Hans Riensche Jesup Community School Jesup, IA Haiti, Factor 16: Education

Haiti is a nation located on the west side of the island of Hispaniola in the Caribbean island chain of Central America. The country sits adjacent to The Dominican Republic. Haiti is a relatively small country, just over 10,700 square miles but it has a population of over 10.1 million people. (CIA Factbook). The size of an average farm is slightly over one hectare, or about 2.5 acres. The average family in Haiti has 3.4 people per household. (unhcr.org) The ratio of patients to physicians is 4000:1, astronomically higher than the 385:1 ratio in the United States. (CIA Factbook). Consequently, not many Haitian seek out formal medical care and sometimes turn to alternative methods of treatment, such as witch doctors (CBS News). Haiti is located along the Enriquillo–Plantain Garden fault line and the Atlantic hurricane belt. Both of which have caused many natural disasters on the island in recent years. The most prominent of these disasters was a magnitude 7.0 earthquake in 2010 which killed 220,000 residents and left roads, buildings, schools and business decimated. (Oxfam.org)

Haiti's people are impoverished. Food is costly and hard to come by, higher prices are driven by the nation's growing population and stagnant food production. Crop selection is driven by caloric needs rather than by the selection of crops that will maintain the health of and build up the composition of the soil. Haitians grow lots of potatoes and sweet potatoes to help fill their caloric and nutritional needs. Farmers are generally uninformed of how their crops impact the land, so they continue with traditional growing practices. They may be unaware of how their decision may plague the future generations of their families who will need that soil to sustain their own lives. Both potatoes and sweet potatoes are very demanding in soil tillage, leaving the soil loose and erodible.

Food accounts for nearly 60% of the use of a Hatian's income. (Worldconcern.org) The typical Haitian's diet is very simple, mostly consisting of locally grown fruit and starch crops like plantains. They enhance their diet by growing beans and rice to get proteins. (Adoptionnutrition.org) Haitians leave no unused part when they slaughter animals often eating organs and tissues deemed undesirable by North Americans. (Adoptionnutrition). The average caloric intake of a Haitian is 1850 calories, less than half that of United States citizens who average 3770 a day. (Chartsbin.com). This low intake is partially a result of a lack in sufficiently productive agriculture and the devestating poverty of the region.

Partially due to, and perpetuated by a lack of agricultural education, Haiti's people face mass food insecurity and poverty. "With over 58.5% of the population below the poverty line, it is very hard to purchase enough food for a family to live on." (CIA Factbook). The average Haitian's income is \$350 dollars a year, dramatically lower than the average household income in the United States of \$51,000 a year. (CIA Factbook). Haiti is the poorest nation in the western hemisphere, in rural areas they lack dependable roads or fertile soil to grow crops. (RuralPovertyPortal). A study showed that only 50% of children attend school in Haiti, and more than half of the children who do attend school drop out before the 6th grade because of economic instability. (Haitipartners.org)

Although it is not the only issue Haiti faces, it is my belief that the overarching issue that must be confronted in Haiti is education, and in particular, ag education. Many residents have received limited or poor educations and suffer from illiteracy. A recent investigation revealed that "39.7% of the population over the age of 15 cannot read or write." (HaitiHealthMinistries.org). If Haitians have such inconsistent education, it is unlikely very many have enrolled in the scarce, but existent agriculture classes.

The select group of people who do achieve a college education tend to leave the county to seek careers in North America or Europe. They exodus in an effort to pull their families out of gripping jaws of poverty.

Through this emigration they leave behind fewer people capable or educated sufficiently to run successful entrepreneurships. With fewer successful businesses, the standing issues compound themselves. Fewer businesses means fewer stable jobs, and fewer people receiving the consistent income necessary live, let alone pursue an advanced education. Most of Haiti's insufficiently educated people enter a vicious cycle of poverty that cannot be escaped and repeats itself in subsequent generations.

