

**ACJF Funded Projects 2006 (RFP #3)
Amount Requested/Granted: \$39,904**

1) Community-Based Water Well Drilling and Repair, Benin, Africa

**Organization: University of Notre Dame
Notre Dame, IN 46556**

www.nd.edu/~silliman/Development/benin

Amount Granted: \$10,000*

Start/End Dates: January 1, 2007-December 31, 2007

Principal Investigator: Stephen E. Silliman

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Email: silliman.1@nd.edu

Abstract

The University of Notre Dame has worked with Central Afrika Obota (CAO - Benin, West Africa) and Eau de la Vie (EV - Togo, West Africa) in continuing efforts to drill wells in the southern Benin where alluvial sediments represent excellent groundwater resources. These wells will provide clean water sources for populations which currently rely on surface water, roof-top collection, or hand-dug wells.

The project consists of three initiatives: (i) repair in Houmbo, Benin, (ii) training in well-drilling, and (iii) drilling of two new wells. Well pad repair is required in Houmbo as the original well (drilled in 2000) was constructed in two stages, creating a physical separation between the cement in contact with the casing and the cement used for the pad. This has led to leakage of surface water into the well bore. The need is for removal of the existing cement and construction of a pad integral to the well bore.

The driller's training will enhance training conducted in 2000 and 2002 involving two teams of Benin nationals. The goal is to create a combined team qualified to drill wells in southern Benin using the existing LS-100. The training will be conducted by two members of EV. EV has assisted the Benin project on two previous occasions.

CAO is our Benin partner agency and will oversee the practical aspects of this project. They have identified a number of target villages for new drilling efforts. CAO will chose 2 locations for new drilling efforts based on village-level commitment to a new well. Dr. Silliman will visit both sites prior to drilling in order to both approve of the sites and discuss with the community the need for protection of the region surrounding the well (approaching discussion of wellhead protection in laymen's terms).

CAO will then work with the village to establish commitment to the drilling of the wells, including support (living and food) of the men drilling the well, transport of water required in the drilling operation, contribution to the cost of drilling the well, and the responsibilities of the water committee. The water committee is required by the national government agency (Direction de l'Hydraulique) and will oversee all future maintenance of the well. It is anticipated that the wells will be on the order of 50 feet in depth and will be equipped with government-approved hand-pumps and substantial well pads to protect the water source.

We anticipate that the ACJ Foundation will express interest in this project as it is focused directly on improving water supplies for villages in a developing country in a manner that is both cost effective and leads to sustainable development of groundwater resources in this region.

***Note: The amount granted includes a \$5,000 match from the National Ground Water Research and Educational Foundation.**

2) Agua Limpia in Dajabon, Dominican Republic

Engineers Without Borders Chapter at the University of Tennessee, Knoxville

Start and End Dates: December 2006

Amount Granted: \$10,000*

Project Leader: Jordan Mynatt

Faculty Advisor: Dr. John Schwartz

The University of Tennessee

Department of Civil and Environmental Engineering

106 Perkins Hall

Knoxville, TN 37996-2010

Phone: (865) 974 – 7721 or (865) 660-6585

Email: ewbut@utk.edu or jschwart@utk.edu

Abstract

This proposal is a solicitation for funding for a water project currently in the design phase administered by a 501c3 non-profit student club entitled Engineers Without Borders Chapter at the University of Tennessee, Knoxville (EWB-UTK). The assessment phase was concluded on March 26, 2006, following an assessment trip to the villages of Los Cerros De Aminilla and Barrigon in the Dajabon region of the Dominican Republic. The assessment trip involved four students and one professor from EWB-UTK. The group gathered data, such as material availability and cost; assessed the region's current water condition; and fostered community involvement.

This project originated from the communities' desires for better sources of water. Currently the communities, with about 300 people combined, share one working well. The well does not produce enough water for both communities. Additionally, the well is a great enough distance to burden several young and elderly members of the communities. The project was submitted to Engineers Without Borders, USA (EWB-USA) by Edith Yoo after traveling in the area and learning of the communities' struggle for water. EWB-USA has approved the project and approved EWB-UTK's proposal to undertake the project.

EWB-UTK has partnered with a regional government agency entitled SINDICO to help bring water to the people of the area. SINDICO participated by drilling and casing two new wells in Los Cerros De Aminilla and one new well in Barrigon in addition to providing transportation for the EWB-UTK assessment team. EWB-UTK plans to outfit the new wells, repair some older wells, and install tanks to increase the regions water storage capabilities.

This project has great potential of achieving success on several levels, and EWB-UTK looks forward to partnering with several different individuals and organizations to improve the quality of life for more than 300 Dominicans.

