



A Progress Report from Guatemala for MD19 Lions



The inauguration of a drinking water and sanitation system in Granadillas community, funded by MD19 Lions and other donors.

Project Name: Water Linkages for Sustainable and Healthy Communities
Project Location: Tacaná Municipality, San Marcos Department, Guatemala
Project Duration: One Year
Reporting Period: November 2015 - May 2016
Grant Amount: \$40,469.03
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Introduction

Many Guatemalan communities face high rates of waterborne diseases, resulting from poor water quality and inadequate access to sanitation. According to recent data, 54 percent of the population lives in rural areas and less than 60 percent of these rural households have access to a safe water source. Only 46 percent have access to basic sanitation services. These conditions undermine the country's development by keeping children (especially girls) out of school, hindering the livelihoods of women and men, denying many people good health and even life itself.

To address this situation, CARE is implementing the *Water Linkages for Sustainable and Healthy Communities* project throughout the Western Highlands of Guatemala. In particular, **support from MD19 Lions is helping to benefit 2,643 people (1,348 women and 1,295 men) from 410 families in six communities in Tacaná municipality**, located in San Marcos department (*see map*). The project is providing equal access to basic water and sanitation services through the construction of water systems, the promotion of improved health and hygiene practices, the protection of water recharge areas, and, to ensure sustainability, the reinforcement of the technical capacities of organizations and local governments. CARE has established a close collaborative relationship with the municipal government of Tacaná – through Municipal Office for Water and Sanitation, the Municipal Administration for Planning, the Municipal Forestry Office and the Municipal Office for Women – to implement project activities.



In early 2015, CARE and the municipality of Tacaná selected the communities of Cuá and Granadillas to participate in the project, due to their lack of available safe water. CARE held initial meetings with both communities to present the project, come to a shared understanding of how the project would be implemented and explain what kind of participation would be required from the community. For example, each community would be responsible for providing some of the labor and resources such as stone and lumber. The community members also needed to agree to a monthly service charge for the water service, which is necessary to ensure the sustainability of the project. Each benefitted family would pay the monthly fee established by the project to cover costs for plumbing services, monitoring the quality and quantity of water, and buying pipes and accessories for repairs, chlorine tablets for water disinfection, and supplies for growing trees to reforest water source recharge areas. The contribution from the community consisting of local construction materials and labor, serves to lower the project's costs, optimize the use of local resources, and help the families appreciate their contributions to the community's development.

Community	# Families	# People	# Water Systems
Granadillas	93	558	1
Plan Chiquito	36	216	1
Salinas, Ojo de Agua and Ixmujil	175	1,233	1
Tojpac Nuevo Horizonte	106	636	1
Total	410	2,643	4

Project Highlights

1. Water System Construction and Sustainability

CARE initiated the project by conducting **four site studies/surveys** for water system construction and rehabilitation in Granadillas, Plan Chiquito, Tojpac Nuevo Horizonte and Salinas (which includes Ojo de Agua and Ixmujil), and **obtained four licenses** from the Ministry of Environment and Natural Resources that are necessary for water and sanitation system construction. We then **formed four water and sanitation committees**, with 25 total members (five women and 20 men). These committees were equipped with a basic tool kit (pipe wrenches, hacksaw, pliers, hammer, awls, tape measure, sandpaper, plumbers tape, PVC pipe glue, storage box, etc.) and trained on the operation and maintenance of the water systems via theoretical-practical workshops that covered topics including equal access to drinking water and sanitation services, inclusion of women in local decision-making positions, water volume monitoring, water system chlorination, residual chlorine monitoring, proper handwashing and importance of protecting water source recharge areas through reforestation. The committees have assumed water system operation and management processes. A summary of construction-related activities is as follows:

