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 Nigeria, Water Sanitation

Nigeria: Improving Drinkable Water and Eatable Foods

The beautiful, 356,669 square miles of land is home to 203.4 million residents (CIA). Nigeria has diverse geography but also a diverse population. Lagos, the current capital is home to the country's leading commercial and industrial activities. In 1913 Nigeria became a commonwealth country, a government in which all people involved have a say. Nigeria has emerged as Africa's largest economy, with a GDP in 2017 estimated at US\$ 508 billion. Oil has been a dominant source. Nigeria is larger than the U.S. state of Texas, but not only that, Nigeria is Africa's most populous country. In Nigeria, the major drainage areas are the Lake Chad basin and the Gulf of Guinea. According to the CIA, many people use these rivers for water.

Nigeria, a country with an abundant amount of wealth, a massive amount of people to work, and plenty of natural resources, is still at a bad poverty level. According to Yomi Kazeem, Reporter at Quartz, Nigeria has 86.9 million of their people living in extreme poverty (1). What does that mean? 86.9 million of the population lacks food, safe drinking water, sanitation facilities, health, shelter, and education. But one major problem is drinkable water and accessible sanitation. "Access to the water supply was 67% and access to sanitation facilities was 41% as of 2013. An estimated 100 million Nigerians still lack basic sanitation facilities and 63 million do not have access to an improved source of drinking water" (UN-Water Global Analysis 1).

An estimated 70 percent of Nigeria live on less than US\$1.25 per day. Imagine not having enough money to pay the water bill, or not having a toilet to use the bathroom. "Nigeria was ranked 40th out of 79 on the 2012 Global Hunger Index and 156th out of 187 on the 2011 UNDP Human Development Index". Nigeria is estimated to have 71 million hectares of cultivable land but only 7 percent of the land is used for farming (IFAD 2012). Why is this relevant? In an interview conducted by a student for a prestigious university concluded that farmers don't like to farm or prefer not to because it costs a lot. They don't make enough money from the crops anyway.

Nigerians lack money because wages are so low, so many don't focus on what type of water they are getting. Many Nigerians who live in rural areas of the country usually travel to close by rivers that are an estimate 3 miles away from home to get dirty water (WaterAid 1). Why is water so important and how does it tie into food security? Cooking with dirty water can cause a multitude of issues. It can lead to stomach viruses that without medicine can be life-threatening. No money and no resources for clean water leads people to cook and clean food with dirty water and get health problems. It is a cycle, a step by step process that can harm human life.

Ruth Samuel is a mother of four who lives in the outskirts of Abuja. Ms. Samuel states "like in the dry season, we wake up by 2, 3 a.m.". She says sometimes you would find no water and will have to wait until the tides rise to scoop water. To solve this major problem, there are three plans.

First, it has to be clear that in Nigeria funding is a big problem. The amount of funding the government puts into projects that aid the water problem is very little. Causing many big organizations to not help.

One way to solve the problem is to work with a non-profit organization called Water For Good. Water For Good currently works in the Central African Republic. They have six hundred fifty water wells in the Central African Republic (Water For Good 1). According to their website, each well provides clean water for at least 500 people (Water For Good 1). But as well as building new wells, they focus on fixing old wells that have been forgotten. Currently, they have 91% of their wells working but the other 9% are broken (Water For Good 1).

Two advantages of Water For Good are that they thrive to build their funds by donations. They ask for donations around the world and also ask for grants from U.S. base facilities who find it helpful to their cause. Also, Water For Good tries to encourage the community members to work in keeping the wells working. In the time of building, they also focus on training so that at least someone can keep an eye on the wells. A disadvantage of this solution is that wells take up to a decade to get fixed. According to pump status that the organization provides, their pumps get yearly maintenance trips, but the money needed and tools needed is something that takes time to produce.

This organization had been currently improving water problems in the Central African Republic. Currently, 30 percent of broken wells in the Central African Republic have been rebuilt by Water For Good. Water For Good could do the same in Nigeria, they could implement the same strategies to improve water issues.

Another way to solve the problem is to improve infrastructure development. This idea is not very well developed but it's an idea that originated from the U.S... Nigeria can start recycling the water through channeling the water to waste treatment plants. From there separate the water to be distributed to different households or even community-centered pumps.

But Nigeria has a big problem. A problem that has to be fixed before any organization can help out. In 2018 it was found that the chemical Arsenic was polluting groundwater sources. They discovered that it was due to the use of pesticides and fertilizers in the farms. That's a disadvantage for Nigeria. The country needs to fix multiple problems for one to fully work.

