



BUILDERS BEYOND BORDERS

Engineering sustainable water solutions in Latin America

Perched in the rugged mountains of central Ecuador, the village of Tingo Pucará seems an unlikely place for artistic inspiration to strike. But Tony Riggio never leaves his camera behind – and his photos from there illustrate what can happen when Rotarians and engineers team up on a water project.

Riggio, a watchmaker by trade, has been leading youth expeditions to Central and South America since 2001, when his daughter participated in a program of Builders Beyond Borders (B3), a nonprofit based in Connecticut,

USA. Construction projects have included hurricane shelters in the Dominican Republic, bridges in Nicaragua, and day care centers and classrooms in Costa Rica. Water and sanitation are always primary components.

As a member of the Rotary Club of Westport, Riggio understands the global need for clean water and improved sanitation, one of Rotary's six areas of focus. "People don't believe what you tell them sometimes – that things are how they are in parts of Central and South America," he says. "Water is such a precious commodity."

In April 2011, Riggio traveled to Tingo Pucará – one of five B3 project sites across Ecuador that season – to build pipelines in a joint effort with the Peace Corps and Engineers Without Borders. The village stands at an altitude of 12,600 feet, with the nearest spring about 4,900 feet down a steep path. The engineers designed a pumping system to draw water from the spring-fed stream, and the B3 team, made up of high school students and adult advisers, worked with locals to install the pipes, which now bring running water to homes.

Historically, faced with a lack of potable water and arable land, the men of Tingo Pucará headed to the lowlands to find work, leaving the women to transport water for cooking, washing, and drinking. Before the project was completed, the 26 village families had as little



TONY RIGGIO

as 15 minutes of running water per month, sent from a neighboring area when available.

"When you talk to people in these communities, they are hoping you're going to be the person who's going to make this happen for them," says Amy Schroeder-Riggio, executive director of Builders Beyond Borders and Riggio's wife of 30 years, describing the review process for project proposals. "Their stories are so compelling. They talk about the health of their kids and why they need water, and the hardship" – especially for older women who must carry heavy buckets of water uphill.

Living and working alongside the community members, B3 students and advisers learn about service and living with less. They confronted an array of challenges in Tingo Pucará: cold nights, debilitating altitude, and a mile of pipeline trenches waiting to be dug.

"For our kids, that project was not very rewarding – until the last day, when we got to turn the water on," Schroeder-Riggio says. "When you're doing a water project, you are laying the pipe, you're covering it over, and it doesn't even look like you were there. But when they turn the water on and everybody's crying, it's an incredible moment."

"That was the first time running water had been in that part of the village," Riggio says. "Some of the children there had never seen water come out of a faucet."

Riggio's work with Builders Beyond Borders has also



Opposite: Tony Riggio entered this photo of villagers in Tingo Pucará, Ecuador, in our 2012 photo contest. This page: He worked with young people in the Builders Beyond Borders program to install pipes that would carry water to the mountain town.

included larger sanitation efforts in Peru, as well as other South and Central American countries. B3 program manager Karen Meyer was a Peace Corps volunteer in Bernales when Riggio's team arrived there in 2010. The group worked with Meyer and the Peace Corps to build 44 bathrooms in the densely populated and earthquake-ravaged community. Facilities ranged from standard sewer-connected toilets to pit latrines, composting toilets, and pour-flush toilets.

"People thought they had to have the best, most beautiful bathroom to be healthy, and they couldn't afford it, so they would say, 'I'm too poor to be healthy,'" Meyer recalls. "The two teams that came down made a huge impact."

Collaborating with the worldwide networks of the Peace Corps and Rotary can boost credibility and facilitate relationships, Schroeder-Riggio says. In 2008, B3 built a school for hearing-impaired students in San Marcos, Guatemala, with help from a local Rotary club. This year, B3 teams plan to partner with the Rotary Club of Georgetown, Guyana, on five construction projects, including community centers and a sand bridge that will connect coastal islands to medical facilities.

"These organizations make the world go 'round,'" says Schroeder-Riggio. "The heart of it is our kids. It's about building character, their relationship with these leadership programs. It lines up nicely with Rotary." – SALLYANN PRICE