- **Granadillas: Constructed a basic drinking water and sanitation system** with the participation of 558 people (273 men and 285 women, including 84 schoolchildren) from 93 households. These families now have clean drinking water available for consumption. For this construction, the municipality contributed 39 percent of the total cost of building materials, pipes and accessories; the community contributed 34 percent worth of unskilled labor and local materials; a Swiss development organization contributed 4 percent in planning processes; and CARE – with support from MD19 and other donors contributed 23 percent in skilled labor and materials. We also installed graywater treatment/filtration systems and trained families on its proper use.
- **Plan Chiquito: Constructed a basic drinking water and sanitation system** with the participation of 216 people (106 men and 110 women) from 36 households, which now have clean drinking water. The municipality contributed 38 percent; the community contributed 30 percent; the Swiss development organization contributed 21 percent; and CARE – with support from MD19 and other donors – contributed 11 percent.
- The project team **installed 129 micro-gauges** to measure monthly water use in Granadillas and Plan Chiquito, and with the municipality, **established a monthly payment fee of \$1.53 per family** to cover administration, operation and maintenance costs for the water systems. This monthly fee creates a sense of ownership for the community and ensures the sustainability of the water systems for future generations.
- **Salinas, Ojo de Agua, Ixmujil and Tojpac Nuevo Horizonte: Initiated construction of basic drinking water and sanitation systems**, involving 1,869 people (916 men and 953 women, including 300 schoolchildren) from 281 families. To date, 50 percent of the construction has been completed, consisting of catchment areas, water distribution tanks, depressurization tanks and aerial pipelines.



A forestry nursery group in Granadillas.

CARE organized five meetings with members of the municipal technical units to follow up on water and sanitation activities to date and to analyze water coverage progress in Tacaná municipality. During the reporting period, we also **created three forest nursery groups** in Granadillas, Salinas and Tojpac Nuevo Horizonte, whose members represent 374 families benefitted by the project. These groups were trained to oversee forest nurseries, raising trees to protect water source recharge areas in their communities. The forest nursery groups are community organizations whose members represent the families benefitted by the water and sanitation systems. Members work together based on a pre-established work plan to annually produce trees for reforesting water source recharge areas. Their work guarantees access, quality, and quantity of water for current and future generations. CARE promoted gender equality throughout the construction and training processes, with the aim of involving men in the care of their families' health and hygiene, and not leaving women alone with this responsibility.

2. Maintaining Water Quality

Today, 774 people from the communities of Granadillas and Plan Chiquito are drinking clean water from their new water systems, thanks to quality construction and installation of chlorine dosing units that operate with calcium hypochlorite tablets. **Every two weeks, water and sanitation committee members chlorinate their water system.** During the same timeframe, trained plumbers check the distribution tanks and several randomly selected faucets to measure residual chlorine levels and provide any necessary maintenance to the chlorination system. Families in the remaining communities of Salinas, Ojo de Agua, Ixmujil, and Tojpac Nuevo Horizonte will, in the coming weeks, also benefit from access to better water quality, following the installation of chlorination units and distribution tanks to the water systems that are currently under construction.

3. Improving Health and Hygiene

The project team facilitated **13 workshops on water purification methods** for home consumption (boiling, chlorination and solar disinfection) and **39 workshops on graywater management, proper handwashing, use and care of latrines, and solid waste management. The workshops were attended by all 2,643 people in the six communities.** CARE also organized awareness events/celebrations in participating communities for World Water Day on March 22 with the participation of more than 2,500 people, and three events for Global Handwashing Day on October 15 with the participation of 595 teachers, children and parents from Salinas, Ojo de Agua and Ixmujil. The goal of the event was to promote the habit of proper hand washing before eating and preparing meals, after using the bathroom or latrine, and after changing diapers. Project staff gave several talks about diseases transmitted by poor hand hygiene and the importance handwashing for health. During these events, the team conducted demonstrations, broadcasted messages and organized games and sports activities with youth, at which time we promoted important health and hygiene messages.

To verify the application of good hygiene and basic sanitation practices, **the project team made 183 home visits** in the communities of Granadillas, Plan Chiquito, Salinas, Ojo de Agua, Ixmujil and Tojpac Nuevo Horizonte. During these visits, team members used an evaluation and registry card, which they



Children practice proper handwashing in Salinas community.

placed in a visible place within each home. They also provided counseling and recommendations on what the heads of households should change or improve.

At schools, CARE organized a total of 11 workshops for 348 children (168 boys and 179 girls) in Granadillas, Salinas, Ojo de Agua, Ixmujil and Tojpac Nuevo Horizonte to promote proper handwashing and use and care of latrines. We also installed three sinks at the school in Granadillas to improve its sanitation facilities, benefiting 84 children.

