

Gerson Gadiel Cárdenas Carballo
Alison Bixby Stone School
Zamorano, Honduras
Uganda, Infrastructure.

Uganda: A Situation That Destructs Infrastructure's Road Networks

Infrastructure in the Ugandan country is an issue of great importance. Due to illicit activities, vandalism, and many other factors, road networks are more unsafe, and dangerous; it is impossible going through them. This has to do with the poor management of money needed for infrastructure. Money is needed to restore the good condition of roads and transportation. The reasons why the majority of African and Sub-African countries are in poverty is due to problems developing an economy and infrastructure. The infrastructure influences over the economy, because of factors that help to easily aid distribution and promotion of products. All of which is related to economy including import and export as well as the connection with other countries to grow socially as a potent exporter and importer.. How does this problem specifically affect Uganda? The solutions may vary, but to improve Uganda's infrastructure includes changes in how the representatives manage the funds for the projects, get funds to cover the costs of the projects, and also increase the amount of projects from the government's part. To solve these huge problems depends on how much effort we will put into brainstorming how we can solve it.

Uganda is a landlocked country in East Africa, whose diverse landscapes encompasses the snow-capped Rwenzori Mountains and immense Lake Victoria. An abundant wildlife includes chimpanzees as well as rare birds. Remote Bwindi Impenetrable National Park is a renowned mountain gorilla sanctuary. Murchison Falls National Park in the northwest is known for its 43 meters tall waterfall and for wildlife like hippos. Uganda also has a population of estimated 42.86 million people. Rural areas have a percentage of 84% percent of their habitants living in farms while the other 16% percent lives in the urban areas. (New Vision, May 2019). Uganda's political system is Democracy, Republic, Presidential system, and Semi-presidential system, which is more than one form of government.. This country, as with many of the African countries, are among the poorest countries in the world. Supporting this Uganda's average farm size is about 2.5 hectares, which is even less than the 4th part of what Latin America or North America has for farming. That's not even the worst part. Uganda's climate is warm, ranging for 25-29°C (77-84°F). This is a very hot place and I doubt an American or European citizen will get used to the conditions in the country. Relating to its position and to its geographical features, Uganda is about 1,100 meters above sea level, which means it is too far away from the sea, and there's only one river running through the land. This country is mostly made of valleys, and low mountains, and plateaus. Connecting to that, it has a border with Kenya composed of volcanic hills, which means that Uganda is mostly made of dry land and little vegetation. Taking in account how they are geographically settled, and the conditions they actually have to improve food security it is more miserable conditions because it is only 2.5 hectares of dry land, with an extension of 241,037 km² (FAO.org). That's why considering alternative ideas for improving food security in Uganda, is important. This South African country infrastructure issue has to do a lot with the short amount of land, and extension. But that doesn't mean that they don't have any road networks at all. They have roads, but they are in such bad condition that they urgently need to be

repaired. The country needs to restore and develop infrastructure while especially focusing on road connection. That's why having alternative solutions to this problem is the best start that they can have to solving hunger. Road networks or connections have a great importance in the economy and food security too. The Uganda road network comprises of 21,000 km of national roads; 17,000 km of district roads; 2,800 km of urban roads and about 30,000 km of community roads, connecting communities and districts. The road transport is by far the most dominant mode of transport in Uganda, carrying over 95% of passenger and freight traffic. The national roads currently make up 25% of the road network but carry over 80% of the total road traffic (Styles, 2018) By African standards, the Ugandan roads have made more advancements compared to other African nations.

All the primary roads radiating out of Kampala to all four corners of the country are smooth asphalt. You can expect a lot of speed bumps and the occasional pothole. Usually, the last stretch of your daily trip requires some driving on gravel roads to get to your lodge or park entrance gate. Inside the parks it's off-road driving on dirt roads. The conditions of these gravel and dirt roads tend to be variable from one season to the next and are most difficult during the rainy season. The majority of the roads in Uganda are of asphalt. But the ones that lead to other countries and back are the ones that are made of dirt and are near the remote villages. Today, a one-day journey from the northern Karamoja region to Kampala, the capital city, may take travelers three days or more because in the rainy season when many roads cannot be passed (Adiiki, 2015). Farmers and traders pay high price for this state of affairs: They count serious losses in perishable products, which, is another important factor, the changes over the climate, during a year. As once President Yoweri Museveni said: "When you talk about agriculture, you must not forget the roads." Foreign investors, moreover, appreciate transport infrastructure too.

