

Natalie Johnson
Canton High School
Canton, South Dakota, USA
Ethiopia, Water and Sanitation

Water and Sanitation In Ethiopia

Life in third-world countries has always fascinated me. I have always been curious as to what life is like in these countries because I have never had the challenging experiences that the citizens in these places would have, as I have always had the privilege of living in a first-world country. Ethiopia itself became more fascinating when I gained classmates that came from Ethiopia. The problems that are faced by the citizens stem from water scarcity and sanitation in third-world countries. Many other issues stem from these seemingly small issues. Food security as well as individual and community health relies on proper water and sanitation. It amazes me how intricate the issues can be when caused by one or two smaller tribulations.

Two-thirds of the world's population suffers from water scarcity (UN-Water), and approximately two billion people lack proper sanitation (Sanitation). Water scarcity is defined as the lack of water availability or lack of investment in the infrastructure of safe water sources (UN-Water). It affects many aspects of a country such as sanitation, food supply, crop growth, and illnesses. Ethiopia is one of many countries that struggle with both water scarcity and sanitation which exacerbates many issues in the country.

Ethiopia is a vast, unique country with an intricate government system. It is located in the Horn of Africa. The capital, Addis Ababa, is located in the center of the country (Crummey, Mehretu, Marcus 2019). The government of Ethiopia is considered to be a federal republic and is structured similarly to the United States (Crummey, Mehretu, Marcus 2019). As in, there are three main branches of the government; an executive branch, a judicial branch, and a legislative branch. After this, there are noticeable differences. The executive branch is led by both the president and the prime minister. The president is elected by the House of People's Representatives, who are a part of the legislative branch. The president then holds a six-year term. The prime minister is appointed by the dominant party in the legislation as a whole, following the legislative elections. This differs from the United States in many ways. Our executive branch consists of the president, who is elected by the people, and his cabinet, whom he appoints. He or she then only holds a four-year term. Secondly, the judicial branch interprets the law and makes decisions in court based solely on the laws of the country (Ethiopia Government). Called the Federal Supreme Court, the president and vice president of this branch are recommended by the prime minister, then appointed by the House of People's Representatives. In the United States, the Supreme Court Justices are nominated by the president, and then are voted on by the senate and need a simple majority to pass. The third and final branch, the legislative branch, consists of the House of Federation and the House of People's Representatives. Their job is to make laws and promote unity (Ethiopia Government). Parliament consists of two parts, the house of people's representatives and House of Federation. In the House of Federation, each nationality is represented. There is a new representative for each nationality with each million intervals of said population. In the House of People's Representatives, they are elected by the people and serve terms of five years. Most of the larger decisions within the government take place in the capital, Addis Ababa. The intricacy of Ethiopia's government and location makes it unique.

Not only is the Ethiopian government intricate, so are their family customs and home lives. A typical family in Ethiopia consists of 1-6 people with half of an average household being children under the age of ten (Ethiopian Cultural Profile). Families often are large with many children as use of family planning is not often used. Even relationships with extended families are tightly knit (Crummey, Mehretu, Marcus 2019). Marriage is legal for men and women over the age of eighteen in Ethiopia. Depending on the region, the marriage customs vary. Grooms are typically expected to provide jewelry and a dress to the bride. The bride's family typically gives gifts to the groom's family. If they cannot afford a gift, family members will spend much time before the wedding pampering the bride so as to give the groom the gift of the bride's beauty. Women are considered subordinate to their husbands and are expected to take care of the household. Familial ties are usually strong, and respect is often given to elders as they are considered wise and able to make good decisions (Ethiopian Cultural Profile). Any arguments or issues are solved by the elders of the community. Religion, such as Christianity and Islam, plays a big role in the lives of citizens. These religions have deep roots in the culture of Ethiopia. In fact, the Ethiopian Orthodox Church, of which almost forty five percent of the Ethiopian population identifies with, is one of the oldest churches in the world. Nearly two-thirds of the population identifies themselves as christians and nearly one third identify with Islam. Children are blessed with Holy water forty to eighty days after birth as a part of an after-birth ritual. Ethiopian home lives, family ties, and customs are complex, but meaningful and tightly knit.

