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Haiti, Water and Sanitation

Improving Water and Sanitation in Haiti

Introduction

Haiti is the second largest island in the Caribbean. The population is 10,646,714. It has continued to grow steadily. The climate in Haiti is tropical. Haiti is mostly rough and mountainous. Haiti is one of the poorest countries in the world, and the poorest in the Western Hemisphere (cia.gov). Haiti has no official religion but, the constitution allows religious freedom. The average wage in Haiti is one to two dollars a day (wfpusa.org). In Haiti, children begin to work at an early age. They look after livestock and help their parents garden. They start working at a very young age to make sure their family has food. Most farms are very small and are worked by its owners. Most houses in Haiti consist of 2 rooms which have mud walls and floors. With roofs made of grass or palm leaves and in some areas the roofs are made with metal. The average house doesn't have access to clean water or toilets says britannica.com. Electricity availability is diminished, operational for only 13 to 20 hours a day according to export.gov.

The typical market towns include a Roman Catholic church, a court, and general store. All these places surround a town square. The typical diet consists of fruits, vegetables, meat, milk, and eggs. The crops most farmers focus on planting are plantains and bananas for fruit. For vegetables, Haitian farmers plant corn, yams, sweet potatoes, and rice. Most of the time Haitians get seafood from local areas. In some areas, food is available alongside roads and in rural markets. The main cash crop in Haiti is coffee farmers sell it throughout Haiti. Another main crop is sugarcane which is the second main cash crop according to britannica.com. The typical family gets their food from their family's personal garden (adoptionnutrition.org). On this land, they care for livestock and grow their food.

Haitians have access to school. But, in some areas, students must travel up to 2 hours to get to school. Before and after school, children in Haiti are still expected to do their work in the house and the garden, says asaphteachingministry.com. Haiti has a lack of healthcare, the main reason for this is a lack of doctors and nurses. In most rural areas healthcare is not available. But, a significant agriculture barrier for Haitian families is all the natural disasters that happen which ruin crop production (Bell). Haiti needs so much, but the main thing they need is clean water and proper sanitation.

Water and Sanitation

Water is needed for Humans to live. Haiti has had difficulty finding access to clean water, or any water at all. Without clean water, it opens the opportunity to get a disease from the water. Germs could be in the water that could cause cholera and typhoid (haitiwater.org). Some people have access to clean water, but 80 percent do not (Sentlinger). Even though Cholera cases have decreased, heavy rainfall in early 2015 has caused more cases to come up says borgenproject.org. Because of this One-Hundred thousand children do not have access to proper nutrition which causes children to suffer from malnutrition. It is like this because less than 50 percent of households have access to clean water (wfp.org). If countries like Haiti get clean water, it could potentially decrease poverty because diseases would be harder to spread. If clean water and proper sanitation are available, women wouldn't have to spend most of their day getting water (worldvision.com). Without clean water animals are affected, if animals drink contaminated water, it makes them sick. As a result, some animals are unsafe to eat (cdc.gov).

Due to an Earthquake in 2010, access to clean water has become a more significant issue. The underground pipe system ruptured, causing the water to stop traveling. Even before the earthquake, clean water has been an issue (worldbank.org). Only 50 percent of the population has access to a clean, reliable water source according to (borgenproject). Since there is no clean water, it is a leading cause of death in children and infants.

Hurricane Matthew struck Haiti in 2016 at a Category 5. Since then, there has been an increase in Cholera cases. There was an increased amount of water which has caused the increase in unclean water (Holpuch). Wells that had safe water to drink got infected by contaminated water that carried waterborne diseases. This has caused the access to clean water to decrease, according to indianexpress.com. The hurricane affected food production because it wiped out farmers plots. The price of food has gone up which has affected all food prices. Some affected areas have lost their source of income, so they can't buy food says relief.int.

Women are the most disadvantaged; their job is to obtain and treat water. This exposes them to Cholera. They are also at risk when they must care for sick family members who have been exposed to Cholera, according to unicef.org. Another big concern is sanitation. This problem can be significantly reduced by having a safe water system to use, water that is not contaminated. But, it is possible to promote behavioral changes to find a safe solution (cdc.gov).

