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### **Ethiopia: Assembling a Prosperous Education to Enhance Agricultural Awareness and Technology**

Ethiopia, located in the horn of Africa, has 91.73 million surviving people currently living with the threat of a national famine ("Africa: Ethiopia."). Ethiopia has been an unstable environment, and its insecurities with in society have caused many people to take advantage of this country first starting in the 1930's. This vulnerable country is at risk of a major crisis, their poor farming practices create an unstable income, malnutrition is causing tremendous death rates, and lack of access to food markets makes for inadequate food intake. Ethiopia relies solely on agriculture for most of their income, but with the fluctuating weather conditions, this creates a soft spot in their economy. Feeble education levels constitutes a foundation for food insecurities. This country needs perception and awareness in order for them to become a habitable territory.

Starvation is a pressing issue for Ethiopia and has always been an obstacle needed to be overcome, with the right discipline and support, this may just be a hardship that this country could conquer. According to Nada Chaya, The diversification of social and economic societies, weather conditions, and topography of land in Ethiopia make for life threatening health conditions as well. Scarcity of profit also makes it tough for Ethiopians to withstand the horrendous circumstances that are thrown their way.

Maldistribution of funds is a factor in Ethiopia that prevents them from striving in categories that need to be addressed in order to succeed. The World Bank approved a funding for Ethiopia in September of 2012, most of this funding went to providing services to the poor, and creating more road systems for trade in their country ("News." Ethiopia World Approves). Instead of the majority of this money being distributed to health and Education, they used it to expand roadway systems; most Ethiopians do not make a high enough salary to use them for purposes other than walking. This may improve Ethiopian economy in the future by giving farmers more access to food markets but the people of Ethiopia need to focus on how they can improve their lifestyle now. Although there have been health related donations to Ethiopia that has made hospital renovation possible, decreased the death rate of children under 5, and provided more physicians in their territory, the mortality rate of this country is still higher than it should be, and spending more funding on creating more health resources would be a sensible suggestion ("News." Ethiopia World Approves).

Ethiopia has high family bonds, so it is not unusual to expect extended family members in the household, which also creates more mouths to feed. A persons diet often includes a meal that is high in fiber, low in dairy product, and lacks fat. Most families have to produce their own food, which means raising livestock for products like eggs and planting for products like collard greens. Meat is only served on special occasions, if the family is lucky enough to have it. An Ethiopian family typically eats one meal a day, two if they are lucky. These poor eating habits lead to malnutrition in Ethiopia, which is the underlying cause of 57% of child deaths in their country (*Transform Nutrition.*).

Crop production is a huge part of what keeps Ethiopians on their feet; without the food and income from their products, their family would start to slowly diminish. The majority of Ethiopian farmers plant cereals; the five most common cereals are teff, wheat, maize, sorghum, and barley. Around three quarters of Ethiopia is involved in agriculture, which is roughly about 62 million Ethiopians practicing cultivation. A combination of recurrent drought conditions, an inadequacy of training and equipment, and poor access to markets make it nearly impossible for them to survive solely off an agricultural industry. The agrarian livelihood remains very susceptible to severe weather shocks, as food production is primarily rain-fed.

Although in 2011, Ethiopia's agricultural sector grew by 9%, induced by the mass production of cereal, which hit a record high. Although this field seems to be moving forward, this sector continues to face many challenges and setbacks. Productivity levels still remain low and the marketing infrastructure is feeble, thus causing immense transaction costs.

Outdated farming practices serve a severe role in inferior productivity standards; these techniques exhaust landowners. Ethiopia has been practicing outdated farming techniques for quite some time. These procedures make cultivating land, planting, and harvesting not only more difficult but more time consuming as well. Archaic farming tools and obsolete agricultural know-how make fostering product and productivity fast track its way to rock bottom. Teff, an African cereal, when sprinkled by the handful haphazardly creates clash within crops and results in little yield. If this country were to use machinery for sowing seeds, they would not only be able to monitor the space between crops but the depth as well. This would cut down the time it takes to plant and also how efficient their harvest results would be. Moreover, bringing appliances into the equation would be a huge reduction of time and also cut out unneeded tasks for Ethiopian farmers. A tremendous part of money fall is due to post harvest loss, poor extracting, carrying, and storing of crops induce shrinkage. Storing of produce is a major complication for Ethiopian farmers, the storing of things such as meat, milk, and eggs are extremely difficult because they have to somehow be kept at cool temperature.

