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Zambia, Water, and Sanitation

## **Zambia: A New Approach to Get Clean Water and Sanitation to People That Need it**

Did you know that about 64 percent of people living in Zambia are under the poverty line, and 40 percent of that 60 percent are in extreme poverty (Habitat for Humanity, 2019)? Zambia is a developing country in Africa that has the potential to be a middle-income nation. Zambia has a plan called Vision 2030 that has established goals and steps to elevate Zambian citizens out of poverty. However, the sad truth is that they are not going to reach Vision 2030 by 2030. Vision 2030 presents many problems in its implementation that will make achieving it next to impossible. If Zambia instead attempted to focus its effort on only clean drinking water and sanitation, it would make the most difference in progressing toward its ultimate goal of eliminating poverty. Though 90 percent of Zambians in urban areas have access to clean water, that percentage in rural areas is only 53 percent (World Vision, 2018). Along with that only, 70 percent of Zambians in urban areas have access to sanitation supplies with rural areas only being 25 percent. Not having access to clean water or sanitation causes more problems, such as children not being able to get the education they need, an increase in malnutrition, and a high number of illnesses and diseases. The lack of available clean water or sanitation also increases the number of food insecurity throughout Zambia. Zambia is a developing country and having clean water and good sanitation would help the food insecurity problem that they face.

Zambia is located in Eastern Africa which classifies it as a subtropical climate with three seasons: a hot and dry season, a wet and rainy season, and a cool and dry season. This climate makes Zambia more susceptible to natural disasters like droughts, floods, fires, crop pests, etc. Zambia is run by a republic government with representative democracy and a presidential system. Their government is very similar to the United States, as it includes a supreme court and a house of representatives. Right now only 15 percent of the land in Zambia is cultivated and used to grow crops (Zambia Invest, 2022). This land is used to grow their major exports of sugar, tobacco, cotton, copper, and gemstones. A typical family in Zambia owns about 1.5 hectares which translates to about 3.7 acres of land (Zambia Invest, 2022). The official language of Zambia is English and about 95.5 percent of its people are Christian (U.S. Department of State, 2020). Zambia is a developing country that is still changing.

At the beginning of 2022, the overall population of Zambia was 19,470,234. In 2021, the urban population was 8,204,576 and the rural population was 10,190,380 (International Trade Administration, 2021). Right now most of the population lives under the poverty line. Based on 2017 statistics, the average income of a person living under the poverty line in recent years was only \$2 a day and those in extreme poverty made less than \$1.25 a day (Habitat for Humanity, 2019). The effects of having this many families under the poverty line are very dramatic. With the average family size being five people, only having less than \$2 a day for a family makes families unable to provide the basic survival needs. Being in poverty for many families means that 40 percent of the children are stunted in their growth because they do not have the resources to provide optimal nutrition. This also means that 50 percent of all children are underweight. Additionally, 20 percent of Zambian children in poverty are orphans because diseases and infections cause the premature death of their parents (Borgen Magazine, 2017). As of 2021, Zambia was projected to go into a food shortage because of drought conditions that will not only affect the economy and the environment but how many families live. One source says, "October 2021 and March 2022, coincides with the lean season when the country's food security situation is expected to deteriorate, with around 1.58 million people (13% of the analyzed population) classified in Crisis"

(ReliefWeb, 2021). Along with this, in January of 2022, Zambia was hit with a major flash flood, which affected houses, farmland, and families. These environmental factors affect how families get food, as well as their access to water.

As a developing country, Zambia faces many problems with clean water and sanitation. The impact of dirty water and poor sanitation causes many problems like food insecurity, waterborne illnesses/other diseases, and a high rate of children dropping out of school. In Zambia since 1960, there has been a precipitation drop of 2.3 inches of water every decade (Habitat for Humanity, 2019). This drought has caused severe water shortages. Because of this many are faced with the problem of unsafe water and poor sanitation. Only 33 percent of the people in Zambia can get sanitation supplies. In fact, less than 24 percent of Zambians have access to sanitary basics, such as soap and water (UNICEF). This lack of sanitation has led to a rise in diseases such as cholera and diarrhea. Not having clean water and sanitation also affect children's access to education. Many have to go collect water for their family rather than attend school. This is especially true for women and girls because, in Zambia, a well-known job for a female is to get water for families. Some have to get in line at 1:00 a.m to get water because there is little access for water from their local boreholes. Though those who do not have access to boreholes like this have to just dig in muddy water and wait for the water to rise to collect it. Not only is this not sanitary but that water in both situations carries an extreme amount of bacteria in it. Also, to add to the sanitation problem at many schools there are no separate toilets for girls or boys and with little privacy creates another problem for many. Another challenge they face in day-to-day life is that less than half of the population has access to toilets. The water and sanitation problem is like a ripple effect, impacting many different problems with which they are faced with.

