

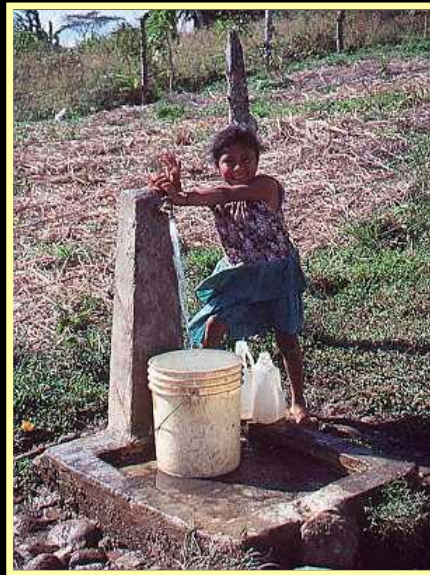
Agua Para La Vida



Presented By
Randy Fay and Nancy Lewis

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Agua Para La Vida



Helping small communities build
their own water systems since 1987

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A Problem Worldwide...



WHO estimates that 780 million in the world lack access to safe drinking water. (1 in 9)
2.5 billion don't have adequate sanitation (1 in 3)

2.2 million people die every year from diarrhea, mostly children under 5.

Mortality rate of infants in Nicaragua is 21.85/1000.
USA is 5/1000 in 2012



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... and in rural Nicaragua

63% of people have access to safe drinking water and 34% have improved sanitation.



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The burden of carrying water

Women and children bear the burden of carrying water. The water often comes from a nearby river or open well and is heavily contaminated



Nicaragua

- Population: 5.6 million
- Density: 41 people/km²
- Managua: 1.6 million
- Rural population: 56%



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APLV Program

- Drinking water
- Sanitation
- Community health education
- Watershed conservation
- Training



