



Collecting water and washing hands in Regadillo, Dario

Annual Project Update - Westside and Maury Water Associations

Improved Health and Living Standards for Rural Nicaraguan Families through Drinking Water and Sanitation

May 2013



## Organizational Background

Organization Name: El Porvenir

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El Porvenir is an international non-profit organization founded in the 1980's as a partner to Habitat for Humanity's self-help housing programs. El Porvenir helps empower rural Nicaraguan communities to improve their living standards and reduce burdens on women through the sustainable development of clean water, sanitation and cooking systems, reforestation and health education. El Porvenir has 23 years of experience helping rural Nicaraguan communities build appropriate technology (wells, latrines, community washing stations, and fuel efficient stoves) as well as providing communities with the tools they need to manage their water, sanitation and forestry resources. El Porvenir's methodology is based on three key principles: (a) community empowerment through active participation and ownership in all aspects of the project, (b) creation of sustainable organizations in the community to manage resources in the long term, and (c) focus on appropriate technology made from low-cost locally available materials that can be maintained easily and cheaply by the community. By promoting community initiative and decision making; El Porvenir seeks to help communities to help themselves.

To date, EP has worked with rural communities on over 950 projects that now supply over 124,000 people with clean water and sanitation. Currently, the organization is registered as in international NGO in Nicaragua and is a registered 501(c)(3) non-profit organization in the US. In Nicaragua, EP has its main office in Managua, and six regional offices in Cuidad Darío, Terrabona, Camoapa, San Lorenzo, El Sauce and Wiwilí. Projects have been implemented in rural communities in the departments of Matagalpa, Boaco, León and Jinotega.

**Mission:** El Porvenir assists people in rural communities in Nicaragua to improve their living standards through sustainable development in clean water, sanitation, reforestation, and health education.

**Vision:** A Nicaragua in which the people in the rural areas achieve a better quality of life, particularly through improved health and easier access to clean water.

#### Project Need

With a per capita GDP of \$750, Nicaragua is the poorest country on the Latin American mainland. It is estimated that 80% of the population lives in poverty, surviving on less than \$2 a day. In the past decades, the country has been victim of natural disasters and civil war that have destroyed infrastructure, drained resources and derailed the country's economic development.

A third of Nicaragua's rural communities lack access to clean drinking water and must rely on polluted rivers and springs for all the household water needs. Women and girls shoulder the burden of bringing water from these sources, and often spend hours each day carrying water.



Nearly two thirds of rural Nicaragua lack adequate sanitation. Lack of adequate water and sanitation increases infant mortality and child malnutrition. Globally, contaminated water is the second greatest cause of infant mortality; an estimated 1.8 million children die each year as a result of illnesses linked to consumption of polluted water.

Access to clean drinking water and sanitation brings multiple benefits for rural communities, freeing money that was previously spent on treating diseases caused by water and poor sanitation, freeing mothers and children's time for other activities, and improving children's school attendance and performance. Studies undertaken in Nicaragua by the UNDP indicate that access to clean water and sanitation can reduce risk of diarrhea in children by up to 30%.

## Project Objective:

The general objective of the project in 2012-13 is to improve the health and living standards of poor, rural Nicaraguan communities by expanding drinking water and sanitation coverage. Specifically, the project seeks to provide improved drinking water and sanitation to 402 people by building 2 new wells, 2 new hand-washing stations (in schools), repairing one water storage tank and building 11 new latrines. El Porvenir will support and train the community to:

- build, maintain and repair their own drinking water and sanitation facilities,
- implement good hygiene practices to reduce disease and illness

#### New Project Locations Community Name: CDI Community Name: El Rodeo Municipality: Camoapa Municipality: San Lorenzo Department: Boaco Department: Boaco Project Type: Latrines (2) Community Name: La Flor Project Type: Latrines (6) and Handwashing station Municipality: Cuidad Dario Beneficiaries: 28 people Beneficiaries: 145 people Department: Matagalpa Project Type: Well Beneficiaries: 55 people **HONDURAS** Community Name: El Pilón and La Virgen Municipality: El Sauce Department: León Project Type: Well (1), Latrines (2) and Handwashing station Beneficiaries: 174 people Caribbean Community Descriptions Sea The communities are all small, rural **Pacific** villages comprised of subsistence **COSTA RICA** Ocean

The communities are all small, rural villages comprised of subsistence farmers of basic grains. Due to their small size and remote location, these villages are unable to receive assistance

Map of Nicaraguan departments and project locations

from the government or other organizations to address their water and sanitation needs. Families in these communities live in extreme poverty surviving on less than \$50 a month.