The impact water and sanitation have on Zambia is ever increasing. Drought has caused there to be an increase in food insecurities within Zambia and statistics show that because of the environmental problem that in 2022 food insecurity will dramatically get worse. Child education is also a very big problem caused by poor water and sanitation. Not only does collecting water affect children having the ability to go to school, but because the water is contaminated it causes many to get sick making them unable to attend school. Having something as simple as soap as a sanitation item would greatly decrease their chances of getting diarrhea and other illnesses. Not only is soap something that a lot of people take for granted in places like the United States, but it is very important. In a TED talk called "The Simple Power of Handwashing" by Myrian Sidibe, she says, "It's one of the world's oldest inventions: a bar of soap. Washing hands with soap, a habit we all take for granted, can reduce diarrhea by half, can reduce respiratory infections by one-third. Handwashing with soap can have an impact on reducing flu, trachoma, SARS, and most recently in the case of cholera and ebola outbreaks, one of the key interventions is handwashing with soap. Handwashing with soap keeps kids in school" (Sidibe, 2014). Something as simple as soap can affect so many people everywhere. Zambia is one of them. They do not have access to sanitation supplies like soap that they need day to day. The effect that just having clean water and sanitation would positively affect this developing country and would be game-changing for so many.

Countries like Zambia need help to become developed countries and there are many organizations around the world to help countries struggling with getting clean water and sanitation like Zambia. WaterAid is a nonprofit organization that has been set up to help countries with water, sanitation, and hygiene problems. WaterAid has set up a plan for Zambia to get them more access to clean water and sanitation. Their goal is by 2023 to have 60 health centers that are equipped with clean water and sanitation supplies. Having health centers with clean water and sanitation will have a big impact on many because only a quarter of health centers right now have access to clean water and sanitation (Helmsley Charitable Trust, 2017). The lack of both water and sanitation affects the workers and the patients putting them at great risk of getting infections and diseases. These health centers are going to be focused to help children and maternity patients; though will still offer care for all. The reason they can make this possible is that the Helmsley

Charitable Trust donated \$6.9 million dollars to fund this project which will help so many. They believe that, “Everyone has a right to quality health care, and the baseline for that is a facility with running water, toilets, and soap for handwashing and infection control,” said Kelly Parsons, CEO, WaterAid America.” (Helmsley Charitable Trust, 2021). Not only are they going to help Zambia but after the mission is done they are going to create a business case for them so they can keep up with the policies for water and sanitation. These buildings will be located around Kazungula, Monze, Mwandia, and Sesheke. Another great organization that has helped many third-world countries including Zambia is Charity: Water they give third-world countries access to clean water they need. So far they have helped 29 countries. They help people get access to water by building wells that are there long-term and are sustainable. Charity: Water believes that everyone should have access to clean water and good sanitation. Water for Good is a non-profit that is made to help Africa. They have designed wells, especially for the climate in Africa. Their wells are sustainable and will work over 90% of the time. The founder of the nonprofit, Jim Hocking, is from the Central African Republic and he grew with a passion to help the clean water problem that Africans face. This has had a big impact on Africa and they are not planning to stop until they have reached all regions. All of these nonprofits and organizations have made an impact to help the water and sanitation problem that the world has.

Something that not many organizations or nonprofits are working on is the toilet and soap sanitation problem that many underdeveloped countries face. Like medical centers, there is a need for good sanitary restrooms with clean running water and soap. If we were to put just one good restroom in every rural town and village it would help so many. Many don't have access to toilets in their areas and some schools do not even have proper toilets that people can use. This causes a lot of problems with sanitation because even areas that have toilets most of the time are not able to wash their hands with soap. Soap, though it is something that is so simple, can help save lives because being able to wash your hands with soap and water allows people to prevent things like cholera, diarrhea, and many other diseases. Having access to a good bathroom and building bathrooms in rural areas and villages would help solve a lot of problems that would put Zambia back on track to becoming a middle-income nation. One source says, “Research indicates that adequate sanitation can decrease the risk of stunting. In Zambian schools, lack of access to adequate water supply, sanitation, and washing facilities negatively affects students and contributes to high dropout rates, especially among girls” (UNICEF). Also if people had access to toilets statistics show that it would decline the amount of infectious rates and school dropouts. With people staying in school they can learn about the damages that people will face if they don't wash their hands. Not to mention that if more students were to stay in school it would help the economy in the long run. Another solution that would help so many is to donate portable filters, though some have access to wells that have clean water this is not the case for everyone. Having a portable water filter would make it so that people that don't have access to wells do not have to drink muddy water. If people were able to filter their water in their own backyard families would not have to get up at 1 a.m. to get clean water. This would make sure that children are staying in school and it would decrease waterborne illness among the people in Zambia. Though there are little to no organizations or nonprofits working on these problems, having things like portable water filters, soap, and restrooms would help countries like Zambia intensely.

Zambia is a developing country that has the potential to be a middle-income nation. Though this might not be able to happen by 2030 it is going to be possible one day for Zambia. Some changes will have to be made to make this happen and this starts with the water and sanitation problem. Water and sanitation affect so much of the population and cause there to be an increase in food insecurities. If Zambians were able to have access to things like restrooms with running water and soap and portable water filters, it would help lead them to become a middle-income nation. Zambia will become a middle-income nation with the help of programs promoting and implementing these hygiene needs.

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