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Ethiopia, Factor 9: Water & Sanitation

## **Water & Sanitation Problems in Ethiopia**

“Although we take it for granted, sanitation is a physical measure that has probably done more to increase human life span than any kind of drug or surgery” (Deepak Chopra).

Water and sanitation are necessary and useful to every human being. Some countries lack, however, the basic necessities for proper water and sanitation. This causes many outbreaks of disease in the poor countries of Africa. Some people walk miles to only get feces-infested water. This water can be home also to mosquitos, which carry the parasite malaria. “Malaria is an easily treatable disease, yet 660,000 Africans died from malaria in 2010” (Medical News Today). Sanitation is bad in Ethiopia because people don't have proper sewage systems. The Ethiopians leave their sewage out in the open, and then the sewage is washed into streams, or other bodies of water, which then is drunk. Some of the people bathe in the same water from which they drink, or in some cases, let their animals wade. Cholera is a disease transmitted by unsanitary water. One of the diseases most commonly known in Ethiopia is Cholera. This is because 5 million people are at risk of getting cholera. Cholera is an acute intestinal infection; it causes watery diarrhea that can quickly lead to severe dehydration and death if treatment is not promptly given. Cholera is caused by bacteria-infected food or water supplies (Nebehay, Stephanie). Many of the natives that live in Ethiopia end up in the hospital due to the water they drink. The government can not support all the people that wind up in the hospital. This causes many of the sick Ethiopians who live in poverty to die.

The poor economics system in Ethiopia is the main cause for many of the problems. Ethiopia does not have a strong enough base economy. In fact, they squander most of the money they make. The lack of resources in Ethiopia also affects the economy negatively. There is not enough money or diverse jobs to improve the economic system. Without a diversity of jobs people work the same ones; thus the economy becomes stagnate. Diversity is the key to good conditions in the economy. The government in Ethiopia is the Federal Democratic Republic of Ethiopia. Members of the House of People's Representatives are elected by the people for a term of five years on the basis of universal suffrage and by direct, free and fair elections held by secret ballots. The government exports a great deal of coffee to other countries, yet the natives don't tend to see it. Even though elected by the people, the government squanders the money they get in the country. This doesn't help the economy or the people at all. Shouldn't people try to fix this before fixing water and sanitation? The reason they don't is because there is no such thing as a perfect government. Every government is going to have their flaws no matter how big or small, but water and sanitation problems can be fixed. Fixing the water and sanitation problem is like what Norman Borlaug did with hunger. He knew that the essential component of social justice is adequate food for all mankind. Following shortly behind that is clean water. Maslow's Hierarchy of Needs shows that the basic necessities are food and water. Then the next level they can focus on is their health. With healthier people they will be more productive and efficient, which may make them better farmers or workers and, therefore, make the economy more diverse.

The typical family in Ethiopia is close-knit. They keep their extended family in close quarters. The average size of family in Ethiopia is 5.2 members. Half of the people included in the family are children. This makes life hard on the parents. The divorce rate is high in this country. In times of financial difficulty most of the extended family will help take care of the kids. When there is a single mother the extended family also will lend all the time they can to help the mother and children. Young children are left at home when the older kids and parents go out to either work in the field or collect water. If older

children are needed to stay home they are taken out of school to help their parents at home. Sometimes when the parents are busy, young children will be left at home without supervision, which is obviously a safety concern (Ethiopian Cultural Profile).

The typical family has a diet high in fiber but low in dairy products and fat. Because of this they often have a calcium deficiency, along with an iron deficiency. Other vitamins they can lack because of this diet are iodine, vitamin A, vitamin D, and zinc. Without these very important nutrients they could have a weakened immune system, bone structure, and many other problems including poor vision, not enough oxygen delivered to cells, delayed growth, loss of appetite, and skin lesions. The normal foods that they eat are millet (teff), sorghum, and plantains. They make wat (a thick stew) and they enjoy spicy dishes. They usually drink coffee, which happens to be their largest export. They are limited in clean water, though, which makes the coffee dangerous at times (Adoption Nutrition).

