

Garrett Sarringar  
 Sibley-Ocheyedan  
 Sibley, IA  
 Zimbabwe, Infrastructure

Zimbabwe:

Some countries are well established and have endured many generations. Others have not been around as long. Zimbabwe established its independence in 1980. The country has initiated a semi-presidential republic with a president serving as their leader. Zimbabwe is mostly a plateau with mountains in the eastern half of the country. Zimbabwe is located in the southeastern corner of Africa and is a landlocked country located at 20 00 S and 30 00 E. It is surrounded by Botswana, South Africa, Zambia, and Mozambique. Since Zimbabwe is located close to the equator it has a tropical climate. Zimbabwe being a landlocked country implies that they have no direct access to the ocean, however, there are roads that directly run to the ocean. The 3,229 square kilometers that border the other countries is only about a tenth of the total land area which is 386,847 square kilometers. Zimbabwe is filled with one main culture, which is African culture. The Zimbabweans suffer from many problems facing their country and will continue to face these problems unless leaders take action soon. (“The World Factbook: Zimbabwe.”).

A census taken in 2017 showed that the population in Zimbabwe was at a record high of 16,529,904 people. Approximately 68% of the population or 11,240,335 people live in rural regions. The other 32% of the people or 5,289,569 people live in urban areas. The people living in the rural area produce most of Zimbabwe’s main export which is raw tobacco. However, agriculture (12%) is Zimbabwe’s smallest source of income according to their GDP, with services (66%) and industry (22%) being the largest two. However, agriculture has the largest labor force with 68% of their labor force having a role in agriculture. The amount of land used for agriculture is 164,409 square kilometers. However, approximately 17,921 square kilometers of the agriculture land is arable, which means tilled. (“The World Factbook: Zimbabwe.”). The average farm size after the land reform consists of 91 acres. The average farm size could be compared to the size of the Vatican City (109 acres). These farms grow a variety of crops including tobacco, corn, cotton, wheat, coffee, sugar cane, and peanuts. They also raise a variety of animals such as sheep, goats, and pigs. Their main exports are raw tobacco, diamonds, ferroalloys, and chromium alloys. They mainly export to China, South Africa, United Kingdom, and India. (“Zimbabwe.”)

The average Zimbabwean family consists of four people. These households consist of the typical nuclear families; however, some households include extended family. Most families in Zimbabwe practice Protestant Christianity beliefs (“Major Religions » Religion in Zimbabwe.”). The main staple of these families is Sadza, which is a cornmeal and water mixture that is heated up and stirred together to get a porridge-like consistency. Most families eat Sadza with relish, but families of greater economic status mix in beef or chicken. Other traditional foods include peanuts, beans, butternut squash, gem squash, green maize (corn on the cob), and cucumbers. (“Zimbabwe.”). The families usually grow or hunt for their food source however, those who live in the larger cities have the opportunity to buy their own food. The Zimbabweans typically have jobs in agriculture, mining, mineral export, tourism, and logging (Africa, Job Serve.). The average wage for a typical Zimbabwean is 91,560.70 Zimbabwean Dollars or \$253 USD, with the highest government position earning 183,845.20 Zimbabwean Dollars or \$508 USD. The low strength in their dollar is caused by hyperinflation. The Zimbabweans are required to attend a primary school which is first grade through seventh grade. They start school at age six, during primary school they learn English and their native languages along with math, science, and social sciences. Primary school

seems relatively inexpensive, however, this is approximately five percent of their total income. It costs the Zimbabweans \$15 or 5,428.50 Zimbabwean Dollars to send their children to rural schooling, and the \$35 or 12,666.50 Zimbabwean Dollars to send their children to urban schools. (“Usap Zimbabwe.”). In Zimbabwe, The Ministry of Health is responsible for fifty percent of the healthcare services and the other fifty percent is covered by mission churches, private services, local authorities, and industrial organizations. Zimbabwe lacks trained medical professionals, with only two doctors per ten thousand citizens and only eight nurses or midwives per ten thousand citizens. (“Zimbabwe Health Insurance.”). Zimbabweans also lack access to minimum drinking water services; only sixty-six percent of their entire population has access to potable water (“People Using at Least Basic Drinking Water Services (% of Population).”). Zimbabwe also struggles providing electricity to their citizens because only thirty-eight percent of the country has access to this (“Access to Electricity (% of Population).”). The number of people that have fixed telephone lines in Zimbabwe is less than the World average. Zimbabweans have two fixed telephone line subscriptions per one hundred people however, the world averages twelve subscriptions per one hundred people (“Fixed Telephone Subscriptions (per 100 People).”). However, because the access to the fixed telephone lines remains low, the amount of people that have mobile phone subscription is quite high. Eighty-five Zimbabweans per one hundred Zimbabweans have a mobile phone subscription. (“Mobile Cellular Subscriptions (per 100 People).”). Zimbabwe has a connected but yet lacking in certain areas such as, potable water, doctors, and money value.

