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Zimbabwe, Factor 7: Animal Agriculture

Factor 7: Advancement of livestock

What is hunger? Many would probably say it is that mildly uncomfortable feeling one gets after not eating for a few hours. The majority of people use the phrase “I’m starving!” when they get this feeling. But what about the 805 million people for whom “starving” means not knowing where their next meal is coming from (FAO)? Agriculturalists and world food leaders now face a huge challenge: in feeding the 9 billion people who are projected to be on Earth by 2050 (Nat’l Geographic). Of the 196 sovereign countries in the world, 147 are considered underdeveloped and lack food security, Zimbabwe being one of them (ISI).

Zimbabwe is located in the southern portion of Africa, surrounded by Botswana, South Africa, Zambia, and Mozambique, making it a land-locked state. Zimbabwe has a total land area of 390,757 square miles and is home to 13,771,721 people (CIA World Factbook). The land is composed of mostly high plateaus with mountains in the east. With a tropical climate, the country has rainy seasons between November and March but is currently suffering from an extensive drought due to unreliable rainfall. The frequent droughts that occur throughout the year make it especially hard for farmers, ranchers, and families who depend on sustainable agriculture as their main source of income.

Despite the fact that Zimbabwe has the second highest growth rate in the world at 4.36 percent, the average Zimbabwean family only has 4.8 family members, with a 3.56 fertility rate (CIA World Factbook). In regard to age, 0 to 14-year-olds constitute the majority of the population at 38.4 percent. Families depend on the children because they are able to work on the family farms and produce food—the youth dependency ratio is 68.1 percent. Not all Zimbabweans endure the same living conditions. A majority of the families that live in the rural regions do not have fresh water, do not experience well paved roads, and do not have any modern means of transportation (everyculture.com). Urban families, on the other hand, make up 38.6 percent of the population and have better access to water and food markets (CIA WFB).

While the people of Zimbabwe experience varying access to resources overall, the country’s food culture does not embody the same diversity. Though there are some people that consume bread and rice, maize, a flour made by grinding corn, is the staple food for many citizens. Maize, also called mealie-meal, is used to make thick porridges, comprised of vegetables, meat, onions, tomatoes, and peanuts (Our Africa). The estimated diet of a Zimbabwean is 6 percent animal sources and 50 percent staple foods. Between 25 and 35 percent of the total population of Zimbabwe is malnourished, which is high according to a map published by the United Nations (WFP). Many of 1 to 6-year-olds show signs for subclinical vitamin A deficiency, and many pregnant women have high iron deficiency (Tulane Education).

Education is one sector of Zimbabwean society that is not entirely underdeveloped but still needs a lot of improvement. The literacy rate, as of 2011, was 83.6 percent of the total population (87.8 percent for males and 80.1 percent for females) according to the CIA World Factbook. The Zimbabwean education system only provides education to students for nine years. After Zimbabwe gained its independence in 1980, the vast majority of its people could not pursue an education because schools had closed due to the war (Sokwanele). Throughout the next quarter century, the Zimbabwean government worked in partnership with local communities to construct a better educational system. The country now has one of the highest literacy rates in sub-Saharan Africa due to teacher training and resource improvement (Zimbabwe Embassy). This movement forward is a significant event for the country because education is

one of the most powerful tools known to man. Not only does education provided people with valuable life skills, it also helps people work better and create opportunities for sustainable and viable economic growth now and in the future (Global Partnership for Education).

As education continues to develop in Zimbabwe, healthcare is proceeding to take steps back. Healthcare operates as one of the country's worst sectors, simply because hospitals and clinics do not have enough trained medical staff. Many of the health professionals that have recently worked in Zimbabwe have left to find better salaries and working conditions (Our Africa), leaving the country with less than two doctors for every 10,000 people (WHO). In comparison, the United States has over twenty-four physicians per 10,000 people (KFF). The public health situation is only exacerbated by HIV/AIDS, one of Zimbabwe's main causes of death (US Department of State). According to the United Nations International Children's Emergency Fund (UNICEF), approximately one million children have lost either one or both parents due to the disease, and the cases continue to pile up. Because of this fatal and infectious affliction, the life expectancy in Zimbabwe is merely 57 years (CIA WFB). Although the government has started treatment programs, medications will not work effectively if patients do not receive adequate nutrition. A person who is malnourished and then acquires HIV is more likely to progress faster to AIDS, because his/her body is already weak and cannot fight infection (WHO).