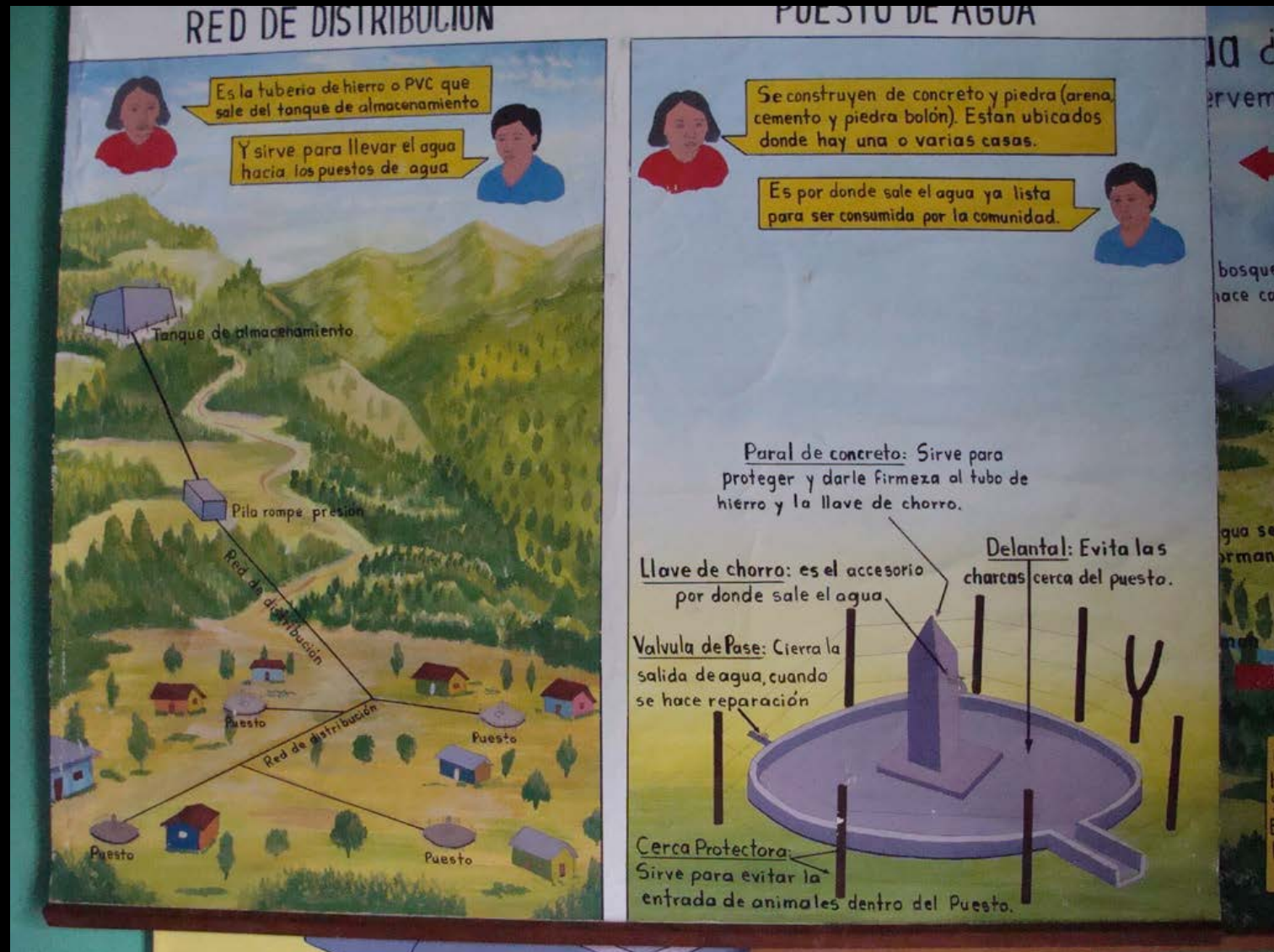
Project start

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.

Typical community size is 30-40 families (~150-250 people).



Gravity flow system



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Finding a 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



Water quality

Spring water is tested for fecal coliform bacteria at the beginning of a project as well as on a regular basis once the project is complete.



Spring catchment

The spring is protected with a concrete cover to protect contaminated surface water from entering the water system. Water entering the system from below will be clean.



The trench

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.

The pipe

PVC pipe, which is inexpensive and readily available, is used for all of the buried pipe. It breaks down if exposed to sunlight



A maintenance committee is formed in the community, and this group is trained on maintenance as the project is built

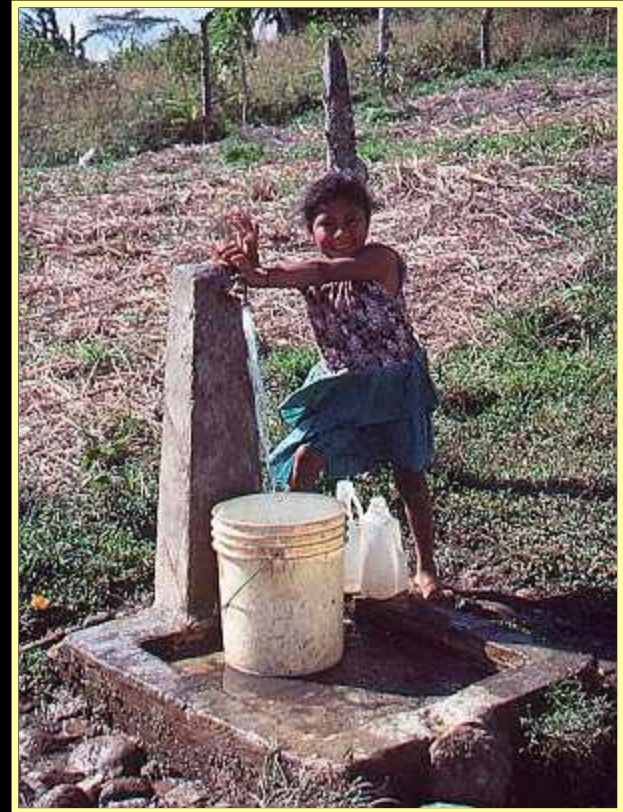
The tank

A concrete tank is built close to the community that holds enough water for about a day. The tank fills up continually from the spring and the community can use water when they need it



Distribution system

From the tank, water flows through a distribution system to the tapstands, called “puestos”



