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## **Infrastructure in Somalia is Affecting How Well Food is Transported and Grown**

*“Ugh, it is too much work to go get food from the grocery store!”* This is a common phrase uttered in many households throughout food-secure nations around the world on a daily basis. Though this may be common for many people living in wealthier nations, countless people living in impoverished countries are lucky if they have a grocery store nearby and a means of transportation to get there. Numerous people living in wealthier countries often take for granted the countless grocery stores near them and the ease of getting to them. Be that as it may, so many people living in underdeveloped countries like Somalia have virtually no way to produce or obtain food safely. The lack of railroads, paved roads, and safe drinking water, all contribute to the need for better infrastructure.

Somalia, the least developed nation in the world according to the United Nations, is tasked with fixing countless problems that people living in thriving nations may never stop to think twice about. The population of Somalia is on the rise, and is estimated to be between 11 and 15 million people; out of those people, about 46% live in urbanized Somalia. One of the large contributing factors to this growing population is the fact that women have about five children on average in their lifetime (Central Intelligence Agency [CIA], 2020). The amount of children being born relates to the fact that women usually marry very young, often between the ages 15 and 21 (Cultural Atlas, 2020). With many women having children at a young age, there are more mouths to feed. Despite this growing population, an average farm size per family is about four hectares. Four hectares is approximately equal to eight football fields. Although these plots of farmland are considerable in size, there is none of the necessary equipment needed to be able to successfully grow crops.

Somalia is governed under a federal parliamentary republic in which the president is the head of state and the prime minister is the head of government. This in turn establishes a bicameral legislature which is defined as a legislature with two houses, or chambers. In Somalia, this consists of the senate, which is the upper house, and the National Assembly of Somalia, which is the lower house (Michigan State University [MSU], 2020).

Demographics in Somalia show a growing trend of families struggling to make ends meet. Families have virtually no way to obtain fresh, safe food because of the inadequate infrastructure. Not only is the infrastructure inadequate, many people do not have extra money to help rebuild it. On top of all of this, households traditionally hold three generations, “The eldest couple; their sons, sons’ wives and any unmarried daughters; and the grandchildren from their married sons...” (Cultural Atlas, 2020). According to the Cultural Atlas, it is very common for women to move in with their husbands’ family after getting married (2020). With three generations living together, it is customary for young women (around the age of 15-21) to marry older men (around the age of 30), as women are expected to make and prepare food,

while the men are expected to provide financially for the family (Cultural Atlas, 2020). With women constantly having to watch the children as well as make and prepare food, they will not usually have the time to go to a market to get food if they do not have cars and/or paved roads. Should the infrastructure continue to go downhill, Somalians will be forced to live in smaller homes with more people exacerbating the outcomes of basic facilitation.

The population in Somalia has become increasingly younger; for many generations to come, there will need to be many changes made to certain aspects of infrastructure to be able to better distribute food. The lack of any railroads causes Somalis to have to ship food to their country, shipping takes a long time and can contribute to spoilage and waste. If the stores are lucky enough to get their shipments in in a large enough quantity, the problem of distributing food presents itself. The paucity of paved roads also allows for difficulty transporting food to and from the stores. Without the ability to easily transport goods bought from the store, more food is wasted. The scarcity of both paved roads and railways contribute to the drastic decline in the amount of readily-available food.

Civil wars bring hardships upon the entire country. One major issue for Somalia during its civil war is that the fighting got so intense that the government crumpled, leaving citizens to fend for themselves as well as a country to rebuild. Only about 1,600 of the nearly 13,800 miles of roadways are paved (Nations Encyclopedia, 2020), and without proper infrastructural aspects like paved roads, highways and railroads to transport food, the Somalian people moved to shipping (Somalia - Infrastructure, 2020). Though this may have seemed like an adequate way of transporting goods when the idea was first brought up, it soon led people to attacking and robbing ships at sea, otherwise known as pirating. One problem resulting from the Somalian Civil War is that many countries were taking advantage of the fruitful waters bordering Somalia. They were overfishing and illegally dumping waste and toxins into the waters because it was easier and cheaper than the legal way. This left Somalia with fewer fish and a huge amount of poisoned plants because they were using polluted water to water their crops.. This was all very easy to do because at the time, Somalia was in the midst of a civil war and had practically no government. With fewer fish from the oceans, Somalis had to resort to piracy to obtain money for food and possibly food itself (Hebo, 2016). The aftermath of this is that Somalia's natural food supply had been poisoned and depleted, forcing many families into poverty.

