

Olancho Aid Foundation Water Project Summaries

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Explanation of Assignment and Methods

While working with OAF, my assignment was to visit as many of the water project sites as I could and take notes on each of the communities accordingly. I spent the first few days mostly in the office gathering information from Pablo Sarmiento's previous surveys of the communities and organizing it into a master spreadsheet so we could have all the information in one place. In the last five days, Pablo and I spent most of each day visiting communities and conducting video interviews with the operator of each water system and with two families that drank the purified water. I also took note of the resources within each community, challenges the people might face to get water, and the overall benefits of drinking the clean water by taking notes and photos while at each community.

Lobo-Lopez

Pablo and I visited Lobo-Lopez on August 8th at 9:57am and met with the system operator, Santos Ortiz, to talk about the details of how the water is handled there. We found out that the source of water is from a well and that the well-water gets purified from 4:00-6:00pm on Tuesdays, Thursdays, and Saturdays. The maintenance records of the building and records of sales and donations were in perfect order as the building looked very organized and well taken care of. Mr. Ortiz told us that Lobo-Lopez does not sell any bottles of water but they do donate about 35 of them a day. One of the main challenges to distributing the water among the people is a lack of vehicles as expressed by the system operator and one of the families interviewed. This is something that should definitely be looked into because this particular system is self-sustained and they have no issue of water supply, it's just whether or not the people can get the clean water from the building to their household. Because of this, both families said they would drink more water if it could be delivered to their house. The first family had four people in the house and consume a total of six bottles a week and the second family had five people drinking eight bottles a week total. Both families go to get more water weekly and said the quality of water is excellent and has improved their health in their opinions.

Higuerito

Higuerito, like Lobo-Lopez, was a close drive from the OAF office; about 17 kilometers away. The source of water for this community is mountain water, which at times means there can be obstructions to access a water supply for these people. The water is purified every Monday, Wednesday, and Friday from 2:00-5:00pm and given away from 4:00-5:00pm on those same days. Higuerito does not sell any bottles of water but they donate 55-60 bottles each month. This was one of the smaller villages holding about 100 families so the books and maintenance records were very organized and everything seemed to be under control. Pablo even had instructions posted on the inner wall of the water purification building explaining which daily activities to use the water for and how to use it which I thought was a great idea because if the clean water is getting wasted or misused, there's no point to keep purifying it. Both of the families interviewed said they rate the quality of the water as excellent and that their family's health has improved since making the switch. The first family had two people consuming two bottles a week and the second family had five people consuming only one bottle a week which makes me think they were only using that water to drink rather than for all household chores like cooking, cleaning, bathing, etc. Only the second family said they would prefer to get the water delivered to them leading me to believe they may be having difficulty getting water which is why they only consume one bottle a week.

Encinal

Encinal is approximately 12 kilometers away from the office and is home to about 190 families. The facility looked brand new with everything clean and working and all the records in order. Mountain water is the source for the community. They produce clean water from 1:00-3:00pm on Mondays, Wednesdays, and Fridays and it is given out from 4:00-6:00pm on those same days. This was another community that did not sell any bottles but donated anywhere from 60-90 bottles a month. There was unanimous agreement between the system operator and the two families that there are no difficulties in transporting the water from the building to the families' homes. The first family interviewed had four people in a household that consumed 2 bottles a week with the second family consuming six bottles a week for the same amount of people. Both of them gave perfect ratings on the quality of the water and its positive impact on their health. Even with no difficulty getting the water, they each said they would drink more of it if it could be delivered to their home.

Cayo Blanco

Cayo Blanco is about 12 kilometers away from the office and is one of many communities that sits in the middle of a very mountainous area. The estimated 200 families in the village rely on stream water as their source of water. Purified water is produced from 8:00am-4:00pm on Mondays, Tuesdays, Wednesdays, and Saturdays and given away during the same time period. The system operator told us that they do not sell bottles of water but they donate about 110 each month. This site is not a finished product yet as Pablo let me know that it is only one month old but it does have some issues currently that should be addressed in the near future. The system operator, Pablo Peralta, said having a water supply to work with or having access to that water can sometimes be a challenge. We also heard from both families interviewed that the main stream that the community gets water from can put too much pressure on the tubes of the purification system and has caused it to break in the past. This is a concern for the families involved because we want them to know that they have access to clean water whenever they need it. The community also needs to work on getting more bottles for water because at the time they had no extra bottles to spare which would be necessary for the whole community to have access to the purified water. Our first family had seven people in it and they consumed two or three bottles a week and gave the water a perfect rating. Our second family had three people in it, consumed three bottles in a week, and gave the water a “good” rating.

