In recognition and gratitude, two are made village chiefs

By Alex Lyda

n less than a year, a group of engineering students has succeeded in helping a village in Ghana harness their water supply to support safe drinking water and develop an advanced waste management system.

The story began when students from the Columbia chapter of Engineers Without Borders (EWB) applied for and were awarded a project to assist a rural community in Obodan, Ghana, with their water and sanitation needs. Obodan, a village of approximately 500 people in the eastern region of a nation whose economy revolves around subsistence agriculture, was facing serious water quality and accessibility problems. The town's two boreholes had broken hand-pumps. The town also lacked sanitation facilities and had poor waste management practices.

Working in cooperation with Anthony Akunzule, a veterinarian and founder of a local NGO, the EWB students recommended installing a public latrine. They also recommended a method of harvesting rainwater for prolonged community use, to improve the town's water supply system.

Six months after the initial site assessment, 14 EWB volunteers returned to Ghana in the company of a professional environmental engineer. They spent three weeks in Obodan building a six-stall latrine and replacing the two pumps. According to project leader Michael Shields, who will graduate this year from Columbia College and the Fu Foundation School of Engineering and Applied Science (SEAS), the Columbia group made a point of involving Obodan's residents in all aspects of their project, as they wanted the community to feel ownership of the new facility once their task was completed.

They hoped to avoid repeating the mistakes of other researchers, who'd prioritized speed above community input, with the result that their projects were prioritized speed above community input, with the result that their projects were abandoned once the researchers left. Taking this inclusive, long-term approach paid off in ways the students could never have anticipated. Shields reported: "For their pains, he and another engineering student, Kabir Schmid, SEAS'07, as well as their professional advisor, Steve Forbes, were all elected as village chiefs—an elevated title belonging to only three of Obodan's tribal leaders. "Our work meant so much to them that they bestowed upon us the highest honor possible by making us chiefs, " Shields said. "It was truly amazing."

To the team's surprise, when they made their third trip to the village last month, they found that the latrine they had built was adorned with Columbia's name, the SEAS logo, and a thank-you note.

Funding permitting, the group plans to return to Ghana this summer. They are now hoping to assist the nearby village of Sakykrom with creating infrastructure for supporting a major roadway through the region.

Operating on a small budget and with technical advice and assistance from Patricia Calligan, a SEAS professor of civil engineering and engineering mechanics, the group faces the constant challenge of raising funds to support its initiatives. For the Obodan project, the students raised funds largely through on-campus wine tastings, bake sales and donations from friends and family. Several relied on donated frequent flyer miles to make the trip.

"The project provided the students with an opportunity and a perspective that will help make them true global citizens and professionals," Calligan said. "They are making a difference and are committed to continuing their work in this direction."

To fund future projects, EWB students are applying for an Environmental Protection Agency P3 grant and will use a $1,000 “collaboration” prize recently awarded to them by the national EWB.

For more information on the Columbia EWB chapter, go to www.cuewb.org