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Dominican Republic, Factor 9: Water and Sanitation

In the summer of 2014, I had the opportunity to participate in a mission trip to the Dominican Republic and immerse myself into a culture which was very different from my own. The total population of the Dominican Republic is 9,883,000 people. With a population that size, there are roughly 203 people per square kilometer (countryeconomy.com). While the Dominican Republic is a beautiful place, it has various problems, some of which include low income, poverty, soil erosion, low quality education, and horrible nutrition sources. Those are just some of the problems the citizens of the Dominican Republic encounter daily. Low water quality is an especially critical issue.

In the United States, we rarely have to find water. We almost always have clean water readily available whenever we desire. The citizens of the Dominican Republic don't have the same situation. Most places in the Dominican Republic, water flows through public faucets, but the quality of the water does not meet the standards that it should. Some of the residents within large cities have water piped into their homes, but it is not clean. "The water doesn't receive the treatment that is needed to make it suitable for human consumption," says Professor David Perez Julius (cronkite.asu). When people think of developing countries, a popular image that comes to mind is the African woman with a pot of water on her head with no shoes. This is not as common in the Dominican Republic, but this does not mean the water quality issue is not just as real. Families constantly worry that the water they have to drink will give them a disease. After immersing myself in this culture and seeing these families struggle right before my eyes, my passion for the communities of the Dominican Republic and the struggles they face became very intense.

1. The typical family in the Dominican Republic

In an average family in the Dominican Republic, the man goes and works for a low wage while the woman usually stays home to cook or, clean, and find the family's water for the day. However, in some cases, the woman works as well to provide a second source of income. Meanwhile, the children may have the opportunity to attend some sort of school but it is not standardized or mandatory. These children are privileged if they have the opportunity to learn how to read and write. Forty-two percent of the families in the country consist of just one parent (afususa.org). Many families only have a mother. This means she must not only care for the house but worry about the finances as well. With no second source of income, having clean water is virtually impossible because clean water is so expensive and the average wage is anywhere from \$5-\$10 a day (vagabondjourney.com). Also, more often than not, the water would have to be retrieved in the city and carried back to their home.

The diet in the Dominican Republic consists of rice, beans, plantains, cheese, and juice. Imported foods are available, but at a high cost that most people cannot afford. Food accessibility varies for rural and urban families in the Dominican Republic. Most families that live in a rural setting can grow most of their own food, whereas families that live in urban settings cannot.

Most people end up paying out of pocket for healthcare in the Dominican Republic. Most likely due to the fact that the government only devotes around 1% of the gross domestic product to healthcare, resulting in over half of all health expenses being funded by the people themselves (justlanding.com). With the given statistics about families in the Dominican Republic, it is evident that there is no room for people to get sick due to unclean water.

The major barriers facing the typical family mostly have to do with money. Most families do not have an adequate employment wage for living their day-to-day lives. This includes adequate nutrition and clean

water. The country cannot improve agricultural productivity because they do not have the funding to do so.

2. Current water sanitation

The water that flows through the pipes and faucets in the Dominican Republic is not filtered or treated. Water that is not filtered can often lead to the spread of diseases. When I went to the Dominican Republic, I was not allowed to drink or even brush my teeth with water that was not bottled due to the fear that I would get sick. Some of the waterborne diseases include giardiasis, leptospirosis, cholera, diarrhea, scabies, and hepatitis. In developing countries, the leading cause of death in children is diarrhea; four-fifths of all illnesses, like diarrhea, are waterborne (disabled-world.com).

“Waterborne diseases – often the result of poor sanitation and lack of treated, drinkable water – that are a rarity elsewhere are common in Independencia” (a province in the Dominican Republic) (cronkite.asu). In the village of Batey, specifically, the water sanitation issue is even more of a problem. The Dominican Republic is right next to Haiti. When the devastating earthquake struck Haiti a few years ago, many Haitians decided to find a new home in their sister country, the Dominican Republic. Many settled in Batey because of its close location to the border of Haiti and the Dominican Republic. Even though the water is not safe in any place in the Dominican Republic, Batey’s water is especially dangerous. The village has a tank in which they store water, but the tank has a hole in it. It is not uncommon for birds to get trapped in the tank and further contaminate the water. “At times, some women have come to me and told me, ‘I turned the faucet on in my house to drink water and I saw small birds and water insects,’” (cronkite.asu). This is just one village in the Dominican Republic. Problems like these are not uncommon throughout the country.

3. Set-backs to having clean water

There is clean water available but it is highly unaffordable for most people in the Dominican Republic. As previously stated, the average wage is \$5-\$10 a day. Five gallons (or less) of clean water costs about 35 pesos which is about \$2 converted to U.S. dollars. If a citizen of the Dominican Republic were to make \$6 a day, and wanted to buy clean water, the clean water would be one-third of their income. This is especially devastating for the single parent families who don’t have two sources of income. Buying clean water would not leave a family (even a family with two sources of income) with enough money to support all of their other needs like clothing, food, and shelter.

There have been some improvements in the last two decades in their economy. These improvements were due to construction, tourism, and manufacturing. Even with the given improvements, the country has not seen significant welfare improvements. With that being said, there is no way this problem can improve without the funding to do so.

4. The dire need for water

The Dominican Republic’s geographical location is reason enough to need a plentiful supply of water. The average temperature throughout the winter is about 60-80 degrees fahrenheit. In the summer, most days get up to at least 100 degrees fahrenheit. The geography of the Dominican Republic is the most diverse in the Caribbean, ranging from desert plains to rainforest valleys to 10,000-foot high mountains to white sand beaches.

The Dominican culture is against women showing as much skin as the women show in the U.S.. No matter how hot it is, the women wear long skirts or jeans because they are expected to do so. With the given weather and dress code, life with limited water resources is unbearable.

The financial standing of the Dominican Republic shows this problem is remaining constant. There is no way this problem can improve without the funding to improve it.

5. Solutions

When I went to the Dominican Republic, our church went to one of the many villages where the struggle of families not being able to provide clean water for themselves was a problem. What if we could provide the resources for the villagers to have cheaper access to clean water? Because the country's education isn't standardized or mandatory, it is not uncommon for churches and schools to become one entity. The churches want to give the children an opportunity to read and write. The churches could also become the solution to people having reliable water for an affordable cost. Filtration systems at each church would give people the opportunity to come and get clean water for their family.

Organizations can collaborate with the churches in each village to make this work. Each village has a church and each church would have a water filtration system. Systems like these can be costly so while searching for an organization that I could partner with to help fund the filtration systems, I found the Evangelical Lutheran Church in America website. The Evangelical Lutheran Church in America has funding put aside to help others across the globe. They want to fund long-term, sustainable development projects all over the world. Money donated could be used for water filters and five gallon containers to all churches in each village to distribute to the citizens of the Dominican Republic. The Evangelical Lutheran Church in America's mission statement states: "The church wide organization continues to play a significant and pivotal role in the life of this church by working with its local and global mission partners to build, support and extend the mission of this church." (elca.org)

Donations would be used for the filtration systems at the churches to clean the otherwise non-drinkable water and for five gallon water containers to be used by the villagers. The citizens could fill their containers with the filtered water at the churches whenever needed.

This is obviously not a fix for all of the Dominican Republic's problems. This isn't even a fix for all the water problems; they will still have to use unfiltered water while cooking and maintaining personal hygiene. It is, however, one step closer to the people of the Dominican Republic being healthier and disease-free through the compassion and knowledge of ministry and agriculture. The small amounts of water given to the citizens will make a substantial difference to the people's health and financial stability in the Dominican Republic.

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