According to the World Bank, Ethiopia has endured seven crucial droughts since the early 1980s, five of which led to starvation (“Adaptation to Climate Change”). Droughts cause harvests that are too limited to feed their own family, let alone fulfill commitments that farmers have made within the community. Poor rainfall hits Africa extremely hard because most countries do not have the equipment, know-how, or time in their day to provide further irrigation for their crops. This makes crop production decrease, food consumption decrease, and profit decrease. Not only does severe weather create an obstacle to overcome, but inferior health conditions also affect agricultural productivity. Farming would take a toll on anyone’s body, but since Ethiopia lacks automotive farming equipment, they rely on their bodies to do that job. Having gruesome health conditions not only lowers their life expectancy rate because of health related death, but also lowers a farmers harvest profit, which then reduces their chance for providing food for themselves and their family.

Unicef states that only 17.1% of the population lives in urban sectors of the country, this means that the other 82.9% occupies rural areas. What little industry Ethiopia does have, lies in urban communities, which presents the question; how are Ethiopians supposed to find stability in their lives when all of their possible income lies out of reach? Another barrier of sustainability is how small and family owned their acreages are. The average farm size, 1 hectare, will not be enough land to produce a sufficient amount of crop to allow both the farmer and his family to eat and export product for income. The amount of land equivalent to a hectare would be 2.47 acres or 10,000 square feet, which could be compared to roughly the size of two football fields put together. According to the 2012 census of agriculture, the average US farm is an impressive 434 acres, which would be the tantamount of roughly 334 football fields. These minuscule scaled Ethiopian farms do not have enough farmland to use their acreage to the best of its advantage and obtain the highest income that their farmland could offer.

Ethiopians living in out of reach areas prevents them from accomplishing a stable lifestyle. Food markets are a major hardship for families, especially for the people that do not own home run farms. Decent transportation would play an enormous role in changing not only poor eating habits, but also education as well. Malnutrition is a fundamental cause for about 57% of child deaths in the country. Education could potentially be a main obstacle prohibiting the people from a solid physical and mental health. According to World Factbook, the average child will only go to school for seven years; with only seven years in school, an inadequacy of learning time will form, and during primary schools they will be teaching a child how to read and write, not how to sustain healthy eating habits. Without the knowledge of what vitamins

one needs for their body, they cannot do anything about their poor health. Since there is not even one physician per 1000 people in Ethiopia ("Africa: Ethiopia."), they have no other form of learning about superior health other than an appropriate education.

"Education is not a way to escape poverty - It is a way of fighting it.", stated Julius Nyerere, former President of the United Republic of Tanzania. Education could be just what Ethiopia needs to pull themselves out of a poverty stricken state. Improvements in education would cause a tremendous change in society, but this change would have the power to alter both the economy and the moral of Ethiopians. Developing a strong education in this country would improve agricultural income, help create a stop to malnutrition, cure their urbanization dilemma, and decrease the mortality rate due to preventable diseases. Not only do the people need to be given the right tools to change but they also would have to obtain the willpower or desire for change.

It is not enough to just want innovation in a community, it has to be worked for. However, Education is a huge shortcoming for this country and to acquire proper education is going to take effort from multiple parties, starting with funding, but ending with the people. Only 39 percent of Ethiopia's population over the age of 15 is literate, and of that 39 percent, 49.1 percent of the total male population and 28.9 percent of the total female population is literate. ("Africa: Ethiopia."). Education is not valued as much as it should be in this country, only 4.7% of the countries gross domestic product was education expenditures ("Africa: Ethiopia."). Instead of furthering their education most children are forced to work, in fact 53% of children between the ages of 5 and 14 are working in order to help provide for their family. If Ethiopian kids could stay in school instead of having to drop out in order to help put food on the table, they could learn how to make a better income and also raise their life expectancy.

