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Agua Para La Vida

Annual Report

2002

Our Mission

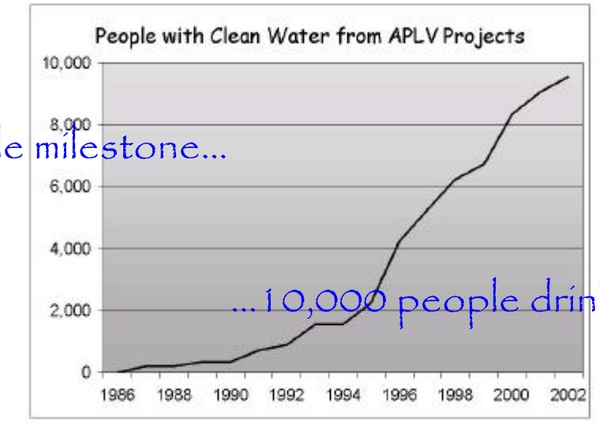
- To help small, rural communities of Nicaragua develop and maintain access to safe drinking water

- To preserve and protect the watersheds that provide water to these communities

- To educate these communities about health and hygiene so that they achieve the full benefit from their safe drinking water

- To provide training and education in all aspects of designing, building, and maintaining drinking water systems so that the region can achieve autonomy in rural drinking water development

A remarkable milestone...



...10,000 people drinking clean water

The 2002 Earth Summit in Johannesburg was disappointing to those of us in the development world. The good news was a "commitment" to cut in half the number of people without access to water and sanitation by the year 2015. The bad news was that no resources were committed to achieve this. Before the Summit, many countries were proposing that developed countries spend 0.7% of their GNP on development aid, but this proposal got nowhere. For reference, the U.S. spends about 0.1% of GNP on development aid, the lowest rate of any developed nation.

While delegates to Earth Summit were discussing bringing clean water to the developing world, APLV was doing it. With the financial support of our donors and with the labor of the villagers themselves, we have helped bring pure water to well over ten thousand people.

This is an exciting time for Agua Para La Vida. With sixteen years of experience behind us, we have shown that we can do what we set out to do. With our success comes a commitment to continue our work and build even more momentum. We hope to double the number of people we have helped over the next five years. Clean water is there to be found and the campesinos are more than willing to work.

We are all aware of the changes in our economy but compared to the standard of living in rural Nicaraguan villages, we are very fortunate indeed. The gap between rich and poor is growing wider every day. Help us make a difference.

Sincerely,
The APLV Board

Drinking Water Projects

Nicaragua is a very poor Central American country whose rural population, like that of many other third world nations, suffers from contaminated water supplies. Current estimates are that 50% of rural Nicaraguans do not have access to safe drinking water. Although much of Nicaragua is either hilly or mountainous and relatively rich in small springs, the impoverished Nicaraguan government lacks the resources to institute an effective rural program to construct drinking water systems. However, there is wide agreement among inhabitants, government planners, health workers, and development organizations that the construction of safe drinking water systems is *the* top development priority. APLV has been working in the region of Río Blanco for the past 8 years as the only active organization providing assistance to rural communities for drinking water systems.

A typical drinking water system...

The drinking water systems we build are designed to last over 25 years, and are built to require minimal maintenance. We work closely with members of the community during the construction of each project, and we spend a good deal of time training a team of community members on maintaining their system. We require that this maintenance team of four to five people consist of at least two women. The impact of drinking water systems is greatest on women, and we feel it is important that they are very involved in the process of building and maintaining the system

A project begins when a community asks for APLV's assistance. We then meet with the community to assess the need and the ability of the community to organize and complete the project

Finding the spring The spring must have sufficient water flow in the dry season and be high enough above the community to allow a feasible gravity flow design. The spring is capped in concrete. Spring water is tested for fecal coliform bacteria at the beginning of a project as well as on a regular basis one the project is complete.

