

Shaleen Thiengmany
Mount Pleasant Community High School
Mount Pleasant, IA
Rwanda, Factor 20: Farm to Market

Cultural Genocide and the Challenges of Reconstruction

Background and Introduction

Located in east-central Africa, the small landlocked country of Rwanda is ranked 87th in food security and has struggled historically with the issues of poverty and the scarcity of resources ("Rankings and trends"). Despite its size, Rwanda is home to the continent's most dense population with 483 people per square kilometer of land area in 2016 (Food and Agriculture Organization). This, coupled with high fertility and population growth, further pressures families with the responsibility to provide. Farmers in turn overuse the land in times of desperation. The diverse landscape of Rwanda, often referred to as the "land of a thousand hills," has the potential for a strong and thriving agriculture sector but is instead subject to increasing soil erosion and decreasing soil fertility (Brosha). Rwanda's mountainous areas also make transportation particularly difficult, creating tension, unease, and desperation among Rwandans.

Much like the many ups and downs of its landscape, the country's struggle with food security manifested itself in ethnic conflict. Following the end of World War I, Rwanda was placed under the control of numerous countries and as the desire for independence sparked, with it came the need for social equality (*World Atlas*). By April 6th, 1994, the infamous Rwandan genocide had begun. The population of seven million was caught in a civil war between the Hutu, Tutsi, and Twa ("Rwanda: A Brief History of the Country").

This "social revolution" set the newly independent nation of Rwanda a back in nearly every aspect. As many as one million losses were totaled and an estimated 150,000 to 250,000 women were raped. Mass killings, large fires, crude instruments, along with the intentional spread of HIV and AIDS were commonly used as weapons of war. As a result, immense damage had been done to Rwanda's economy, government, infrastructure, culture, and resources. Two million Rwandans, both Hutu and Tutsi, fled to neighboring countries over the course of the war, thus, piling the task of reconstruction on to the area's ever present challenge of poverty and scarcity (The Editors of Encyclopedia Britannica).

Life in Rwanda

Rwanda is one of the most rural countries in the world, with agriculture employing eighty percent of the labor force and contributing to one third of the country's gross domestic product (GDP) on average. Because the current road system connects only major cities, rural families lack access to basic services, and interaction between rural and urban life is limited. Eighty percent of the population lives in isolated rural communities with small, scattered plots of land averaging half a hectare in size (Ntirenganya).

This disconnect is especially prominent when analyzing Rwanda's crop production. A typical Rwandan family is quite large, for children are culturally seen as a symbol of wealth. The estimated fertility rate was 4.46 in 2016, and continues to be one of the highest in the world. Beans, bananas, sweet potatoes, potatoes, and sorghum are the most common foods. Dairy and meat products, such as beef, goat, and chicken, are often consumed when available ("The World Factbook: RWANDA"). Most Rwandans participate in subsistence farming, though with the growing population, many farmers are transitioning to more commercial farming in order to make a living. In fact, rural families have reduced the production of food crops to grow the country's main cash crop: coffee. The amount of coffee produced doubled while both millet and sorghum halved between 1982 and 1992. Biodiversity decreased, leaving crops more susceptible to disease, soil with fewer nutrients, and the agricultural economy more dependent on the export of coffee (Brosha).

However, these issues pertaining to rural life somewhat mirror those of urban life. While rural families fall victim to overpopulation as the government implements programs to force families into overcrowded villages, the rate of urbanization in Rwanda has spiked and continues to grow. Urban development and industry was nearly nonexistent in Rwandan cities. The settlements in place were unprepared for the wave of rural families in search of work (*Countries and their Cultures*). Nineteen percent of Rwanda's total population lives in overcrowded urban centers. Poverty is severe in city slums with few, unskilled job opportunities. Malnutrition is common, and sanitation and clean water are hard to come by. Two-thirds of urban adults are unemployed and unable to create a stable home life for their families. Many move from one rental house to another, often times leaving the average of four to six children in a household to be raised by single parents because of the stress and emotional toll ("Kigali").

