

Joshua Foss
Gilbert High School
Gilbert, IA
Zimbabwe Factor #5

Impact of Climate on Zimbabwe

Zimbabwe currently leads the entire continent of Africa in the percent of the population below the poverty line. Of its over 12 million inhabitants 68% of those, just over 8 million, are labeled as impoverished (Central Intelligence Agency). However, Zimbabwe was not always this way. It was once a strong, healthy nation. In fact, its indicators for health and education were once among the best in Africa. Then certain events took place to put the country into a seemingly never-ending downward spiral. Within a matter of years Zimbabwe plummeted on the charts of arable land, as well as the national GDP, and its economy as a whole. In fact, poverty rates increased from 25% to 63% in the years 1990 and 2003. Many would assume a continent that has been inhabited for an extensive period would be able to support itself easily. Unfortunately, is not the case. The climate of Africa is extremely unforgiving to farmers, where one bad year for production can mean children are no longer able to go to school. One can no longer have basic necessities, and cannot provide food for their family. With agriculture being one of the main forms of income for the country, this will be very damaging to the economy. Other countries are forced to intervene to try and help the food crisis which only results in that country spending more money it will never see again and so on and so on. At some point Zimbabwe will hit a rock bottom where there is not enough food for the world as a whole, not just Africa. Before this happens, we must find a way to make Zimbabwe, then Africa, more self sufficient so they can rely on themselves rather than foreign aid. Why is Zimbabwe this way today? What can we do to stop this free fall of negative events? The first step is looking at why.

The typical family structure of most African families, especially rural ones, consists of the extended family living in the same area as the immediate family. This holds true for Zimbabwean families as well. Often, a family will consist of several generations as well as uncles, aunts, cousins and the many children. The women in particular take on the job of child rearing. The responsibility of raising the child, however, does not fall on the mother alone. Rather many members of the family will take part in child rearing. Therefore the child has several mothers and many role models creating a strong sense of social bonds and community between members. This also acts as a safety measure, in case a child's birth parents die, he/she will still have his/her extended family and "adopted" parents. As in any culture, it instills morals and values and passes on religious beliefs and customs. The social structure revolves around elders. They are the dominant ones in any family and know what is best for it because of their age and experiences they have had. Families tend to be patriarchal in nature, where the woman plays a submissive role. She is expected to serve her husband, work for him, have his children and cook the meals.

The staple food in Zimbabwean culture is corn. Corn is abundant and a relatively stable crop. The national dish, essentially a cornmeal type porridge, called *sadza* (Food In Zimbabwe) is generally served with relish and some type of meat for those who can afford it. It is so common, lunch is referred to as *sadza re masikati* and supper is known as *sadza re manheru*. Zimbabweans also have access to avocados, which are cheap and plentiful. Some other common foods include varieties of squash, beans, corn on the cob, cucumbers, and peanuts. Poor diet can lead to various health effects, one of those being cholera. In late 2008 there was a nationwide cholera epidemic. Due to the failing healthcare in Zimbabwe, many thousands of people died. One of the biggest issues is finding a way to get healthcare and medicine to those living in rural areas. Some rural communities go without seeing a nurse or a doctor for extensive time periods. This also has to do partly with Zimbabwe's failing infrastructure. Many roads in the rural parts are not well paved and may not be used by any modern type of transportation. Along with this, a short supply of medicine exists partly due to the hyperinflation. Drugs have now become so expensive

many hospitals cannot afford them. Many of the diseases that commonly effect people; tetanus, cholera, polio, and malaria, can be easily prevented with a vaccine, but are not available.

Socio-economic status is mostly affected by money in rural communities. The wealthiest rural families often have children working in the city, mostly as teachers. Zimbabwe's education system is among the best in Africa. It consists of nine years of primary school and six years of secondary school before the possibility of attending a university. The majority of students attending universities will choose to go to college abroad due to the higher quality of education they can receive. Most children receive at least three years of elementary education, greatly increasing their chances of finding work. Because of the quality of education in Zimbabwe, around 91% of the population is literate (Central Intelligence Agency). This is the highest rate of any country in Africa.

The life of a rural farmer in Zimbabwe can be a difficult one. Often they farm small plots of land, not even big enough to support their family. A lack of land is available to farmers, not to mention finances and technology. The lack of land was partially due to the multiple land reforms in which the government attempted to redistribute the land. In 2000, a plan was implemented to take 50,000 square kilometers, nearly half of the land, from white Zimbabweans, churches, non-profits, and other organizations not owned by the government. This program was referred to as the *Fast Track Resettlement*. Whites were often forcefully removed from their land with no compensation. Because the individual land plots are now so small, farmers cannot produce enough food to store a supply. What little food is produced is consumed by the family, leaving no profit or income for the farmer. With the main source of exports and foreign exchange eliminated, Zimbabwe was forced to import food products. This also has the potential to have a vast impact on the population since 2 out of every 3 people, around 400,000 people nationally, are employed in an agriculture related field (Central Intelligence Agency). Because of this, even a single drought can have devastating effects on the entire nation. This allows around 68% of Zimbabwe's population to be "impoverished." Another factor the huge rise in HIV/AIDS cases in rural areas is also debilitating the workforce. This results in decreased productivity and less crop production.