Laying the pipe The trench from the spring to the community is a major piece of the work. The trench is 80cm deep and can be as long as 8 kilometers. Every family contributes equally to the work – usually about 30 days per family. PVC pipe, which is inexpensive and readily available, is used for all of the buried pipe.

The puesto Water flows by gravity from the spring to a concrete tank built close to the community. The tank fills up continually from the spring and the community can use water when they need it From the tank, water flows through a distribution system to the tapstands, called "puestos".

Watershed Conservation

For its size Nicaragua is incredibly rich in biological diversity. It remains among one of the most biologically rich regions on the planet. Once host to 9,000 different species of trees and plants, Nicaragua has lost approximately fifty percent of its forest cover since 1950. This deforestation, a result of clearing the land for agriculture as well as logging, has had a profound effect on the quality and quantity of water available for drinking. Typically, land owners burn their land seasonally to keep the tropical flora from growing and competing with planted beans and corn, or grass for grazing cattle. The result is a loss of nutrients, a loss of soil stability (landslides are seen all over the Nicaraguan landscape), and a loss of diversity of both plants and animals. Cattle are a major source of income for rural Nicaraguans. However, these animals wade into streams and springs, destroy streambanks, erode the watershed soils, and contaminate the water with their waste.

The goal of APLV's Watershed Conservation program is to acquire, restore and protect forests around the community spring

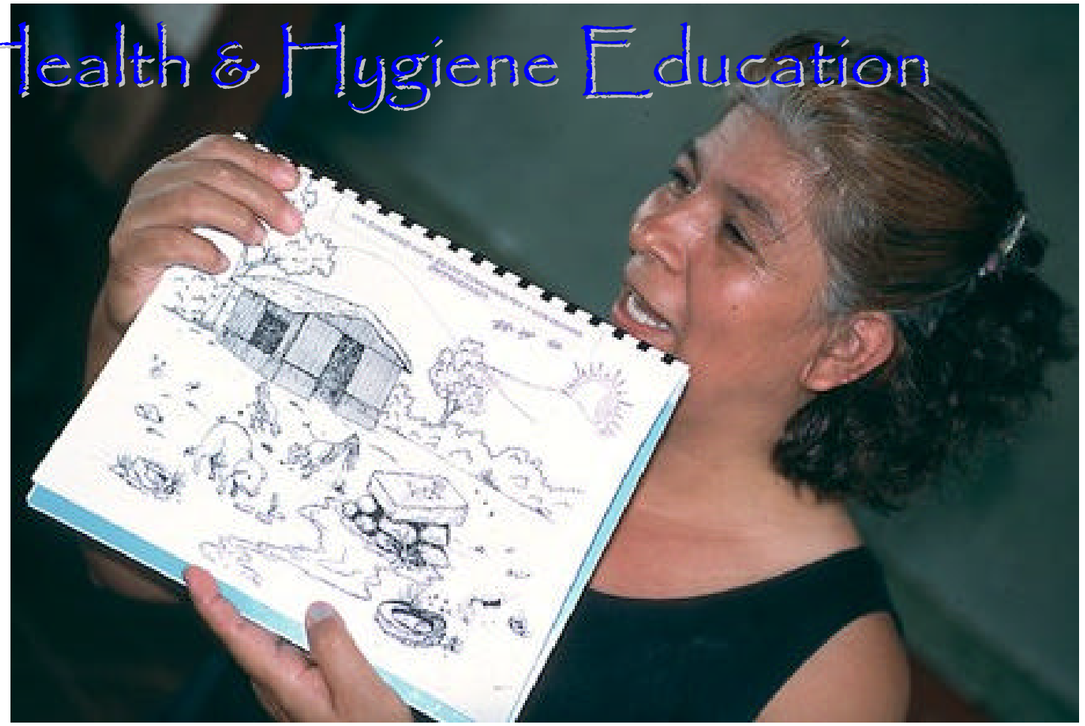
Community Involvement APLV provides guidance and expertise to communities, but the communities themselves do most of the work. The first step is to plant seeds of native species in community nurseries.

