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Zimbabwe, Water and Sanitation

Zimbabwe: The Dark Water Crisis

1. Introduction

Zimbabwe was historically known for its wealth and adventurous safaris, but what was once a flourishing civilization at the time of Great Zimbabwe, is now struggling with poverty, poor health, and a crisis that has broken the nation's backbone. With an estimated population of 15 million, locals are lucky to have access to their basic needs, safe water and sanitation like toilets or latrines, luxuries that are often overlooked (Worldometer, August 2021). In rural Zimbabwe, "only 31 percent of people have access to toilets" (CARE Australia 2020). This is a growing problem that affects the health, education, and social status of individuals in these regions. However, the nation's federal government can help reduce the impact of this crisis.

2. Background

Zimbabwe was once known as 'Great Zimbabwe', an ancient medieval city thriving with its wealthy, global trade market, which was later abandoned by its residents. While the cause is still unknown, historians believe it was likely due to the exhaustion of resources (National Geographic). This situation is now seen in modern Zimbabwe. In the past three decades, the nation has suffered from a constant decline in access to safe and clean water: WHO and UNICEF reported in 1988 that 84 percent of Zimbabwe residents had access to safe drinking water. However, in 2017, their access to safe and basic water services decreased to 64 percent, while sanitation decreased to 36 percent less than the 46 percent from 2000 (Mandivengerei). While it is written in Zimbabwe's constitution "every person has the right to safe, clean, and potable water", it is clear that these standards have not been met (Human Rights Watch, October 2020). This crisis and the public's lack of access to basic resources have further impacted their communities. Only 15 percent of people in sub-Saharan Africa, including Zimbabwe, have access to soap and clean water for sanitation and handwashing compared to the 74 percent of their counterpart nations in West Africa and Asia (Gallagher). Additionally, women and girls are often forced to spend long hours collecting water for their families, resulting in girls missing four to five days of school each month while on their menstrual cycle. It is estimated that thousands of women and children spend an average of "eight to nine hours at boreholes or wells to collect unsafe water" and travel an average of 4 kilometers per day (Human Rights Watch October 2020). Together, they retrieve water for 200 million hours each day. Because less than 50 percent of schools have permissible water and sanitation, these girls miss school or drop out due to inadequate toilet facilities, especially during their menstrual periods (Gallagher). These circumstances have increased the risk of these communities contracting waterborne illnesses, such as cholera and diarrhea. Unfortunately, in a nation populated with 0.7 percent more women than men, the female counterparts are required to search for water sources and ultimately spend less time getting an education, working, or saving money to break out of the rat race (Country Meter, 2020).

2.1 Zimbabwean Family

The average Zimbabwean family consists of about 4 individuals per family (PRB, 2020). And childbearing begins early (USAID, 2018). In rural areas, they often live-in villages or on farms. Their architectural housings are mainly made from brick or mud and “stick construction with thatch or metal roofs” (National Encyclopedia). Usually, villages consist of fewer than 100 inhabitants and are small, with the exception of protected villages. Similarly, housing in urban regions is also made from bricks. The typical diet consists of dry foods (rice, cereals, maize), meats (chicken, pig, cow, goat, sheep), fruits (papaya), and vegetables (corn, beans, tomatoes, okra, onion). These foods are often consumed in the form of stew or prepared fried or grilled. Sadza is a staple dish in Zimbabwe. It is a cornmeal-based dish that is savored with relish made from vegetable stew (Foodbycountry). Obesity is more common amongst wealthier and educated women from urban areas as compared to those from rural communities. Child malnutrition’s major contributor includes poor feeding practices for infants and adolescents (USAID, 2018). A critical aspect of Zimbabwe’s economy is its agriculture. About two-thirds of Zimbabweans work in agriculture and many rely on it (directly or indirectly) (World Bank, 2019). Additionally, all of the basic produce and grocery items (sugar, rice, eggs, maize, oil) are expensive as compared to Zambia, Botswana, and South Africa where wages are 19 times higher (Hobbes, New Republic, 2014). For example, a Coke costs \$2 and peanut butter is worth \$4 (Hobbes, New Republic, 2014). And Zimbabwe has the third lowest GDP per capita in the world, \$600. The average wage is \$253 per month and only for about 30% of the population that is employed (Hobbes, New Republic, 2014).