Uganda's health system is also affected. Clothilda Mirembe, a health worker in Central Uganda, says: "If the roads to rural health centers were better, many lives would be saved." For example, emergency ambulances cannot reach villages to rescue pregnant women in labor. "Family members have to use a bicycle or wheelbarrow to get the pregnant woman to the waiting ambulance, putting the life of her unborn baby at risk – and hers too," says Mirembe. To common Ugandan citizens, good roads mean saving lives and access to markets. Some progress is being made however. As Gloria Addiki stated a road linking Uganda with South Sudan is due to be completed, in addition to many other rural roads in the countryside. In the recently passed budget, infrastructure took the share of 13% (2015). This shows many things about the condition of Uganda. First point: many lives are being lost because of the condition of the roads; second point: progress is being made, but still many roads still need to be fixed. To travel around it, roads have to be in good conditions to make it possible to be safe.

According to the Bank of Uganda (BOU), the service sector, which comprises 52.7 percent of the economy, was the primary driver of growth, followed by the industrial sector, which represents 18.6 percent of GDP. Uganda maintains a liberal trade and foreign exchange regime. Nonetheless, endemic corruption, financial mismanagement, an onerous tax regime, and increasing political repression raise questions about the government's commitment to fostering a stable and investor-friendly environment. Uganda has few formal trade barriers, though bureaucratic inefficiencies, high transport

costs, corruption, and an influx of counterfeit consumer products increase costs for foreign businesses. With ethnic-tinged unrest and student protests in Kampala, as well as cross-border conflicts in the north and east, Museveni, who has led Uganda since 1986 (Madsen, 2010) also influences the morale of the country. While there are problems in Uganda, it is clear that road conditions need to be improved.

How do road conditions relate to food security? Road infrastructure and the associated provision of safe, reliable, and affordable transport services in rural areas has the potential to bring about social and economic development, thereby reducing poverty, increasing food security and productivity and lessening the experience of hunger. Yet nearly one billion rural residents, approximately 68% of the world's rural population, still do not have all-season access to road networks (Yiu, 2017). Rural economies in developing countries are predominantly agrarian with supply chains and supporting infrastructure to enable access to markets. However, approximately 45% of the land area in low-income countries and 51% in lower middle-income countries are located more than five hours away from the main market, severely constraining the potential of agriculture to help to meet local food needs (Yiu, 2017).

Improved all-season road infrastructure and the availability of transport services are effective ways to increase food security and curb hunger, as it allows farmers to sell their produce to a larger market, more frequently during the year at competitive prices. It furthermore enables the goods and services which support farming to reach farms more efficiently and at less cost. Transportation Research Board states, "Poor road links were shown to increase transport costs greatly in parts of rural Tanzania, while improved road condition reduced the transport costs of bananas in Kenya by 14%." (Sasidharan, 2017) Good all-season access improves the efficiency of food distribution, by providing better connectivity throughout the year and lower transport costs via shorter journey times, lower fuel consumption rates and less vehicle wear and tear. In turn, these enable reductions in costs, wastage and damage of produce during transportation (i.e. post-harvest loss).

Which of course, means that good access enables farm leads to increased supply and production costs to decrease by facilitating access to fertilizers, mechanized equipment, high-yield seed varieties and enabling supporting activities including labor, agricultural extension workers and veterinary services to reach farms more easily, thus directly improving food security and reducing hunger. For example, investment in rural roads contributed to approximately 25% of agricultural produce growth in India during the 1970s and was responsible for the largest impact in poverty reduction (Bill & Gates Foundation, 2012). This means that when Uganda's roads are fixed and improved there is more accessibility to food security. Rural access positively affects the development of the rural economy and indirectly leads to improved food security and zero hunger. For example, improved access leads to a rise in the profits realized by local producers, and therefore their purchasing power, by reducing post-harvest losses and transport costs to competitive input markets and remunerative output markets.

From the above it may be concluded that rural transport, if made affordable, reliable and accessible, has a positive impact on improving food security and ensuring zero hunger. Transport policies and programs can make it easier for low-income families, farmers and people with poor nutrition to access markets and source affordable food. Increased

rural connectivity not only contributes to the increase in agricultural productivity by market access, but also enables empowerment of women and children. It can help revitalize rural neighborhoods by providing access to adequate, safe and nutritious food. Hence, reliable rural transport networks can facilitate an increase in the efficiency of food production, processing, preservation and distribution contributing to zero hunger and food security.