In all areas of Somalia, the ability to obtain fresh, safe and clean water is incredibly challenging. In the article titled "Priority Issues," an organization named Unicef said that "Only 45% of Somalis have access to improved water sources..." With only that many people having access to clean drinking water, not many more have the ability to obtain safe water for their crops. In the article titled "Water Scarcity in Somalia: On the Ground Solutions," Safa Faruqui said that "...our team identified several areas around the Shabelle and Jubba rivers which were not being irrigated..."(2019). Although there are many large spaces for farming, not many people have the ability to attain fresh and safe water to grow their crops. The water was unable to be irrigated because it was so full of silt, sediment, other layers of rock, waste products, and litter. According to the article titled "The Impact of Civil War on Crop Production in Somalia," written by A. O. Jeilani, Somalia has agricultural resources that have the ability to feed its people and produce a surplus amount for exporting (2020). They have many millions of hectares (mha) in agricultural and forestry land that could be used for food production. Jeilani also said that almost 70% of Somali people live in rural areas. This means that agriculture is their most direct source of livelihood because they live

on a lot of arable land. Having a lot of arable land is not the only key thing to the production of crops; another crucial factor is the ability to successfully irrigate it. Much of Somali agriculture depends on rain-fed systems including permanent crops like rubber, coffee and tea, as well as annual crops, such as wheat, rice, and maize. The ability to efficiently irrigate these crops will play a pivotal role in increasing the production of produce. Not only are the conditions poor, but many Somali citizens do not have a large enough budget to purchase adequate farming machinery. Both the surrounding area and people are poor, thus the ability to improve the production of produce is inadequate.

The issue of safe drinking water has been recognized in an area slightly north of Mogadishu, the Baraako Village. On account of the thousands of internally displaced persons (IDPs), teams have constructed a community water well for public use (Faruqi, 2019). To ensure that all farmers have plenty of safe water for their crops, the U.S., who has an embassy near Somalia which supports help and possible trade between the two countries, could help to implement water fixtures that provide safe water for the use of providing food. This would allow for the improvement of one aspect of Somalia's infrastructure and would hopefully cause a snowball effect on the rest of it. With the capability to effectively irrigate and water their fields, Somalia would likely be able to produce more than enough food to feed their country because of the vast amount of land devoted to farming. With the excess food, the government would presumably be able to sell and trade it for money or different technologies that would be able to improve their infrastructure across the country. Some people however may argue that the United States should solve all of their problems before helping a foreign country like Somalia as there is a fierce string of nationalism that runs through the U.S.. Though citizens may agree with this, helping Somalia is actually a very good idea as it will jumpstart their economy...in turn helping America's economy grow because the two countries would likely be trading with one another. However well this idea may work, it is always crucial to look at the downsides. Should these fixtures malfunction before Somalia is able to grow their crops, they would have no money to replace what was wrong, and the United States would likely not offer more aid since it would take an extremely long time to implement these features. Another drawback to this proposal is that it would be very costly. It would be necessary to clean the rivers and other water sources, as well as actually implementing these fixtures. Many of these issues would prove extremely costly and would drastically set back the advancements made in Somalia. Making sure that farmers have access to safe water for their crops is essential in the steps to improve Somalian infrastructure.

A low-cost way to improve the amount and quality of paved roads in Somalia is to adopt "geo cell pavements." Geo cell pavements consist of low-cost concrete poured into malleable plastic webbing. They are very cost effective and are easier to maintain than asphalt, chip seal pavements, or concrete (Whalley, 2016). The geo cell pavements would allow for easier transportation to and from markets to get food from. Not only would transportation to markets be easier, it would help to prevent spoilage of food that will eventually go to waste. Getting food from the markets to housing would be much easier, however, this is not the only thing that geo cell pavements would help to improve. Geo cell pavements would help farmers get the food that they grow to markets, to eventually make a profit. These would also be useful for constructing airport runways for planes to land on. With newly built runways, it would be easier and more effective to import and export goods. Not only would modern technology help Somalia to harvest their produce, it would be much easier for them to export goods from their country. Modern technology like newly paved runways are of the utmost important in the venture to making Somalia a

food secure nation. Research has found that this new type of pavement is reliable, it might prove to be costly, but there are many examples to support that the cost is in fact worth the investment. Somali citizens would be able to transport their crops from their farms to markets for selling, non-farmers would be able to get to markets much easier to purchase food, and it would be much easier to export food. One flaw with this plan is that it may not be implemented correctly. The Somali government may not receive the correct directions, thus, the government would end up spending more money on a low-cost plan than they would have had they gone with the typical pavements. In order to solve the problem of the geo cell pavements not being put in correctly, the United States would send experts to Somalia to train the people implementing the new pavements on how to correctly produce and install them. To ensure that the Somalis keep producing and putting them in correctly, the U.S. would send experts there every year or so to help them or retrain them if needed until the geo cell pavements are implemented everywhere they are needed. Pushing to improve road quality will drastically change the way that food is distributed, in turn improving the economy.