Rather than goods flowing smoothly between rural and urban areas, Rwandans are simply fleeing from one to the other out of desperation. Without a proper and efficient market structure in place, farmers struggle to sell their crops while city workers are dying of starvation. This disconnect is also present in the limited number of services and the lack of access to them.

Education and Health Care

Because nearly sixty percent of Rwandans live in poverty, mothers are the main source of education for rural children and large families. Though the state has assumed responsibility for providing schooling, only sixty percent of children can afford the low attendance fees. Schools are typically lacking in resources and overflowing in students, with fifty students to a single teacher. From there, less than ten percent continue their education to high school and technical training schools. A very small percentage ever goes on to attend a university. In fact, one national university exists in Butare, and a few private colleges have emerged in recent years. Only seventy percent of those above the age of fifteen are able to read and write (Cassibry).

Lack of proper access to resources can also be seen in the absence of health care facilities. Those that exist have been established mainly by Christian churches and other foreign aid organizations. In 2010, there were 0.06 physicians and 1.6 hospital beds for every one thousand people ("The World Factbook: RWANDA"). Rural villagers, who do not have access to healthcare, rely on both Western and indigenous medicinal methods. Often times these are performed by village healers using herbal medicines with spiritual cures.

Farm to Market

As previously mentioned, Rwanda's landscape poses major problems. The most prominent issue is transportation. Improving the country's infrastructure would allow access to not only resources and services to its mostly rural population, but also increase the ability for food, water, people, ideas, products, and policies to move throughout the country. In turn, this would enable other countries to provide foreign aid and encourage investors to jumpstart Rwanda's industrial sector and reduce unemployment.

The connecting thread between Rwanda's issues tends to stem back to the phrase, "limited access." Whether it be through education, or simply the implementation of government policies already in place, the movement of people, goods, services, and information is stunted by this landlocked country's harsh terrain. Not only that, but the lack of technology, roads, and railways prevent Rwanda from reaching its full potential as a developing nation.

As of now, there are currently fourteen thousand kilometers of roads built, connecting only major cities and eleven thousand kilometers of which are unpaved ("Current State of..."). The roads have been well maintained but war, excessive truck loads, and a flood in 1997, have deteriorated feeder roads ("Rwanda -

Infrastructure, Power..."). Despite recent efforts to restore and upgrade Rwanda's road network made by organizations, such as the World Bank, all secondary roads are unpaved, steep, narrow, and extremely difficult to travel on during Rwanda's seven-month-long rainy season. Floods and mudslides limit the size of trucks, lengthen the already extensive travel time, and raise the cost of transportation exponentially. One of the country's main obstacles to attracting foreign investment is precisely high transportation costs (Crisafulli). However, road security is generally very good within Rwanda. Aside from its border with the Democratic Republic of Congo, Rwanda's roads are ranked level one by the United Nations Security Council (Styles).

Such difficulties carrying large loads by truck would naturally have a country look toward train tracks rather than roads. Unfortunately, Rwanda lacks a railroad system. Being landlocked, fast and efficient trade is critical to both national and international business. Instead, Rwanda is linked to the Ugandan-Kenya railroad system by road.

This is an example of "leapfrogging" An article published in "The Economist" magazine described it as, "the notion that, having failed to adopt now-outdated technology, Africa can simply jump straight over it and go right to the latest thing. Just as drones can make up for poor roads, the theory goes, mobile phones can overcome a lack of well-functioning banks, portable solar panels can stand in for missing power stations and free learning apps can substitute for patchy education."

Ironically enough, Rwandan President, Paul Kagame, served as a leading example for drone testing in Africa, as well as providing e-readers to students and cellular service throughout the country (Rice-Oxley). While Rwandans enjoy the advantages of smart phones, electricity alone costs three to four times that of its neighboring countries. In combination with expensive transportation, Rwanda has hardly been able to draw in investors, if at all. Paul Kagame has acknowledged the fact that "leapfrogging has its limits." Drones delivering medical supplies may be of assistance, but readily available hospitals and educated doctors are much more beneficial when considering the long term effects on individuals, communities, and the development of Rwanda as a whole (Schumpeter).