Education in Ethiopia is very important to their people. Students are desperate to attend. Education is a high priority to the families. Students start at the age of 7. In Ethiopia they assess height and number of teeth to determine the age of students. The schools are divided into grades 1 through 8. Ethiopia's secondary school includes grades 9 through 10. After secondary school the students must take an exam. If they fail this exam they repeat the school year and then take it once more. If they fail the next one they are no longer allowed to take it again and are kicked out of school. If they are kicked out of school they only have one other option, to go to a private school, but without the necessary money this may not even be an option. The government schools have many requirements. Going to school is free, but the Ethiopian students must buy their own uniforms and books. Even this cost may be too great for many families, and as a result their kids do not attend school. Government classes are also in shifts. This means that they have a night shift class and a day shift class. Class sizes are usually 50 students or sometimes more. Disabled students do not have many accommodations in government-based schools. Private schools are usually run by beneficiaries. Those schools get donations and run on the money donated. Private schools are held to a high standard and are usually a great tool for the kids who are able to go. After grades 9 and 10, if they passed their exam, they are admitted to a pre-university or a technical school. This includes grades 11 through 12 (The African Children's Educational Trust).

Access to health care in Ethiopia is awful. Ethiopia's health care system is the least developed in the sub-Saharan. It is not able to keep up with the current problems of the patients. The widespread problems of poverty, poor nutrition, low education levels and poor access to health services have contributed to the high burden of ill health in Ethiopia. Poverty is the biggest one, because if you are not able to pay for the medical expenses you will not usually be admitted. The government usually can't support or fund the sick. Poor nutrition is a great factor as well because if you aren't getting the necessary nutrients you will not be healthy. If you can't afford the necessary food to get these nutrients you will not be healthy either. This means if you are poor you probably won't have good medical care, and, therefore, will have poor health. The life expectancy of an Ethiopian is 54 years old. The life expectancy is also expected to decline to 46 years if the present HIV infection rates are maintained. Three point five percent of 15-49 year olds have HIV or AIDS. There are 10 million cases of malaria. As previously mentioned, cholera is carried by the water that the Ethiopians drink.

There are seven million farm families in Ethiopia. The typical farm in Ethiopia is stagnant. People usually grow their crops in the middle altitudes where the best growing conditions are. Farm sizes are usually small. They are either one hectare or less. Farmers usually raise cattle, sheep and goats, but cattle are the most important animal to the Ethiopians. People in the United States usually use combines and big heavy machinery to plant and harvest crops efficiently. Ethiopian farmers usually use oxen as their main power source, which is not nearly as efficient. Oxen are used for 60 pair days and then are left out for feeding. Besides coffee, crops that the people of Ethiopia usually grow are cereal crops, which they use to feed their livestock. Ethiopia's coffee export keeps the country afloat. An agriculture practice the people use is

a fodder system, which is a feeding system for the livestock where crops are dried. It's a simple and practical way to save money (Farmer Circumstances in Ethiopia and the Improvement of Animal Feed Resources).

The biggest barrier facing the typical family is the growing population. There are not farms large enough to support the growing number of individuals being born, and with water quality poor at best a good irrigation system is hard to come by in Ethiopia. Not only are people at risk with their water but also their crops. The soil is plagued by degradation. Degradation is the condition or process of degrading or being degraded. To degrade something means to "break down or deteriorate chemically," which means the soil is in poor condition. Therefore, growing crops in Ethiopia is much harder than it should be. Barriers in Ethiopia's agriculture productivity are caused by over-grazing, drought, deforestation, high population density, high levels of taxation and poor infrastructure. With high levels of taxation and poor infrastructure it is harder to maintain the proper soil treatment because of the lack of money. With the high population there isn't enough room for crops. Ag accounts for half of the the exports in Ethiopia. Employment is another barrier facing the typical family. The average salary is \$380-410 per year" (World Vision), which means that 35% of Ethiopia's population is lives below poverty. Yet another problem facing the typical family is access to the food market and, therefore, adequate nutrition. Fewer than one in four have access to clean, safe water. This means the other three-fourths are drinking unacceptable water, which leads again to people winding up in the hospital a lot.

Only thirty-eight percent of Ethiopian girls ages 15-24 are literate. Sixty-two percent of males are literate. Males are the traditional owners of land, not women. It is hard to teach the population of farmers more productive methods in agriculture when most can not read. Ethiopia is one of the most food-insecure countries in the world with nearly half the population undernourished, despite the country's top standing as a food producer in coffee (Agriculture in Ethiopia).

Water is a huge factor in how things are able to grow on farms. A good farm is not able to exist without the necessary amount of water. People that live in the rural part of Ethiopia on average walk up to six miles to collect water from shallow, unprotected ponds, which they share with animals. The water jugs the families walk with weigh up to 40 pounds. In the past 20 years, droughts have occurred often. These are followed by food shortages and famine. Only the strong will survive. During the droughts illnesses run rampant. This is caused by less drinking water and people sharing even smaller pools of water with others (Canadian Feed The Children).

