



WELL REHABILITATION REPORT: NICARAGUA FEBRUARY 2011

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SUPPORTING DATA



Population: 5.67 million
Population younger than 15: 35%

Urban population: 59%

Birth rate: 2.4%

Death rate: .4%

Under-5 deaths: 3.8%

Infant mortality (deaths per 1000 live births): 25
(compared to 7 in the U.S.)

Life expectancy: 70 years

GNI per capita: \$1,000
USD

Population living below the poverty line: 48%

Population growth (annual): 1.8%

HIV prevalence: .2%

Population with improved drinking water: 79%

Population with adequate sanitation facilities: 47%

[1] World Bank [3] USAID
[2] United Nation [4] IFAD



PROJECT OVERVIEW

In November 2010 Living Water completed the rehabilitation of six broken/open wells at six communities in Nicaragua. This project was completed by Living Water International Nicaragua, a locally registered NGO whose goal is to provide clean, safe water to the people of Nicaragua through the installation of new wells, rehabilitated wells and health and hygiene education.

At one time, these communities had a safe water source through functional water wells. After many years of use, pumps became incapacitated. As the LWI Nicaragua team surveyed these broken wells, they noticed that some of the communities tried to repair the pumps themselves by wiring and roping the pump together thus causing more contamination to the well water. Or, if they could not fix the well they removed the broken pump and collected water from the open top well. Trips to the river also became more frequent, as did diarrheal illnesses.

The scope of work to rehabilitate these water points included flushing/cleaning open wells, chlorinating the water source, and installing new hand pump. The communities help contribute in the form of manual labor, providing a fence around the well to protect the site and attending health and hygiene classes.

Health and Hygiene component: One of the hygiene teachers from the LWI Nicaragua team discussed the major issues of hygiene, sanitation and well maintenance with the community. Topics included disease transmission, germs, proper hand washing techniques, proper care of the pump, keeping the water clean, proper water collection and storage, causes of diarrhea, oral rehydration solution and good-bad hygiene behaviors. The community was receptive to the information.

ACCOMPLISHING OBJECTIVES

The primary objective of the project was to restore clean, safe water to the communities. This was accomplished by identifying six communities where the water wells were non-functioning and in need of repair. Most of the people in these communities earn a living by working on farms such as sugar canes.

Some of the well rehabilitations were located at schools where the students and community relied on this source of water. Other well rehabs were located at either the center of the community or in front of the church where everyone enjoyed access. When these wells broke, the people in the community had to resort to collecting water from a river or stream nearby - or the hand dug well that they had once used before the new well was installed. This contaminated water led to diarrheal and intestinal problems.

At each site, the well was cleaned out, chlorinated and a new India Mark II hand pump was installed. After the well repair was complete, the community expressed to the team their gratitude for fixing the well. At one location in San Pedro, one of the community leaders indicated to the LWI Nicaragua team that this well was not only great for the school and the whole community but also for all of the people who pass by and are thirsty.



Broken hand pump.



Repairing the well.



LWI volunteers helping the LWI Nicaragua team repair the well.



An example of a typical stream where communities collect water when their well broke.



Installing the pump rods.





Health and hygiene lesson



Communities with clean water once again!



HOW THE ACJF AND NGWREF FUNDS WERE EXPENDED

Each rehabilitated well for Nicaragua is approximately \$2,354. Living Water International added a cost share to bring the average cost to \$2,000.

<u>Well Rehabilitation Project- 6 wells</u>	
Labor	\$590
**Mobilization/Demobilization	\$284
Hand-Pump, Installation	\$450
**Program Presence, Sustainability	\$200
Reporting and M&E	\$250
Contingency (3%)	\$40
**Fixed costs (in-country presence)	\$181
USA Administration	\$359
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Total Costs of Rehabilitated project	\$2,354
*Cost share from LWI	(\$354)
Proposed per project cost	\$2,000
<p>**Mobilization/Demobilization- includes costs associated with getting to/from the project site with our fleet of vehicles and equipment and use of that equipment. This also includes the site survey, as well as the later implementation. The fleet of vehicles includes two trucks and a compressor along with fueling the trucks and oil and fuel for the compressor.</p> <p>**Program Presence, Sustainability- refers to the costs associated with the actual incountry operation. This includes tele-communications, office, etc. Important to have in country presence so that communities can contact the office if their well is in need of a repair, etc.</p> <p>**Fixed costs- was incorrectly labeled with (in country presence). The fixed costs of \$181 represents the direct program oversight offered by our VP of Operations and team in our Houston office. This includes reporting, logistical support for the ordering of supplies, etc.</p>	

Summary- Through the donation, six (6) existing broken wells are now functioning once again and are providing clean, safe water to 1,070 people in Nicaragua. These six (6) communities now have a safe water source and no longer have to worry about water borne illnesses or face the burden of collecting water from a river. Children are able to go to school and women can focus on their families' needs. Living Water International is grateful to the funding and support from the Ann Campana Judge Foundation (www.acjfoundation.org) and the National Ground Water Research and Educational Foundation (NGWREF; www.ngwa.org/ngwref/index.aspx).