Basic needs, such as water, lack proper infrastructure as well. As crucial to the economy as agriculture is, it is very unstable and dependent on the current conditions. Rwanda has had a history of droughts and floods. Without a sufficient irrigation system in place, water sources have dried up, and cattle and other animals have died due to lack of water. From late 2015 into the following year, families affected by drought had no harvests for seasons at a time, and trucks were used to fetch water for cattle. In Rwanda, there are two rainy seasons: large rains from mid-February to May and the smaller rains from mid-September to mid-December. On the off season, crops are left to be watered by dams, local rivers, and a weak irrigation system (Ntirenganya).

Other problems facing Rwandans in the journey from farm to market are the acidity of the soil, outbreaks in pests, and degradation of land. One cause of this is the lack of organized supply chains and little access to preventive methods. This is especially true for food crops, which are grown on a smaller scale and farther away from available resources. Traditional agricultural methods are used and the crops, over seventy percent of which are located on hills, are rain-fed, leaving room for vulnerability and dependence on weather ("Rwanda: Agricultural..."). Rwanda's main cash crops, cassavas, plantains, Irish potatoes, and sweet potatoes, are the most at risk to population-related factors particularly in rural areas, and, unfortunately, losses in these crops correlate strongly to the losses in the agricultural sector as a whole. Coffee, Rwanda's main export, is impacted the most by pests and diseases. Outbreaks have resulted in losses of up to ten percent of agricultural production value ("Climate & Agricultural..."). Again, most of the nation's issues arise mainly on the production level and not receiving the necessary resources to provide markets with food.

Solution

Improving upon infrastructure will provide Rwanda with both opportunity for growth and security in all aspects. Proper access to markets means families in both rural and urban areas will be able to address the major issue of food security in such a dense and poverty-stricken nation ("Lack of Infrastructure..."). Infrastructure brings forth countless open doors. Focusing the country's efforts to improve transportation in all aspects, whether it be food safety, resources, education, water and irrigation, information and the implementation of regulations, would improve the stability of Rwanda's economy.

Building on current efforts to provide irrigation and implement terracing from the World Health Organization and World Bank, the people of Rwanda can work towards making the most of the land they are provided. Currently, the World Bank is providing financing for road rehabilitation and new construction in certain parts of the country ("Rwanda - Infrastructure, Power..."). By building roads, adequate movement of people and goods may take place. Education can be more easily available, improving jobs and allowing a healthy rate of urbanization.

Ease of transport will also encourage industry. The industry sector of Rwanda is almost nonexistent. Companies struggle to establish and are discouraged from doing so mainly because of the high costs of moving both resources and products throughout the area. Costs to transport materials into Rwanda conflicts with the few number of regulations and taxes that draw in potential producers. An example of this is the textile industry. The majority of clothes worn by Rwandans are either produced elsewhere or given to them by foreign aid. Providing the needed infrastructure for production to thrive will allow Rwandans to kick-start industry, increase the efficiency of available resources, and one day become self-sufficient (Kuo).

Overall, the main obstacle to proper connection between farm to market, is a combination of a lack of funds and a lack of focus. Necessary buildings and services are essential to the health and prosperity of a nation. Without first ensuring access to healthcare, education, and centers of trade, the country lacks the framework needed to develop and grow. The Rwandan government must focus on developing programs to address problems at their core. Advancements in technology and investments in other policies, in the long term, would be unable to fix this underlying issue of disconnect throughout the nation, and to do so, sufficient funds are needed. The reception of funds and their proper use, go hand in hand in creating change in this country and the world as a whole. In fact, Rwanda has already made great strides, especially in terms of recovering from as tragic of an event as genocide.

Rwanda is a leader in agricultural improvements. Through both advocating for agricultural improvements and encouraging African countries to partner with developmental organizations, President Paul Kagame was honored by the United Nations Environment Programme with the 2016 Champion of the Earth award for Policy Leadership. Great strides have been made to improve resource and environmental conservation. The creation of national parks, restoration of land, joining of various agreements and organizations, and reduction of pollutants have all been carried through within the last year and give encouraging messages to not only Rwandans but the world on the issue of food security (Tashobya).