Improving water and sanitation in Ethiopia can only have a positive impact on everyone's life. Cleaning up water and sanitation would help put an end to the spread of many diseases. Providing good irrigation systems to Ethiopian farms could only benefit the country. The irrigation systems would help in times of drought, and supplying the farms with only clean water will keep the diseases out of the plants. Fixing the water and sanitation systems in Ethiopia will also help to save time. Time is an important variable. Walking six miles to fill a jug and then hauling it back takes up most of the day. Saving time could account for something good. In the time saved, children could be getting an education. The parents could use the time to get a job or work on a farm. When they work on the farm they may have more time to incorporate better usage of the soil, or they could use this time to produce more food. With the increased production of food comes more exports. If they are not exporting the food then they could give the food to other families. It would also save time for the families to provide food for their own family. This means fewer people would be undernourished (Canadian Feed The Children).

UNICEF has come to the rescue of Ethiopians. They helped 768 million people around the world to have access to clean water. UNICEF is an agency of the United Nations to help governments improve the health and education of children and their mothers. They build wells, put in filtration systems, and buy proper water containers. The wells are usually a great way to solve the clean water problem, yet there

have been other risks before. There have been problems of arsenic in the well water. Arsenic is a very poisonous metalloid. If this metalloid is ingested it can be lethal. UNICEF has actually tested the well water to make sure that there isn't arsenic in the water supply. Water filtration systems are also very important to the needy. Filtration systems are usually placed in a town square or at school where the water is open to everybody. UNICEF has helped many children and adults in other countries as well as Ethiopia. My small community of Monroe, Iowa, could help Ethiopia's water and sanitation problems by making flyers to better inform the community. With more awareness there may be more people willing to help and possibly activate another project in Ethiopia. Getting a group formed that wants to take action in Ethiopia would be another piece to the puzzle. The group being formed could have an auction where people donate items they no longer need and then the club could auction them. My FFA chapter has put on a Jackpot Hog Show at the county fair grounds show ring. County farmers showed 300 head of hogs with each one costing twenty dollars a head. We only had a few costs which included hiring a judge for two days and giving prize money to the winners. In the end we probably made \$3,000. It was a simple way to raise money. To improve on the national government level we could make a few commercials to raise awareness as well. "Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has" (Margaret Mead). This quote means a lot. Ethiopia doesn't need the whole world to worry about them, but it needs people that actually care and want to change the living environment for them. The national government could also tax citizens. If everyone in the United States of America was taxed three cents - in 2012 the U. S. population was 313.9 million people - the government could raise \$9,417,000 for Ethiopia. An average well in Africa costs \$7,000 because those in charge also hire a committee to oversee the well and keep it functioning properly (Water Wells For Africa). Each well serves 2,000 people. That means 1,345 wells that we could buy from each person donating three cents! These wells could serve approximately 2,690,000 people. Who wouldn't want to do that? Organizations could help Ethiopia's issues by fundraising and providing "man-power" to help with the construction of wells. Usually private organizations are the ones that go to Ethiopia to help actually build wells and water filtration systems. Families could work on improving farm practices, waste management practices, or water filtration systems with educating the Ethiopians (Water.org). Being able to get the wells to Ethiopia is yet another big price tag. Fundraising organizations would take most of the responsibilities of getting the money. The fundraisers could go door to door, sell fruit like my FFA chapter, or it could include creating a new product and then selling it online or on TV with all the proceeds going to the wells. Social networking makes fundraising very easy. Making a Facebook page or a Twitter account is where all the buzz begins. It starts with people and an item that piques their interest. Another way fundraising is made simple is by creating a site online where online donations can be made. If there are pictures and videos of the people being helped, and it is explained in detail about what their money is being used for people are more willing to donate money.

Poor economics in Ethiopia is the root of most of their problems. Is there hope without intervention? UNICEF is doing their part, and it is time for more people to take action. A way to involve the citizens of the United States and around the world is to make people trust that what is really going on is true. Many people in this world believe that commercials telling them to send money to help aid foreign countries is a scam. If public leaders or celebrities could take the time to endorse these commercials they might also pull with it the people's willingness to help and trust that it isn't a hoax. There are no simple solutions to the major problems in Ethiopia, but without intervention the situation there will only further deteriorate. The humanitarian crisis is there. What will we do to help?

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