Due to the sudden decrease in physicians and healthcare, home-births have become another leading cause of death among Zimbabweans. The amount of women giving birth at home has increased to 39 percent. It is estimated that eight women and 100 infants die every day due to common and preventable situations during childbirth (zimhealth.org). In a video released by the United Nations International Children's Emergency Fund, a pregnant woman named Amalda was able to secure the 50 dollars needed to receive an ante-natal checkup, but she is among the few who can find the funds for these necessary examinations (UNICEF). It is quite surprising that Zimbabwe is suffering this much because it used to among the best countries in Africa in the education and health sector. It wasn't until the economic and political crisis between 1990 and 2003, which increased poverty rates from 23 percent to 63 percent (The World Bank). The government's strategy for a better healthcare system is to abolish healthcare fees and stay on track with the United Nations Millennium Development Goals, such as improving maternal health (Zim Health).

Farms and agriculture are an extremely important part of the Zimbabwean economy and way of life. About 70 percent of the population relies on farming for its livelihood. There are four major types of farms in the country: large-scale commercial, small-scale commercial, communal, and resettlement (FAO). A large-scale commercial farm is usually owned by Caucasian farmers and has an average size of 2,200 ha, or 5,436 acres. These farms have relatively high levels of investment and interest. On the other hand, small-scale commercial farms take up the smallest land area with an average size of 125 ha, or 309 acres. This type of farm is leased from the government and is under either free-hold or lease-hold title (FAO). Communal farms tend to have the highest human population density and are run as a joint enterprise, usually comprised of 2.5 ha, or 6 acres. Lastly, resettlement farms were set up by the Land Ministry to combat rural poverty by providing permits to indigenous people. These permits allow the people to build a decent homestead on their plots and ensure there are clean water sources (IRIN).

The most common crops grown on farms in Zimbabwe are corn, millet, wheat, barley, groundnuts, peanuts, and soya beans (Our Africa). Although maize is the staple food of Zimbabwe, tobacco is the country's most valuable crop because it serves as the top agricultural export. Its abundance in the country drove Zimbabwe to become the leading producer worldwide (Our Africa). Concerning livestock, cattle is the main animal produced, followed by pigs, goats, sheep, and chickens. Beef is the largest product in Zimbabwe's agriculture, in addition to milk and hide, bringing in a large income for farmers as well. Natural grazing is the most important source of livestock feed and the number of domesticated livestock fluctuates widely based on the annual rainfall.

Many obstacles threaten the movement to improve agricultural productivity. For example, the acute shortages of essential inputs such as seeds, fertilizers, fuel, and money are creating huge setbacks to a more productive industry. Another big factor that is hindering the development of agriculture is water scarcity. According to an article from the International Fund for Agricultural Development (IFAD), this problem can only be improved through investment in agricultural water management and irrigation. The country of Zimbabwe has also become dependent on food aid. What happens when the aid slows down? People leave. An estimated three million people fled the country in the 1990s because there was not enough food (IFAD). Because of the decrease in food production, it has been harder for the country to recover from the ongoing crisis, which ultimately slows down social and public health services. Another hurdle that is hurting the progress is poor mining practices which lead to toxic waste and heavy metal pollution. These barriers keep the cycle going.

Employment is another problem with which the government is forced to deal with. The unemployment rate is at 95 percent (CIA WFB) and people are living on less than 9 dollars a day (New Republic). The country is suffering greatly from hyperinflation and stagflation, which is an economic period of slow growth, relatively high unemployment and rising prices (Investopedia). With the world's largest inflation rate at 165,000 percent, the country is lucky their monetary system has not collapsed (BBC News). What people earn during the day is literally losing its value over night, which makes it hard for people to stay employed, feed their families, and stay in Zimbabwe. The citizens are being forced out of formal sector jobs, leaving the informal sector to play a crucial role in the economy. Professor Tony Hawkins, head of the University of Zimbabwe's business school, says, "half of the economy is informal but it's difficult to measure...they don't pay taxes, so they contribute little to the fiscus but... [The sector] definitely has a positive impact on poverty levels" (IRIN News).