2.2 Water Sanitation and Food Insecurity

Water and sanitation are important aspects of leading a healthy lifestyle and ending food insecurity. These interventions play critical roles in achieving the major goals of the global hunger and food security initiatives, like Feed the Future, which targets the root causes of hunger, poverty, and undernutrition, especially for women and children (WASH, April 2016). Their research has identified two main pillars of food security: availability of food and utilization of food. First, water is not used only for domestic purposes like drinking and cooking; instead, also for food production of crops, horticulture, poultry, and livestock, as well as income-generating activities. Second, good nutrition entails more than just having the appropriate foods in sufficient quantities. “It also requires a change in behaviors related to feeding and child-care, as well as accessibility and appropriate utilization of safe drinking water, hygiene, and sanitation services” (WASH, April 2016). This shows the direct connection between the two global issues and the importance of clean water and adequate food services. Additionally, Stephanie Maurissen from Feed the Future emphasized this point in her article, “The Importance of Water to the Global Food Security Strategy”, that access to and correct use of water, sanitation and hygiene can address the immediate and underlying causes of malnutrition”(Maurissen, Feed the Future, 2017). An example she provided was of diarrheal diseases that reduces the absorption of nutrients in the human body, and summarized that water is essential to the Global Food Security Strategy” (Maurissen, Feed the Future, 2017). Clean water helps with the proper consumption and use of food, and prevents such illness from mass transmissions across such hostile communities where food insecurity prevails. These circumstances create a hostile environment for the families living in these regions, and having clean and adequate water is essential for them to remain healthy.

2.3 Economy

In 2019, Zimbabwe experienced a 175 percent increase in inflation, which was considered its “worst cash crunch in a decade” (Marima). This is one of the many economic devastations that have taken place in the nation. According to the World Bank, 74 percent of the population is living on less than \$5.50 per day, while 47 percent lives on less than \$3.20 per day (2018). In 2011, 21 percent of the population were living in extreme poverty, less than \$1.90 a day (Rodgers) Poverty and poor quality of life are directly correlated

with one another. Poverty-free lifestyles are reflected by balanced meals, clean water, essential toiletries, and good habits. However, one out of nine individuals lack access to clean drinking water, and "one in every three people lack access to a toilet or adequate sanitation facilities" (Gallager). More than half of Zimbabwe's population in rural regions cannot access clean water or toilets (WHO). However, some studies show the wonderful benefits of investing in sanitation. For example, a study conducted in Tanzania found that there was a "12 percent increase in school attendance when water was accessible within 15 minutes of a student's home" (Meyers). Plus, job searching is impacted by "hygiene and poverty" which can lower self-esteem and make it challenging for men and women to go to and perform well in interviews (Bowden, 2017). A study conducted by WHO found that "for every US\$1.00 invested in sanitation, there was a return of US\$ 5.50 in lower health costs, more productivity, and fewer premature deaths" (WHO). Essentially, this means that if Zimbabwe's federal government invests in sanitation they can lower national expenses and increase public welfare. The cost for healthcare will decrease the same amount as what the majority of the population lives on, \$5.50, resulting in more accessible healthcare and a decrease in public diseases, the spread of illnesses, and premature death. There will also be an increase in school attendance and education, consequently increasing the job opportunities and the country's GDP. Along with this, the unemployment rate will decrease and more money will flow into Zimbabwe's economy (Trading Economics).