Guayabito

We arrived at Guayabito on Wednesday, August 9th and met with Karen Kunos, the water project's operator. She told us that the community's main source of water was from the mountains nearby and that there is no issue getting water but there is an issue with distributing water to some families because of a lack of transportation. The mountain water is purified from 7:00am-1:00pm every Monday, Wednesday, and Saturday with sales being made on the same days from 6:00am-2:00pm. There is a clear list of the maintenance and sales records that we looked over but my biggest concern was the inside of the water purification building. It was hard to walk into because there was so much clutter and standing puddles of water covering most of the floor. There were a ton of bottles, empty and full, all over the room and what looked like cleaning and maintenance supplies taking up a lot of space in there. With around 900 bottles being sold and 150 bottles being donated every month, it seems to be in their best interest to straighten up that area as there is a lot of traffic going through there and about 1,500 families in Guayabito relying on that system. Our two families each consumed half the amount of bottles of water as people they had at home, which sounds about right from our previous interviews. They both gave OAF's water a perfect rating and said they feel better drinking it compared to their old methods. One family said the water can sometimes be too expensive for them to afford and the other family expressed their interest in having bottles of water delivered to their home.

Colonia Agricola

Next, we visited Colonia Agricola, which was about 50 kilometers away from the OAF office and is home to 180 families. The system operator, Adan Bu, told us that the community's main source of water is from the mountains and that they purify it every Monday, Wednesday, and Friday from 3:00pm-5:30pm and sell it from 4:00pm-5:30pm. The records of maintenance and sales are in good order and show that the community sells about 20 bottles a month and donates an additional 450-500 bottles each month. Mr. Bu told us it can be a challenge to distribute water to the homes further away from the water building because of a lack of vehicles. The first family we interviewed had two people consuming the purified water and they went through three bottles a week and bought water three times a week. They rated the water as "good" and said the only difficulty in getting the water was the times it was available at were inconvenient. The second family we interviewed had five people who consumed three bottles a week and purchased the water weekly. They said the water was excellent and had definitely improved their overall health. Both families said they would not drink more water if it were delivered to them meaning they have minimal issues getting it themselves. This community in particular showed that some families obviously use the purified water differently than others. Some families only use it for drinking while others use it for cooking and other household chores. I would assume the first family uses it for multiple purposes while the second family is most likely only drinking it because of how little they buy.

Puzunca

The community of Puzunca is located about 14 kilometers away from the OAF office and houses about 1,000 people. The water source here is well water and it is documented that diarrhea is a common cause of the water quality. Puzunca is also prone to about three “service interruptions” a week, which is not good news for a water system that relies on electricity. In addition, the nearest store is approximately six kilometers away making clean water even more sought after in this community. The water purification happens from 9:00am-4:00pm from Monday to Friday and is sold during that same time period. All the records from this site are very organized and show that they sell around 450 bottles a month and donate another 50 each month. In this community, we were lucky enough to speak with a family and a nurse from a local clinic. The family had four people and consumed three bottles of water a week. They rated the purified water as “good” and said it has improved their overall health. Unfortunately, they said they could not always drink the purified water because, as mentioned earlier, sometimes there is none available as service interruptions are especially common here. In addition, this family does not always have the money to afford the water which is where donations from the town become crucial. The nurse we spoke with said she will treat around 20 patients a week but will only consume two bottles in a week. I thought this was strange but maybe they only use the water for medical purposes rather than drinking it in this clinic. She said they don’t usually have problems getting purified water but it would be helpful to have it delivered to the building.