Since it relies heavily on foreign aid and food contributions, Zimbabwe is by no means a self-sufficient country. Corn, once one of Zimbabwe's largest exports, is now one of their main imports. This is due in part to the geography of Zimbabwe. Of its 390,757 square kilometers, only 8.25 percent or 32,237 square kilometers are arable. Only one third of a percent of the total area, 1,289 square kilometers has permanent crops grown on it. Not to mention only about half a percent, 1,740 square kilometers, is irrigated (Central Intelligence Agency). Due to the tropical climate, it is possible to have floods as well as severe droughts both of which must be dealt with separately. Another barrier for improving agriculture is the lack of capital. Without sufficient money to purchase modern farm equipment, it is nearly impossible for farmers to keep up with the ever-increasing demand of the continent. The majority of agricultural labor is done by hand or with the help of animals. With the lacking technology and the failure to modernize, it looks as if Zimbabwe will stay in its current position indefinitely.

Another major factor contributing to the rise in poverty today is the failing economy. Inflation has reached staggering rates of 11.2 million percent according to Zimbabwe's Central Statistical Office. Inflation is said to be around 516 quintillion by some unofficial accounts. This amount of annual inflation leads to prices doubling every 1.3 days on average. In 2005 the hyperinflation led to currency having the same purchasing power as it had in 1953. In response to this, the government began printing an increasing amount of currency, including a 100 billion dollar note. This has only added to the already unreasonable inflation and hurt citizens even more. To hurt the economy further, the rising cost of goods is causing Zimbabweans to travel to bordering countries to shop. Therefore, the border nations get the business as opposed to Zimbabwe. All of this hyperinflation has resulted in the government not producing additional capital investments. A drastic slowdown in the starting up of enterprises followed. Leaving even more of the 95% of workers unemployed. (Central Intelligence Agency).

On top of all this, they have an increasing external debt, which, as of last year, was right at 6 billion dollars. Zimbabwe also plays the import/export game, its largest partner being South America. Zimbabwe's main exports are platinum, tobacco, gold, textiles, and clothing. Tourism, also an important industry, is dwindling. Due to poaching and deforestation, 60% of the wildlife in Zimbabwe is gone. Zimbabwe's main imports include machinery, chemicals, fuels, and food. Some of the largest platinum reservoirs in the world are located in southern Africa. These mines alone could greatly help the financial situation of Zimbabwe if not for greedy politicians because of whom most of the money will go unseen. The nation's involvement in war of the Democratic Republic of the Congo depleted many of the resources. The country's poor standing can also be attributed to its current ruler, Robert Mugabe.

The key factor I chose to focus my research on was #5, responding to climate change. Response to climate change is a major factor in food production in Zimbabwe. Climate is part of the reason Zimbabwe is the most impoverished nation in Africa today. Africa relies so heavily on sustenance farming, so that one bad year of production can be devastating. It hurts health, income, education, quality of life and the economy. Not only does it do the obvious by causing hunger and reducing the family's income, it also hurts education. Often, a drought causes crop production declines; parents will pull their kids out of school because they can't afford the high payment. Though tuition is free in Zimbabwe, the government has put such a steep tax on uniforms and other insignificant things that it now costs more than what would be paid in tuition. This inhibits the student who is now lacking their education, which will prevent them from going to a university, unless they complete it at a later time. This will also most likely force them to stay in Zimbabwe and continue the cycle of producing crops rather than getting out into the world and finding more stable long term jobs. When a drought happens, it also obviously hurts the economy. With a dip in the economy, fewer goods will be produced, lowering the GDP and deterring new businesses and entrepreneurs from considering that country. No new job creation means more unemployment, which results in the dire lack of money. Without money being pumped into the economy the levels will only decrease and so on until the country becomes bankrupt.

Active responses to climate change are of utmost importance to the well being and prosperity of Zimbabwe. This is blatantly obvious in one statistic: Zimbabwe's poverty level is at 68%. The environment is being seriously hurt by some of the practices being used by farmers. Soil erosion is a very important problem. About one percent of the Earth's topsoil is disappearing annually, roughly ten times quicker than it can be produced. If this practice remains in effect, all of the nutrient rich soil will erode away. This will leave even more unproductive land, resulting in even higher poverty rates once again. Climate control, droughts, and decreased crop production doesn't affect just one demography, but the entire country. Everyone is impacted by a poor harvest in one-way or another. Many in rural areas are affected directly by increased poverty and possessing even less money. The others, in urban areas, are affected more indirectly through taxes and higher prices. In both cases, there is a lack of money to purchase every day necessities. Even with the little amount of money one family might have, the extreme hyperinflation will make that money almost worthless. The government has, on several occasions, taken multiple zeros off bills to bring them back to reasonable numbers, but also because 12 zeros do not fit too nicely on one bill.