There has been an increasing amount of focus on Zimbabwean food markets and individuals getting adequate nutrition. Two of the biggest reasons why Zimbabweans cannot access enough healthy food are that national infrastructure has deteriorated and the country is so rural. An estimated 40 percent of the roads in Zimbabwe are in poor condition and railway freight traffic has declined by more than half since 1990 (Rural Poverty Portal). These factors effectively isolate rural communities from markets. The amount of rural citizens is 7,807,162, or 61.7 percent of the population (UN). In addition, the majority of the population do not have vehicles, further preventing access to food markets. Only 114 of every 1000 inhabitants have an automobile (Trading Economics). The country simply does not invest enough money in infrastructure and transportation, making it virtually impossible for society to buy food to feed their family.

Animal agriculture plays a significant role in the lives of Zimbabwean people, but not in the way one might think. Many people that live in developed countries probably think livestock is raised by families to consume, but that is not the case. A majority of the ranchers living in rural regions raise livestock for other purposes such as income, trading, and fuel. An abundance of animals are raised on small-holder and family farms. Animals are often used to make money to buy less expensive foods such as maize, millet, roots, sorghum, and tubers (IFAD). This source of income is great for the people because they can get large amounts of cheap foods; however, they are not getting the nutritional benefits from beef, pork, dairy, and other animal products necessary for efficient body development. Other resources are produced from livestock such as manure being turned into fertilizer and fuel (IFAD). Trading is another strategy families utilize to support themselves. They will raise animals and then go to markets when they have the opportunity. At the markets vendors' trade livestock for staple foods with lower costs per calorie (IFAD). When hardships, such as drought, occur, everyone will sell their livestock and buy cheap grain to support themselves.

Farms currently occupy 1.07 million ha, or 4.2 million acres of Zimbabwe, a majority of which is used for animal agriculture or mix crop and livestock farming (FAO). The past status of the country's livestock was the best in southern Africa. Zimbabwe used to be well-known for its high quality meats that were exported across the globe. The current status of animal agriculture has decreased tremendously since the economic crisis in the 1990s that coincided with the impact of a failed land reform and recurring drought. Gratiano Kariba Marema, a 75 year old Zimbabwean farmer, told Rural 21 that he remembers the old days when Zimbabwean meat was exported worldwide, and he hopes to participate in the revival of the sector in the country (Rural 21).

Even though livestock is not highly consumed in Zimbabwe, the industry has been steadily rising. The farms with the largest production are small-scale farms, resettlement farms, and communal farms with approximately 3.6 million head of cattle (IDS). A factor that is holding livestock advancement from becoming reality is the new land reforms proposed by President Mugabe. His reforms gave more land owned by Caucasian farmers to African farmers, but the African farmers could not produce as much as the Caucasian farmers because they were not as educated in this sector (AEI). If the government can come to agreements with both the African and Caucasian farmers soon, the country could greatly benefit from livestock presence, one of the greatest resources a country can possess. Developed countries, such as the United States with a population of 90 million cattle (USDA), India with 238 million head, and Australia with 28.5 million head constitute proof that a developed country's society and wellbeing depend on its animal agriculture.

Many other factors negatively affect animal agriculture and agriculture in general, such as the government. The government of Zimbabwe has created and brainstormed quite a bit of reforms, but none have proven to be successful. Prior to the year 2000, agriculture appeared to be the backbone of Zimbabwe's economy, but arable land remained acute and the small amount of arable land created a huge dispute between ethnic groups. While Caucasian farmers were living on arable land, African farmers lived on arid and infertile plots. The government faced a growing discontent amongst the population. Beginning in 2000, the president introduced the Land Acquisition Act, which was created to remove the Caucasians from the lands and redistribute the land to the Africans (AEDI). The United Nations Secretary General expressed his opinion on the situation saying, "The equitable distribution of productive capital, such as land, is not only economically important, but also essential to ensure peace and stability."

Although the reform showed potential to be a good idea, it was not properly funded. The government promised to pay the Caucasian farmers a fair compensation but never actually provided the money. The African farmers began to feel as if their government had lied to them creating an outbreak of fighting and violence. Agricultural productivity decreased tremendously because blacks did not know how to farm on the arable land they later received, and the educated Caucasians who relocated received land with unproductive soil. These failing reforms have contributed to the rapid decline in Zimbabwe currency, giving the country the burden of having the largest public debt in the world (AEDI).

