



Final Report: Installation of water distribution system with connection of pump to well and tank in the community of Guadalupe Palometilla, Buena Vista.

Background

Guadalupe Palometilla is a community of 32 agrarian families, all of whom come from the rural area of the department of Chuquisaca. Twenty three years ago they purchased the land where they now live in the municipality Buena Vista. The majority of residents work in agriculture growing rice, corn, beans, yucca, and citrus. They also raise animals (chickens, ducks, cows, pigs) for household consumption. A small number of people are employed as taxi drivers, small scale vendors, or carpenters.

Early in 2016 Guadalupe Palometilla requested a water system project for their community. After visiting the community and meeting with the leaders, Etta Projects and the community of Guadalupe Palometilla created a project proposal and budget for the installation of a distribution system reaching each house. The municipality responsible for Guadalupe Palometilla was ready to make their investment in the water system in late 2017. The community named five individuals to form the water committee and began participating in the trainings offered by Etta Projects. The municipality also made arrangements to release the funds to make this project possible.

Context and need

Guadalupe de Palometilla had no clean water and no sanitation infrastructure. In 2008 the government dug a deep well but never returned to create access. Baseline surveys confirmed that no houses had basic sanitation systems in place and either use a pit latrine (80% of families surveyed) or open defecation (20% of families surveyed). All residents depend on the nearby spring as the source for drinking and cooking water, and use a small river for washing clothes and bathing. Some families had shallow wells about 10 feet deep. This water is contaminated by the pit latrines and grey water used for bathing and washing. Baseline surveys indicated that grey water is disposed of either simply by dumping it around the house or directly into the river. Residents spend considerable time and energy each day filling and carrying plastic jugs with water from the spring to use in their homes for cooking and drinking.

The residents of Guadalupe Palometilla were excited to finally install a pump, tank, and distribution system in their community, knowing that it would have significant impacts on their quality of life and health. Lack of access to water in the homes is a barrier to regularly practicing good hygiene (the most basic of which is hand washing).

This project achieved the goal to ensure that families have access to a safe and reliable water source by installing infrastructure for household water connections. Twenty-eight of 32 families now have a water faucet and running water outside their home. The school has a water connection, as well as the site of the future health center. When the remaining families

decide to join the system, the newly trained water committee will have the capacity to facilitate that process.

Election and training of the water committee to manage the new resource in this community is complete, ensuring that the system is maintained and repaired properly, to achieve sustained access to safe water to all residents. Water committee members will continue their training next year under Etta Projects to continue strengthening their organization and knowledge to effectively manage their system.

Community Stories



Don Eloy, the current president of the water committee demonstrates the place where for 23 years residents have collected water for human consumption. In the background behind Don Eloy we can see the Palometilla

River, where residents go to bathe and wash their clothes. In some cases the children from the community drink the river water also. The one- inch pipe that has been rigged to distribute water has an incline of 45 degrees, and in the rainy season it is extremely difficult to access the water source because the rain causes the earth to become extremely slippery and dangerous. Children and elderly residents have great difficulty accessing their own water source.



Several meetings were held with community leaders and municipal government officials. The municipality agreed to contribute 30% of the construction costs, and the community 15% of the construction costs in addition to the labor required for installation of the distribution system. The contribution by the community is significant for them, as they are farmers and produce mostly for their own consumption. Often when they need cash for purchasing something it requires them to sell an animal, as their wealth is held mostly in livestock. Understanding this situation, EP staff and the community members decided on a payment plan that would be accessible for the greatest number of families by breaking the payments down in to smaller amounts. The newly formed water committee takes part in this process by collecting the payments from residents, and the treasurer documents each payment made. The water

committee is responsible for delivering the payment to Etta Projects with documentation of each families' payments.

Installation of the water system

After coordinating and agreeing to a work plan, materials were purchased and transported over 110km of paved and gravel roads from Santa Cruz to Guadalupe Palometilla. The community members organized to dig the ditches necessary for installing the distribution tubing. The community dug by hand a total of 608 meters.

During the day children helped with some of the digging because the adults were working in the fields. In the morning the older kids go to school in Villa Diego 5km away. After a day in



school and walking there and back for classes they would return to help dig the ditches.

Javier and Silvestre said they are excited to contribute to the Project because having water will benefit everybody in the community. Javier (in green shorts) said: "I want to have water in my house. Now I'm going to be able to bathe much better with water, and without sand. When we bathe in the river it is with half water and half sand, especially when the water level is low."





The girls in primary school took 20 minutes of their recess to collect stones from the river which were necessary to help with the construction of the tower for the water tank. Everybody from the community took part in the construction and installation of the system. The plumbers who did the

technical work of installing the household connections felt the support from the community.

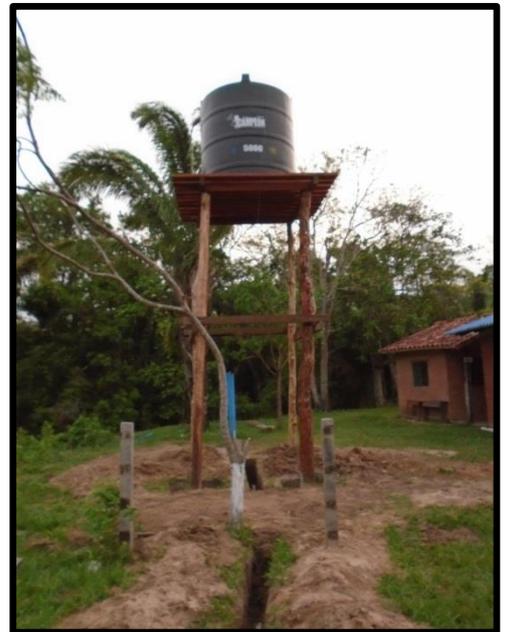
The technician, Luiz Guzmán, directs men from the community as they raise the posts in place for the tower which will hold the 5000L tank. The work required strength of 10 men to place upright the four posts, each of which was eight meters long and weighing about 500kg. The coordination and group effort allowed the work to be done without any problems. The tank is now situated on the tower which is five meters above the ground.





All over the world many water systems fail after only two years. We believe these workshops create sustainability in water projects by giving the community the knowledge to maintain, repair and replace systems over time. The small tariff paid by each family provides the funds to keep water flowing.

Below, the committee members from Guadalupe are working on organizing their system for reading meters and charging usage tariffs.





Water faucets and meters installed in the community (above).



The woman is standing next to a simple well she has on her property (left). Water from this type of source varies in quality and quantity based on rainfall and weather. It is shallow and always contaminated. She now has a faucet instead of this system.

Baldivieso is the son of Don Francisco, who is president of the community farmers syndicate. From their house, Francisco's children had to walk almost half a mile to the water source, and carry that water back to the house. The walk even requires crossing a small wooden bridge across a ravine. Today Baldivieso experienced one of the first days in his life where he could fill a bucket of water in his own home to be used for cooking and for caring for animals.



Doña Dora is one of the elderly residents of Guadalupe Palometilla. Due to the distance and the inaccessibility of the spring source, she had to pay younger neighbors to bring her water. Today the faucet she has in her house has changed her life for the better. She no longer has to walk long distances and risk injury by collecting her water on her own.