



**Draft Project Outline for water conservation and ecological sanitation in the
CENTRO EDUCATIVO INTERCULTURAL BILINGÜE
“ABRAHAM CALAZACÓN,” in the community of Bua de los Tsachila, Santo Domingo,
Ecuador.**

Description

The community of Bua is one of 7 communities of the Tsachila culture. This unique and distinctive culture lives on their own territory close to the city of Santo Domingo, Ecuador. They are easily recognized from the cropped hair of the men, colored bright red by paste from the “achiote” tree, and the striped skirts worn by both the men and women. They are famed throughout Ecuador as curanderos, herbalists and shamen.

In total there are under 3000 remaining Tsachila, on land surrounded by colonists and mestizo farmers. The Tsachila themselves are primarily farmers, growing principally maize, malanga, platanos, and yucca. Bua has around 700 members, scattered on small plots of farm land in what was once rainforest that covered the lower western slopes of the Andes. A small portion of the original forest still exists in Bua and is being actively extended by a Tsachila initiative to create a visitor center and ethnographic and ethnobotanical museum with interpretative trails.

The local school for Bua “Abraham Calazacon,” has over 250 children from 4 to 15 years old, with about 10-12 teachers. Like many rural schools it is severely underfunded and lacks many of the basic necessities for a satisfactory education.

Yanapuma Foundation

The goal of Yanapuma Foundation is to promote sustainable practices in indigenous and rural communities throughout Ecuador. To this end the foundation seeks to work in an integrated fashion across all the major axes of sustainable development in order to promote a coordinated development strategy that will create sustainable communities. Yanapuma has only been in existence since September of 2006, and is thus in the process of developing its strategies and programs with several communities. Principally the foundation is working with international volunteers, individually and in small groups, to carry out various activities with these communities.

Yanapuma currently works with the community of Bua in several ways: sending volunteers to work in the development of the ethnographic museum and visitor center and to help teach in the school, sending interns to carry out surveys and evaluations of community needs in the areas of health, education, water and environmental management, etc., and a current project to construct ecological toilets in three strategic locations in July of 2007.

Problem

The school “Abraham Calazacon,” like the rest of the community, has severe problems with water and sanitation, which is a major source of contamination and disease in the community. There are 6 toilet stalls for the 250 children, connected to a septic tank designed for only half this number, which is constantly overflowing onto the football field. This is situated less than 20 meters from the well that is meant to supply the school with water. The elevated tank for the well is deemed unsafe by the director of the school as it sways when the tank is filled, so it is not currently in use. There

are thus no hand-washing facilities for the 250 children after using the toilets, and a path that leads from the school down to the football field crosses the outflow stream from the septic tank.

The school also suffers from inadequate building infrastructure for its 250 students. There are about 5 classrooms in total, and one “temporary” classroom, actually an area with a tin roof and plastic sheeting for “walls”. All but one of the classrooms are in need of renovation work, including replacement of roofing material.

Project Proposal

Yanapuma Foundation proposes to remedy the current dire situation of the school by three principal methods:

1. Replacement of the conventional flush toilets by ecological dry toilets that would avoid the need for using water as a means of dealing with human waste, and avoid contamination.
 - a. This will involve a substantial educational campaign in their use and also related educational themes such as environmental protection, health and hygiene, biology, agriculture, etc.
2. Restore water supply to school with one of two options:
 - a. Collection of rainwater from the extensive roofs of the school to use in a gravity-feed system for providing hand-washing facilities for the students and staff. This will involve replacing some of the existing and decaying roofs of the school with suitable materials.
 - b. Reconstruction of water tank tower and restoration of existing water pump system. This should also include testing of well water to verify quality.
3. Construction and/or renovation of school buildings and facilities.

The proposed project provides a low-tech and sustainable solution to a grave problem that is adversely affecting the health of the children of the school and their families, and their ability to receive a quality education in a safe environment. It has clear benefits for both the human population and for the environment of the area, and can serve as a model for the rest of the Tsachila communities towards the solution of a problem that affects all of them equally.

Budget

A general estimate of the overall material cost for this project is in the region of \$XXXX.00
The project will require technical expertise in the design and implementation phases.

Appendices : Photos



Overflow from the septic tank



The current toilet block



Handwashing facilities



Classroom building



The best classroom interior



The worst classroom interior



Another classroom building



The unused water tank



Demonstrating principles of ecological toilets to the Tsachila of Bua, March 07