

Mobile Apps Go Global



Dow employee Nick Theile worked to provide clean water to communities in Kenya, Africa.

At a Glance

Project: Aqua Clara International

Purpose: Develop a mobile application and comprehensive database to track, maintain and monitor ACI's water purification technologies.

Project Dates:
January – December 2013

Volunteer Hours Invested: 300

Impact: Reduced ACI's survey tracking time from six months down to two months.

Witnessing a mother using water from a mud puddle to cook food for her child on the side of a road forever changed Dow retiree, Dr. Robert McDonald's perception of accessible clean drinking water. Soon afterward, he dedicated his life to the goal of developing inexpensive, effective water filtration and disinfection systems for people all over the world.

McDonald's vision led him to form Aqua Clara International (ACI), a Michigan-based non-profit with the mission of applying sustainable solutions to the global problems associated with the lack of clean drinking water in developing countries. However, ACI's dream of global expansion became strategically impossible as the small organization outgrew its low-tech surveying methods.

DSC partnered Nick Theile, Dow I/S Technical Specialist, with leading consultants Lamarr Cook, Dow Associate Director of Telecom Delivery, and Mike Weideman, Dow Solution Delivery leader, to create a mobile application and sustainable database system that would expand ACI's information technology capabilities.

Rather than manually entering survey data into spreadsheets, as ACI did before, Theile created a database system which tracks activities in building, maintaining and monitoring ACI's water purification technologies, while also tracking water quality and health/behavior outcomes. All with the touch of a finger, the mobile application reduced ACI's survey tracking time from six months down to two months.

ACI's unique approach distributes water purifiers to qualified local organizations, with the only requirement being a mandatory participation in ACI's training programs to ensure proper construction, use and monitoring of the purifying units. ACI's local partnerships with groups such as Community Health Provider (CHP) and Community Development Entrepreneurs (CDE) enable the community to employ and sustain itself. The mobile application Theile designed has the capability for these local partnerships to instantly obtain information on ACI purifiers with the click of a button.

"Having access to clean water is something we commonly take for granted," says Theile. "Not only did the Dow Sustainability Corps help develop me as a leader, but it gave me a once in a lifetime opportunity to help someone, and potentially save a life."

ACI's water purifiers are made from products easily obtained in remote areas – sand, rocks and gravity all use earth's natural method for producing clean drinking water. The filter's low cost allows more families to receive one of life's most important necessities.

"There was an elderly woman in one of the villages who had been extremely ill for a long time. After obtaining a water purifier for her family and having access to clean drinking water, we went back to visit her. Her symptoms were gone and her health greatly improved," says Theile, who traveled to the Kenya ACI site in February 2013.

In Kenya, more people have access to a mobile phone than they do clean drinking water. A mobile application allows ACI partners to survey locals' purifiers efficiently, allowing ACI to continue producing safe, affordable drinking water in the hope that one day no one will cook using water from a mud puddle again.



DSC volunteers Lamarr Cook (left), Nick Theile (center) and Mike Weideman (right)

Solution Space

Each day, people around the world seek solutions to the complex environmental, economic and social challenges facing our world.

At Dow, our corporate philanthropic efforts address these challenges and are inherent in everything we do as a global corporation. Our citizenship is a critical component of "Setting the Standard for Sustainability."

It means we are focused on local citizenship, sustainable innovations, and global footprint reduction, directly supporting our vision to be the most profitable and respected science-driven chemical company in the world.