2.4 Crisis

In rural areas, only 67 percent of the people have safe drinking water (CARE Australia). And the majority of Zimbabwe is occupied by rural residents that suffer from inadequate sanitation and contaminated water. People believe that the 200 boreholes that were created during the cholera epidemic by international agencies are the safest available source for water. However, a test was conducted by Harare Water and the results found that "one-third of the boreholes were contaminated" (Human Rights Watch). These infected water sources promote the spread of illnesses such as diarrhea, cholera, ringworm, etc. A leading cause of child mortality in poor areas is diarrhea, which is primarily caused by a lack of safe hygiene practices. This is often looked over as a small symptom in nations like the United States. 361,00 children under the age of five are killed because of diarrhea; the lack of admissible sanitation and water quality is responsible for this and diseases such as dysentery, typhoid, and hepatitis A. Annually, 800 children die each day as a result of poor hygiene and water (Gallager). The situation in these regions gets more serious each day, as premature deaths are increasing. Plus, the average \$5.50 that makes up for Zimbabweans daily living is providing further issues involving the government (Rodgers). Many residents have spoken out about the government's mismanagement and high taxes in rural areas. They said, "the city charged them for municipal water, even when the water was contaminated", and if they failed to pay their water bills, the city would cut them off from the water supply (Human Rights Watch). Oftentimes residents would get exposed to raw sewage that would flow into city streets and homes because of burst pipes and poor maintenance. Children regularly played in these circumstances, which have increased their risks of developing serious health conditions. Community members are forced to defecate in the outdoors due to "water shortage, lack of functioning indoor toilets or community latrines" (Human Rights Watch, October 20). Tiseke Kasambala, former director of the Southern Africa Human Rights Watch, warrants that Zimbabwe's government is not fixing the broken water and sanitation system. He says, "In many communities, there is no water for drinking or bathing, there is sewage in the streets, there is diarrhea and typhoid and the threat of another cholera epidemic" (2020). If this cycle of poor hygiene, lack of access to basic resources like clean water and sanitization continue, then Zimbabwe's crisis will only get worse. The public will continue to drown in poverty and premature deaths will steal childhood across the nation. The current director of Human Rights Watch in South Africa, Dewa Mavhinga, pushes the government to "urgently provide alternative sources to safe drinking water", through protected wells and safe boreholes especially during the pandemic and the dangerous

transmissions of COVID-19 and its new variants (2020). Residents should be educated on convenient, low-cost water storage and distribution methods. To avoid overcrowding and allow social distancing, the authorities should ensure that there are enough water points across the country. Native illnesses in Zimbabwe have already taken a big toll on the country's economy and social standards, and COVID-19 has increased these desperate concerns about the water crisis. Mavhinga explains, "Failure to provide sufficient safe water would severely undermine the Zimbabwe government's efforts to fight the virus and protect people's lives" (Human Rights Watch, October 2020). Similarly, repeated strikes by nurses and physicians protesting substandard pay and working conditions have undermined an already underfunded health-care system, as a result nurses and doctors are dismissed from duty (Mutasa, 2019). The findings of the 2017-2018 Afrobarometer survey validate residents' experiences and views of these issues (Afrobarometer, June 2020). Majority of individuals have reported a continued lifestyle without enough clean water and needed medical care. Many affirm that water and health-care services are difficult to obtain. The government's performance in delivering these services have frequently been criticized as insufficient by citizens (Moyo-Nyede and Kugarakuripi, 2020). While these findings precede COVID-19, they provide context for Zimbabwe's response to the pandemic (Afrobarometer, June 2020).

3. Solutions

The issue itself is complicated and involves various aspects of the government and political structure, As well as the public policies and individual work of organizations in the region. My solution and recommendations to help Zimbabwe has two major aspects. First, remote volunteering and educating those in developed nations about the crisis. The second part of my solution involves the government and non-profit and human rights organizations. This part consists of 3 major steps:

1. Invest: Increase funds towards the Water Crisis and direct a larger portion of government funds for the water crisis towards trusted organizations in local regions.

Invest in education for young children, low-cost sanitation and water strategies, and redirect additional funds towards organizations that have major contributions locally on the issue.

2. Utilize: Resources and research provided from WHO to better manage funds.

Work with USAID, WHO, UNICEF, etc to distribute funds towards specific projects and regions in an effective and efficient manner. Additionally, utilize feedback from the public on the crisis. Incorporate a public commentary database, for citizens to voice their concerns publicly in a peaceful and organized manner to give the government clear ideals to focus on.

3. Connect: Increase emphasis on strong relationships between the Zimbabwean government and local and international organizations. Develop a system of "Checks and Balances" with foreign powers like the USAID or easily recognizable organizations that are locally known for their work.

Use a social system to work together with the organizations to ensure that government officials and the organizations are performing their duties in an effective manner and maintain a shared vision to end the water crisis.