**Rodeo** is 10 km from the town of San Lorenzo. The village of 132 families and 325 people is accessible all year round. There is a primary school that was built in 1945. The villagers have access to electricity and a few homes have sanitation facilities but these are in poor conditions. There are several wells in the community, and the distance families need to travel varies from 100m to one kilometer to collect water. There may be a future water project here if a study proves that it is feasible. There are so many families in need that the latrines are planned for three phases of around 40 latrines each as funding is identified. Phase 1 is complete.

**El Pilón** is 14 km from the town of El Sauce. The primary/secondary school has 139 students and 7 teachers (2012 data). The community and school are accessible all year although during September and October there is a creek that occasionally becomes impassable. The school does have access to electricity and water within 10 meters of the school. The school was built about 14 years ago by the government and has classes up to grade 9. There are classes in the morning each day from February to December.

**La Virgen** is 18 km from the town of El Sauce. The village of 6 families and 28 people is accessible all year round. The well project was for one sector of 6 families, although there are more families in the community, but they have other sources of water (El Porvenir has helped in the past with 3 wells and 34 latrines here). There is a primary school that was built in 8 years ago and the school has a preschool. The villagers have access to electricity and adequate sanitation facilities. The distance families need to travel varies from 50m to over one kilometer to collect water.

**La Flor** is located 15 km east from the center of Cuidad Darío. The village of 11 families and 55 people is accessible all year round. The village does not have a primary school or a health clinic. The villagers walk 3 km to the nearest health clinic. The villagers do have access to electricity and about 75% have adequate sanitation facilities from a previous El Porvenir intervention 5 years ago (several new homes have cropped up since). El Porvenir also helped with a well previously, but Hurricane Felix flooded the well and contaminated it. The community uses that well for washing only now and thus requested help for a new well. Currently they travel about 1 km to El Jícaro to collect drinking water.

**CDI** (Centro de Desarrollo Infantil) is a preschool on the outskirts of the town of Camoapa. There are 145 students and teachers in the school. Being accessible to town, the school does have electricity and other amenities such as the health center. Unfortunately, the town's water is not always reliable, so the school has an aging water tank to store water when the town's supply is not working. The school requested new latrines, but on analysis, staff decided that it was feasible to help with repairing the water tank and installing a new hand-washing station for the children.

#### **Project Activities**

All projects start with a community request for assistance. To ensure project sustainability, all communities are prescreened to determine their level of commitment to the project. The community must be willing to play an active role, providing labor, coordination, transportation of materials and other available local resources, while El Porvenir provides technical assistance, tools and materials for the construction of wells, latrines, community wash stations, fuel efficient cook stoves, and tree nurseries. Once the infrastructure is built the community is responsible for assuming ongoing maintenance and repair.



### 1. Project preparation- (Done by community prior to seeking funding)

- Identify and commit local resources (animals to transport materials, construction materials, labor etc.)
- Community assume responsibility for ongoing repair and maintenance of facilities
- Conduct survey of existing water and sanitation facilities and needs assessment
- Identify volunteers for community sanitation committee, define roles and responsibilities
- Prepare written proposal (needs assessment, identification of site location, budget and cost estimates)
- Create community labor schedule for project
- 2. Construction of water and sanitation infrastructure- Community learns how to build and maintain drinking water infrastructure
- Purchase and transport construction materials to community by truck and animals
- Provide training and technical assistance to community in construction, maintenance and repair of wells and latrines (upkeep and repair of pumps, proper cleaning of latrines and wells, water testing and treatment etc.)
- Build latrines (hand dig twin pits to depth of 6 feet, line with rocks, bricks or stones, install
  precast concrete slab and box seat, create walls and roof from zinc panels)
- Build new wells/repair existing wells (hand dig well to depth of 50-100 feet, circle well with concrete or brick ring, line well with rocks, bricks or cement, cover well with concrete lid, build concrete skirt and drainage channel around the well to carry off run-off, fence off the well area to keep animals out)
- **3. Health and Hygiene Education**. *Community learns how to reduce water and sanitation related illnesses through good hygiene practices.*
- Identify local hygiene and health promoters (train-the-trainers) from the community
- Hold a series of health workshops that cover basic hygiene and sanitation practices (hand washing; proper latrine maintenance; the connection between water, sanitation, and disease) as well as environmental messages and maintenance training.
- Train-the-trainers reinforce the message in the community on an ongoing basis

#### Project Results & Impact:

In partnership with the community, EP will conduct a baseline household survey prior to initiating the project, interviewing teachers, committee and community members in order to assess water and sanitation challenges and health indicators. Throughout the project, the Managua based Director and accounting staff monitor progress and expenditures. Once the project has been completed a follow up survey is undertaken to assess impact. Follow up visits are done by EP staff every six months for 1 year in order to reinforce trainings, identify any problems and assist the community in resolving them. The project will generate the following outputs and results in this period:

- 11 latrines built
- 2 new wells built
- 2 new hand-washing stations built in schools (and repairing one storage tank)
- 402 people with access to clean drinking water and sanitation
- 5 community water-sanitation committees (or parents associations in the schools) formed (1 in each community) and trained to manage facilities in long term
- Reduction in time spent and distance traveled carrying water
- Reduction in incidence of water and sanitation related diseases (skin infections, parasites, bacterial infections, diarrhea etc.)