Next Steps

- Complete the construction of two drinking water and basic sanitation systems in the communities of Salinas, Ojo de Agua, Ixmujil and Tojpac Nuevo Horizonte (June-August).
- Continue to strengthen community water and sanitation committees to operate and maintain water and sanitation systems (June-August).
- Install 281 micro-gauges in Salinas, Ojo de Agua, Ixmujil (175), and Tojpac Nuevo Horizonte (106) (June-July).
- Follow up on the three recently implemented community forest nurseries in Granadillas, Salinas and Tojpac Nuevo Horizonte (June-October).
- Reforest water source recharge areas (June-July).
- Install four chlorination systems (July).
- Construct 281 graywater treatment systems in Salinas, Ojo de Agua, Ixmujil (175) and Tojpac Nuevo Horizonte (106) (July).
- Monitor the operation of drinking water and sanitation systems (July-October).

Stories from the Community

At last our dream will come true!



Elia Cristina Soto Pérez lives in Ojo de Agua, in the community of Salinas located in the Western Highlands of Guatemala. For 24 years she has been collecting water from a spring in the neighboring municipality of Tectitán, where a well was built to provide water. Since the well is unprotected, Cristina often finds feces or dead animals around it that cause contamination. The situation gets worse during the rainy season, when strongly contaminated run-off affects the well. Because of this, she says, her children are often sick with diarrhea and vomiting.

Cristina collects water in plastic jugs, making six round trips in the morning and another six trips in the afternoon. Each trip takes about 40 minutes. This is how she spends her days.



“My children help me out, but only in the afternoon, as they attend school in the morning,” says Cristina. “I am happy now because soon we will have drinking water in our community, in our own homes. We are all helping to build the water system together. This will be a dream come true.”

Now our life will be better!

Aurora Pérez Mazariegos, who is 39 years old and the mother of nine, is married to German Velázquez Gómez, the secretary of the Water and Sanitation Committee. She lives in the village of Ojo de Agua in the community of Salinas where her family has been suffering due to water

scarcity for 25 years. They have always collected water to drink, and to wash dishes and clothes. In the community of Ixmujil, in Tectitán Municipality, the residents built a water system and provided her family with a faucet, but the water is very scarce, as this project also benefits five other communities. Water shortages can last several days at a time.

When Aurora’s family needs to collect water, they go to their neighbor’s house. Sometimes, though, the neighbors don’t have water, so they have to walk to the well, which is farther away. This is very difficult for Aurora, because some of her children are very young.

Doña Aurora washing clothes and kitchen utensils.

During the rainy season, her family collects rainwater and stores it in buckets, using it very sparingly. “The water is very scarce and contaminated, which is why we have to use it carefully, because it is precious. My children often get sick with diarrhea and stomachaches from drinking filthy water,” Aurora says.

“I am now very happy and grateful because, God willing, we will stop suffering from the lack of water,” Aurora says. “I am grateful to the municipality and CARE because they say they are going to build our new drinking water project, and we are going to be better off.”

Project Photos



Signing of letter of commitment for the construction of potable water and sanitation in Plan Chiquito community.



Development of water and sanitation diagnosis using the semaphore tool in Granadillas community.



Construction of cement spring capture for the water system in Granadillas community.



Production of forest plants for protection of water recharge areas in Granadillas community.



CARE staff demonstrating proper handwashing using recyclable materials in Salinas community.



CARE staff home visit to monitor hygiene and sanitation practices in Plan Chiquito.

Expenditure Report

To date, a total of \$18,015.92 of the total grant amount of \$40,469.03 received from MD19 Lions has been spent on project activities. The following table outlines expenditures through May 15, 2016.

Item	Budget	Expenses
Staff	\$12,731.81	\$5,984.60
Equipment	2,360.00	2,330.15
Materials, Services and Consumables	12,039.88	3,293.12
Travel and Transportation	3,650.00	105.22
Rent and Utilities	4,500.00	1,041.86
CARE Technical and Administrative support (13% of gift total)	5,260.97	5,260.97
Total	\$40,469.03	\$18,015.92
Balance		\$22,442.10

Conclusion

Families in the six communities supported by the grant from MD19 Lions are very appreciative because they finally have or will soon gain access to clean drinking water in their homes. Their enthusiasm has led them to participate actively in the construction of the water and sanitation systems. Attitude changes are evident among families after the adoption of the good health and hygiene practices that the project has promoted; it is clear that women are the primary drivers of these practices and are steadily increasing their decision-making power in their households. Likewise, members of water and sanitation committees have been empowered to help ensure the sustainability of the drinking water and sanitation systems. Thank you, MD19 Lions, for your support of this life-changing work.

July 2016