Roads are important but what is the root of the bad road conditions? Well, I think it all has to do with mismanagement of funds. Mismanagement of funds refers to instances where a person fails to observe laws or guidelines when handling finances for another person or organization. Most mismanagement lawsuits involve some form of neglect on the account of the liable party. This means that, it is not fault of the people that live in the country, and instead is one person that manages the construction and that fails to do it right. I think a better alternative solution is that the representatives of each district or department, manage the money or the funds that are needed to renovate the conditions of the roads. The representatives should be chosen by either the population, or the government, and should be someone trustworthy. By doing this, the roads that are in the poorest conditions are going to be improved. When the roads are improved there are more chances of growing economically and socially with other countries and that helps that the country's economy and production rates increase.

Another viable solution is in case that there are not enough funds to improve the road networks. The whole country can contribute to realize the benefits with fundraising activities to help their nation realize a solution to improve the roads, the economy, and have the other advantages of good infrastructure. If we apply this solution and the whole nation contributes, it may be possible that instead of requiring tons of money, and decreasing their economy they would get the money back and locally realize more infrastructure projects to improve the road networks. The funds that each country has is the one the state gets to improve all aspects of the country such as getting it from taxes. But what if instead of the state giving the money the habitants or the population gives the money to make those ideas possible? Maybe it would not cover all the projects, but maybe contribute a small part. In that way, both the state and the population benefit from it.

What can the population get from the roads fixed? Well, they can:

- improve journey times.
- improve air quality from reducing air pollution generated by slow-moving traffic.
- reduce delays to public transport.
- traffic speed control.
- protection of historic and environmentally sensitive areas.

The people of Uganda can also get the following things in the economic part:

- increase productivity,
- increase trade,
- facilitate investment and
- reduce unemployment and increase labor supply.

All of these are good because it helps the economy of the country. Another solution is to increase the amount of projects made by the government or state, so that way the government and the population are benefited economically by the projects to implement the development of roads and of the economy. Those projects can include campaigns for collecting money, big events that invite the whole country to attend it, and getting more sponsors from other more developed countries to receive monetary help after giving them the reasons why they should receive those funds. If the government is accused of stealing it the sponsors or the other people that help them can ask them to present the following evidence: testimonials from the citizens, the bill from the materials, and the tools bought, and finally the proof of payment to the company to which they asked to realize the project (in case they contract one). In case the government doesn't give the evidence to the sponsors then the sponsors can take the money from the government, stop being the sponsors of the government and they can proceed to a demand against to the government, and get an extra compensation apart from their money.

I consider the best way to restore the conditions of the roads and the highways is to create projects that are realized by both citizens and engineers that work together on the roads and focus on transforming the dirt roads to asphalt roads without patches. Because in that way, citizens and engineers restore the roads, and of course, not saying that engineers steal the money, but citizens can be aware of that the money and ensure that it is used to solve the problem of the roads. This saves money, time and inconvenience to the public by reducing how often work is needed on a particular roadway. And this, of course ensures this: safe roadways, with rock or paved shoulders, that drain properly and have a life expectancy of 15-20 years with regularly scheduled maintenance. That is what happens when citizens and engineers work together to realize a project that has a great impact on the country.

To conclude, in order that Uganda has a better infrastructure and food security, Uganda can implement many ideas, to grow socially within the region and economically. Honduras can also use this ideas to improve their infrastructure, though. These are some ideas for alternative solutions to food security problems. And as we have seen, roads are very important for a country's development and when they are in bad conditions you need to find solutions to fix them and then the country should do them to flourish.

Works Cited

- Adiiki, Gloria Laker Aciro. "Uganda's Poor Road Network Is Threatening Regional Trade and Development." *D+C*, 8 Mar. 2020, <https://www.dandc.eu/en/article/ugandas-poor-road-network-threatening-regional-trade-and-development>
- Basnet, Ranisha. "Uganda Energy Situation." *Uganda Energy Situation*, 2020, https://energypedia.info/wiki/Uganda_Energy_Situation#Energy_situation
- Kamukama, Eronie. "More Ugandans Now Own Mobile Phones." *Daily Monitor*, Daily Monitor, 9 Mar. 2018, www.monitor.co.ug/Business/Technology/-Ugandans-mobile-phones--National-IT-Survey-NITA/688612-4334138-2fb1ruz/index.html.
- Madsen, Elizabeth. "Shape of Things to Come: Uganda's Demographic Barriers to Democracy." *New Security Beat*, 2010, <https://www.newsecuritybeat.org/2010/04/the-shape-of-things-to-come-uganda-demographic-barriers-to-democracy/>
- Sasidharan, Manu. "Better Rural Transport Is Key to Food Security and Zero Hunger." *SLOCAT*, 22 Nov. 2017, slocat.net/1901-2/.