To combat such demanding food prices, 60% of the population survive off of subsistence farming or small scale agriculture (Miller, 2010). Even then, Haitian farming is often not enough to feed families, make a living, and still provide opportunities for the farmer's children to be successful. (Nations Encyclopedia). "These small farms occupy more than the 33% of the island's surface deemed suitable for agriculture." (Nations Encyclopedia). By attempting to farm some of this non-arable land, soil is lost to erosion or becomes more infertile. This processes decreases the sustainability of Haitian life and wounding the prospect of future generations to continue farming on Haiti.

In an effort to pull themselves out of poverty, some Haitians have resorted to harvesting local trees for charcoal. The income of selling charcoal provides a temporary escape from the destitute life style which most have to struggle to survive. Harvesting these trees without replanting them or without staggering the harvests leaves behind barren land. These exposed fields no longer have the ecological structures and systems that once rooted the soil. With no trees to hold the soil, and the regular occurrence of torrential rains or other natural disasters, including but not limited to: hurricanes, earthquakes and landslides, it is not hard for soil to erode from the island.

The issues listed above could be mitigated, and possibly solved if people were educated about the effects that their current style of agriculture has on the world around them. With so many problems directly linked to a lack of agricultural education in Haiti, it is clear that agricultural education is a significant issue. Most agriculturalists in Haiti are past the age for standard schooling, so an implementation of ag classes may not provide the desired instant relief. I believe that ag classes should be provided in Haitian schools, but I have found a solution to the problem that may expedite the process of producing educated farmers.

My solution is to form an organization that focuses on installing qualified ag mentors into Haitian communities. The purpose of installing mentors will be to provide Haitian people with an opportunity to develop the skills necessary to own and operate successful farms. The organization will distribute the knowledge, skills and opportunities that Haitian farmers need to become sustainable and profitable. It aspires to create a Haiti that is food secure and is no longer dependent on other nations for agricultural needs. This organization strives to improve the Haitian economy by providing jobs to residents and by enhancing the capabilities of their staple industry.

The selection of mentors would be tailored to seek out experienced, educated or talented farmers who have a background of growing the same crops as those on Haiti. These mentors would utilize their knowledge and experience to advise operations on the island. Mentors can suggest implementations or alterations that local farmers can instate in order to become more environmentally sustainable, financially independent, and generationally conscience. The mentors can help farmers develop a time frame for the farmer to so that they can discover the most seamless transitions possible for their operations. In addition, seminars and classes will be opened up to local farmers led by these mentors to discuss with locals about how their current farming practices impact their surroundings and lives. The curriculum that this organization will provide would not be confined to agronomy, it would cover financial management, budgets and investments. They would be taught how to own and operate a successful entrepreneurship, and how to work with those around them to benefit the ecosystem of their community.

To take the solution a step further, opportunities can be organized for farmers to congregate and share new ideas. In my own community, I have witnessed how bringing groups of farmers together inspires a

conversation over differences in farming practices and the value of those nuances. This same concept could be applied in Haiti if farmers are already being gathered for seminars. Haitian farmers could meet and discuss strategies to become more successful the next year, as well as in the distant future. If farmers finding benefits from the seminars in the first step of my suggested solution, they will be likely to advocate the program to other farmers. Thus by bringing more farmers to the conversation, all practices can be learned from and an ideal system developed.

Another service that would be administered under these mentors is a system where farmers share inputs and assets to keep costs down. For example: If a Haitian farmer is in need of technology or equipment that is too expensive to purchase on their own, they could be taught how to work with other farmers who have similar needs to purchase an asset together. By sharing a machine, facility or other assets, farmers could split up cost and get more use out of the machine to lower its. On my own farm in Iowa, my family has done this with other farmers to purchase expensive machinery like combine harvesters. By putting less weight in payments on each farmer, those farmers can focus money back onto food or education for their families.