Water scarcity and sanitation have presented recurring challenges in Ethiopia. The insufficiency of water has created several other issues within the country, such as issues with growing crops. Most rural areas experience severe drought, which makes it nearly impossible to grow and distribute food to Ethiopian citizens. This has caused malnutrition among the population. In fact, almost thirty percent of the child deaths in Ethiopia are caused by severe malnutrition. Less than half of children are fed three meals a day. More than half of child deaths are caused by malnutrition. Ethiopia is among the countries with the highest malnutrition rates. Malnutrition leaves long lasting and even irreversible effects on a person. The effects can even carry on to affect future children of those who suffered from severe cases of malnutrition. Another issue caused by a lack of water is waterborne illnesses. Often, humans share available water sources with wild animals (Water in Crisis- Spotlight Ethiopia), which can lead to unsanitary conditions as these sources contain both human and animal waste. Contaminated water can cause illness and often leads to diarrhea (Water in Crisis- Spotlight Ethiopia). Waterborne illness usually consists of cholera, typhoid fever, and malaria. Common symptoms of these illnesses are vomiting and diarrhea. Dehydration from diarrhea is the leading cause of death for those under the age of five in Ethiopia (Water in Crisis- Spotlight Ethiopia). Populations are also experiencing rapid growth and will continue to lack the amount of necessary safe water to survive. Currently, the population is at approximately 115-120 million people and is projected to reach or pass 170-200 million people by 2050. If something is not done to distribute food and water soon, this will cause a perpetuation of malnutrition and severe dehydration.

As for sanitation, less than three percent of the population of Ethiopia has access to proper sewage disposal (IWA Publications). According to IWA Publications, "It is estimated that over 80% of Addis Ababa's population lives in slum districts with very poor housing construction quality. . ." These houses often do not contain any space for bathrooms. Homes are usually small, even for the large family sizes that may live together. The majority of the sanitation problem takes place in rural areas which make up

most of Ethiopia (Contributor Guest Author). There is almost no indoor or outdoor plumbing for these rural people. A small amount of the population, less than five percent, will fall back on defecating in open areas (IWA Publications). They have no access to private restrooms, and pit toilets are shared between a few nearby households as public restrooms are not common (IWA Publications). These are just pits, dug into the ground, that households share to defecate in. While pit toilets are preferable to defecating in the open, they are still not ideal conditions for healthy living.

Sanitation issues can also target young women specifically. As girls reach the age of menstruation, many lack access to sanitary napkins or other sanitation products. Many girls will often skip school due to lack of sanitation during their menstrual cycle. In fact, young women in these areas are known to drop out of school after falling victim to the harassment and embarrassment that often comes with this lack of sanitation. Not only is the lack of access to sanitary products a major issue, women also lack access to education about their own menstruation. This only perpetuates the issues for women. Any and all sanitation issues can lead to illness and even death. To summarize, the lack of water and proper sanitation within Ethiopia poses many other major and minor challenges.

There are many ways to help solve the water scarcity and sanitation problems within Ethiopia. A couple of solutions to this problem could be implementing irrigation as well as implementing policies to control water usage (Walton, Wray, Ritter). Implementing irrigation will allow for easily accessible water for rural and urban homes. It will also enable better agriculture, which will help with malnutrition issues, and can help solve the sanitation problem for those in rural areas. The most readily available body of water for irrigation is the Nile. However, due to the distribution of the parts of the Nile among nearby territories, irrigation of the Nile has been quite difficult (Kimenyi and Mbaku). The obvious way for irrigation of the Nile to happen peacefully is for governments who are involved with the treaties to revise them to enable irrigation for those who were previously unable. This will be a long and difficult process. Once achieved, the implementation of irrigation should be done quickly and efficiently to receive the benefits as soon as possible.

However, the irrigation system itself will cost money. The money will either need to be spent by the government or by the people. The better option is to have the government pay for the materials that are needed to irrigate bodies of water. The government will most likely need to borrow money from other countries to afford the materials necessary. These debts can then be repaid with the help of happy, healthy citizens after reaping the benefits of the new irrigation systems. Once the irrigation systems are in place, new policies will need to also be put in place to ensure that there is not an overuse of water that could dry up the sources of water being irrigated. To start, agriculture uses the most amount of water. Therefore, it may be necessary to implement drip irrigation for rural farms and to change the style of farming to prevent water evaporation (Rinkesh). Drip irrigation consists of tubing laid down by the root zone of the crops. The tubing then slowly drips the proper amount of water directly onto the roots of the plants, giving them the exact amount that they need when they need it. Drip irrigation has many benefits. It prevents diseases because it limits water contact with leaves. This can also be set to run automatically. Doing this will help with labor. Rural citizens would not have to put as much effort into finding water to grow their crops. They can then spend more time taking care of the plant. With crop diseases being prevented and more care being given to the plants, not only can there be enough crop to feed more people, but there may even be a possibility of a surplus to sell. Another policy may need to limit household water

usage. This would prevent over use and waste of water in households as well as limit the water expenses in each home. The implementation of irrigation is initially expensive, but will eventually pay for itself.

