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Tanzania- Sustainable Agriculture

Connecting the Dots with Tanzania's

Food Insecurity Problem

Opening (Why to fix)

In recent years, Tanzania has found itself in the center of the news with its effort to solve its food shortage problem, which plagues more than 600,000 children less than five years of age with malnutrition. [14] Along with this, around 40 percent of the Tanzanian population lives in locations that regularly suffer from food shortages caused by “irregular rainfall, degraded soil, and inadequate farming equipment that yields meager harvests”. [7] But even with all of this, Tanzania, with the help of many organizations like Feed the Future, and the United Nations Food and Agriculture Organization, has been able to make a difference in its small communities and towns. [13][3] With their contributions, Tanzania has been able to produce, on average, 95 percent of its food requirements. [4]. So why does the country still struggle with many problems such as malnutrition and poverty? [4] Many of these problems can be traced back to the lack of infrastructure, education, and Good farming practices that are known to cause problems throughout the country. [4][2] Planning and taking actions to improve these problems will increase the amount of soil health practices and decrease Tanzania's poverty percentage the Tanzanian government.

Accessibility

Although Tanzania is facing a food insecurity crisis, Tanzania is able to produce almost enough food to feed its population. [8] The biggest issue has become the lack of infrastructure that's caused a great separation between many parts of the country. Most of the food produced within the country's borders is harvested in the “Southern Highland Regions”; where there is less risk of drought ruining a farmer's harvest. [4] On the other hand, starvation and food deficit areas are located in the “central and northern” regions of Tanzania. But due to the lack of infrastructure and long-distance commutes, the prices for such commodities have skyrocketed leaving many people without these necessities. [4][13] As tradition tells us in Tanzania, it's extremely common for farmers to sell any leftover farming products after their harvest to earn some money to use towards bills, education, and other necessities a family might have. [4][6] This means Tanzanians are not able to purchase food needed for their families in months further in the year. [13][4] This also causes fluctuations in eating habits, productivity and starts the food insecurity cycle. [4]

Malnutrition

When a child is born in Tanzania, many mothers worry about their newborn's first 1,000 days, or as they call it, The Golden Window. [7] “Malnourished children demonstrate a diminished capacity to learn and

have a higher susceptibility to infection,” says one study directed by scientists in Barbados. Without the means to buy food or harvest their food due to drought or disease, this causes a lack of nutrients in many families and especially, small children. Typically, Tanzania runs into a dry season in their weather patterns from June to October. [7] Since most of a family's money, and thus, food is no longer present during this period, these families undergo irregular eating habits that cause the loss of nutrition they need to be productive and sometimes, can even be fatal. [4][7] “In low-income countries like Tanzania, malnutrition causes a third of all deaths of children under 5 years of age.” says Dr. Borda, a native Tanzanian doctor. Where does it all start from? Many claim the main source is from the lack of understanding of good soil health practices.

Soil Health Education

Tanzania’s agricultural industry is run primarily by small farmers running small farms, unlike what we see here in the United States. [13] While this is working for Tanzania, their farming practices and heavy reliance on many pesticides and chemicals have caused the quality of the soil to deteriorate over the past few years. [9][5] “Tanzania is slipping into a frightening cycle of adding chemicals on top of chemicals just to stay one step ahead of the damage the chemicals themselves are causing,” says Molly Pulsifer. Since the Agriculture sector employs almost 75 percent of Tanzania’s population, this is becoming a bigger and bigger issue each year. [2] This is causing more and more Tanzanians to report their land has become “unfarmable” due to soil erosion and the death of the living organisms in the soil. [5] And with the world population on an uphill trend, farmland is one scarcity that needs to be preserved. If nothing is done soon to help, Tanzania’s current upward trend out of poverty might start receding.

Solutions:

Since these problems have become prevalent within the country, the government has started to take steps to fix these problems. In 1973, the Tanzanian government, in conjunction with USAID, started to better educate its people about the effects of using chemicals and how to prevent the loss of microorganisms in their soil. [11] Since then, more and more small organizations have started to help Tanzania by educating farmers on the current and best practices to apply to their farms to improve soil health. These practices are improving the soil so it can produce higher yields and earnings. One of these organizations, Sustainable Agriculture in Tanzania (SAT), has reported 91% of people using SAT’s methods after enrolling in the program and 61% reporting being able to reuse their old soil that had recently been lost due to overuse of chemicals. [10]

But, between the lack of technology and the reliance on chemicals, steps need to be put in place to apply these soil health measures and practice on a much wider scale. While chemicals are easy to use and may create short-term fixes, more harm is being done below the surface that will ultimately compromise the productivity of a farm’s operation. If we were to get the government on board, and show leaders in the agricultural field these problems these chemicals will have to the nation as a whole, they would be able to help spearhead projects, by Tanzanian people, to incorporate these soil health measures on a much larger scale. On top of this, if Tanzania did start these government-aided projects, then they are at a much higher level to be spread via advertisements and propaganda throughout the nation, causing more acceptability throughout Tanzania.

