; increase market linkages; and establish income-generating activities, including beekeeping and marketing of oil seeds. IRD also plans to work with vulnerable communities to establish cyclone early warning systems. As USAID/OFDA’s principal regional advisor for southern Africa remarked in an Associated Press news story on DRR on June 25, 2009, “it makes good economic sense in the long run” to support DRR activities. USAID/OFDA is “always still committed to responding to disasters,” said the principal regional advisor, “but we would also like to commit ourselves equally to help prevent and mitigate those disasters.” Working together, USAID/OFDA and IRD have helped tens of thousands of rural Mozambicans alleviate the effects of severe drought and cyclone damage; DRR programs in Inhambane Province in the coming years will further strengthen communities’ own capacity to mitigate disasters that may lie ahead.