Since this country bases itself off of an agrarian lifestyle, having proper knowledge and technology would increase this countries total profit. Fairly recently the education fees in Ethiopia were abolished, but their up to date survey showed that they did not see a huge improvement, the enrollment rates ranged from 20-90 percent depending on the region of Ethiopia they lived in (Oumer, Jeilu). This study shows that although financial insecurity may play a role in enrollment rates it is not the primary problem here. Although the abolition of primary education fees did boost Africa's primary enrollment to 42% from 2000 to 2007 this is not a panacea of poor education rates, by suppressing these school fees the demand for more resources in the classroom went up (Tafirenyika, Masimba). Without school fees learning environments cannot support the extreme surge of knowledge seeking children, and without proper supplies or teachers, kids will be granted with poor education. The median age of this country is 17 and at this young age one should still be in school, but they are needed to provide for their small-scale family farm. If this country were to have advanced technology, these improvements would allow less people needed to work, which means more of their family could spend their time in school instead of having to spend their hours in the field. Technology such as tractors, combines, and planters would allow the job to not only be done quicker but also more efficiently as well. If small-scale farmers were educated on how to combine their farms and land area, this would make crop production increase and create for a more industrialized side to agriculture. However it is not enough to just increase crop production a decrease in shrinkage is needed as well, and most Ethiopian loss is due to poor post harvest practices. Being educated on how to properly extract, transport, and store crops would cutback loss thus making farmers earnings escalate.

Improving education could play a huge role in enhancing agriculture and technology in this country, but it could also go far beyond those expectations as well. Developing better education in this country could possibly change a good majority of their statistics for the better. For example, being educated on what crops are and are not safe to put in their body could just save the lives of millions. Every person no matter where they are from should be given the basic knowledge on how to take care of their bodies, that is a right that all Ethiopians deserve to obtain. Education could also play a role in employment rates as well.

Higher education grants anyone a greater chance of employment, and not only does it give them an advantage in finding a suitable career, it also raises their odds of a wage that can sustain themselves. In all aspects higher education levels is the key to a greater profit and the people of this country could have the opportunity to finally become food secure with these raised incomes.

Ethiopia is a fairly large environment, so if they do not make alterations to the minor flaws now this country will take a turn for the worse. In order to prevent a national famine, there are a few actions that this country and its government could do to try and prohibit a food crisis. For starters their government could manage their funding in a more appropriate matter, one that would benefit the state of the people. There are several countries trying to help Ethiopia out of their rut by creating not only educational funds but others as well such as the COEEF, The Global Fund, CIF, and the GAFSP; these funding programs provide wealth for things such as schooling, agriculture, climate investments, and general donations. The World Bank is an organization located in Washington D.C that has granted several generous loans to Ethiopia for things such as: dam construction, water supply, and sanitation experiments. The CIF or Climate Investment Funds is another successful foundation that has provided Ethiopia with the means to experiment in energy accessibility. Nonetheless, even though this country has all of these different funding programs, they still need to disperse of their profit in a knowledgeable way, in order to prevent anymore maldistribution.

A strong and stable leadership presence could boost the morale of this country and improve several different altercations that are currently occurring or may occur in the future. Ethiopia could use financial, agricultural, and health expertise from world renowned experts. Hiring or simply reaching out to these specialized professionals would give the government the excess information they need to keep improving their country. Ordinary citizens could also help out by teaming up with local governments and pooling different concepts and educational ideas together. These local governments could then share these ideas or pressing issues with national government members to form more of a countrywide communication. If the Ethiopian government would rank their social and economical issues in order from most pressing to least, they could create a budget off which to base their spending, creating a solid infrastructure that will lead to more prosperous incomes. Using education and the people to devise a system so that Ethiopia's agricultural section has room to expand into something more than small-scale farms. With the right knowledge Ethiopia's system could include combining a majority of neighboring farms to create an agricultural industry, which not only feeds their families, but also exports the plurality of their crops. Ethiopia as a whole will not have the power to repair these minor imperfections without the aid of education. Figuring out a better way to enroll children in school other than abolishing fees would provide a finer education and allow more money for schools to inherit technology into their community. If the Ethiopian government were to reduce school fees of not only primary education but secondary as well this would grant more children with the privilege of a standard education. Alerting Ethiopian government on the positive impact education in Ethiopia could bring to their country might sway the way their country managing their budget. With cleaner and more efficient money managing skills this country could flourish in the future instead of diminishing. World renowned experts could play a major role into pushing these suggestions into action.

Although Ethiopia may not occupy the largest region in Africa nor is it suffering the most, but by continuing down the road this country is traveling on it could potentially become equally as corrupt throughout time. All Ethiopians need are the right tools for enhancing a thriving educational system creating understanding and recognition throughout this nation, and by doing this, they could just possibly be the inspiration and hope that those few bordering countries need to boost their moral and create a want for innovation as well. Although this democracy may lack agricultural insight and technology, it has the right foundation to establish a strong, stable, food secure future with just the right amount of nourishment and guidance.

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