While this is great news for improving soil health, this does not change the problem Tanzania has with its lack of infrastructure. While farmers and agriculturists can raise more plants and animals, this doesn’t get

the food from its source to the malnourished people. Currently, four main roads are connecting the southern regions of Tanzania to the central, more populated area of Tanzania. Of those four roads, only one of them is paved. [11] This makes transporting produce as much as meat and vegetables extremely difficult considering these roads are already extremely congested, and dangerous. It also makes even the smallest of travels span from several minutes to several hours in congested traffic. [12] Currently, the Infrastructure Department of Tanzania is working on connecting many central cities with paved roads. While this does improve the transportation between markets where poverty is highest, this doesn't help get food from the Southern regions to these markets. [1] To improve these conditions, more paved roads need to be made connecting these two regions. While citizens of Tanzania may be opposed to this idea due to a rise in taxes, this project would be able to pay itself off as more and more produce and livestock will be able to pass from business to business. These people may also ask for unpaved roads in this project but paved roads would fix the issue of common washouts that make many unpaved roads dangerous and un-drivable. [1]

By improving the transportation system and allowing more produce and livestock to enter the market, Tanzania's Malnutrition rate will drop, as more food would become common in areas where it wasn't before, and allow the supply of Tanzania to reach its demand market. On top of this, another great way to reduce the percentage of malnutrition in children under 5 is to educate the people of Tanzania with current agricultural practices like the crossbreeding of plants for more resilience, and benefits of soil health practices. [4] By teaching these agriculturists about proper ways to crossbreed plants or animals, they would then be able to tailor new varieties of plants for more product produced per area of farmland and for more nutrients to help fix the malnutrition crisis they currently find themselves in. [8] Plant resilience is key for Tanzania and its long dry season and hot central and northern regions. By Teaching Tanzania how to tailor varieties to their needs and climates, not only will they be able to sustainably raise and feed their nation, but stay on their rise out of poverty and into a stronger and healthier world.

Since as much as 75 percent of the population in Tanzania are agriculturists, passing on new information to new generations of people is extremely important for making sure their country doesn't slip back into the current crisis they are in. [2] This means that while these small organizations are helping farmers in the field, the Ministry of Education of Tanzania needs to look into adding these new practices into the classroom for students to learn. Agriculture is something everyone in Tanzania is a part of; and if there isn't a way to pass information from generation to generation of agriculturists, then the cycles of poverty and malnutrition will continue, causing more and more suffering. These students can then apply what they are learning when they are helping on the farm or starting their family farm. This also helps to ensure the continuous adoption of agricultural practices into the future. This would also play a role in improving the overall GDP and economy of the country as more and more agricultural products will continue to come to the markets increasing competition and trying to compete with competitors and continue to keep Tanzania's economy on the rise.

Along with this, as Tanzania begins to become stronger and stronger as a nation, it will need to turn from relying on these small organizations to help Tanzanian agriculturists learn about better practices, to conducting their research in these fields, and start applying their findings. While this may seem like a problem that should be addressed later, connecting these small farms and agriculturists will create a stronger relationship between communities through Tanzania and help to create a flourishing nation.

Though Tanzania has been slowly trying to improve its current situation, there are still a few major problems that need to be addressed and changed to bring Tanzania over the tipping point. By working to lower the number of malnourished people in the country and working on educating farmers on ways to grow crops without pesticides, the country will start to see itself becoming prosperous and will lead the way for many other African Nations to come. By adding more paved roads from Southern Tanzania to Central Tanzania, the number of malnourished adults and children will fall and open up new markets to new people. By teaching agriculturists and children to use good soil health methods they will supply the country with more nutrient-packed foods, and a greater Tanzania.

The road to pulling Tanzania out of poverty and into a thriving nation is not easy and will take a lot of time, planning, and acceptability to make the vision of a Greater Tanzania come to life. Hard work comes at the forefront of all these challenges, but if the people of Tanzania are looking for a healthier, stronger, and happier lifestyle. Most Tanzanians are engaged in some type of agriculture and play a role in feeding their nation. But, if they're not careful, all the hard work that has already been put in will be erased. By using more eco-friendly measures, connecting Tanzania, and educating the youth of Tanzania, then they will be able to continue to push their poverty rate downwards and create the nation that they were always wanting.

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