Despite the ever so growing list of factors that continue to hold Zimbabwe from development, certain solutions may be implemented in order to bring peace to the lands, revive the economy, and increase food security. The main solutions to overcoming poverty are empowering women and advancing agricultural education. Zimbabwe needs to start focusing on domestic investments rather than spending money on international opportunities. The country also needs to decrease their dependency on food aid.

With the increase of unemployment, males are continuously migrating away from rural areas and into more urban regions, leaving women as the head of the household (Rural Poverty Portal). This recurring issue usually causes a decrease in food production because the women have to support the families on their own. Women make up fifty percent of all farmers in the world, and they often do most of the labor on small-scale farms (Food Tank). They hardly ever get recognized for their work and are rarely able to

own land and make decisions. According to the United Nations Development Programme, when women have equal access to education, they are a key driving force against poverty. Not only will women have better access to land, jobs and financial resources, they will also in turn raise household incomes. Women will have more opportunity to own land and raise livestock, contributing to the food supply. A group of women in Dangarendove, Zimbabwe have turned an abandoned plot of land into a community garden, supplying fresh produce to nearby towns. Traditionally, their roles kept them indoors while their husbands worked to financially support the family. Upon seeing the success of the garden, men in the community become supporters of the women's efforts. This shift is a substantial one, given that women have never been able to take on leadership roles like this before in Zimbabwe. Women need to take on more roles like this in the community and in government to relieve the country from poverty.

Anandi Jatav, a woman living in Rajasthan, India is also proof that if women have access to land and livestock, they can reduce food insecurity. Prior to Heifer International reaching out to Jatav, her family could only afford 5kg of grain a day to make bread. She was unable to send her children to school and rarely had a source of income (Heifer). After receiving training from Heifer, Jatav became a farmer and an animal health worker. She now has enough money to dig a well, send her children to school and buy food. Organizations like Heifer International are leading the frontier against hunger by distributing livestock to poor villages and educating the poor community about sustainable agriculture.

Another way to overcome this extreme poverty is to educate the rural families and communities more about the agricultural industry. By educating African farmers about the agricultural industry, Zimbabwe can boost agricultural productivity. In partnerships with the Food and Agriculture Organization and the World Bank, the country could invest in some powerful educational resources. Zimbabwe also needs to increase the amount of years children go to school from seven to ten or more, just like the United States. Other programs should be initiated, such as programs like the Future Farmers of America (FFA) and 4-H, which are student led organizations dedicated to teaching youth about agriculture. These organizations are beneficial to the United States and would be significant for Zimbabwe because they educate the community about agriculture, advocate for the agricultural industry, and prepare students for successful careers in the workforce.

Organizations around the world have established projects to educate communities in poverty, such as the successful "One Cow per Poor Family" project in Rwanda which is sponsored by the Government of Rwanda in partnership with Heifer, Send a Cow and World-Visions (Republic of Rwanda). The idea is simple, but the impact is remarkable. Poor families get to enjoy the ability to produce milk, cheese, and other dairy products as well as valuable fertilizers from the manure. Global Giving commenced another project. The model: 300 orphans in Zimbabwe who are infected and/or affected by AIDS/HIV would receive funds to purchase goats, sheep, poultry, rabbits, and pigs. The orphans will learn how to live off of sustainable agriculture and produce food for years to come. These two projects constitute what Zimbabwe needs to pursue in order to achieve the development goals.

Everyone can take on roles to improve the likelihood of Zimbabwean development, from local communities coming together to establish communal farms and community gardens to the national government integrating agricultural education into their educational system and beyond. Women's rights also need to be considered, on the farm and in government positions. Additionally, world relief organizations such as the Food and Agriculture Organization, United Nations, and World Bank can also take steps to alleviate hunger. Instead of simply supplying emergency aid to developing countries, these organizations should teach people sustainable agriculture. As with the saying, "Give a man a fish and he'll eat for a day; teach a man how to fish, and he'll eat for a lifetime!" We are living in the twenty-first century—we have accomplished sending a man to the moon and developed solar power technology, so there is no reason why we can't conquer hunger.

As we reflect on these statistics, we should keep in mind that people all over the world do not know where their next meal is coming from. Zimbabwe won't be able to alleviate hunger overnight but with small, yet powerful steps, the country will achieve the development goals. One day, Zimbabweans will live in a country with an abundance of food. The country will overcome this unfortunate event; through the improvement of agricultural education and the triumph over social inequality.

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