

# POUNDS OF PREVENTION

- A Disaster Risk Reduction Story -

*“Pounds of Prevention” is a series of short articles that illustrate how disaster risk reduction works and why it is important. Take a behind-the-scenes look at aid work in action, long before the disaster occurs. How is that possible? Read on!*

## FOCUS: KENYA

Droughts are hard to prevent, as they occur naturally due to lack of rainfall. Droughts do not, however, have to mean disaster. With planning, water can be collected and saved to last a community through a dry period.

USAID, its partners, and local communities in Kenya are working to achieve that very goal. About 80 percent of the country is arid and semi-arid. Water is scarce and an estimated 18 million people face chronic, sometimes life-threatening, water shortages. To reduce their vulnerability to drought conditions, Kenyans are “farming” water by harvesting the rain.

How does this work? One way is to use the natural rock surfaces and concrete gutters to divert rainwater to a central collection area. Pipes running down short terraced walls bring the water downhill. At the foot of the slopes, the water drains into pipes that lead to tanks. Here, the rainwater passes through a filter of sand and gravel. The water then flows into large covered storage tanks where it remains protected from contamination and evaporation. Each storage tank is fitted with taps for easy access by people at water points or their livestock by way of watering troughs.

Residents build the infrastructure from local materials such as stones fixed with mortar. They earn a wage for their work and gain the skills and knowledge needed for the structure’s upkeep. During the construction process, men and women from the local community form committees that manage the water supply once it is in use. The committees charge users a small fee for the water, which pays for future maintenance and repairs.

The advantages of these rainwater-harvesting schemes are numerous. Having a nearby, reliable, safer source of water means improved health and quality of life for Kenyans. The risk of diarrhea and waterborne disease in villages with these projects is reduced. Less time—up to five times less—is spent fetching water. Women, who collect the majority of water, gain time to carry out other duties, and children have more time for activities like school. With more plentiful water for people, animals, and gardens, families can make sure every member has enough nutritious food. The water systems are also very environmentally friendly because they require no fuel or chemicals.

Quite simply, rainwater harvesting is a cost-effective way to prevent a drought from becoming a disaster that threatens lives and requires costly emergency response. The water in these modest reservoirs is a valuable and precious commodity, saving lives and livelihoods during periods of water scarcity and reducing vulnerability to challenging climatic conditions, both today and in the future.



*Pipes along terraced slopes (A) bring rainwater to tanks where it is filtered (B). Storage tanks save and protect the water (C). A local resident collects water at an access point in Makueni District, Kenya (D). Photos A, B, C: Rebecca Semmes, USAID. Photo D: Courtesy of USAID partner Welthungerhilfe.*