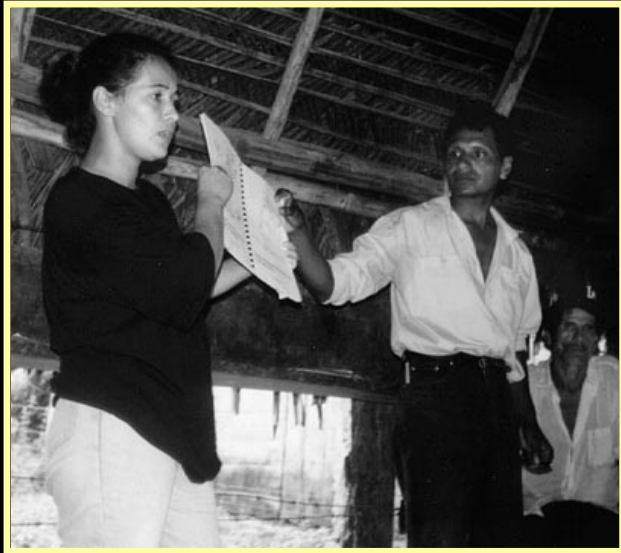
Clean water... Celebrate!



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Community health education

Our health team works with all of the APLV communities to provide health and hygiene education



Their work includes school programs, adult programs, and house visits with each family

Sanitation



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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 child's weight on a paper record the mothers keep. Weight is the single most useful indicator of infant health.



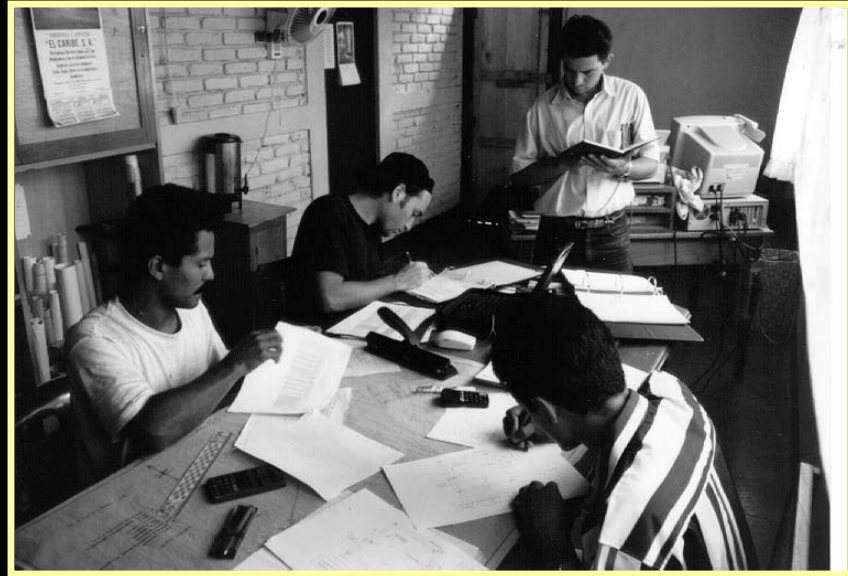
Community involvement

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



ETAP - APLV's technical school

APLV has created a school to train local water technicians. The 2-3 year program includes classroom work and fieldwork on APLV projects.