Many places in Haiti don't have access to a sewage system. Without a sewage system, the water can get contaminated and become unsafe to drink. This is a huge problem in Port-au-Prince which doesn't have a central sewage system. Port-au-Prince is a large city; it is one of the biggest cities in the world without a central sewage system, according to Hersher. In urban areas in Haiti, 66 percent of the population does not have access to improved sanitary facilities. Conversely, 81 percent of people living in rural areas lack access to improved water facilities (Lomborg). But, the cleanliness of the water is slowly starting to improve. More organizations are beginning to get involved. They are developing ideas to help Haitian families. One example would be Charity Water, they have come up with systems to bring clean water to parts of Haiti (cdc.gov).

Food can also become contaminated with Cholera just like water. If Haitians didn't have to worry about Cholera, the food quality would improve. People wouldn't have to worry about getting contaminated food (Sidder). There has been a lack of food but, the lack of food did not come from insufficient knowledge (everyculture.com). The issue came from poverty that exists in Haiti. If this water and sanitation issue were resolved, it would benefit everyone including rural and urban areas. It would benefit farmers because they would not have to worry about giving their family contaminated food. If water and sanitation issues are resolved, the environment would be more stable. Without clean water, the environment is unstable because it cannot provide a natural clean water source. Without clean water and proper sanitation, it can be devastating to the environment (gracelinks.org). The trends for water and sanitation is measured by how many people are affected by this issue (un.org).

Effects of Water and Sanitation

In 2016, there was a drought brought on by extreme heat which caused some water sources in rural areas to dry up. The drought has had a significant effect on the population in Haiti. It produces big losses. Droughts also create a scarcity of products in local markets. It is estimated that 30 percent of the population is food insecure There were huge losses in crops and cattle that couldn't withstand the heat

or lack of water says cwsglobal.org. In this case, the cleanliness of the water wouldn't matter because there wasn't any at all. If this happens again, the same result will most likely follow.

Plastic bags are sometimes the safest way to get water and the most affordable way in Haiti. The plastic bags that at one time helped, now pollute the already contaminated water supply according to Holpuch. Another pollution in the water supply in Haiti is human waste, which makes the water unclean and unsafe to drink. Pollution is one of the sanitation issues in Haiti that needs to be resolved. Prevention of this could be using sewage systems (cep.unep.org).

The population is slowly growing (worldmeters.info). But, when an event like Hurricane Matthew strikes, the supply of clean water becomes even more limited. This is a time where water-borne diseases spread the most (McFadden). Water and Sanitation issues in Haiti would be affected by urbanization because only 66 percent of the population has access to an improved water source (Lomborg). But, the population is slowly increasing. Currently, the population in Haiti is 11,040,890 (worldmeters.info).

Suggestions

Based on this research one of the best solutions for water and sanitation issues is a rainwater catchment system. An organization named Charity Water is currently using this system. For it to work, gutters used on roofs of houses are connected to pipes which lead to a sanitary holding tank for families to use after it rains (charitywater.org). To improve this system, I would make the holding tanks larger to catch as much rainwater as possible. This will make the rainwater they get last longer. Charity Water would fund these systems. Charity Water receives their funding from yearly donations and fundraising. They partner with other local organizations to get their funding. The maintenance of these systems would be the responsibility of the families that own them. Charity Water helps install these systems while the families maintain them. The systems can be successfully installed in both rural and urban settings. It would most likely be simpler to implement these systems in urban areas because there are more people together in a large group. In Rural areas, it may be harder to reach families that need help. Charity Water helps mostly with Rural regions because 59.62 percent of the rural population lacks access to clean water (charitywater.org). Charity Water is successful because they use 100 percent of the donations they receive. They also partner with local organizations to help with their projects (charitywater.org).

A local aid agency that could help with rainwater catchment systems is The USAID Water and Sanitation project. Their goal is to support sustainable access to drinking water to places around the world. They have invested 41.8 million dollars in hopes of solving water and sanitation issues in Haiti. Their investment can help fund rainwater catchment systems in a greater amount of area (ht.usembassy.gov). USAID supports projects that aid water and sanitation in Haiti and in other areas. They are helping 250,000 people gain access to basic water services and 75,000 people gain access to basic sanitation. Their project started in 2017 and will continue until 2021 (ht.usembassy.gov).

