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Ethiopia: Stymied Progression Due to Lack of Education

John F. Kennedy once said, "Our progress as a nation can be no swifter than our progress in education. The human mind is our fundamental resource." President Kennedy therein describes the secret that knowledge and wisdom are the cruxes to a successful developed society and how acuity of the human mind can triumph over any challenge. To this day, this basic principle has held true. In the United States, in some respects one of the most developed nations in the world, 99% of the population is literate and the average citizen attends 16 years of formal schooling. Other First World Nations, such as Japan and the United Kingdom, exhibit similar statistics. The world over, approximately 87% of the population above age 15 is able to read and write; however, this leaves 13% of the world's inhabitants who are still illiterate. Sadly, over two-thirds of the remaining 785 million people are concentrated into eight countries: Bangladesh, China, Egypt, Ethiopia, India, Indonesia, Nigeria and Pakistan. Exceedingly low reading and writing proficiency rates are found in just three regions: the Arab states, South and West Asia, and Sub-Saharan Africa. These lower education levels have significantly stalled development in these nations, and unfortunately, these nations are also some of the most impoverished and hungry nations in the world. The country of Ethiopia in sub-Saharan Africa, known to the locals as Ityop'ya, is archetypal of these indigent, uneducated nations. Ethiopia, as well as many other African cultures, is ignorant to the farming techniques and water-usage practices that allow for thriving, sustainable agriculture exhibited in the American West. By educating the populaces of poverty-stricken and starving states, such as the nation of Ethiopia, in proper agricultural and cultivation practices, water preservation techniques, and resource conservation, agricultural production could be increased exponentially and hungry populations drastically diminished.

The Federal Democratic Republic of Ethiopia (Native: Ityop'ya Federalawi Demokrasiyawi Ripeblik) is a landlocked, sub-Saharan nation in Eastern Africa bordered by Djibouti, Eritrea, Somalia, Kenya, and Sudan. This mountainous Third-World country is agriculturally based, but, due to the mountainous and arid climate and rocky soil, limited crops can be grown in this area without irrigation. Despite this impediment, over ten percent of the land remains arable. Still, Ethiopians cultivate a mere 0.65% of the land for permanent crops. Of the 85,237,338 inhabitants, 85% are involved in agriculture. Most farmers, however, are simply subsistence farmers and are not able to produce any excess crop for profit. Traditionally, farmers cultivate cereals, pulses, and other grains and legumes, coffee, cotton, and potatoes (Ethiopia). These crops constitute the majority of the diets of the rural poor making them particularly susceptible to a poor harvest. Likewise, livestock is an important part of rural life, especially for the pastoralists of the plateaux and highland plains. Farmers raise cows, sheep and goats for their hides and meat. These farmers also milk the cows and goats; this milk provides much needed nutrition to the impoverished children of the rural communities and to the adults in times of shortage. Camels, though, are the main agricultural and economic activity of the nomadic pastoralists. The nutrient rich milk of the camels supplies the itinerants with vitamins, fats, and proteins not found in their vegetable-lacking diets. Camels are also important for travel, trade, and commercial endeavors. Customarily, the pastoral encampments have at least one camel to serves many needs (Mengistu). The transient lifestyle of the highland pastoralists contrasts that of the subsistence farming communities in the lowland areas.

As aforementioned, only a small portion of the land in Ethiopia is readily arable. Resultantly, semi-permanent communities of subsistence-farming families form around these areas of relatively fertile land. These families typically constitute a portion of the 38.7% of the population below the poverty line, the other portion being composed of the sylvan communities of the plateaux (Ethiopia). On average, 6.07 children are born to each of these impoverished families. Many times, extended families live together, either in the same household or around a mutual piece of farmland. Born into these poor subsistence-farming communities, the children are statistically unlikely to make it above the poverty line (Statistics). School attendance is common for the younger children, with the average attending eight years of school, but few ever achieve even a high school level of education (Ethiopia). Fixed in this penniless existence, the rural poor of Ethiopia have little access to the amenities enjoyed by First World nations: healthcare, welfare, social security, federal disaster relief, or unemployment benefits. Resultantly, infectious disease runs rampant through the populations of the rural poor. Acquired Immunodeficiency Syndrome (AIDS) is all too common in this nation, with over 980,000 people living with the disease (Ethiopia). Without access to adequate healthcare, this issue will continue to intensify unless something is done to ameliorate the situation. Comparably, the lack of social programs to assist the poor restricts many impoverished families to their impecunious state. As agriculture is the main source of income for the majority of the population, improvements made in the agricultural sector are the only way to combat this inexorable pitfall of poverty.

Despite advancements across the globe, the practices of Ethiopian farmers remain primitive. Natives to the highlands still employ archaic forms of irrigation, such as the diversion of streams to established farm plots. In the arid climate that envelops much of the nation, it is impossible to grow crops without more effective, modernized methods of water acquisition. In addition to limiting arable land, the rudimentary irrigation practices employed by farmers, even in the lowlands, restricts the yield potential. In areas of large-scale irrigation operations, the methods used are so outmoded and prodigal that they are contributing to nationwide water shortages. In the same way, the lack of understanding of cultivation conventions results in nutrient-depleted soil and poor soil quality. In the highlands, herds of domesticated ungulates are permitted to mow down the native grasses. This overgrazing accounts for a great deal of soil erosion and, in due course, desertification. Furthermore, the beginning of industrialization in Ethiopia has resulted in mass deforestation, contributing to the aforesaid environmental degradations. In addition, as Ethiopia has one of the lowest densities of roads on the planet, efficient long distance travel is exceptionally difficult. Thus, in order to travel to the market, farmers must trek through harsh terrain, many times losing product en route (Mengistu). Aside from human-induced limitations on agricultural advancement, a number of natural impediments exist as well. The geologically active Great Rift Valley is susceptible to earthquakes and volcanic eruptions, destroying valuable farmland and uprooting families from their homes. Infections, whether parasitic, viral or bacterial, of the crops and livestock are commonplace in rural communities. Additionally, the horn of Africa experiences frequent droughts exacerbated more recently by the domestic water shortages. Similarly, the country is witnessing severe deforestation, overgrazing, desertification, and soil erosion as a result of deficient conservation efforts (Gryseels). Although there are many impediments to the advancement of agriculture in Africa, there is one underlying factor that remains the major inhibitor of progress: lack of education.