***Note: The amount granted includes a \$5,000 match from the National Ground Water Research and Educational Foundation.**

3) Project Implementer's Workshop for the BioSand filter – Charagua, Bolivia

**Organization: CEAGUAC
11529 Valley Ridge Drive NW
Calgary, Alberta
T3B 5T8**

Start and end dates September 1, 2006 – September 15, 2006

Amount Granted: \$ 4.925

Responsible for the Project: Patricia Slind and Diana Frost

E-mail: coordillerawatersc@shaw.ca or dfrost@cawst.org

Abstract

The goal of this project is to provide to Charagua community the tools to develop a Biosand filter project. Charagua is a community of 3.000 people located in the Cordillera Province, Santa Cruz – Bolivia, where the lack of water is severe in the whole region. Local governments tried to find a solution for many years, but seemingly in vain, as the problem continues and people are still collecting unclean water from rivers, ponds and runoff rain

In order to provide a definitive solution to this problem, Cordillera Water Supply Center or Centro de Abastecimiento de Agua Cordillera (CEAGUAC) and The Centre for Affordable Water and Sanitation Technology (CAWST) both Canadian non-profit organizations, propose a collaborative training and education program for household water treatment (HWT), sanitation and hygiene. This is an appropriate solution because we believe the program sustainable. An investment in education is an investment in the long-term sustainability of a community program.

- Building capacity in the local population to meet their own water and sanitation needs is the only sustainable solution for provision of basic services.
- Bolivian organizations will be able to provide training to local populations. Support and quality control systems will be established to sustain the program.
- The BioSand Filter is affordable and can be constructed using materials found in the community, with zero maintenance costs.
- Local community members from Charagua – Santa Cruz trained in the technology, hygiene and sanitation, can conduct follow-up household visits.

The initial investment will continue to impact more organizations, more communities and ultimately, more people over time, as the network of trained organizations and active projects in Bolivia grows. Further:

- CAWST will openly share the training materials with CEAGUAC, which can be delivered to any region of Charagua - Bolivia.
- The technology recommended for Charagua, the BioSand Filter, can be constructed out of materials found in most communities in Bolivia, enabling various programs to activate simultaneously and independently.

4) Potable Water System for Caserio El Retiro Las Canoas, Chimaltenango, Guatemala

Organization: PAVA Foundation
123 W. Berger Street
Santa Fe, New Mexico 87505-2615
Phone: (505) 983-0741 E-Mail: pavaamigos@aol.com
<http://www.pavafoundation.org>
Amount Granted: \$5,000
Start/End Dates: June 1, 2006 - October 31, 2006
Contact Person: Mike Shawcross, Project Director
mikeshawcross@amigo.net.gt
USA Contact Person: Holly Myers, President
Crestavista@batnet.com

Abstract

The proposed water project responds to a request to PAVA from the agricultural community of El Retiro Las Canoas and the adjoining neighborhood of El Paraje El Jocote, both in the Department of Chimaltenango, Guatemala. This project will provide potable water to 55 households from three, preexisting springs located about two miles from these sites, enabling the beneficiary families to share in the health benefits of non-contaminated water for drinking, cooking and hygiene.

PAVA (Programa de Ayuda a los Vecinos del Altiplano/Aid Program for Highland Communities) has a 22-year history of partnerships with small communities in the Guatemalan highlands. PAVA undertakes projects that are proposed by communities in the Departments of Chimaltenango and Quiche, working in collaboration with local and municipal resources. PAVA strives to be responsive to the requested needs of these communities rather than mandate particular types of development projects.

Since the 1980's, PAVA Foundation has been involved in the village of El Retiro Las Canoas, most recently having supported the construction of a school there in 1998. In order to implement and oversee this potable water project a local committee has been established by the community. Local residents will donate unpaid, manual labor for the project, and the municipality of San Martin Jilotepeque will provide transport and construction materials. In addition to project oversight by local PAVA Guatemala staff, U.S. engineers volunteering on behalf of PAVA will donate their design and support expertise. U.S. Peace Corps Volunteers have assisted with successful potable water projects for PAVA over the last three years and will continue to provide assistance and supervision toward the completion of this project.

PAVA requests \$5,000 from the Ann Campana Judge Foundation to cover costs not met by unrestricted funds of the PAVA Foundation. The cost of materials for the complete system will total about \$12,000. The value of donated labor of the local community is estimated at \$4,000 (a valuation which reflects the low prevailing wages of rural Guatemalan *campesinos*, and which the town itself establishes). The value of materials and transport provided by the municipality is estimated at \$2,000.

