



Agua Para La Vida Nicaragua

Drinking Water and Sanitation Project: Los Placeres, Nicaragua 2006: Ann Campana Judge Foundation Project Report

Executive Summary:

This integrated drinking water and sanitation project for Los Placeres, a small rural village of 110 people in Nicaragua was completed in July 2006. The project was implemented by Agua Para La Vida, a non profit organization that seeks to improve standards of living in poor rural communities of Nicaragua by creating sustainable access to clean drinking water and sanitation. Members from Los Placeres approached APLV in February 2004 with a formal request for assistance signed by all 19 families in the town. In an initial visit in June 2004, APLV determined that the existing water sources (open pit wells and river) were inadequate as they were highly contaminated and don't provide enough water in the dry season, and placed a heavy burden on women and children in the community who had to travel up to 3 km to fetch water for household use. A spring located 2 km from the town was identified as a potential source. Once funding was secured, the project was launched in November 2005 and carried out over a period of 8 months. The total cost of the project was \$15,405, of which ACJF contributed \$5,000, and the community contributed \$2,892 in unskilled labor, materials, lodging and food. The project included 5 components:

- **Drinking water-** Gravity flow water drinking water system with household faucets
- **Sanitation-** Construction or rebuilding of latrines for each household
- **Health and hygiene education-** Training on good hygiene and waste management practices to reduce water borne illnesses
- **Watershed conservation-** Protect and conserve the watershed that supplies water to the community
- **Community organization and capacity building-** For construction, administration and maintenance of the water system.

Project Objectives:

- Increase sustainable access to drinking water and sanitation services in the community
- Improve community attitudes and practices related to hygiene and use of drinking water and sanitation services.
- Support the community in the development and implementation of a plan for sustainable watershed management
- Organize and train a community based Drinking Water and Sanitation Committee transferring the necessary skills for sustainable maintenance and administration of the system





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Results:

- Gravity flow drinking water system designed and built
- 15 household taps installed (2 families migrated from the community during the period of implementation of the project)
- 2 public taps installed
- System legalized as community property (water source, storage tank, distribution and conduction lines)
- 110 community members with access to at least 70 liters of clean drinking water a day
- 100% households have adequate sanitary facilities (latrines)
- 60 children trained in good hygiene practices
- Community health committee trained for ongoing health and hygiene promotion
- Watershed area fenced off (0.8 acres)
- Watershed management plan developed with community
- Water and Sanitation committee formed and trained for ongoing administration and maintenance of system



*The Water and Sanitation Committee formed in Los Placeres
for ongoing administration and maintenance of the water*

Challenges:

The project experienced several challenges that resulted in delays and extended project implementation time to 8 months (planned timeframe was 4 months). First the local suppliers of materials (PVC tubing) were unable to supply some of the necessary materials for several months. In addition, particularly heavy rains impeded access to the community as the dirt roads became almost impassable. As a result, local transportation responsible for delivering materials to the site were unable and or unwilling to make the deliveries for several months until the rain had subsided.



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Accomplishments:

The project was implemented in collaboration between APLV's four areas: Hydraulic technicians, health and hygiene promoters, community organization promoter, and the watershed conservation promoter.

The **Technical** Area formed of water system technicians that have graduated from APLV's vocational school that trains drinking water technicians from rural communities, was responsible for 100% of the survey, design, and supervision of the construction of the system. The system includes: the spring capture, 2.08 km conduction line (pipe from the spring to the storage tank) , 5 m³ (1,300 gal) water storage tank, 4,156 meters of distribution line, 17 taps.

The **Health and Hygiene Education** area undertook baseline community surveys showing that poor water and sanitation conditions were having a negative impact on family health, as up to 60% of the community had suffered from water borne illnesses in the past 6 months (diarrhea, skin infections, and respiratory infections). The community had poor practices related to domestic livestock (pigs roam freely around the houses), personal hygiene (failure to wash hands before eating or after going to the bathroom) waste management (improper disposal of garbage), and sanitation (42% of population lacked adequate latrines resulting in defecation out in the open). A series of trainings were carried out in the school and the household on the following topics to reinforce good hygiene practices: Use & maintenance of latrines, Importance of water (water sources, water borne diseases etc.), Waste management in households and schools, and Personal hygiene. A local health commission was formed of local youth (12-18 years) and trained to provide ongoing supervision of community hygiene practices.

The **Community Organization** area worked to form the water committee as well as train them on system administration and maintenance, which includes the collection of the monthly user fees from families as well as undertaking minor repairs to the system. The committee trained in basic accounting/ bookkeeping to monitor income and expenses. According to the financial model created to project operation costs of the water system, the monthly user fee was established at \$0.83 per family, to be adjusted on an annual basis according to actual costs. Each family in the community contributed to the purchase of a set of tools for the committee necessary for maintenance and minor repairs to the system. Support was secured from various actors (mayor, police, and community groups) to help monitor and protect the water system from unauthorized connections etc.

The **Watershed Conservation** area was responsible for negotiating with the owners of the land where the spring is located as well as other areas where the water system has been built. The promoters obtained the donation of the land where the spring is located in exchange for reforestation and fencing. Future contamination of the spring is thus highly unlikely as the area above the spring area is primary forest.

Budget:

The total budget for Los Placeres project was \$15,405 resulting in a cost per beneficiary of \$140. The project was financed with in kind and financial support from the community, as well as from the generous support of the Ana Campana Judge Foundation and other donors. Funds were used for the purchase of construction materials, pipes, faucets and valves, latrines, transportation and skilled labor.

Sources of Funding	Amount (\$)
ACJF	5,000
Dutch Embassy	4,000
Community	2,892
Other Donors	2,000
Agua Para La Vida	1,513
Total	\$ 15,405

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