

## Water Disinfection Project in Three African Villages

*Contributed by Bob Fuller/PDX - retired, 2011*

A five-person team installed drinking water disinfection equipment at three Moloko village hand-dug, open wells in Cameroon, Africa, in December 2010. The team was led by Alan Starr, a Summer Institute of Linguistics (SIL) staff member currently working as a recruiter for Wycliffe Bible Translators in Indiana after 17 years in Cameroon. Most of this time, Alan was working among the Moloko People Group. I was the technical volunteer on the team.



Alan Starr and me.

The project included reinforced concrete pad construction, installation of two 1,000-liter tanks and required piping per well, and provision of the chlorine-generating disinfection equipment. Perhaps the most crucial element of the work was the education given to the local village women regarding the importance of the disinfection process and the operation of the equipment. The water committee, which was formed over a year ago, selected four capable women from each of the three villages to oversee the disinfection process operation in their respective villages.



The disinfection equipment uses a handful of table salt with a liter of water and electrical current to generate chlorine gas from the salt solution. That gas is then transmitted into the water to provide a chlorine concentration adequate to kill pathogens in the well water. Because there is no electrical system in the villages, the electricity required for the equipment is from a single storage battery per site; and the batteries are kept charged from small, portable solar panels.

Because the women and girls are the family members responsible for bringing the water from the wells to the homes, it was important to have the women also in charge of keeping the disinfection equipment operating properly. The women chosen for this work were eager learners and showed good aptitude. They seemed to understand the relationship of the equipment operating correctly and continually and the welfare of their children's health.



The team was able to complete three set-ups at three wells. The fourth set-up was left ready for the local water committee to complete. The village was left with the necessary materials, equipment, and construction instructions for the fourth well. A local SIL staff member will be the contact for the villages to make sure construction proceeds appropriately and that the equipment for the four wells is being used efficiently and effectively. Wycliffe Associates, sponsor of the project, will receive routine reports on the operations of the disinfection systems.

The team worked in villages in the far north in a semiarid, sub-Saharan desert of Cameroon. These three villages have no electrical or sanitary services. Their water is carried from the wells to the homes where there are typically three clay jars in which to store the water. Their homes are made of mud bricks and thatched roofs with sand floor, all typically within a 6-foot mud wall to make a compound.



There are usually at least three small mud huts



within the compound: one for the husband; one for the wife (in the case of multiple wives, there is one hut per wife); and one for cooking. Their animals are kept inside the wall when not out foraging.

The men in this people group are farmers who grow onions, squash, beans, maize, millet, tomatoes, various fruits, tobacco, cotton, and hibiscus plant for tea. School is available through the 6<sup>th</sup> grade for boys and girls whose parents have adequate wealth. They have no books. The teacher writes the entire lesson on a large blackboard, and the students copy it into copy books for future review. Math problems are solved on small hand-held slate tablets. Most teenage females “marry” between ages 15 and 18 and start having families immediately.

I met up with the entire team in Chicago, and we all traveled together so we could become acquainted with each other as we flew to Cameroon. We flew into the capital city, Yaounde, where we stayed a couple of days at the guest house of the SIL regional operation. SIL’s mission is to develop a written language for those people groups who have only a verbal language. Then translation can be done, and books can be made available to the people in their own mother tongue. The team got to see the SIL translation operation and talk to the language workers, most of whom are living part time with the language groups for which they are developing a written language. Besides the Moloko people, another of the people groups they are working with is the pygmy tribe in the rain forest of Cameroon. Another is the “Cattle” People, who are nomadic and follow their herds to the next feeding area.

Completing the project was quite satisfying to the team who went home with the expectation of better health on the horizon for the people in these three villages, particularly the little children. Getting home for Christmas was challenging given the closure of the northern Europe airports because of unusually bad and extended winter weather. Door-to-door travel required over 55 hours; but I was home the evening of December 23, just in time to do Christmas shopping as usual.

