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*Welcome to **Groundwork Institute Monthly** where we bring you news about our U.S.-based nonprofit in our mission to provide architectural solutions to disadvantaged communities worldwide. Founded in 1979, Groundwork Institute has worked in Cuba, Nicaragua, Liberia, China, and more recently, Besongabang, Cameroon, where we have been working to provide clean water, improved sanitation, smoke free kitchens and low- cost, high quality housing.*

BUILDING A COMMUNITY

Part 2 of The Besongabang Project

When we last left off in our March Newsletter, Huck Rorick, Groundwork Institute's Executive Director, exchanged emails with Orock Thomas Eyong, Project Director for United Action for Children, a Cameroon-based nonprofit about a potential partnership to improve the quality of life for Besongabang, Cameroon, a village located in Southwest Cameroon, near the Nigerian border. Huck travels to Cameroon...

Culture, Water Access, and Sustainability

Huck arrived in Cameroon at the Douala airport, four hours south of Besongabang where the project would be located. As Groundwork's Executive Director, he would meet with local leaders, get to know the village, and bring supplies to evaluate the water and sanitation systems. The local partner Orock Thomas, founder of United Action for Children (UAC) met Huck at the airport and accompanied him to town.

Meeting with Orock at his house was like being at the center of the action; there were always people coming and going. Together they took off for Besongabang on wet, mud-filled roads that frequently caused doubt as to whether the 4-wheel drive truck they were driving would make it through.
When they reached town, Huck was taken to his hotel. The room was designed for air conditioning but the electricity was out. This was common. With only one small window the room was sweltering hot and it stayed that way for five days. There was no running water so guests were given a bucket to wash off the sweat from the constant heat and humidity.

Click on the picture for a video: experience driving to Besongabang

But any discomfort was totally overcome by how welcoming people were, Huck says. "We visited people in their homes, asked what they liked, what

they wanted fixed…They took me through their houses into the most intimate parts and opened up their homes to us." It was an overwhelmingly pleasant experience everywhere he went. He visited several families and talked with them, photographed the houses, wells, and latrines. There was a warmth and friendliness to the community as a whole.

This politeness had its challenges as Huck remembers, "One of the things I totally misunderstood was how Cameroonians answer questions and engage in conversation. They want you to be happy and so in general they will agree with whatever you say. I didn't know that…Sanitation is a problem and I explained several options for handling it, listing the pros and cons of each. Then I asked 'Which solution looks best to you?' They asked, 'Which do you think is best?' I immediately told them which looked best to me…They answered, 'We like that one the best too.' Being ignorant of the culture I was pleased to 'discover' that we had similar views. Oops. I learned that we don't understand the answer to a question until we see what people do, not just what they say." Navigating the cultural norms of Cameroon became both a challenge and a key piece of continuing the project with community involvement.

One local resident , Enow William, volunteered a room in his house to be used as an incubation chamber for water testing. This initial testing process was an experiment of its own, learning how to use water test kits and setting up a "lab" in William's house. Later, Groundwork sent a min/max thermometer that could read how the temperature in the "incubation room" fluctuated. This verified that the room temperature was stable, and allowed for a follow-up series of water tests that would play a crucial role in determining Groundwork's next phase of the project. What did the test reveal? Read on to find out.

Takor, Cary, and Enow William using water test kits

The Water Issue

Before Groundwork's involvement, no water tests had ever been done in Besongabang. Huck brought water quality test kits to the village to find out where contamination might be happening. The method was inexpensive (by U.S. standards) and simple. Groundwork used a test, Petrifilm, that cost about two dollars per test. The preliminary tests showed the water was contaminated with E. coli and Coliform, which indicates the presence of other disease-causing bacteria, often from fecal matter. No one knew the route of contamination though; Wells seemed to be constructed properly, raised above ground level and covered with a lid. They did not use a liner, but this did not seem essential.

While surveying of the wells continued, Huck inspected the outdoor pit latrines, not knowing what he would discover: "I was talking with villagers about sanitation and the problem is pit privies fill and you have to move them. I asked how long they'd been using this one. They said ten years. I was shocked. The usual pit latrine might be three meters deep and would fill in a few years. This one was eight meters deep. Right into water table." The water table measured approximately three meters deep. The latrines, dug far deeper than this, were injecting feces straight into the drinking water supply. The answer to the contamination question was now glaringly obvious.

Huck recalls: “We had an idea of how things were before surveying was finished. Basically everybody was drinking contaminated water. We could now say with a high level of certainty this was caused by pit latrines.”

Outcomes

With the data collected from the wells, Groundwork made a 3D map of the water table, for dry and rainy season. The survey gave clear data and useful information on drinking water conditions in Besongabang.

The local Groundwork team then took on surveying once again, this time of the pit latrines. They have surveyed 45 so far; about one third of the total. Carybeth Reddy, a Peace Corps volunteer working with Groundwork, wrote an extensive report on these findings. You can view it here.

After Huck left, the local team did fifty more water quality tests, all of which showed contamination. Sharing this with the villagers wasn’t the most pleasant conversation. Fortunately the team had a quick low-cost solution that was practical for local people: by adding a small amount of chlorine (obtained in household bleach) to the water and letting it sit for thirty minutes they could eliminate disease-causing bacteria. Cary and Takor did tests with local people to demonstrate this method. People could then see from the test results it had worked.

From here, Cary developed a water education class for the local schools. Along with Takor, she is now implementing this curriculum with the local children who are encouraged to share what they learn with their families.

Learn more about Cary’s class here.