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Democratic Republic of the Congo: Rebuilding Roads Can Save Lives

As Africa's third largest country, the Democratic Republic of the Congo boasts a little over 900,000 square miles. In this great amount of beautiful land resides many forests, the famous Ruwenzori Mountains, the central basin, the highland plateau, mining towns, cities, villages, and beautiful rivers (*Every Culture*) The DRC also has a vast amount of fertile soil that could feed almost all of Africa. The amazing fact of the DRC is that it holds more than half of Africa's rainforests in its borders. These rainforests are home to the okapi known as the "rainforest giraffe." The DRC also is home to a species of apes known as the bonobo which, along with the chimpanzee is closely related to humans. But this beautiful land has had many difficulties too, with lack of poor infrastructure, lack of farming methods, and a civil war ("Congo (DRC)").

Strongly influenced by the Arabic and Berber-speaking people of the Middle East, most Congolese speak several languages. The three most common are French, which is the official language, Swahili or dialects of it, and Lingala which is the trade language. The majority of popular music on the radio is in Lingala; when communicating across ethnic lines, Lingala is the most popular language.

In families that still use traditional methods, the man is the head of the household (*Every Culture*). In the DRC, women are regarded as lower than men in the social hierarchy; when they prepare the food for their husbands, they wait until he is finished before eating. Men in rural areas are also able to have more wives because they feel like the goal is to have as many children reach adulthood to work more on the farms. Women are also responsible for daily survival tasks such as cutting wood, hauling buckets of water on their heads for cooking and cleaning clothes. Women are also responsible for harvesting fields, child rearing, and making baskets to sell in the market. It is very common to see young girls as young as five years old holding their younger siblings on their back while working in the fields. Male children typically advance further in school than their female counterparts due to that fact that men make financial decisions on behalf of the entire family and believe they will benefit more from the education (*Every Culture*).

With an average household of five, and because of helpful farming methods, a typical farm size of 5 hectares, life in the Democratic Republic of the Congo is improving, but at a slow rate ("DRC Farmers") (Cleancookstove). seventy one point three percent of people are still under the poverty line as of 2012 ("Congo, Dem. Rep."). The average life expectancy in the DRC is only 49 years (Congo, Dem. Rep.). Since less than one percent of GNP was devoted to healthcare, little is done by the government to assist these people that live out in rural areas such as subsistence farmers. Aside from textiles, subsistence farming is also the main industry in the DRC. With crops like corn, potatoes, beans, and rice; children learn from a young age how to plant crops, carry water, cook and clean the homestead (*Every Culture*). Everyone, no matter of age or talent is involved in the family's survival (*Every Culture*).

While there is enough land to feed all of Africa in the DRC, there is little to no infrastructure near that land to farm and transport food (Kyalangilwa). The lack of infrastructure combined with inadequate farming methods such as rudimentary equipment and materials, and lack of modern inputs such as improved seed, healthy seedlings, fertilizer and pesticides make up a significant barrier to improving agricultural productivity ("Rural poverty in the Democratic Republic of the Congo"). The Democratic Republic of the Congo today has 80,000,000 hectares or 800,000 square km of farmland at her disposal

ranking directly after Brazil. It would be able to feed two billion people which are about the number of people living in Africa. But without infrastructure, the farmland is challenging to get to (Kyalangilwa).

Because of the lack of farming equipment, farming methods, and pesticides, the DRC's food security is at risk ("Rural poverty in the Democratic Republic of the Congo") ("Plant Diseases Threaten Food Security in Kivu, DR Congo"). In 2012 in Kivu, because of lack of farming methods, plant disease struck two provinces in the southern part of the DRC. Declining production of the Bananas and Cassava plants caused the DRC to import food from neighboring Uganda and caused around 30-50 kilos of the plants to increase in price from 2-7 dollars ("Plant Diseases Threaten Food Security in Kivu, DR Congo"). This dramatically impacted the typical family's ability to buy food.

Aside from farming methods and infrastructure, the civil war in the DRC is also halting improvement. There is fertile land that is not being farmed 50 miles north west of Goma in the vast Masisi territory on the Rwandan border. But in 1994 the arrival in Congo of fleeing Hutu killers who had tried to wipe out Rwanda's Tutsi population caused many Congolese Tutsis to seek sanctuary back across the border when Paul Kagame's Tutsi rebel army had taken power and promised safety. Since then, much of eastern Congo has been in crisis. The Hutu militiamen created a feared rebel group called the FDLR (Forces Democratiques de Liberation du Rwanda), which remains a significant obstacle to stability in North Kivu and concerning food security. ("The Children Could Die in Eastern DRC Fighting").

Trends in food production are going up, but very slightly. With the technique of soil fertility, rice production is boosting from 2.5 tons of rice to 5-8 tons of rice ("DRC Farmers"). Aside from the plant disease killing bananas and cassava plants because of lack of pesticides, soil fertility seems to be an impacting factor in improving food security in the DRC ("Plant Diseases Threaten Food Security in Kivu, DR Congo"). Even when crops are harvested, the lack of roads cause people to lose valuable food and income (Kyalangilwa).

Norman Borlaug once said that "If we improved the food sustainability in the DRC by making roads next to major farms for the rural farmers, it could help end the fighting." If the DRC had enough infrastructure to distribute the food it produce then, the economy would rise and the fighting would end, making this majority into a minority country. With the benefit of improved infrastructure and farming, one of the main industries in the DRC, subsistence farming, could stop wars and bring food security (*Every Culture*).