Las Lomas

We visited the community of Las Lomas on August 10th at 9:50am. Although it is only about 10 kilometers away from the OAF office, it was particularly hard to access because there was a river in our way that we couldn't risk driving the truck through and after we crossed the river on foot, there was about 25 minutes of hiking to do before we got to the community's water purification building. Pablo and I met with Neetaly Caceres, the system operator, and she told us that the town relies on mountain water as their source of drinking water. She also told us that the water is purified from 4:00pm-5:00pm Tuesday through Friday of every week and sold from 3:00pm-4:00pm. About 80 bottles of water are sold to the townspeople each month with an additional 5 donated each month. This is a very mountainous area and especially during the rainy season, the land can be majorly affected as we saw with the river obstructing our path and the roads becoming very fragmented. The water building looked like it was in great condition and everything seemed to be working fine but I did notice that the system operator and Pablo were struggling to understand how the total amount of bottles sold and money earned came out to what was written in the building's records. Pablo assured me there was no issue though. Our two families interviewed drank about a bottle and a half of water per person each week and bought their water weekly. Both families were very pleased with the quality of the water and said it has noticeably improved their health. They gave no signs of having any difficulty of getting purified water but it has been noted in the past that during the rainy season, the water pressure can be too low for the community's purification system at times.

Casas Viejas

Casas Viejas was also about 10 kilometers from the office and is home to approximately 70 families. This was another trip with very choppy roads and as I understand, it's almost solely because of the excessive rain in the summertime. The community's main source of water is well water, which unfortunately is prone to getting contaminated by coliforms bacteria due to a lack of maintenance of the water. They only purify and sell their water on Saturdays, which in comparison to the other communities is very low so that may be cause for concern, and they do this from 2:00pm-4:00pm. Each month, Casas Viejas sells about 100 bottles of water and donates about 10 bottles to their people. The system operator described how it can be difficult to get purified water to the people because of a lack of vehicles. The first family we interviewed had five people in it and consumed two bottles at a time but purchased water twice a week. They rated the water as excellent, had no difficulties getting water to their home, and said they would not drink more water even if it was delivered to them. The second family we interviewed had a total of six people who consumed only two bottles of water each week. They said they cannot always drink the purified water because of the difficulty with distributing it within the town especially during the summertime, which has been identified as a particularly problematic time of year for distributing water to people.

El Chaparro

El Chaparro is a little more than a 17 kilometer drive from the office and is home to about 100 families. The community's source of drinking water is from the nearby mountains and it gets purified on Mondays, Wednesdays, and Saturdays from 2:00pm-3:00pm and sold from 3:00pm-4:00pm. The system operator said they sell around 600 bottles a month and donate the same amount each month. This is the only water project so far that is run completely on solar-power which is incredibly efficient and convenient considering the power could go out at almost any time there. The water project is only running on about 85% of its total capability because that's all that El Chaparro needs from it and it still generates enough power to allow all the families to charge the phones at the water purification building. This is a big deal because normally the families would have to walk for miles to find a store to charge their phones at. It is also worth noting that nearly every family in the community is able to get purified water which cannot be said for some of the other communities that we visited. El Chaparro sometimes has difficulty finding access to water as they rely on mountain water which can at times get obstructed during the rainy season. This was shown yet again in the terrain of the village as we were driving in because the rain tends to create huge potholes and cracks in the road that make it much harder to drive on. Both of the families that we interviewed gave the water an "excellent" rating and said it has improved their health. They also expressed a lot of interest in having the purified water delivered to their house if it could be made possible.

La Concepcion

La Concepcion is only 5 kilometers away from the OAF office, easily the closest site, and holds 700 families which makes it one of the biggest communities that Pablo works with. The people rely on well water here and they purify it every Wednesday, Thursday, and Saturday from 1:00pm-2:00pm and sell it from 8:00am-4:00pm. The system operator said they are able to sell about 420 bottles per month and donate an additional 36 bottles each month with no identifiable difficulties in distributing the water to people around the town. It was clear that this community had more resources than most of the places I had seen and it certainly is convenient to be located next to a big city like Juticalpa. I was happy to hear that all of the surrounding schools and churches receive water from the water project as well as the families indicating that this community is in very good shape with the state of their water availability. The maintenance records and records of sales were very organized and I can see why as we had about six people all enthusiastically helping us understand the goings on of their water project which showed me the commitment and effort being put in by this town. On the inside of the water purification building, Pablo has instructions posted on the wall for how to use the water and what to use it on which I thought is helpful in the sense that this water is more valuable because it is pure so it should be used on significant activities and not put to waste. Our two families interviewed both indicated that they used half a bottle of water per person each week on average and that they would be interested in having purified water delivered to their household even though there are no significant challenges to getting water.