Both of these solutions may prove to be very costly, not only to Somalia and its citizens, but also to countries trying to help them. According to the article titled "East Africa: Strong Infrastructure Investments Push Up Public And External Debt Levels," edited by Jan-Pieter Laleman, countries like Djibouti have spent a lot of money on infrastructural advancements, these improvements have made their country go into a lot of debt, but they have also made their GDP go up (Laleman, 2018). One reason that Somalia would not go into a tremendous amount of debt is that their infrastructural advancements are based upon them being able to easily pay back the debt through exporting the surplus of goods they will eventually produce. In the case of Somalia, it would be easy to argue that it is not so much about how much money they are spending, but what they are spending it on because it will be a lot easier for them to repay countries that helped them by trading with them and/or exporting their surplus to the countries that helped them in their time of need.

Furthermore, the inadequate infrastructure in Somalia is causing the country to face incredible food insecurity. Many of the issues revolving around Somalia's inability to safely and efficiently produce food stem from the Civil War. Because of the rampant violent activity associated with war, Somalia's government crumbled and since then it has been incredibly unstable and very hard for them to improve any aspects of their citizens' lives, not to mention their country's infrastructure. One way to jumpstart their economy would be to build community water wells with the help of the United States or other wealthy countries. In conjunction with the water wells, Somalia could implement geo cell pavements, which are a low cost pavement replacement. With both of these improvements, Somalia would be able to export surplus food that they have grown to help rebuild their country.

It is imperative that while still improving the infrastructure in Somalia, the rich cultural heritage is still apparent. If Somalia improved all of the places where their infrastructure falls short in the easiest way possible, much of their ancestors' legacy would be unknown and unseen by many. Though the solutions presented may be costly, Somalia would be improving only the most needed aspects of their infrastructure and would therefore be able to keep the heritage that can define a region. Not to mention, some of Somalia's buildings may mean something culturally, with too many upgrades, many of these buildings could be lost. It is next to impossible to reinvent a country without losing at least some of the cultural

heritage that means so much to the people. . The lack of infrastructure in any country can lead to drastic solutions that may not always be effective. This is exceptionally apparent in an underdeveloped country like Somalia. Somalia falls short on the optimum methods of developing infrastructure. To increase their infrastructural quota, it is imperative that Somalia improve their water quality, means of obtaining water, as well as paving and updating their roads. Improving these aspects would not only revive their economy, it would also drastically improve the lives of the citizens living there. All Somalia has to do is improve their infrastructure with the proposed solutions and the potential for Somalia to become a flourishing country is within reach.

## Reference

s

CIA (Ed.). (2020, February 28). *CIA World Factbook*. Retrieved February 28, 2020, from

<https://www.cia.gov/library/publications/the-world-factbook/geos/so.htm>

l

Faruqui, S. (2019, October 8). *Water Scarcity in Somalia: On the Ground Solutions*. Retrieved

March 10, 2020, from

<https://muslimhands.org.uk/latest/2019/10/water-scarcity-in-somalia-on-the-ground-soluti>

on

s

Hebo. (2016, March 24). How did Somali piracy start? *Quora*.

<https://www.quora.com/How-did-Somali-piracy-start>

t

IES (2020). The Cultural Atlas. Retrieved from:

<https://culturalatlas.sbs.com.au>.

Jeilani, A. O. (2016, October 25). *The impact of civil war on crop production in Somalia* [Paper

presentation]. Seventh International Conference on Agricultural Statistics, Rome, Italy.

<https://www.istat.it/storage/icas2016/a06-jeilani.pdf>

Laleman, J.-P. (Ed.). (2018, October 16). *EAST AFRICA: STRONG INFRASTRUCTURE*

*INVESTMENTS PUSH UP PUBLIC AND EXTERNAL DEBT LEVELS.*

Credendo.

Retrieved August 11, 2020, from

<https://www.credendo.com/country-news/east-africa-strong-infrastructure-investments-pu>

[sh-public-and-external-debt-level](https://www.credendo.com/country-news/east-africa-strong-infrastructure-investments-pu)

[s](https://www.credendo.com/country-news/east-africa-strong-infrastructure-investments-pu)

Michigan State University. (2020). *Somalia: Government*. Global Edge. Retrieved August 11,

2020, from <https://globaledge.msu.edu/countries/somalia/government>

Pike, J. (n.d.). Military. Retrieved from

<http://www.globalsecurity.org/military/world/somalia/infras.htm>

*Somalia - Infrastructure, power, and communications*. (2020). Retrieved March 2, 2020, from

<https://www.nationsencyclopedia.com/economies/Africa/Somalia-INFRASTRUCTURE>

-

[POWER-AND-COMMUNICATIONS.htm](https://www.nationsencyclopedia.com/economies/Africa/Somalia-INFRASTRUCTURE)

1

Unicef. (2020). *Priority issues*. Retrieved March 9, 2020,  
from

[https://www.unicef.org/somalia/wes\\_95.htm](https://www.unicef.org/somalia/wes_95.htm)

1

Whalley, O. G. (2016, February 18). *Bringing Paved Roads to the Hinterland*. Retrieved  
March

11, 2020,

from

<https://www.worldbank.org/en/topic/transport/brief/connections-notes-series-2016>