Another organization that can help is Catholic Relief Services (CRS). For over 60 years CRS has helped Haiti with their poverty issues. They have helped with every disaster that has hit which includes Hurricane Matthew and the 2010 earthquake. CRS helped build safer homes and helped small farmers get supplies. CRS partners with other local organizations to develop roots in the communities that they work in. They support strategic guidance that leads to change (crs.org).

The Government of Haiti is corrupt; it has many other issues to deal with other than water and sanitation. They have a huge issue with their court system. There has never been a successful conviction for drug trafficking or corruption-related charges (heritage.org). This is why organizations like Charity Water are so important to solve water issues. They are already in Haiti putting solutions they have found in action. The best thing to do is rely on them to help this issue instead of the government. But, there is a

reliable partner of the Government called the Pan American Development Foundation (PADF). PADF has worked as a partner of the Haiti government and other community-based organizations for over 35 years. They help with Haiti's water issues as well as Agriculture and the development of rural areas (padf.org).

Beyond Borders is using Rainwater catchment systems to help families maintain gardens. They partner with the HOPE Foundation, who has awarded Beyond Borders a \$15,000-dollar grant. With this grant money, 46 systems were created. The project helped 150 families which included 25 schools in 10 rural communities. They provided the participants with training on how to use these systems with materials they will need. This organization also teaches families how they can grow vegetables. One of the participants Jinette Cherme said "I live in Tè Wouj. I came to the family garden program in 2018. It's only been a month or so since I started the program. I've been to the workshops where I've learned how to plant my vegetable garden and how to care for it..." Jinette was able to learn how to plant a garden and use rainwater catchment systems to care for it (atlanticmidwest.org).

In urban areas, 66 percent lacks access to clean water. While in rural areas 81 percent of the population lacks access to clean water (Lomborg). Both rural and urban areas would need to be involved. In rural areas, more people would need clean water because they lack it the most. While in Urban areas only 66 percent has access to clean water, they would still need the water system but not as many as rural areas.

Conclusion

Haiti has many issues, but the most significant is the lack of clean water and proper sanitation. Clean water scarcity and inadequate sanitation kill many people every year. Haiti is the second largest island in the Caribbean, with a population of 11,040,890 people (worldmeters.info). It is also one of the poorest because of their issues, the main one being water and sanitation issues. The typical diet in Haiti consists of fruits, vegetables, meat, milk, and eggs (britannica.com). Almost half of the population doesn't have access to clean, reliable water or proper sanitation which leads to water-borne diseases (wfp.org). When it contaminates the water, animals are also at risk for getting sick (cdc.gov). Haiti lacks a proper sewage system, resulting in contaminated water and ultimately, water-borne diseases. Some people must travel up to two hours to find clean water. Only 50 percent of the population has access to a clean, reliable water source (wfp.org). Most of the sanitation issues would be solved by having an uncontaminated water system. The lack of clean water can take time away from growing food.

Food is most often grown in family gardens. These gardens normally feed the entire family. If there is any leftover food, it can be sold in local markets to get food. But, most of the time there is not enough to sell. Families must eat what they grow (britannica.com). Clean water has been an issue in Haiti since hurricane Matthew and the 2010 earthquake. With these natural disasters, food has become a greater issue. With a growing population, food is needed to support Haiti. Because of these problems, Cholera has become a greater issue in the country. Cholera can spread as a result of contaminated water and poor sanitation, it is a disease that can quickly become severe and even deadly if not treated properly.

Organizations in Haiti like Charity Water have come and helped address issues with Water treatment plants, wells, and rainwater catchment systems that can go on houses. This solution uses Haiti's natural environment to help solve some of their water and sanitation issues. The water catchment systems would be the best solution to creating access to water by using rainwater they get often. These are much-needed systems that could benefit everyone in Haiti without access to clean water (charitywater.org). Since the Government in Haiti is corrupt, the Government is not focused on Haiti's water and sanitation issues (heritage.org). Therefore, most of Haiti relies so much on independent aid organizations to help solve some of their issues. Organizations have impacted Haiti. They continue to affect a positive difference within Haiti.

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