As for sanitation, in the event of irrigation allowing for better access to water, it will become much easier to implement proper sanitary measures. Homes would be able to install indoor bathrooms with running water and proper plumbing. Having running water and bathrooms in the house will allow for better sanitation as well as privacy for women during menstruation and will help keep them clean while doing so. Distribution of women's sanitary products should also become more prevalent to help with this situation. This will help with keeping them healthy as well as preventing young women from skipping school for this time period. In addition to this, putting toilets in homes will prevent open defecation, allowing for healthier surroundings. A guest author from inclusivebusiness.net introduced the idea of building community toilets (Contributing Guest Author). The community toilets, in theory, will collect waste so that it can be removed before it can contaminate the environment. These will be more sanitary than the pit toilets currently being used. Public toilets and plumbing would be accessible to communities who may be unable to reconstruct their homes with indoor plumbing. With more sanitary environments, children will be more likely to make it to school and citizens will be happier and healthier.

Ethiopia is a country that relies on wisdom and faith. Family is a central point of Ethiopian life. Major issues of water scarcity and sanitation exacerbate many of the smaller issues such as malnutrition and illnesses from contaminated water and unsanitary environments. There are many valid options for solving the water and sanitation crisis in Ethiopia. However, the most efficient solution to the crisis is irrigation, as it will solve both water access and sanitation issues, since these two major issues influence almost all of the smaller issues. In conclusion, the Ethiopian government needs to work to irrigate and ensure that the citizens of Ethiopia can have safe water access and a sanitary environment.

After researching the conditions of Ethiopian life, I feel blessed to have been born and raised in a country where I have not had to worry about such major issues. Now that I truly understand the importance of a government that takes care of their citizens, I know that I am in the best situation I could be in. I am happy to have the opportunity to analyze environments around the world and give my input in hopes to one day make an impact on a global scale.

Bibliography

- Contributor Guest author. (n.d.). A community solution to sanitation. Retrieved March 10, 2020, from <https://www.inclusivebusiness.net/ib-voices/community-solution-sanitation>
- Crummey, D. E., Mehretu, A., & Marcus, H. G. (2019, December 13). Ethiopia. Retrieved March 10, 2020, from <https://www.britannica.com/place/Ethiopia>
- Ethiopia: Government. (n.d.). Retrieved March 10, 2020, from <https://globaleledge.msu.edu/countries/ethiopia/government>
- Ethiopian Cultural Profile. (n.d.). Retrieved March 10, 2020, from https://ethnomed.org/culture/ethiopian/copy_of_ethiopian-cultural-profile
- IWA Publications. (n.d.). Retrieved March 10, 2020, from <https://www.iwapublishing.com/news/addis-ababa-sanitation-status>
- Kimenyi, Mwangi S., and John Mukum Mbaku. "The Limits of the New 'Nile Agreement.'" *Brookings*, Brookings, 29 July 2016, www.brookings.edu/blog/africa-in-focus/2015/04/28/the-limits-of-the-new-nile-agreement/.
- Rinkesh. A true environmentalist by heart. (2016, December 25). Causes, Effects and Solutions of Water Scarcity. Retrieved March 10, 2020, from <https://www.conserve-energy-future.com/causes-effects-solutions-of-water-scarcity.php>
- Sanitation. (n.d.). Retrieved March 10, 2020, from <https://www.who.int/news-room/fact-sheets/detail/sanitation>
- UN-Water. (n.d.). Scarcity: UN-Water. Retrieved March 10, 2020, from <https://www.unwater.org/water-facts/scarcity/>
- Walton, B., Wray-McCann, E., Ritter, K., & BlueCircle of Blue. (2018, October 5). Experts Name the Top 19 Solutions to the Global Freshwater Crisis. Retrieved March 10, 2020, from <https://www.circleofblue.org/2010/world/experts-name-the-top-19-solutions-to-the-global-freshwater-crisis/>
- Water In Crisis - Spotlight Ethiopia. (n.d.). Retrieved March 10, 2020, from <https://thewaterproject.org/water-crisis/water-in-crisis-ethiopia>