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Ethiopia, Water Security

## **Ethiopia: Water Sanitation and Security**

**Introduction:** Ethiopia is very commonly known for its stereotypes: the country is full of poverty, sickness, starving children, and dirty water. All of these things are true, but they are better than they have been in previous years. The problem that is still one of the most prevalent factors in most of these issues is the very polluted water. Children are getting sick and animals are dying. This problem NEEDS to be solved.

Ethiopia in short:

**Geography:** This country is described as landlocked. This means that Ethiopia is a closed off country to the ocean. There is not any saltwater bordering this country, so it is confined to only freshwater resources. This is typically blocked off by some barrier such as elevated land. There is not one piece of land that is connected to or touching any ocean. Most of the land is generally flat and there are barely any paved roads or paths to travel on, according to Akweir Ochalla, immigrant from Ethiopia in an interview in March 2023.

**Climate:** Ethiopia is a country with a tropical monsoon climate. This climate has wet and dry seasons. The summer months, April to September, are considered the wet months and are when Ethiopia collects the most rainfall. This weather comes with warm/hot winds and a high humidity percentage. Winter is from the months October to April. During this period of time, the weather is less intense. There is a decrease in wind, humidity, and precipitation. Due to these factors, this is the most popular time for droughts.

**Government:** Federal Parliamentary Republic is the type of government in the country of Ethiopia. This type of government includes a Prime Minister which is voted for by the people of the country. Ethiopia is the oldest independent country in Africa and is one of the oldest independent countries worldwide. There are eleven regional states that are ethnically based and two characterized cities within the country.

**Population and Agriculture:** The population of Ethiopia is roughly 116,462,715 people, both rural and urban. About 80% of the population lives in a rural area, leaving only 20% of the population living in urban areas. Ethiopia is 472,000 square miles and 36% of this land is currently cultivated. The most popular crops and exports include poultry, maize, dairy, potatoes, sugar, avocado, coffee, etc. According to Ms. Ochalla, most of these crops are not exported but instead sold at local markets or kept in the farmer's possession for personal and/or family use.

**Family Structure and Daily life:** The most popular family size in Ethiopia is 3-4 kids, states Ochalla. She says that the mother of the family would have around 10 kids, but due to the dirty conditions and diseases, most of the kids passed away. All of the families look differently, with hers having a father with two wives, and her having only one sister that survived. The children are responsible for getting the water along with helping their parents, yet they are still allowed time to play with their friends and have fun. The boys are taught to run the farm and the girls are taught how to run the household and to be a good wife and mother. When the father dies, the boys take over the farm and get married. Women typically get married at around the age of 13 to men in their late 20s to early 30s. They start to have children shortly after they get married.

**Food, Water, and Sanitation:** Ms. Ochalla also says that the environment was not clean at all. She had stated that all of the people she knew thought that the water was the reason so many children die and why so many people and animals get terminally ill. All of the people and animals drink out of the same places, so diseases get spread around easily. Akwier also shared that their diet varied everyday. Some days they would not have any food. Other days they might have an all vegetarian diet, and if they were lucky, they got meat (usually chicken) in one of their meals.

**Jobs and Employment:** The majority of people living in Ethiopia work on the family farm and do not get paid due to the lack of crop selling, claims Ochalla. There are not very many people who live in the city because it is very expensive and requires physical money. The only schools are in the cities, so there are not many job opportunities for the people in rural areas.

### **Topic: Water Sanitation**

Clean water is very important for all humans, plants, and animals. When those three organisms do not have clean water every process related to them is affected. On average, only 57% of Ethiopian residents have access to clean and safe drinking water.

**Economic Difficulties:** Many things are challenges when the resources you need are not in good condition. This is especially true for all water resources. When the water that people use is unsanitary, it wreaks havoc on every single system in the economy. Different plants have different requirements to grow and thrive, one of them being clean water. When the water being used is contaminated, the plants may be deprived of the essential nutrients needed to produce crops. This, in turn, deprives both the livestock and people of needed food. Animals need nutritious food to produce meat, which means the plants they are being fed need to be healthy and thriving. If the plants do not have clean water, both people and animals do not get the food they need. The markets then struggle due to the lack of product being sold.

### **Impacts on Food Security:**

**Trends in Food Security:** Even though the Ethiopian government has been making improvements in food insecurity and poverty, there are still so many people living in poverty. On average, there are still over 30% of people living in poverty, both in rural and urban areas.

**Effect on Population:** 1 in 3 people in Ethiopia are living in food insecurity and poverty. When living in those conditions, people are more likely to develop health issues which can lead to death. Along with that, malnutrition is a very big factor in infertility issues.

## **Solutions and Recommendations**

In recent years, there have been multiple non-profit organizations using their time and resources to build safe shelter and clean living spaces along with designated sanitary restrooms. Houses are being built with quality materials that help filter and clean water before it is being used. Along with the organizations, the government is helping out to fix the problem. Because of the donations being collected, the conditions are getting better. This is not good enough, though, because there is still  $\frac{1}{3}$  of the population living without clean water.

**Solution #1:** Water trucking is a very known idea for the military. This could be a quick but non-sustainable fix for clean drinking water. This would be put into place as a temporary solution to give a little bit of time to organize a more permanent plan. This would not fix the problem with ongoing water pollution or provide a permanent drink water solution. There would need to be a plan for even distribution for everyone receiving the water. Along with this, there would need to be some government funding and financial assistance from non-profits.

**Solution #2:** Another possible solution to this problem is the digging of wells. Having wells and pumps in each community could hugely benefit the residents. Well water is typically cleaner than collecting water from rivers or standing bodies of water. Along with the natural filtration that happens in wells, there could be filters installed in the pumps to insure clean water for the citizens.

There are so many non-profit organizations that are willing to help the country of Ethiopia, so some of those companies could help out with this project. The people living in these communities could volunteer to help dig these wells and install everything to cut out some expenses that would go to employing manpower. There would have to be a vacant piece of land, or a piece that was given permission to use in both rural and urban communities. Wells do need some maintenance to assure that everything is still running properly. When the process of digging these wells is in place, there needs to be people informing the residents of the procedures that they need to follow to keep these wells safe and in use.

**Solution #3:** Continuing to build sanitary bathrooms and clean shelters would be another option for a solution. This does not address the cleaning of the water but it does address the stopping of polluting the water resources. The government and non-profit organizations would continue to fund this project. Having designated areas for dealing with human secretion would lessen the amounts of waste that ends up in the water. People would have to obey these new directions in order to keep this solution successful, but that can be monitored and upheld.

**Conclusion:**

Ethiopia has the chance to be a beautiful and flourishing country. Due to all of the poverty and insecurities in the country, though, the potential is not being fulfilled. If plans are being put into place to fix these problems this country can thrive. We as a human race need to step up to the plate and help the country of Ethiopia by assisting with these processes and solutions of securing safe drinking water and food sources. Without this, the general populace will not survive.

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