An investment in education has the potential to ameliorate many of the problems experienced by the bucolic poor of Ethiopia. For decades, the rural poor of the nation have remained in the same state of ignorance as a consequence of the stagnant education system. This is not to say, however, that education in a collegiate sense is the answer. Contrastively, trade education in this case is a much better venture. It

is imperative that Ethiopians learn the importance of water conservation. Living in a landlocked, mountainous region, water is one of the most important commodities they could possess. With water, farmers have the potential not only to increase yield, but also to expand the amount of arable land in the country. With increased yield, subsistence farmers have the potential to produce crops in excess and for profit. Theoretically, this simple boost in economic activity would affect the economy on an exponentially larger scale when observed among the rural poor en masse. Similarly, instruction on proper soil conservation techniques could mitigate the environmental impact on agriculture (Mengitsu). Presently, the overgrazing and deforestation witnessed in Ethiopia only accelerates the rate of desertification and soil erosion. The location in sub-Saharan Africa makes the nation more vulnerable to desertification, and the mountainous terrain increases the likelihood of soil erosion. This fact necessitates soil conservation practices. If educated on conventional grazing methods, the Ethiopian populace could assuage the effects of overgrazing. In addition, if taught the importance of maintaining forests, the populace could use the transplantation of trees to prevent further degradation of the soil. By taking these actions, Ethiopian farmers could stymie the effects of desertification and soil erosion thus far. Furthermore, education in policy would benefit the nation as whole. Instructing lawmakers in the management and upkeep of public roadways would contribute to an increase in road density within the overpopulated country, resulting in more efficient transportation and increased access to markets. By far the most important result, however, is the decrease in hunger. The amalgamation of these changes culminates in an increased level of food security for the people of Ethiopia. Once true understanding of agriculture is achieved, the agriculturalists will be able to adapt agrarian practices to compensate for changed conditions. Thus, farmers will be able to diminish the effects of climate change on their farming outfits. Because such a large portion of the population is dependent upon a good harvest, food security is a major advancement for a nation such as Ethiopia and with such security, they will be able to construct a thriving nation.

Implementation of such ideals and knowledge will take a great deal of time. This is by no stretch of the imagination a swift solution. Although many seek a solution to world hunger, the most effective and enduring solutions are those that will take a great deal of time to implement. The process ought to begin at the federal level. Foreign entities need to place pressure on the Ethiopian government to increase expenditures on education. At present, Ethiopia spends 6% of GDP on education (approximately US \$4.65 billion). Dissimilarly, the United States spends US \$747 billion of GDP. With greater expenditures on education, lawmakers can make drastic improvements to the educational curricula. Educators will need to place a focus not only on literacy, but also on education of socially applicable skills, in this case, agricultural practices. As generations are educated in conventional methods of water preservation, soil conservation, and better cultivation techniques, improvements in the agriculture system will be observed. Farmers will become better at managing water and soil and, subsequently, pass these skills on to future generations. Though apparently a very small step, in due course this will be the building block upon which the Ethiopian populace will construct their stable and developed nation. As the agriculture is refined, new forms of agrarian technology and research can be implemented in Ethiopia. Desertification and soil erosion will no longer be problems, and effective management of water resources would mitigate the effects of drought and water shortage in the nation. The thriving agriculture will create a strong economy, and food security will provide for a better quality of life. As the evolution of the nation progresses, new education can be introduced, fortifying past knowledge and building upon it. The beauty of this ideal is not in its implementation so much as in its simplicity. Education is a fundamental part of the lives of First World citizens. Knowledge is the key to their evolution and success as nations. If executed in destitute nations, these elementary concepts have the potential to establish a thriving and

autarkic society.

The instruction of Third World nations in the conventional methods of the West is not limited to the representatives of the United Nations. Foreign governments, especially those of the First World, should place pressure on struggling nations to increase expenditures on education. If a nation is so impoverished that it cannot afford to disburse federal funds toward education, the World Bank, an organization pledged to combat poverty, could provide the financial aid needed to initiate educational programs. The United Nations also could establish a standard for education and devise a goal for implementation of said standard around the world. Educational supplies will become in high demand, so civic organizations could send such supplies to developing nations to promote these educational reforms.

Developed and thriving, the citizenry of First World nations take for granted hunger and food security. With knowledge and skill in the cultivation and harvest of sustainable crops, the food supply never depletes to critical levels. By sharing this knowledge with developing nations, these nations learn how to be self-sufficient. This same self-sufficiency is the foundation of a developed nation. Through education and implementation of Western farming methods, Ethiopia could one day develop into a thriving nation centered on agriculture. Although protracted and seemingly simplistic, this method is the most permanent fix for hunger in the world. As the combination of soil, climate, and populace is different for every nation, its inhabitants understand the dynamics of the country most. Once educated in the appropriate agricultural practices, the citizens are the best to perform the necessary actions to make improvements to their nation. By instilling Third World countries with the appropriate knowledge, in due course, they will come to thrive. John F. Kennedy once said, "A man may die, nations may rise and fall, but an idea lives on."

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