

Rainwater Harvesting: Improving Lives in Impoverished Areas

By Jennifer Zuri

Water is Earth's most precious resource, covering 70 percent of our planet. We can't survive without it as the average adult human body is comprised of 50 to 65 percent water. Health authorities recommend drinking eight 8-ounce glasses of water per day, but not everyone has access to that measurement of clean drinking water.

Enter the Aquascope Foundation, whose mission is to provide clean drinking water to impoverished areas around the world. Although the majority of the Earth is covered by water, only 3 percent is fresh water and just a third of that amount is available for use. Poverty-stricken areas are especially in need of adequate drinking water. Indeed, two million people die each year from exposure to water-borne illnesses.

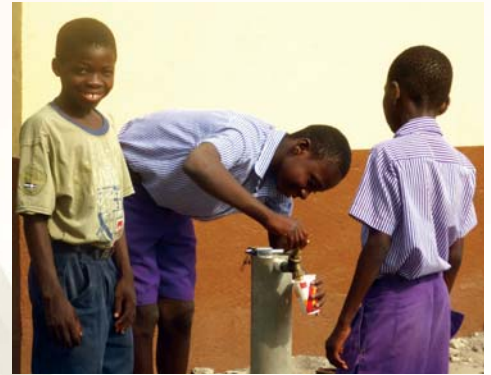
The Aquascope Foundation works with the International Needs Network in Hudsonville, Michigan, to locate areas of the world with the greatest need for clean drinking water to alleviate health and socio-economic concerns. Once a location is identified, the Aquascope Foundation assembles a team of volunteers to install an Aquascope Rainwater Harvesting System that captures and filters rainwater for re-use. Most of the volunteers are professional water feature installers, but others are welcome to join the team.

One of the more notable projects that addressed a dire need was the International Needs Network School in Kanuwloe, Ghana, in February 2014. The main source of drinking water for the community was a marshland shared with the cattle they herded. The cattle contaminated the water, and it was highly unsafe for human consumption, leaving residents exposed to numerous water-borne diseases.

A team of 14 Aquascope Foundation volunteers installed a 25,000-gallon Aquascope Rainwater Harvesting System at the village's local school, providing clean drinking water for approximately 700 school children and their families year-round. Access to the captured and filtered water provides the ability to prepare one hot meal per day at the school.

Ed Beaulieu, vice president of field research for Aquascope, Inc. and board member of the Aquascope Foundation, designed the rainwater harvesting collection system to capture runoff from the village's elementary and junior high schools, while Aquascope Technical Agent Chuck Catton managed construction of the project.

Using Aquascope Rainwater Harvesting System products, rainwater is first treated through downspout filters at the school



buildings before traveling to a subsurface chamber created with underlayment, liner and AquaBlox water storage modules. The rainwater passes through a solar-powered pump, UV filter and micron filter into a 750-gallon storage tank. The stored rainwater is gravity-fed to a faucet for easy access.

"The Kanuwloe village has no direct source of water nearby so the ability to capture, filter and reuse rainwater is critical to the life and health of the people in this area," said Carla Wittstock, president of the Aquascope Foundation. "We're so grateful to have a dedicated team of volunteers who traveled and labored to make this live-saving project a reality."

Now, two years later, the results of the rainwater harvesting project are significant. School attendance has increased due to better health of the children. Prior to receiving the rainwater harvesting system, many children complained of headaches in the afternoon, particularly during the dry season. Medical outreaches to the community no longer result in reports of headaches in children since they have adequate hydration. In addition, children





no longer need to spend time away from school traveling long distances to fetch and transport water.

Reports of water-borne illnesses have declined, as well. Some people who suffered from and were treated for bilharzia would become re-infected upon drinking the polluted water. Now that the village has potable water, there have not been reports of re-infection after treatment.

Clean drinking water, improved health and increased school attendance have all created a sense of hope and joy in the Kanuwloe village and surrounding communities. The Aquascape Foundation has provided clean drinking water in other areas such as Uganda, the Dominican Republic and Colombia.



The next rainwater harvesting project is slated for January 2017 when the Aquascape Foundation travels to Buikwe, Uganda, with another group of volunteers. For more information about this and other projects, visit www.aquascapefoundation.org.



Jennifer Zuri is the marketing communications manager at Aquascape, Inc., the leading manufacturer of water gardens and water features across North America. Aquascape's vision focuses on an ecosystem approach to water features that relies on the most natural balance of circulation, filtration, plants, fish, and rocks and gravel to ensure sustainability.