Furthermore, on a smaller and more local scale, family counseling has improved the family dynamic in rural villages. Men and women from villages across the country attend regular parent forums where they discuss society and other topics, such as adultery and alcoholism. The gatherings provide villagers with a guidance counselor-like setting where couples, families, and individuals may bring forward their problems and seek help. Attendees are helped to understand and change mindsets, gain perspective, and learn of possible solutions to their problems and the resources available to do so. In villages where this counseling service was provided, the amount of teen pregnancies and high school dropouts reduced dramatically. By improving families from a cultural standpoint, villages are working on violence,

education, savings, health, and happiness as a whole (Mushimiyimana). This service, coupled with the efforts of Ministry of Agriculture and Animal Resources (MINAGRI) to provide irrigation systems, can be carried through on a larger scale (Karanja). With time, it will allow families to reduce their size, improve overpopulation, and more securely provide food for their loved ones.

In terms of education, various grants have been provided to Rwandan schools. In May of 2015, the United States approved of 25.2 million grant allocated by the Global Partnership for Education (GPE). The program focuses on the equity, efficiency, and quality of learning ("GPE in Rwanda"). Rwanda's Ministry of Education has partnered with UNICEF as well to provide a more widespread educational service ("Education"). Other efforts that have been taken worldwide can too be applied to Rwanda's current situation. USAID has been able to provide Afghanistan with electricity connections, Philippines with solar and micro-hydro power systems, Jordan with wastewater treatment plants, and countless other examples, all of which can be learned from (English).

Conclusion

Finally, with the work that has been done, there is always room for improvement. Rwanda has defied all odds by coming as far as it has in recent years. From poverty and overpopulation to gaining independence as a nation and overcoming ethnic genocide, Rwandans have faced hardships throughout their history. Even so, Rwandans can help themselves by demanding and putting forth change. If the infrastructure of the nation improves, it will allow for a wave of action and allow Rwandans to set their focus beyond food security. In women's rights particular and in many cases of where conflict has occurred, women were given the opportunity to enter the workforce and assume traditionally male occupations. Now, they continue to move from the traditional roles of market trading and family care to holding positions in political and managerial positions and even seats on parliament. Policies and laws are continuously being passed to increase and secure the voice of women in the political world (Howard). Securing food and water through a focus on infrastructure will allow for Rwanda to move past the worry of finding where their next meal will come from, but rather add to an already remarkable story of change, forgiveness, adversity, and recovery.

"If there was ever a time for forgiveness, it is now... The love of a single heart can make a world of a difference. I believe that we can heal Rwanda - and our world - by healing one heart at a time. "