Work in the watershed Seedlings are transplanted from the nursery to the watershed. Steep slopes often need to help retain soil during the rainy season.

Keeping the cows out The community builds a fence around the spring and the newly planted trees, enclosing as much of the watershed as the landowner has given or sold them.

Bringing back the forest After only 7 years, the efforts of a watershed restoration have paid off. The forests are growing back in the protected area behind the group of people, in contrast to the overgrazed land in the foreground.

Health & Hygiene Education



The bulk of infant disease and death is due directly or indirectly to water-born bacteria, viruses and parasites. These afflictions also result in or severely aggravate malnutrition in infants and children. Cholera, a disease primarily transmitted by polluted water, has been endemic for several years and is on the increase in the country, strikingly so in the region where we work. The recent drastic decrease in the availability of already scarce medical services makes access to safe drinking water an even greater priority.

Education

Our health team works with all of the APLV communities to provide lectures, workshops, and children's games which promote health and hygiene. Their work includes school programs, adult programs, and house visits with each family.

Community Involvement

Health promoters are recruited in each community to help organize workshops and to serve as local health and hygiene resources.

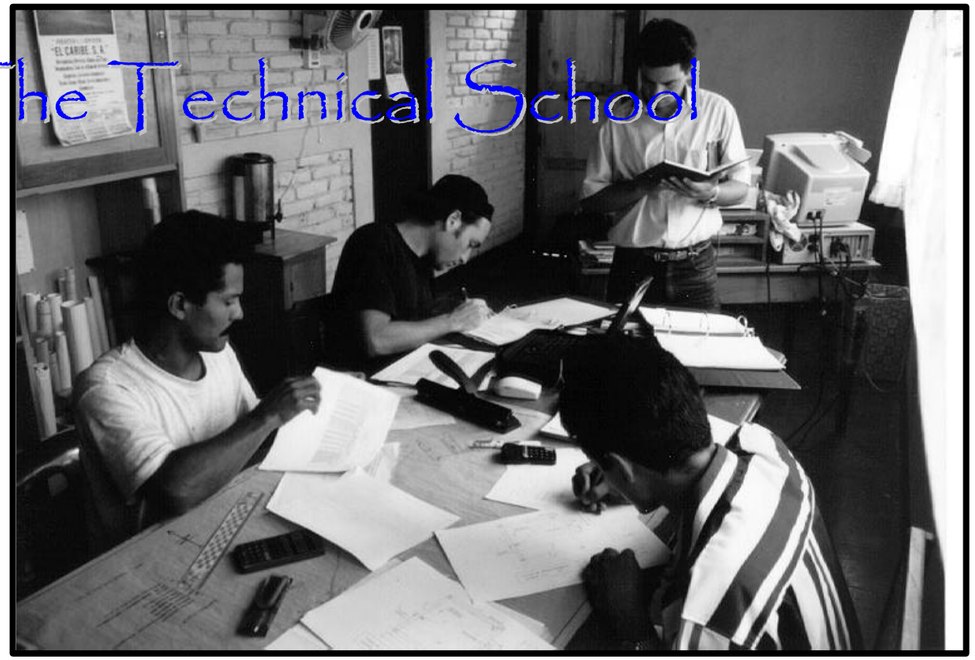
Infant Health Monitoring

Children under the age of 5 are weighed regularly by their mothers on a scale that allows the mothers to mark the childs weight on a paper record the mothers keep. Weight is the single most useful indicator of infant health.

Latrines

Part of the curriculum is teaching the community the importance of using latrines. All families in the community are provided with their own latrine as a part of the program.