When searching for problems in Zimbabwe, plenty stick out. For example, Zimbabwe currently suffers from a drought. However, the deteriorating infrastructure remains their single greatest challenge. This plays a major role in the access to clean water, sewage being properly disposed of, and their energy becoming more reliable. This terrifies me because in their largest city, Harare, only fifty percent of the people living here had access to water all day, however, only sixty-two percent of the residents believed the water was of drinking quality. Even though Zimbabwean officials have started to repair the six thousand kilometers of piping they have not come very far. From when the project started in 2009 till 2013, only one hundred fifty kilometers have been repaired. At this rate, this project would not be complete until 2176. (“Rebuilding Infrastructure in Zimbabwe.”). This problem impacts all of the Zimbabweans the same because if they do not have access to drinkable water or proper sanitation their health will deteriorate. This was demonstrated when in 2008 a Cholera outbreak started when feces entered the water and this led to four thousand deaths and eighty-eight thousand people becoming infected. This epidemic caught the eye of the media, which shed more light on the situation in Zimbabwe. Unclean water doesn’t just cause Cholera, it causes other diseases such as diarrheal diseases, Typhoid, Dysentery, and Guinea worm disease. If the water quality does not improve, Zimbabwe could be looking at an epidemic of any of these diseases. Not only has the World been exposed to the problem but Prime Minister Morgan Tsvangirai is pleading for help. He has requested five billion USD for the reconstruction of the infrastructure. However, this will not be enough to get the job done. An issue that impacts Zimbabweans in the capital, Harare, the citizens were charged for water even when the water would flow every now and then, and even if the water was contaminated. The fact that the water flows sporadically cause toilets in houses to sit full of feces for a great deal of time. This also causes pipes to burst and sewage to flow into the city streets. The children of Harare frequently play in the sewage covered streets. Corruption has led to the mismanagement of funds for maintenance and renovation of the water pipe system. Most of the money from the payment for the water is being moved to other projects, when the money is budgeted for the upkeep of the water pipeline system. The lack of money for proper chemicals to treat water, therefore the country can not handle the demand for potable water.(Zimbabwe: Water and Sanitation Crisis.). Zimbabwe is currently struggling with a drought, this is an issue because the farmers want to use the water to irrigate their crops, however, the people need the water to drink. Certain areas already use lakes and rivers to obtain potable water; also farmers in the area use this water to irrigate their

crops. For example, Lake Mutirikwi supplies Masvingo with drinking water and sugar cane farmers in Triangle and Hippo Valley with irrigation water. Another example, is that Harare is supplied with water from Lake Chivero, Lake Darwendale, Manyame River, Seke Dam, and the Harava Dam. (Zimbabwe's Main Water Sources) Since Zimbabwe is suffering from a drought, collecting rainwater for crop irrigation is undependable; however, collecting the rainwater would reduce the amount of water farmers would have to pull from better sources of drinking water. These problems all stem from a couple of problems; such as, deterioration in water pipelines, water contamination, and water management. However, there are solutions to these problems.

When looking for a solution to the problems in Zimbabwe, one might not know where to begin. A good starting point would be to focus on their main problem that can be fixed by others. The first solution we could start by sending a company such as Kana Pipeline Incorporated to Zimbabwe. This would be expensive; however, we could get a group of investors or donors to help collect money reducing the financial burden on Zimbabwe and its people. Not only would this help Kana Pipeline get good advertisement they would also help the Zimbabweans. They also could employ some Zimbabweans to help build the pipelines. This would lessen the time away from home for some of the employees that work for Kana Pipeline but it would also help boost the Zimbabwean economy. (“Water Pipeline Construction Contractors Companies for Water Main Infrastructure Installation.”).