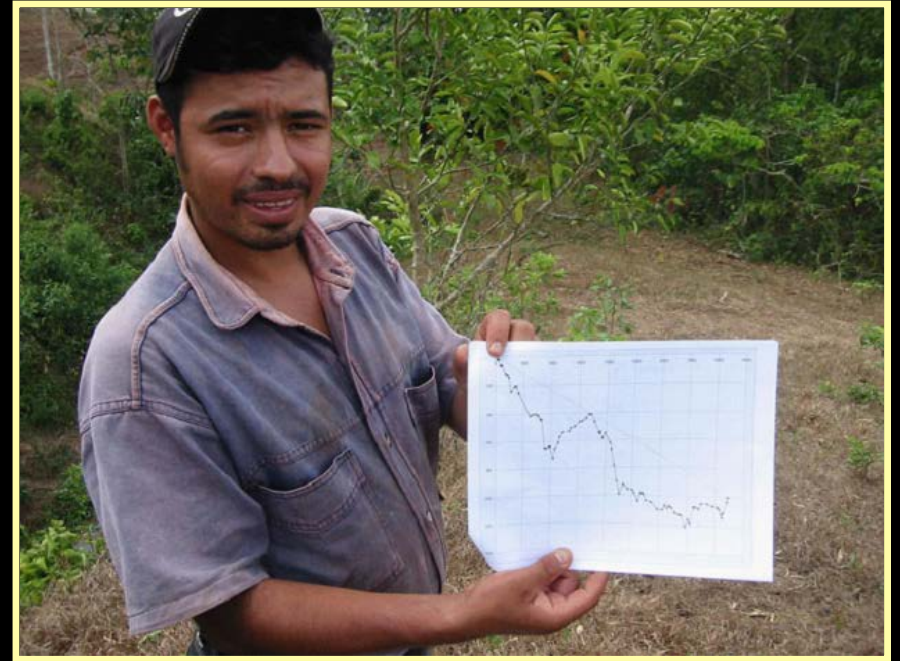


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Student fieldwork



Students are involved in all aspects of the design and construction of projects. Two-thirds of the curriculum is based on field work.



Graduation

At the completion of the program, students have developed a number of useful skills, from topographical surveying to project management. Students go on to work on water projects or other design and construction projects.



Watershed conservation

APLV's watershed conservation program helps communities protect critical watershed terrain near their spring. This is important to maintain both water quality and water quantity.



Current agricultural practice



Burning fields is the standard way to prepare them for planting

Steep terrain that has been burned is easily eroded once the heavy rains begin



Deforestation



Once lush jungle has been transformed to an overgrazed landscape

Since 1950, Nicaragua has lost nearly 50% of its forest cover



Cattle ranching is the major cause of deforestation near Rio Blanco

Mudslides & flooding

Heavy rains in 2004 caused mudslides in the region where we work, killing 26 and leaving thousands homeless.

LA PRENSA
EL DIARIO DE LOS NICARAGÜENSES.com.ni
DOMINGO 27 DE JUNIO DEL 2004 / EDICIÓN No. 23483 / ACTUALIZADA 02:30 am

Deslaves matan a 15

■ Otras 25 personas están desaparecidas y 990 damnificadas por deslizamientos en el cerro Musún, Matagalpa.
■ Damnificados carecen de alimentos, agua, plástico, vestimenta y hasta ayer estaban totalmente incomunicados.

Leocia Loáisiga fue trasladada al Silais de Río Blanco, salva pero no sana, luego de sobrevivir al deslizamiento de tierra en el cerro Musún y salvar de la muerte a cuatro de sus hijos. En el mismo evento perdió a su marido, Francisco Sevilla.

Wilder Pérez R.

Un total de 17 deslizamientos en el cerro Musún están desaparecidas y 990 damnificadas en la Caño Negro y Mansera, en el municipio de Río

SECCIONES
PORTADA
POLÍTICA
ECONOMÍA
NACIONALES
REGIONALES
EDITORIAL
DEPORTES
SUCEOS
EL MUNDO
OPINION
CARTAS AL DIRECTOR
REVISTA
MIGRANTES

SUPLEMENTOS
LA PRENSA LITERARIA
Nosotras
Entre Nos
el azote
Cahero
Suplementos Comerciales



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Protecting the “Cuenca”

A 2-4 hectare area around the spring is fenced in to keep grazing animals and people out.



Planting trees



APLV helps villages establish
tree nurseries for seedlings...



which are then
transplanted to the
protected area near
the spring

Program components

- Reforestation of watershed
- Protection of immediate spring area from grazing
- Conversion to wooded pasture
- Soil restoration
- Education



Mas Arboles... Mas Agua

“More trees... More Water” is one of the mottos of the APLV team. Here you can see the growth that has happened within the protected area of the watershed.