3.1 Current Organization Efforts and Recommendations

Many organizations such as the Center for Disease Control (CDC), World Health Organization (WHO), Human Rights Watch, USAID, UNICEF, CARE, and GLAAS are involved in studies conducted on Zimbabwe's water and sanitation crisis. The most prominent, WHO, Human Right Watch, USAID, and

UNICEF regularly research the growth of the crisis in rural and urban regions. They work independently in regions with local citizens and community leaders to provide resources and help build wells and educate citizens about clean water and hygiene. They provide filters and some infrastructural support for overlooked communities. Specifically, UNICEF works on increasing access to water by “drilling new boreholes and rehabilitating defunct pipe water schemes and boreholes in rural focus districts with a strong focus on solar power” (UNICEF). As a result of their work, “the urban WASH programme reported a two-fold increase in water production across 14 small towns alongside rehabilitation of sewer systems” (UNICEF). Their work has benefited many communities that may feel under supported by the government or lack education on the crisis and suffer from mass poverty. Based on these organizations' efforts and research, they have found a direct link between poverty and poor hygiene; yet the crisis has continued to prevail. In rural communities, “diarrhea remains a major killer but is largely preventable. Better water, sanitation, and hygiene could prevent the deaths of 297,000 children aged under 5 years each year.” (WHO). This is a desperate issue in these communities, as they are forced to drink unsafe water and live in unsanitary conditions. This has continued to spread many food and waterborne illnesses that are connected to health issues like diarrhea, which is the leading cause of child mortality in developing communities. These organizations focus on increasing access to safe sanitation services and promoting hygiene practices in underserved communities by improving services in households, schools, and help manage fecal waste (USAID). Specifically, the World Health Organization, WHO, holds “international authority on public health” and leads initiatives to eliminate disease spread and consults governments on health-related legislation (WHO). In terms of sanitation, WHO tracks the global burden of disease and sanitation access, as well as what aids and hinders development. This type of tracking provides states and donors with global data that is used by these nations to determine how to invest in toilets and sanitation. There is also the WASH program that is well known for its efforts to suppress diseases, cholera, and polio through good hygiene practices and sanitation (WHO).

Another example is the humanitarian organization, Concern Worldwide, which responds to emergency health and water crises. They work with rural communities and the government to provide “long-term solutions, awareness for improved hygiene practices, educate people on safe hygiene and sanitation”, as well as build indoor latrines, public toilets, rainwater collection systems, and safe wells (Gallagher). These are great programs to take part in through volunteering, spreading awareness about the crisis, or collecting funds. Young children can raise awareness at schools and start donation drives for these organizations. One could volunteer at a WASH distribution center or help collect donations for UNICEF or Thirst to build wells in rural communities. Creating free-of-cost presentations for school projects is also a great way to educate more people about this ongoing crisis. International education from our communities can raise communal unity, public gratitude for access to basic resources, and help prepare the next generation of leaders to solve issues like these. The impact within these regions will be more immense. UNICEF confirms that there has been incredible “progress in the areas of sanitation and hygiene”. While there will be imminent impacts on health there will also be positive impacts on “child mortality, primary education, and poverty eradication” that closely relate to hygiene (2019). WASH is another program that has provided clean water to over 14 million individuals and 11 million toilets in 2016 alone (UNICEF, 2017). UNICEF also advocates for menstrual hygiene management, which can have a significant impact on young girls' wellbeing and education. And is currently commissioning a large-scale important developmental analysis to help inform large-scale MHM programming going forward. Globally promoting organizations and programs that work to provide hygiene education and resources to communities and children are important actions towards suppressing this crisis.

3.2 Government Efforts and Recommendations

While there are various efforts towards this issue that are impactful, the government has continued to