– Immaculée Ilibagiza, Rwandan refugee and genocide survivor

Works Cited

- Brosha, Stephen. "The Environment and Conflict in the Rwandan Genocide." *Atlantic International Studies Organization*. Atlantic International Studies Organization, 01 June 2009. Web. 20 June 2017.
- Cassibry, Kathryn. "10 Things You Didn't Know About Poverty in Rwanda." Web log post. *The Borgen Project*. N.p., 27 June 2013. Web. 30 Jan. 2017.
- "Climate & Agriculture." *Our Africa*. N.p., n.d. Web. 14 Mar. 2017.
- "Country Profile - Rwanda." *New Agriculturist*. N.p., n.d. Web. 12 Dec. 2016.
- Crisafulli, Patricia, and Andrea Redmond. *Rwanda, Inc: How a Devastated Nation Became an Economic Model for the Developing World*. Basingstoke, Hampshire: Palgrave Macmillan, 2014. Print.
- "Current State of Road Transport in Rwanda." *Fortune of Africa Rwanda*. Fortune of Africa, 2016. Web. 25 June 2017.
- "Education." *UNICEF Rwanda*. UNICEF, n.d. Web. 15 July 2017.
- Food and Agriculture Organization, and World Bank. "Population Density." *The World Bank*. The World Bank Group, 2017. Web. 26 June 2017.
- "GPE in Rwanda." *Global Partnership for Education*. Global Partnership for Education, 12 July 2017. Web. 15 July 2017.
- Howard, Emma. "Rwanda, 20 years on: how a country is rebuilding itself." *The Guardian*. Guardian News and Media, 03 Apr. 2014. Web. 20 Mar. 2017.
- Ilibagiza, Immaculée, and Steve Erwin. *Left to Tell: Discovering God amidst the Rwandan Holocaust*. Carlsbad, CA: Hay House, 2014. Print.
- "Improved Infrastructure to Support Africa's Competitiveness." *African Development Bank Group*. African Development Bank Group, 9 May 2014. Web. 15 July 2017.
- Karanja, Minnie. "Rwanda: How Small Scale Irrigation Has Turned Rwandan Farmers Into Multi-Millionaires." *AllAfrica*. AllAfrica, 31 Oct. 2016. Web. 1 July 2017.
- "Kigali." *Christian Child Sponsorship - Compassion - Child Charity Organization*. N.p., n.d. Web. 12 Mar. 2017.
- Kuo, Lily. "To stop relying on Western hand-me-downs, African countries are importing Chinese textile companies." *Quartz*. Quartz, 28 Nov. 2016. Web. 19 Mar. 2017.
- "Lack of Infrastructure, Standards, Affecting Africa's." *The East African*. The East African, 25 June 2014. Web. 30 June 2017.
- Mushimiyimana, Diane. "How Parents' Forum Shape Gicumbi Families." *The New Times Rwanda*. The New Times Rwanda, 30 Dec. 2016. Web. 1 July 2017.
- Ntirenganya, Emmanuel. "Rwanda: How the Agriculture Sector Performed in 2016." *AllAfrica.com*. N.p., 06 Jan. 2017. Web. 28 Feb. 2017.

- "Rankings and Trends." *Global Food Security Index*. The Economist Intelligence Unit Limited, 2016. Web. 27 Mar. 2017.
- Rice-Oxley, Mark. "No Power or Running Water – but Digital Books Galore." *The Guardian*. Guardian News and Media, 02 Aug. 2016. Web. 30 June 2017.
- "Rwanda." *Countries and their Cultures*. Advameg, 2016. Web. 31 Oct. 2016.
- "Rwanda." *World Atlas*. Worldatlas.com, 12 July 2016. Web. 27 Mar. 2017.
- "Rwanda: A Brief History of the Country." *United Nations*. United Nations, n.d. Web. 04 Jan. 2017.
- "Rwanda: Agricultural Sector Risk Assessment." *Rwanda: Agricultural Sector Risk Assessment / FARMD: Forum for Agricultural Risk Management in Development*. N.p., n.d. Web. 10 Mar. 2017.
- "Rwanda - Infrastructure, Power, and Communications." *Encyclopedia of the Nations*. Advameg, Inc., 2017. Web. 28 June 2017.
- "Rwanda targets exceptional food safety standards to boost exports." Web log post. *TradeMark East Africa*. N.p., 3 Oct. 2014. Web. 08 Mar. 2017.
- Schumpeter. "Look before You Leap." *The Economist*. The Economist Newspaper, 04 Aug. 2016. Web. 29 June 2017.
- Styles, Lucy. "2.3 Rwanda Road Network." *Digital Logistics Capacity Assessments*. Ed. Jessica Cochran. World Food Programme, 6 June 2016. Web. 28 June 2017.
- Tashobya, Athan. "Rwanda 2016: Strides made towards environment conservation." *The New Times Rwanda*. N.p., 30 Dec. 2016. Web. 10 Mar. 2017.
- Thaxton, Melissa. *Integrating Population, Health, and Environment in Rwanda*. Rep. Washington D.C.: Population Reference Bureau, 2009. *Population Reference Bureau*. Web. 25 June 2017.
- The Editors of Encyclopedia Britannica. "Rwanda Genocide of 1994." *Encyclopedia Britannica*. Encyclopedia Britannica, Inc., 05 Aug. 2016. Web. 04 Jan. 2017.
- "The World Factbook: RWANDA." *Central Intelligence Agency*. Central Intelligence Agency, n.d. Web. 31 Oct. 2016.