Protecting Cerro Musún

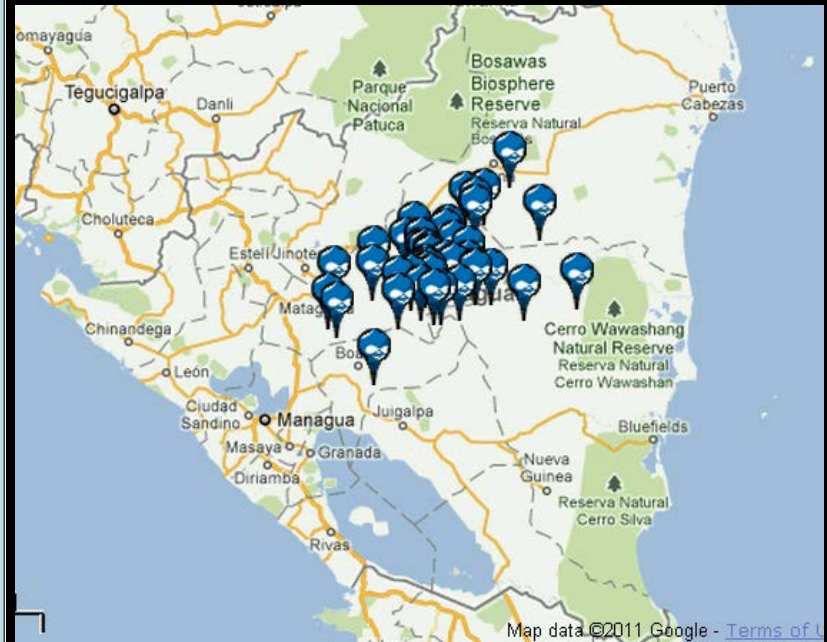
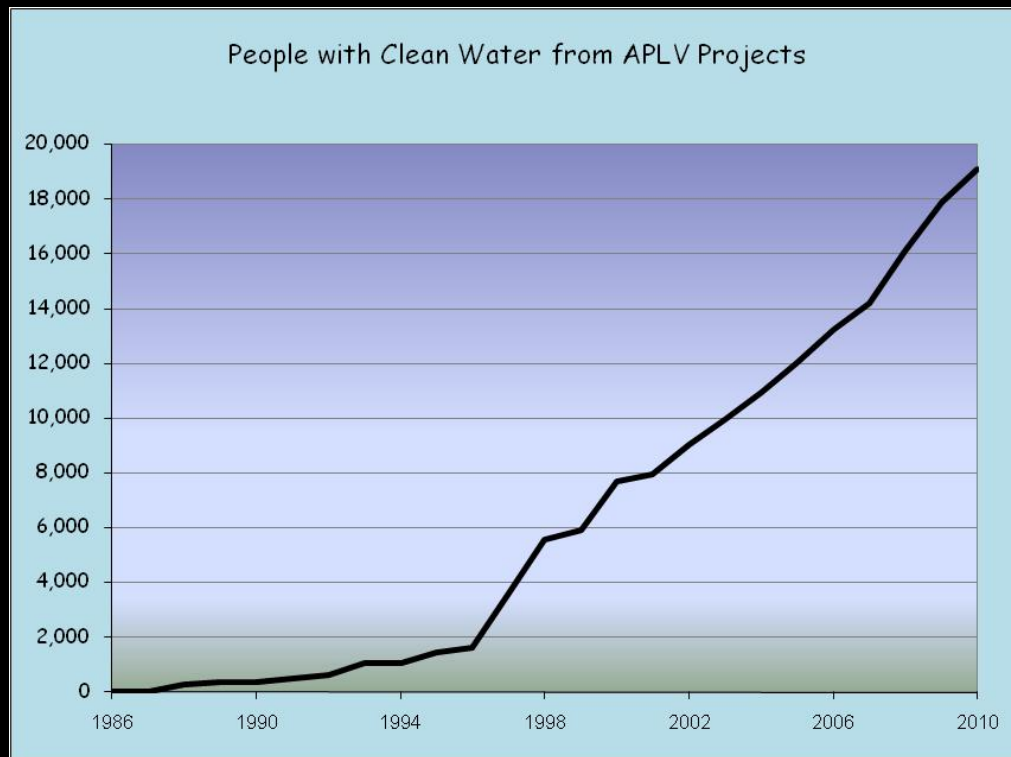
Cerro Musún is a 5,500 hectare national park, home to diverse ecosystems, source of 8 rivers and a local treasure



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APLV Achievements

APLV has worked with over 70 communities to bring clean drinking water and latrines to well over 20,000 people in Nicaragua



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