underfund and lowly prioritize sanitization despite clearly demonstrated benefits of improved sanitation in health, economically, socially, and environmentally (Putnam). The United Nations explains that the nation faces many challenges regarding “lack of investment in these sectors during and after the economic crisis of the last decade” (UNICEF). Despite, access to clean water considered as an universal basic human right that is critical to human survival it is one of the hardest to attain. This is especially true in rural areas, where “improved sanitation lags significantly behind at 35 percent” (UNICEF). Additional 2012 data from the National Population Census demonstrates that one-fourth of Zimbabwean families lack access to any form of toilet facility. Availability in urban areas is much higher as compared to their rural counterparts (NPC, 2012). Reports from Multiple Indicator Cluster Survey (MICS) 2014, show that the national open defecation rate is at 31.7 percent, affecting 44 percent of the population in rural communities that practice open defecation (UNICEF). Due to this, permanent and efficient solutions are complex for the lack of safe accessible water and sanitation services/facilities. These are mainly due to the lack of government emphasis on the crisis, and corruption at local and national levels, which has heightened this already vast crisis. Because of poverty, Zimbabwe’s citizens are unable to afford and access necessities, and this is helping corruption rise. These continue to challenge society's moral and ethical values as well as recognized human rights to clean water and sanitization. At this point, “ensuring more households have a toilet is not enough” if we want to permanently end this crisis before the 22nd century (Putnam). Instead, the federal government of Zimbabwe needs to incorporate findings from “emerging research, exploration of what has and has not worked in the past, and a commitment to identifying locally relevant and innovative solutions” similar to the work done by the USAID to end the gap in sanitation (Putnam). The USAID concentrates on “investing in safely managed sanitation, which focuses not only on containment but also on the emptying, transport, treatment, and safe disposal of waste”. Since fecal pollution impacts the environment beyond the household, ensuring universal community protection of adequate healthcare and eliminating defecation are urgent objectives. The USAID’s Water and Development Plan are key aspects of the United State’s Water Strategy. Through these programs, the United States aims to provide “8 million individuals with sustainable access to sanitation services” (USAID). By focusing on similar solutions and implementing successful strategies Zimbabwe can work towards building a personalized and effective solution to its crisis.

3.3 Lost Funds and System of Checks and Balances

Additionally, the Zimbabwe government could shift their lost funds for water towards organizations that are already working within their nation to incorporate the latest solutions for the water crisis in developing nations. Currently, the funds are being misused by corruption and mishandling of funds. To prevent this, a system of checks and balances could be developed between the nation’s federal government and international organizations. City budget rules require that the majority of water revenue be reinvested in the infrastructure for repair and expansion, but even council officials admit that the funding is diverted for other purposes. As a result, essential aspects of the utility delivery system, such as buying water treatment chemicals, are underfunded, forcing the city to generate less potable water. Everyone has a right to access a minimum amount of potable water,” Kasambala said (Human Rights Watch, October 2020). “The government’s inability to maintain the water system and its practice of disconnecting those unable to pay forces people to drink water from contaminated taps or unprotected wells.” To address Harare's water and sanitation problem, the government could take a range of actions, including investing in low-cost sanitation and water strategies. These include the installation of communal toilets and pit latrines, as well as the construction and maintenance of boreholes so that communities do not have to rely on hazardous supplies. A sliding fee scale for drinking water must be introduced to make water available for low-income communities, and no home should be segregated from the public water system due to the absence of a payment (Human Rights Watch, October 2020).

The government needs to focus on increasing and prominently directing funds towards water and sanitation. To do this they could accommodate an alliance with other organizations to have balanced management and accountability. Though they are already partnered with a few non-profits, it is critical for them to further enhance these relationships. They can also seek allyship with other nations such as the United States through their USAID program. This will benefit Zimbabwe in various ways other than health and public welfare. Partnerships with large programs through other nations can develop stronger international relations and help in the political arena and increase trade reliability. There can be more transportation of resources and Zimbabweans can gain more exposure to global standpoints in businesses and education: increasing employment opportunities for both men and women and education for adolescents. Specifically, the government should work to develop modern strategies and technologies to tackle this crisis. For example, waste to water, desalination, harvesting fog and rainwater, increasing latrines and public toilets, building more safe public wells and boreholes, and increasing education on hygiene and sanitation (Borgen Magazine, 16-17). They could further work with the US government on their Global Water Strategy and strategically invest in the Resilient Waters to incorporate these into many rural communities. Finally, the government should aim to get rid of the law that prevents communities from accessing the city's water supply when they are unable to meet the government dues, for this goes directly against their constitution that states, "every person has the right to safe, clean, and potable water" (Human Rights Watch, 2020). These are necessary actions that need to be taken to overcome Zimbabwe's water and sanitation crisis.

4. Conclusion

As Zimbabwe continues to struggle with its crisis of unsafe water and lack of sanitation, the federal government continues to sideline the issue's urgency. Zimbabwe's government needs to invest time and resources to provide rural communities safe drinkable water and sanitary resources such as toilets or latrines. This will play a major role in suppressing the nation's sanitation crisis, reducing disease transmissions, and ultimately promoting their economy. Investing in sustainable solutions and working alongside organizations will push Zimbabwe towards a healthier future. Residents will be able to focus on education and their careers promoting the country across the globe for centuries to come. If they invest time in implementing this transition, one day we may be able to look back on this crisis as another event in history.

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