Rio Grande (Gualaco)

On August 11th, Pablo and I made the 70 kilometer trip to Rio Grande which is one of the farthest communities from the OAF office. This community was almost inaccessible at this point in the year. Gualaco is located at the top of a mountain which takes a long time to drive up to and then going to Rio Grande specifically, the roads were really torn up to the point where our truck almost couldn't get through the mud. The approximate 100 families rely on mountain water for drinking and they purify and sell it from 2:00pm-5:00pm on Tuesdays, Thursdays, and Fridays. This water project in particular looked very clean and organized with all of the books being in perfect order and no real problems that I could see. The system operator informed us that they sell about 300 bottles of water each month and donate another 10 each month as well. Neither the system operator nor the families we spoke with had any significant difficulties to distributing the purified water to speak of which made sense upon observing how many resources the town looked to have. The first family we interviewed had a total of six people, consumed two bottles of water a week, and purchased water weekly. They said the quality of the water was excellent and has definitely improved their family's health. The second family we interviewed had three people in it, also consumed two bottles of water per week, and purchased their water weekly.

Cerro Verde (Gualaco)

On our way back from Rio Grande, Pablo and I visited Cerro Verde which is about 26 kilometers away from the office building and holds 40 families. This was another community with very choppy roads leading up to it so it took double or triple the time it would have because of the season they are currently in. Unfortunately, we were not able to interview the system operator of this community as he was out travelling but we were able to get into the water purification building and interview a couple families about the state of their water project. The building itself looked very clean and orderly and like some of the other water projects, had instructions for what activities to use the purified water for posted on the wall. The maintenance and sales records were very precise and I could see there were plenty of bottles filled and ready to be given out as well as some extra empty bottles to use for the next week. The first family we spoke with had five people in it, consumed four bottles of water a week, and purchased new water weekly. They described the purified water as “excellent” and said it has improved their family’s health. The only difficulty in getting water they identified was a lack of vehicles within the town, which was a common theme from our visits to these communities. The second interview we did was with a school teacher who had twenty students and only consumed one bottle of water a week. I’m hoping this is because the children’s families are able to get a sufficient amount of water to them outside of school. She also said the water was excellent and has improved the health of her students. We found out from her that the community does not purify water when it rains, which makes it difficult at this point of the year to get clean water. She also pointed out that there is a real lack of transportation to distribute the purified water and that it would be beneficial to get it delivered to the school.

Conclusion

After visiting 13 of the water project sites, I noticed several trends that most of the sites seemed to have in common. The first thing is that whether close or far, most of the roads leading to these sites were in very bad shape. I understand this is a result of the heavy rain during this part of the year, but it is worth noting because it would be very difficult to bring equipment needed for serious maintenance on these projects with the condition of the terrain as unpredictable as this. The average community held a little over 100 families in it and had the majority of their people drinking the purified water. Nearly every water purification building was in very good shape and very organized in my opinion with the exception of one or two communities. Every water project was run on electricity except for El Chaparro which is run on solar power. Each town sold as many bottles as their people could afford, after which point they would start to donate them as needed. The sources of water were almost solely mountain or well water and would typically be purified three days a week with it being available for purchase for about two or three hours of those days. About half of the communities seemed to struggle with distribution of purified water, specifically not having vehicles or a way to transport the water to families further away from the building itself. The average family seemed to consume anywhere from half a bottle to one full bottle of water per person each week and they would purchase water weekly. Every family we spoke with rated the water as “excellent” or “good” which are the two best ratings so it is safe to say they were all very pleased with the quality of the water. Around half of the families interviewed said they would be interested in having purified water delivered to their house, especially in the towns where vehicles were not at their disposal.