# Project Status 2012-13

Community Name	Project Type	Status
El Regadillo, Darío	New well (1)	This well was reported as in progress in the previous report, but is now complete.
San Esteban, Darío	Double pit latrines (6)	These 30 latrines were reported as in progress in the previous report, but are now complete. 6 were funded with WWA/Maury funding.
		New in this report:
El Pilón, El Sauce (school)	Handwashing station and double pit latrines	This project was added late in 2012 with the transfers that came in later in the year. It is now complete.
El Rodeo, San Lorenzo	Double pit latrines (3+3)	These latrines were also added late in 2012 and have recently completed. 40 latrines were built in total, and 3 were funded here. Phase 2 is planned to start shortly to built another 46 latrines and another 3 will be funded by WWA/Maury.
La Flor, Darío	New well (1)	This well is in progress at the present time. They are currently building the well walls and this should complete in the next month or so.
La Virgen	New well (1)	This well is at about the same stage as La Flor and will complete soon.
CDI school, Camoapa	2 latrines, storage tank repair and handwashing station	This project has not started yet. Since the school is near to town and very accessible, it will be started once other projects farther from town are complete.



## WWA and MWA Project Budget

## $2007-2013^{I}$

## **WWA/MWA Project Donations**

WWW.			
Year	Amount		
2007	\$	2,015.00	
2008	\$	3,007.98	
2009	\$	3,425.00	
2010	\$	4,013.94	
2011	\$	3,611.29	
2012	\$	4,390.00	
2013 so far	\$	1,892.78	
Total	\$	22,355.99	

Expense	Amount
Project Materials	\$ 19,334.20
Staff, travel to communities	\$ 3,209.53

Total   \$ 22,543.73
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Difference \$ (187.74)

The Westside and Maury Water Associations<sup>2</sup> have provided funding to El Porvenir rural water and sanitation projects for seven consecutive years. Donations provided by WWA and MWA to date total \$22,356 and the donations during 2012 was the highest yearly total yet! Actual expenses to date have been covered by the donations so far. The two projects in progress will nearly be covered, but the next regular WWA or Maury transfer will cover any deficit.

This funding over this time has been used to assist 12 (15 if we take into account the ones nearly complete) rural Nicaraguan communities to build water and sanitation infrastructure (51 latrines, 1 well repair, 4 new wells, and 1 washing and bathing station and 2 hand-washing stations). Specifically, the support has been allocated to cover the cost of:

- project materials (sand, cement, bricks, rebar, rope pump, etc.)
- a portion of the El Porvenir field staff time that works with the community providing technical assistance
- the operational expenses of the motorcycles (and related travel costs) used by the staff to travel to the comunities

The project labor has been provided by the beneficiary communities on a volunteer basis. It is estimated that the labor required for the construction of the infrastructure completed since the last report is 460 person days (one new well), valued at \$1,502.

<sup>&</sup>lt;sup>1</sup> Expenses and income figures includes an estimate of the costs for the projects in progress.

<sup>&</sup>lt;sup>2</sup> In 2009, the Maury Water Association (MWA) joined Westside in supporting these projects



## **Project Photos**



El Pilon school: Photo taken of the school latrines (double pit) during the 2013 World Water Day event at the school.



El Pilon school: Just after the ribbon cutting for the new hand washing station.





San Esteban: A family with their double pit latrine.

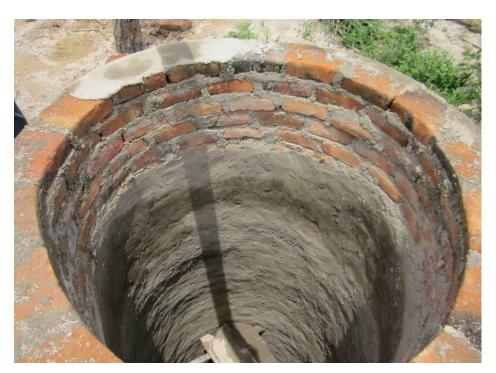


Regadillo: This 2012 well is now complete and providing water for the families here..





CDI Camoapa: This is the school, the project here has not gotten underway yet.



La Virgen: Good progress has been made, and this well should complete in the next month or so.





La Flor: This photo is from April, but more progress has been made since then.



Rodeo: Double pit latrine completed in phase 1..