In order to get out of these slumps, something must change in Zimbabwe. However, ecologists believe climate change will not improve anytime soon. If anything, it will stay the same or worsen. We do not yet know the effects global warming will have, but it is believed it will have, its greatest impact on Africa. Past events can give us an insight into possible consequences of severe climate change. Around the turn of the 19th century, there occurred severe disturbance events and rapid environmental change. Crops and animals died, small pox spread out of control, and there was absolutely no rain in an entire growing season. This period of time earned the name *emutai* or "to wipe out" (Impact of Climate Change in

Africa). People were said to be going mad due to the starvation. Every bone in their body was visible and buzzards were constantly circling, waiting for the inevitable (Baumann 1894, Masailand Qtd. in Impact of Climate Change in Africa). Response to climate change is usually measured by the economy, jobs, and poverty. After a severe climate change, that nation's economy tends to fall, and unemployment rates and job creation decline. As the economy fails, more things will follow; government, healthcare, education, etc.

If Zimbabwe had the ability to effectively respond to rapid changes in climate, poverty levels would decrease, income would increase, and eventually the economy as a whole would improve. This has the potential to help Zimbabwe advance even further and transform it to a non-third world country. With genetic advances, farmers could have access to drought tolerant or drought, pest, and disease resistant seeds. If the level of confidence of a yearly harvest increased, people could feel more comfortable pursuing other careers rather than farming, Zimbabwe could then have specialized workers and begin to move forward. This would help the country raise its GDP and export more goods, creating better relationships with other countries and helping to decrease the national debt. Better responses to climate change would also help the environment. It could decrease the use of the practice of "slash and burn" by eliminating the need for new farmland since crop production would be up. This will allow the native animals and plants to return, boosting tourism and adding income for the nation. Not to mention the obvious help it would give farmers. It would allow them to not only grow enough to feed their families, but enough to sell to make a profit. This would help them move away from subsistence farming and into production farming.

Population growth in all African countries is a major concern. Africa alone accounts for 15% of the Earth's population, and it is continuing to grow. With that kind of population growth, there has to be a way to provide food for everyone, something currently lacking. Obviously food production is lacking when the majority of the rural population is subsistence farming and when staple foods such as corn must be imported. Along with that, urbanization helps increase access to what food is available. Of course, most of the food is overpriced due to the poor economy and hyperinflation. The best way to deal with the possibility of droughts is to provide farmers with drought, pest, and disease resistant crops. Since only 0.45 percent of the land is irrigated, this will ensure at least some harvest, and it will be greater than that of normal crops.

If I were to administer a policy to help control poverty in Zimbabwe through the means of response to climate change, I would do several things. First, I would start short-term emergency food banks. These would be a sort of backup system in case the nation had a particularly bad year for crops. This would give time to begin step two, drought, pest, and disease resistant crops. Foreign countries could initially donate these seeds to get production and revenue started. Once a steady income exists, Zimbabwe will begin purchasing or manufacturing their own drought, pest, and disease resistant seeds. These could then be sold to other countries to gain more income, as well as helping those countries. As this begins to settle down, I would expand the irrigation systems to areas in need, but also where it would do the most good. This would increase the amount of arable land and greatly increase food production. Zimbabwe would then begin to see a shift from importing food from other nations, to exporting it. As the economy begins to steady, I would try to provide more affordable medicine to hospitals as well as increasing the number of rural doctors. Simply, cheap vaccines would eliminate most diseases that haven't been seen in the U.S. for decades. The possibilities are nearly endless once there is a steady income and the economy stabilizes. It is then up to the people to choose an effective government and policies to keep the country running efficiently and to continue the practices.

In my opinion, foreign aid should be limited and short term. Once Zimbabwe has established a foothold on the problem, they must become self-reliant. The only way to do this is to force them to do so. If there were always a safety net waiting to catch them every time they fall, why would they take matters into

their own hands? Independence should be the main goal of Zimbabwe as well as other African countries. Farm families should get firsthand experience with new techniques to crop production, so they can learn and teach it to their children and will carry on. Urban families also must pull their part. They have to help start the economy and keep it going.

The key to Zimbabwe's success essentially comes down to its economy. With a strong economy almost anything is possible. Healthcare will get better, resulting in a decrease in HIV/AIDS and STDs as well as every disease such as tetanus, polio, cholera, and malaria. Medication will become affordable and doctors and hospitals will become more abundant. Education will continue to improve and be among the highest in the nation. People will want to keep their children in the country for universities rather than sending them abroad. Education can also become affordable again when the economy becomes stable and inflation becomes manageable, not to mention everyday goods and services and medications. No longer will people be forced to go to neighboring countries to do their shopping, but the business will stay local, putting more money back into the economy. Food will become more abundant, meaning it will cost less, and everyone will have more money to spend; this will create jobs in factories and offices, attracting businesses to the area also. Capital and revenue will increase including the GDP and so on and so on. The cycle is virtually endless. The key behind all of this is crop production and safety. This can be accomplished by having an adequate and detailed Climate Change Response Plan. Along with the contribution of foreign nations and the right leaders. With the right leaders and an effective plan, Zimbabwe can have a bright future.

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