The Technical School



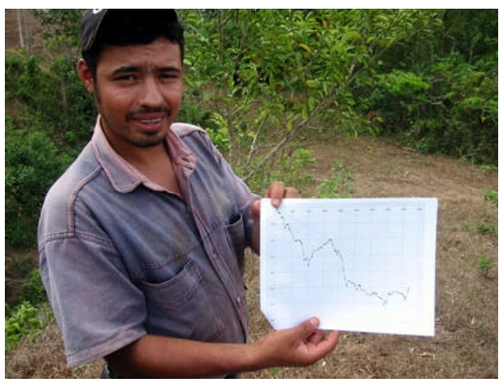
Escuela Técnica de Agua Potable (ETAP)

A major impact of APLV's action stems from the development and training of local water technicians through its comprehensive technical school. These technicians have gone on to work both for APLV and other organizations and the skills they learn go beyond water systems including project management, accounting, surveying and computer operation. Their training offers them a number of useful employment opportunities in addition to water development.

APLV is also committed to the increasing scope of its action. The main requisite for the multiplication of project-generating centers, aside from sufficient financing, is an adequate pool of competent local technicians for the design and construction-supervision of water projects. To meet this need APLV created in Rio Blanco a small work-study school named ETAP (Escuela Tecnica de Agua Potable) that aims to train autonomous water project leaders.

Candidates for the school require the right mix of academic abilities, familiarity with the rural setting of their work and effective interaction with the farming population. Their academic background rarely extends to a full secondary education. ETAP compensates this handicap with a long (about three years) training period, focused technical courses and special computer tools. Our students are also trained in drafting, report writing, budget preparation logistics and accounting. We have found that the work-study formula is quite effective provided that real responsibilities are left to the students in design and in the field. Evidence of this success: the technical staff of our center including its technical director is entirely a product of ETAP. In addition ETAP graduates are increasingly in demand by other water project groups.

The coupling through ETAP's work study curriculum of the training of future water technicians with the cooperative design and construction of water projects. This formula works on more than one level. The students are strongly motivated by the realistic and immediately applicable nature of their studies. Also the construction of a water project often spurs the exceptional commitment of one or more village residents, who reveal themselves as excellent recruits for training by ETAP. Thus, projects generate potential technicians and ETAP, by qualifying technicians for new Centers, contributes to the possibility of the generation of more projects.