Sanitation is another big problem in Nigeria. "Nigeria is third, after India and China, on a list of top 10 countries with the most urban dwellers without safe, private toilets" (WaterAid 4). A household with sanitation has declined to 9% (WaterAid 2). In public schools, 11% of the girl's bathroom doesn't have stalls (Unicef 2).

This is an issue that can be fixed by simply working with a group that can raise funds to buy materials to build private bathrooms in schools. Water for Good partners up with USAID to build private bathrooms around the countries of the Central African Republic. This is another concept we can try and cultivate in Nigeria. "Without access to safe, private toilets, women, and girls suffer indignity and are more vulnerable to attack or rape" (WaterAid 4). Implementing this solution will allow tragic events like these to be prevented.

With the lack of clean drinkable water the issue of waterborne diseases surfaces. "Seventy-three percent of diarrhoeal and enteric disease burden is associated with poor access to adequate water, sanitation, and hygiene" (Unicef 1). Undrinkable water can not only harm foods, but it can cause diseases. According to a water and sanitation program in Africa "70,000 children under five" die because of diarrhea that comes from unsafe water (Unicef 1). Unsafe water can cause this harmful ripple effect that endangers the population.

The lack of water brings other problems such as the lack of doctors. A public hospital doctors see about 180 patients a day. The treatment people get isn't the best causing many to not attend and may even die because of it. Like stated before, these problems are a domino effect.

So many countries suffer the same issue. Libya has been number one in many articles due to its water scarcity. But how did Libya rise last year? In June 2018 Libya took a week course of water management, water resources planning, water loss management, etc. This project was funded by an international organization. This program led to the correct implementation of water extractions. Libya rose from nothing to something. Nigerian could implement something similar.

Another possible solution can be a trade relationship with countries who are interested in petroleum, cocoa, and rubber. The United States, which is a country with an abundance amount of resources can want cocoa and petroleum. So Nigeria and the United States can come up with an agreement where Nigeria provides petroleum and the United States provides water filters, medicine that helps fight viruses.

One disadvantage might be that the United States might think that the Nigerian product that is being imported is not of quality and back down from the agreement. The United States might also not want to partner up with Nigeria because they might want to keep their regular trading partners.

To sustain the solutions, the Nigerian government can help advocate for aid. How? The Nigerian government can go across states and promoting the importance of the need for clean water and useable toilets. The Nigerian people will most likely listen to their government since they believe that the government has their best interest. The government in Nigeria is not that stable which can be a negative aspect in all this. This is something that needs to be taken into consideration when looking into which solutions implement.

For example, the trading agreement might not be the best because of the cons, but it doesn't hurt to try. "The Nigerian Government will need to ensure that schools, healthcare facilities, and birthing centers have safe toilets, clean running water, and functional handwashing facilities, to reduce maternal, newborn and child deaths and strengthen children's ability to attend school" (WaterAid 7). To strengthen the government so it fits the needs of its people, the people would have to stand up as a community. They will need to come together as one and show that they are important and their lives come first.

These solutions can be all be implemented in Nigeria to see which fits best. Every solution will take time and resources so there is no rush, but the people do need clean, drinkable water. The Nigerian people will have fresh, clean foods to cook with that are full of nourishment. Clean water will decrease the number of waterborne diseases. These effects are long term and worth the risk. Fortunately, the solutions are strong to outweigh the challenges that these solutions may bring. Increasing the number of people getting

drinkable water will increase life expectancy. Finding solutions can potentially be hard, but it is a method that can bring health and joy into families lives.

For Nigerian to be relieved of their food security problem, four components need to meet. Water and sanitation play a major role like explained before. In a more general way, Nigeria will need availability, access, stability, utilization (Isa Elegbede). There has to be physical and economic access to food. The food must satisfy the person pocket but at the same time their needs. The availability will depend on the production and growth of food items. To meet the access portion, every person in the country can meet the standards of the people. For example, a loaf of bread can cost ten dollars when a person only makes US\$1.25 a day. The amount of money a person makes has to equal the cost of food. The country also has to have good quality food. The population has to have methods to conserve the food, method to clean and sanitize the food. The purpose of utilization is to store as much as you can. Last but not least stability of all foods. The country must have a set of stable food quantity. But a person requires all three portions to be food secure. Food can't be available but no storage or no sanitation be available. Being a country with an abundant fertile agricultural, Nigeria's best bet is using that to secure food.

Access to clean water and sanitation is a basic human right. These resources are essential for good health, long-lasting living, and a stable economy. Every human is subject to good living and fresh food. No person should have to struggle due to dirty unsafe water. Families should have to be scared to eat because they are not sure if it is healthy or not. Young girls should be comfortable when using the restrooms. In other countries, toilets and clean water are available daily, Nigeria should be no exception. A strong community and the solutions provided is a start to creating a long-lasting positive impact on life. A small step can go a long way.

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