In order to positively impact food security, access to markets, healthcare, and education, I propose that we first rebuild and maintain the existing roads and then as a second phase, build new roads connecting markets and farmers. In May of 2013, the Nlandu road, which goes to the DRC's capital Kinshasa, was rebuilt and gave local entrepreneurs who opened small businesses the opportunity to thrive ("Road Renovation Revitalizes Neighborhoods in DRC's Capital City"). The Nlandu road, along with other roads being built to the capital, was rebuilt as a part of the World Bank-financed Emergency Urban and Social Rehabilitation Project also known as PURUS ("Road Renovation Revitalizes Neighborhoods in DRC's Capital City"). The World Bank has worked very closely in the DRC, "Poor infrastructure in DRC is responsible for productivity losses as high as 40 percent," said Jamal Saghir, World Bank Director for Sustainable Development, Africa Region. "By making much needed investments in infrastructure, we can reduce costs to businesses by 80 percent, and lower the cost of moving agricultural products by 70 percent. These quick wins are achievable and will help to lay the foundations for sustained economic growth and durable peace." ("Road Renovation Revitalizes Neighborhoods in DRC's Capital City"). The rebuilding of roads doesn't just positively impact agriculture, but it ultimately improves quality of life for the Congolese. For example, the rebuilding of roads provides jobs and training on how to maintain roads so that those skills can be used for many years. Maintained roads also provide opportunities for food vendors, markets, and other ventures that could use the road as a route to establish businesses.

On the topic of agriculture, with the rebuilding of roads, other projects could benefit as well, such as the Kitoko food farm located 50 kilometers outside of Kinshasa (Kitoko-food). Kitoko food farm is a local solution and model for the world in the DRC that when fully built, will grow crops on 1200 acre farm full of vegetables and fruits. This organization not only provides food, but also hires and equips the local Congolese with the tools and skills needed to farm (Kitoko-food). With the teaching of the Kitoko Food Farm, Congolese will be able to teach their children and will also be able to help with the agricultural practices in the DRC. They plan to have farms in each province of the DRC and to also have not only crops but also, goats meat and farming, fruit trees and, fish farming. By addressing the country's food deficit, this organization may even help the DRC become a food exporter within the next decade. However, in order for the Kitoko farm model to be successful, regularly maintained roads are a necessity (Kitoko-food).

In order to rebuild and maintain the roads, it will take the support of the DRC government and the help of other countries. As previously mentioned, the World Bank has aided PURUS which works on the rebuilding of roads in or near the city. But there are other projects helping the rural areas out as well, like the UNOPS (United Nations Operations for Project Services). Over the past thirteen years, UNOPS has helped in the reconstruction and rehabilitation of over 6000 roads in rural areas of the DRC. With the work of UNOPS 126 buildings have been constructed and renovated in the DRC. Thanks to the United Nations Development Program (UNDP), more than 580 kilometers of roads have been rebuilt and maintained in the eastern part of the DRC (Unops in the Democratic Republic of the Congo). With the collaboration of the World Bank, UNOPS, the Kitoko food farm, and the rebuilding of roads in the Rural and Urban areas, transport and preservation of food will be easier which will lead to less hunger in the DRC. I recommend that these NGOs continue collaborating with each other, with the business sector, and with the government to work toward the common goal of building and maintaining roads in the DRC.

With the rebuilding of a single road, the cost of moving agriculture can decrease by 70 percent, so with the rebuilding of numerous roads, how much could the cost be decreased? ("Road Renovation Revitalizes Neighborhoods in DRC's Capital City"). If people were food secure in the DRC, the wars would end, and there would be more resources to aid the country in advancing as a whole.

In order to reach these goals of rebuilding, maintaining, and building new roads, the support and collaboration of countries and the UN are key. With Funds from the UN and World Bank, local projects such as the Kitoko Food Farm, PURUS who rebuilds and helps maintain roads in urban areas of the DRC, and UNOPS who helps build and maintain roads in the rural areas are able to impact food security (UNOPS in the Democratic Republic of the Congo) ("Road Renovation Revitalizes Neighborhoods in DRC's Capital City") ("Food Security: A Growing Challenge Globally & an Immediate Challenge in the DRC"). Therefore, step one in this improvement would be to get the leaders of the DRC, UN, World Bank, and the Kitoko food farm together to plan for funding needs and to target areas for rebuilding. Step two is to engage in the rebuilding process using a local workforce with UNOPS focusing on the rural areas and the World Bank focusing on the more urban areas. Step three is for Kitoko Food farm to expand operations with plans for new farms with at least one in each province. Then, Kitoko Food farm will produce more crops to help reduce costs and continue giving methods of sustainable farming to the local Congolese. The final step in the process involves maintaining the rebuilt roads and building new roads. If all it takes is a road to feed a family, can there be a price on it?

If the Democratic Republic of the Congo became more stable with maintainable infrastructure, it could be a very sustainable farming country. With enough food to supply the people and even export food, the fighting in the DRC would calm down and maybe just end all together. People fight and steal when they are hungry. If it was a peaceful country then tourism would increase; with tourism would also bring in

more revenue which could also make this country sustainable. There are many things that will need to be done to accomplish this, but it can start through the rebuilding and maintaining of roads to provide infrastructure and prevent crop losses and hunger. With the collaboration of NGOs, the business sector, and the government, the DRC could be a major factor for food sustainability and could contribute to feeding 9 billion people by 2050.

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