APLV drinking water projects in Nicaragua

Community	Year	Population	Description
San Cayatano	1988	280	This is a farming cooperative near the town of San Dionisio. A two-part project that developed a daily water supply of 40,000 liters/day, enough to irrigate a summer vegetable cash crop on top of the drinking water needs of the community.
San Andres de Boboke	1989	85	Located North of Rio Blanco, this village was under frequent attack by the Contra forces during the construction of the water project. At the end of the war it was selected as a center for the demobilization of the Contras because of its water system which is sufficient for a population two to three times its original size.
Cerro Grande	1991	135	Near San Ramon, Matagalpa, many inhabitants used to hike up to an hour for contaminated water. They tried unsuccessfully to get support for a water system from several other agencies before contacting APLV. The system spans 8 km and large elevation differences and provides potable water to campesinos in three very dispersed communities. An object lesson for APLV on the complexities of inter-community relations. Largely destroyed by Hurricane Mitch, it was rebuilt and expanded in 1999.
Martin Centeno	1992	125	Near Rio Blanco, the project spans 3 km and provides abundant and pure water to its beneficiaries. The community became a source of good technicians for APLV's Center and of good students for our technical school.
David Tejada	1993	133	Near Rio Blanco, this system taps a high spring, crosses a low valley and numerous ravines, then climbs back up to serve the community through 17 water tap stands. Although early attempts at organization of maintenance and reforestation failed, they were more successful later.
La Sandino	1993	321	Near Rio Blanco. An ambitious project with nearly 9 km of trench and two suspension bridges, it was postponed two years because of its difficulty. The annually increasing high water mark of the river (which swept away one of the bridges in a flood) clearly demonstrates the need to control watershed erosion in the region.
El Toro	1995	151	East of Rio Blanco. This was one of the first projects where we brought water to each house individually and included systematic drainage of waste water.
German Pomares	1995	143	Near Rio Blanco. The pipe from the spring to the village has very little overall slope (a record 0.2%), yet it has several large local elevation differences. It provided a severe test for APLV's unique design method for the treatment of air pockets in the pipe. Nevertheless, this gravity flow system has always worked perfectly. It was the first project for which the community has protected and reforested the spring watershed in order to prevent contamination and drying up of the water source.
San Jose de Paiwas	1995	90	Southwest of Rio Blanco. A smaller project involving two separate gravity systems.
Caño de Agua	1996	184	The water comes from two separate springs feeding a common tank. While the construction was going on the community nimbly dispatched two murderous kidnappers!
Linda Vista	1997	954	APLV's first urban project provides water to a barrio of Rio Blanco populated by refugees of extreme poverty. A very cost-effective project due to the high density. Particularly effective contribution of organized women.
Wasayamba	1997	1,032	A large project for more than a hundred houses in an area of small hills and particularly polluted previous water sources. The first project for which a large watershed area for replenishing the springs has been acquired entirely by the community for conservation and reforestation.
Emiliano Perez	1998	155	A small river community that had an existing water system with serious problems. APLV was able to redesign parts of the system and restore clean water.
Sarawas	1998	198	A small community beyond Mulukuku on the Northeastern road to Siena with a few public water stands.
Ubu Norte	1998	1,225	A large community destined to become a significant commercial center and growing rapidly. It was the site of a disastrous attempt by the residents to construct their own system without external help. Three widely separated springs are used. The relatively complex distribution system was designed by hand, at a time when APLV's distribution software was being created.
Wanawas	1998	291	A community of about 280 inhabitants North of Rio Blanco at the end of a new road. The water is delivered from the tank on the far side of Rio Wanawas to the village water taps via a 65m (213 feet) inclined suspension bridge built by local talent (community + APLV technicians.
La Ponzoña	1998	75	A small community just West of Rio Blanco. The dispersion of the houses required two independent systems.
Wilikon	1999	341	On the road to Mulukuku and a neighbor of Wasayama. Another satisfactory design with a marginal spring elevation difference for a gravity system.
La Isla	2000	95	A small but spectacular project on a ridge East of Cerro Musun, a National Park and the source of the clean water. The supply pipe crosses a narrow valley over 140 meters below the spring and climbs back up to the village.
Cuatro Esquinas	2000	165	A medium size project beyond Wanawas with difficult roadless access especially during the rainy season.
Santa Rita	2000	1,500	Between Mulukuku and Siuna. Our largest project so far. The first phase installed public water stands for a population almost completely deprived of water. The second phase was completed in 2001 and provides 350 individual home connections..
Barrio Pobre	2001	295	Another project with difficult access located 14 miles North of Ubu Norte. This attractive community overcame the logistical problems with their organizational skills.
La Bodega	2002	470	The difficult topography in this distant community made the use of our sophisticated design tools mandatory..
Puente de Paiwas	2002	600	A short distance west of Rio Blanco. An extreme example of a dispersed community requiring an extended distribution system.

Financial Overview

For the Fiscal Year ending September 2002

Support

Total Gifts Received	$ 120,032
Interest Income	$ 221
TOTAL INCOME	$ 120,253

Expenses

Water Project Material Expenses	$ 71,577
Rio Blanco Office Expenses	$ 2,069
House Repair	$ 338
Truck Maintenance	$ 3,494
Truck Fuel	$ 2,017
Nicaraguan Staff Wages, Benefits and Stipends	
Technical Director	$ 6,425
Technical Instructors	$ 10,800
Health Educators	$ 8,710
Technical Student Stipends	$ 8,300
Watershed Conservationist	$ 3,575
Community Organizer	$ 3,575
Accountant	$ 3,250
TOTAL EXPENSES	$ 124,130
CHANGE IN NET ASSETS	$ (3,877)
Cash Assets 10/1/2001	$ 5,307
Cash Assets 9/30/2002	$ 1,430

Board Members

Gilles Corcos, Co-Director
Charlie Huizenga, Co-Director
Bill McQueeney
Kelly Naylor
Debbie Parducci
Erik Decamp

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