



# Community collaboration

Localized water treatment facility provides safe, reliable drinking water in Ethiopia.

## **Water Solutions, USAID and CARE Ethiopia partner to revive capped and unsafe boreholes, serving as a model for the region**

Only 42 percent of the population in Ethiopia has access to safe, clean drinking water – and that number declines even further in rural areas. Many women and children have to walk over three hours to collect water<sup>1</sup> from drought-reduced shallow ponds, streams and lakes that are often contaminated with human and animal waste, worms or disease. In fact, water-borne illnesses, such as cholera and diarrhea, are the leading cause of death in children under five years old in Ethiopia.<sup>2</sup>

The town of Serdo in the Afar Region of Ethiopia lies within the Great Rift Valley, which is known for underground water reservoirs that contain dangerously high levels of salinity and fluoride. Non-governmental organizations have funded the drilling of boreholes in the region as a way to access clean water directly underground, but, on average, only one in five produces safe drinking water. Approximately 40 borehole wells throughout Afar itself have been abandoned and sealed after spending

thousands of dollars on drilling.

USAID approached Water Solutions to build a demonstration site in Serdo to treat the water from a capped borehole for the local pastoralist community. The idea was simple: create an economical model for uncapping local boreholes by reducing the salinity and fluoride content to safe levels, at which point the clean, potable water can be used.

“We were onboard with the project from the start,” said Onyanta Adama,

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Source: Water.org

Source: WATER IN CRISIS – ETHIOPIA; Thewaterproject.org



Account Manager West & East Africa for DuPont Water Solutions. “Our business is committed to solving local water scarcity challenges, and this demo facility is a great example of how technology can help secure and sustain access to safe water supplies and change the lives of potentially millions of people.”

With funding from USAID and Water Solutions, the regional DuPont team worked with Israel-based Puretec Water Engineering Ltd. on the design and installation of treatment facility during the first half of 2018. Water Solutions donated sixteen BW30-400 FILMTEC™ Reverse Osmosis (RO) Elements and provided technical expertise, while CARE Ethiopia and the regional government facilitated the project’s process and logistics.

Commissioned in October 2019, the Serdo water scheme is now providing 5,000 liters per hour of safe water to 2,000 pastoral men, women and children – including 100 students at the local school. Water no longer needs to be trucked into the town, and residents have stopped traveling hours in search of a water source. Additionally, Water Solutions will help train dedicated personnel to run the water treatment facility in stages. The first stage will train personnel from the

Woreda Water Office, Region Water Bureau and CARE Afar, and the second stage will train community-level operators and technicians – prioritizing the participation of women on the water management committee.

“Clean, safe water will continue to improve the health and well-being of everyone in Serdo,” said Adama. “We hope that Serdo’s success can be replicated in hundreds of other locations in the near future.”

The site serves as an operating example for municipal water boards and governments that are interested in scaling proven solutions to stem similar water challenges. CARE Ethiopia continues to monitor the

facility’s system performance and share results and lessons learned.

“This is just the start of uncapping dozens of other boreholes in Ethiopia, which we hope will spread across the Great Rift Valley – providing citizens with a life-changing water source that would have been unavailable without the use of RO technology,” said Petros Birhane, Deputy Chief of Party for the USAID Lowland Water, Sanitation and Hygiene (WASH) Activity.

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### **Petros Birhane**

Deputy Chief of Party

USAID Lowland Water, Sanitation and Hygiene (WASH) Activity



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