This project will provide vastly improved health and hygiene for the residents of this poor, remote, agricultural community. It is anticipated that potable water delivery will decrease the infant mortality rate, decrease the incidence of illness, and increase the life expectancy of these residents of this Guatemalan highlands village.

**5) Water and Sanitation Projects in Rural Nicaragua:
1 Hand-Dug Well, 2 Well & Lavandero Rehabilitations, 10
Latrines**

Organization: El Porvenir

http://www.elporvenir.org

48 Clifford Terrace

San Francisco, CA 94117

Phone: 303-520-0093 Fax: 309-216-2596

E-mail: info@elporvenir.org

Start and End Dates: May 2006-May 2007

Amount Granted: \$4,979

Contact Person: Elisabeth Merritt, Director of US Operations

Project Director: Oneida Hernandez, Water and Sanitation

Promoter

Abstract

The grant proposal is to provide funding for a hand-dug well, two well and lavandero rehabilitations, and ten latrines in the rural villages of Cooperativa Ivan Vilchez and EI Prado. Village families want year-round potable water and sanitary facilities. For this, *they* will dig and line one well; top and install rope pumps on three wells; put doors and a roof on two lavaderos; and dig, line, and build enclosures for latrines.

The residents of Cooperativa Ivan Vilchez drink water from a private well at the Protestant Chapel: the well is not hygienic and dries up during the dry season. Other villagers walk a kilometer to the Rato Viejo River where they dig shallow wells alongside the river which is contaminated by human and animal waste. There are no latrines. The community is vulnerable to disease due to the water they drink and due to the lack of sanitary facilities.

The villagers of EI Prado have two deteriorated perforated wells and two deteriorated lavaderos, all built by CARE 10 years ago. The India pumps on the wells break constantly, and replacement parts are unavailable. Villagers have improvised, but each repair is costly and does not last. The lavaderos no longer have doors on the shower stalls and the roofs full of holes. Villagers are again bathing and washing in the river or outside their homes, with the gray water going into the river or seeping into the water table.

Villagers want to improve their standard of living and their health. For those reasons, they have come to El Porvenir to request help. They have elected a project committee as well as agreed to provide the labor voluntarily and locally available materials.

The expected outcome of the projects is improved health for the residents of both villages, a reduction in cases of diarrhea and dysentery, and decreased infant mortality. Through the project process, the community will also participate in health and hygiene education workshops, learn how to organize themselves, and have pride in their accomplishment.

El Porvenir is a non-profit organization that enables poor people in rural Nicaragua to improve their health, environment, and standard of living through sustainable community development projects.

6) Drinking Water and Sanitation for Los Placeres, Nicaragua
Organization: Agua Para La Vida
2311 Webster Street,
Berkeley, CA 94705
Phone 510-643-8003 Email: aplv@aplv.org
www.aplv.org
Amount Granted: \$5,000
Start/End Dates: January 1, 2006 - September 1, 2006
Project Director: Reynaldo Diaz
Contact Person: Charlie Huizenga (huizenga@aplv.org)

Abstract

This project will enable the village of Los Placeres, Nicaragua, to build a community drinking water system, improve sanitation, educate community members about health and hygiene, and protect their community watershed from deforestation.

Los Placeres is located 45 kilometers down a gravel road from the town of Rio Blanco, Nicaragua. Its 110 inhabitants are subsistence farmers who grow corn and beans and raise livestock. They currently get their water from a combination of shallow, open wells, and the Wanawas River that flows nearby. In the dry season all of the water comes from the river. Both of these sources are highly contaminated. The village also lacks adequate latrines.

The community sent a formal request for assistance to the Agua Para La Vida (APL V) office in Rio Blanco, signed by all 19 families. In June 2004, APLV staff made a site visit and evaluated a spring 2 km from the village that the members of the village had identified as a potential water source. They also evaluated the community's ability to organize themselves to carry out the project. The village has created a Water Committee that will be involved in training throughout the project and will have long-term responsibility for the water system and for collecting a small but important monthly fee from each household to cover the cost of maintaining the system over time.

The project consists of four elements: a gravity flow water system, latrines for each household, a community health education program and a watershed conservation program. The integrated nature of the project will result in improved health (reduced diarrhea and dysentery and likely elimination of cholera). Students from our work-study technical training program will work on the project, gaining valuable water project experience.

The total cost for materials and transportation of the project is \$10,676. An additional \$2,892 of in-kind support (labor, food and materials) will be provided by the community. We have a commitment for \$4,000 from the Dutch Embassy in Nicaragua and are requesting \$5,000 from the Ann Campana Judge Foundation. The remaining \$1,676 will be provided by individual APLV donors.