Another solution to water shortages involves constructing water treatment plants. This would help keep the water clean and can also act as a water storage area while the workers finish building the pipeline. Also, there can be a new service that could be built within the country that just maintenance the pipelines. These solutions would have great financial deficits, however, there are groups such as Generosity.org, that provide financial services to help achieve clean water globally. Another group we could contact is another non-profit called Blood:Water. This company also works with African groups to achieve clean water in Africa along with providing support to those suffering from HIV/AIDs. Blood:Water would be a good non-profit group to work with because they already have working ties into the African elders. In Africa, the tribe members listen to the tribe elders. Therefore Blood:Water organization would be a great organization to work with because they already have ties with the tribe elders. (Kavanagh, Meredith.). Missionaries from North America and Europe could also help dig wells to obtain clean water. These might be helpful because the citizens might see them as help and allow them to help. There is a group working on drilling holes for wells in Zimbabwe. This project is called the Africa Oasis Project and their mission is “ to reflect the compassionate nature of Christ by alleviating the suffering of those impacted by unsafe or inadequate water.” According to Africa Oasis Project, “Africa Oasis Project is an aggressive effort to respond to the critical problem of inadequate and unsafe water creating high-risk in the lives of people in Africa. Africa Oasis Project is faith based group with the U.S. Assemblies of God World Missions. Africa Oasis Project partners with 45,000 local churches in Africa to help drill wells in Africa. Africa Oasis Project provides the following services: deep-water wells, sanitation training for maintaining water in sanitary conditions once gathered, rainwater harvesting and storage, irrigation, and sewage management. (). A solution with one of these groups is very practical, because these groups already have connections within Africa making it easier to implement new ideas and technologies.

The easiest solution for fixing the overcharges is to only charge for water, when the water is clean. Charging for contaminated or poor quality water could be avoided by keeping the money in the correct accounts. Keeping money in the correct places can be solved by issuing a survey when they want to pull money from any account and this would allow citizens to be apart of the government. The government having the money for upkeep on the water and sewage pipes; this would solve the issue of sewage in the streets. Having the money for chemicals for treating water the country could keep up with the demand for

potable water. Another way to avoid the corruption within Zimbabwe is to use a third party, or another country to keep the leaders of Zimbabwe honest. The United States or a trusted ally of Zimbabwe could be used to as a mediator in the handling of the money. The Zimbabwean government officials would have to consult US or allied government officials before using money for any project. Not only would this help solve the issue of corruption, this would also help the mismanagement of the Zimbabwean citizens money. In addition, with the consultation from the US or allied government this would help with the planning of the many projects that the Zimbabwean government needs to start to fix the water pipelines and water quality. Corruption is a different field of problems; however, this leads very much into the reason why the Zimbabweans suffer from inadequate water. This solution would be more difficult; however, this issue needs to be solved in order to be able to properly manage the water needs of Zimbabwe.

Collecting rainwater from the rainy season, which runs from mid-November to mid-March, and storing the water to be used in the dry seasons would save on the amount of water being taken from lakes and rivers. This would allow for more drinkable water to be distributed throughout Zimbabwe. Using agricultural companies from around the world, these companies could begin teaching the farmers of Zimbabwe about better irrigation practices. Such as, running hoses down rows and putting holes in the hose to get a more precise water to the root system. They also can use a planning system, where the companies sit down with the farmers and they make a plan about watering the crops and when to water. Another way to combat water usage for irrigation would be the use of drought resistant crop seeds. Companies such as, Bayer-Monsanto and Dupont Pioneer could donate seeds to help these people using less water to irrigate crops. The water saved from less irrigation would be then able to be brought to the people as drinking water. The people of Zimbabwe need a balance between irrigation water, and potable water, with these solutions, the people of Zimbabwe would have access to more potable water.

We also could utilize Zimbabwe's allies by China supplying Zimbabwe with help in water waste management, better farming water practices, and wastewater management. A solution for the contaminated water would be to have a class in school for the kids to learn how to boil their water to make it potable and other things they can help do to use less water and keep more potable water. They could also set up wastewater lagoons to store wastewater. This idea could be funded by charities from all over the world. Lagoons would prevent the wastewater from flowing into rivers, streams, and lakes which would contaminate the water. The citizens could test this solution and if they find the solution effective, they could implement this solution all over the country. With the lagoons set up the citizens could then begin to set up a pipeline or a series of latrines that only dump into the lagoon. This solution is very practical and could be very easy to implement with the right help. Some of these solutions are very cost effective, however some are uneconomical. These solutions are all practical, however, some of these solutions would take more effort than others.

Zimbabwe was once the example for the southern part of Africa. However, due to their hyperinflation, they have had to deal with deterioration in their infrastructure. This has mainly impacted the water system in Zimbabwe. With these solutions, they can start to become that example again. This will not solve all of the problems in Zimbabwe, however, this could hopefully allow them to get started in the right direction. Not only would this help them become that example again but it would also help the Zimbabweans become healthier. With the country becoming healthier, more people would be able to work and this would lead to a small uprising in the economy. These solutions would be expensive however with these organizations and companies on board the price would come down to a manageable number. However, other solutions are simpler and easier. These solutions may not be easy, but with these solutions and groups of people we can make Zimbabwe an example for southern Africa again.

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