

Hand Pump Repair Project: Togo, Africa

Grant Report to Ann Campana Judge Foundation

From Lifewater International

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Project Overview

For the past twenty-five years, relief and development organizations have poured resources into Togo to develop the drinking water infrastructure. Though admirable in its intent, this approach failed to address the basic health understanding and the necessary behavior changes that are prerequisite to maintaining safe drinking water. As a result, especially in rural areas, water development projects are in various states of disrepair and decay. As a training organization focused on achieving lasting results, Lifewater provides information to increase understanding of the connection between safe water and good health. To accomplish this, Lifewater training includes lessons in disease transmission and the need for improved hygiene and sanitation behaviors, and encourages grassroots ownership of maintenance of water points.



Hundreds of hand pumps in Togo are in disrepair. Men clear weeds from around this inoperable pump before repairs begin.

Lifewater believes that the solution to the problem of sustaining safe water sources rests within local communities. Utilizing a training-of-trainers approach and working with national partners, we empower people with the tools and the knowledge they need to develop and maintain safe drinking water sources and improve hygiene and sanitation behaviors. Lifewater believes that community contribution and involvement are essential to long-term success of water development projects.

The objectives of the Lifewater Hand Pump Repair Project in Togo, Africa were to restore access to safe water at twenty-five hand pumps and train nationals to maintain safe water sources.

Project Accomplishments

As originally designed, the ACJF funds for the Hand Pump Repair Project in Togo Africa were to complement a larger grant pledged by another donor. The project budget of \$34,850 would fund the repair of twenty-five hand pumps in the vicinity of Kara and in remote areas of the Tamburma region. Due to extenuating circumstances, the other donor increased its funding and Lifewater changed plans slightly by using those funds to rehabilitate twenty-seven hand pumps in the Dankpen prefecture in the region of Bassar.

Lifewater volunteers and Togolese partners used the Lifewater and ACJF funds to fully repair eleven hand pumps in the area around Kara. In addition to repairing a total of thirty-eight hand pumps, Lifewater also achieved a significant

amount of pump repair training for nationals. Two trainees in particular, Pierre and Cawco, stood out in their aptitude and understanding of the more technical aspects of repairing hand pumps.



Thirty-eight wells in Central Togo were restored through the Lifewater Pump Repair Project to Togo.

Fighting poverty and disease through clean water, hygiene, and sanitation.

By restoring safe water to thirty-eight communities through this Hand Pump Repair Project, more than 11,000 people in rural Togo have gained access to safe water and the opportunity for improved health. The trainees, especially Pierre and Cawco, have the potential to apply their skills to significantly improve access to safe water in other communities around Bassar and Kara.



These women in Togo are fortunate to have a source of safe water. Due to a low flow rate, however, this pump was working poorly so there was a long wait for water. Lifewater team members discuss repairs needed to restore the pump's flow rate.

Accomplishing Objectives

The Lifewater Project Trip to Togo in February 2006 provided technical support for the repair of thirty-eight hand pumps.

Overcoming Obstacles

The most common pump in Central Togo is called a UPM pump. The most common problem that occurs with the UPM pump is the disintegration of an internal piston (shown below). This piston serves as the valve of the pump and, after several years of operation, the piston disintegrates and the pump becomes inoperable. These pistons are no longer manufactured.



Seeking a solution to this problem, Mike Hebert, one of the key people engaged in Lifewater activities in Togo, carved a piston from a local hardwood. Wooden pistons have been installed on an experimental basis in a few of the UPM pumps. While we hope that the wooden pistons will provide extended life for the UPM pumps and, potentially, a way for the pumps to be maintained at the local level, at this time, results are unknown.

When this internal piston disintegrates, the UPM pump becomes inoperable. Lifewater has installed a piston made from a local hardwood in a few of the Central Togo pumps.



The most common pump in Central Togo is a UPM pump.

Fighting poverty and disease through clean water, hygiene, and sanitation.



Lifewater team members coach a national in repairing a UPM hand pump.

Conclusion

One in seven Togolese children does not live to the age of five. Many of these deaths are a result of diarrhea or other diseases caused by unsafe water. In rural areas of Togo, 64% of the population still lack access to a sustainable source of safe drinking water. Currently, the most cost-effective way to address this health crisis is through Hand Pump Repair Programs and hygiene and sanitation interventions. Lifewater would like to thank the Ann Campana Judge Foundation for your support as we work to address the need for safe water in Togo.



This restored pump will provide safe water for more than 200 people living in Central Togo.



When hand pumps become inoperable women in Togo must obtain drinking water from unimproved sources.

Item	Item Cost	Cost for Project 38 wells	The Ann Campana Judge Foundation	Lifewater	Other donor
			11 wells ¹		27 wells ²
Replacement riser, galvanized iron (30m. per well)	\$323	\$12,274	\$2,900	\$653	\$8,721
Repair kit, pump cylinder and Disinfecting supplies (11 wells)	\$100	\$1,100	\$1,100		
Repair and disinfecting of 27 wells Some UPMs were replaced with new Mark II Hand pumps		\$6,889			\$6,889
Local Travel	\$70	\$2,660		\$770	\$1,890
Local Wages		\$350		\$350	
Wages for Translators		\$100		\$100	
Lifewater Travel Costs (2 Lifewater Engineers)		\$4,000		\$4,000	
Donated Labor Lifewater Engineers		\$9,600		\$9,600	
Project Management Costs		\$2,500		\$2,500	
Subtotal		\$32,584	\$4,000	\$17,973	\$17,500
Unfunded Administrative costs Administrative support (15% of cash gifts) ³		\$4,887			
Totals		\$37,471			

¹ The average cost for parts and supplies for well restoration was \$423.

² Additional funds to restore these twenty-seven hand pumps were provided by other donors.

³ Typically, Lifewater includes a 15% Administrative Fee on foundation proposals.