The last step to my proposed solution would be to start a special ag-based school or push to have ag classes offered at existing schools. It may not be viable to have this curriculum integrated into a public school at this time because "the government in Haiti doesn't have much money, nor does much of the money go toward schools" (SOPUDEP). However, it is possible to start a private school with an affordable tuition cost. "Nearly 80% of the schools that exist in Haiti are privately owned and are funded by tuition cost", but once again the vast majority of rural Haitians cannot afford this tuition. (McNulty, 2011). If we could redirect some of the billions of dollars in donations that go to other less sustainable forms of compensation for poverty, it would not take too much to start a school like this. (NBC News, 2015). For example: if less money was given for readymade meals for Haitians, the funds could work towards teaching local farmers practices that provide food for more people. The mentality of this is that if you give someone food, they are fed for a day, if you teach them to farm, they are fed for a lifetime.

A side benefit of this solution is that it creates jobs for Natives who have graduated from college or side jobs for those who are successful in their farming practices. I believe that it is valuable to convince current students to study agriculture and agricultural education in order to build up a body of teachers who can relate to the experiences that farmers have had. By enticing qualified college graduates to stay in the country and share their gained knowledge through teaching ag practices, whether inside a school or through independent seminars directed at current farmers, a difference can be made.

My plan for the implementation would be assembling a counsel of agriculturalists who have a passion for helping others and experience growing Haitian crops. I would also contact large charities that currently provide direct relief to Haitian people and influence to direct funding to a longer term solution. This money would be used to pay a stipend to farmers involved in the work on the island. Once the program was no longer dependent on foreign mentors, the money would be used to provide housing, communications and a salary to the worker so that positions are desirable opportunities and prestige can be upheld by those employed.

There is a fair chance that this idea doesn't have to become an entity entirely on its own. After some research I found that there are a few organizations that focus on teaching agronomy to Haitians, but by far not enough to stop the growing pressure of poverty. This plan could easily be implemented into a retrofitted version of one of these established organizations. This plan differs by not solely focusing on agronomy studies, but by also Ag business practices and creates an environment where information, opportunities, expenses and risk can be shared. The farmers under my administration aren't being fed a steady diet of 1st world agriculture, but are receiving the opportunity to learn from each other and glean ideas from exterior agricultural styles.

I believe that with time and diligence of labor, the problems Haiti faces today can be dramatically reduced. Agricultural education will be the key. If the people are aware of the problems their current method of agriculture causes, make the changes to create a sustainable environment for their operations, and continue to utilize new technology from the developed parts of the world coming into the ag schools and seminars, they will be much better off.

By educating the small farmer, and bringing them above the poverty line, the country will become more financially stable and depend on less foreign aid. If the farmers become financially stable, they can create and offer more jobs. Jobs allow people to come out of poverty and afford educations. Better farming practices benefit the environment and society as a whole. It is important that those of us who live in the developed regions of North America contribute what we can to the people in these countries. Our contributions speed up their development process and guide them in becoming more sustainable nations that can exist successfully without damaging the world in which we all live.

Works Cited

Avery, Dennis. "Haiti's Desperate Food Crop Outlook." CFACT. Web. 28 Mar. 2016.

Brendan McNulty "The Education of Poverty: Rebuilding Haiti's School System after Its." *Fletcher Forum of World Affairs RSS*. 2011. Web. 26 Mar. 2016.

"Central America and Caribbean: Haiti." *Central Intelligence Agency*. Central Intelligence Agency. 2016. Web. 19 Mar. 2016.

ChartsBin Statistics Collector Team 2011. Daily Calorie Intake Per Capita. *ChartsBin.com*. 28th Mar. 2016. http://chartsbin.com/view/1150>.

"Haiti." Adoption Nutrition RSS. Web. 28 Mar. 2016.

"Haiti - Agriculture." Agriculture. Web. 28 Mar. 2016.

"Haiti's Farms Sow Hope for Rebuilding." PBS. PBS. Web. 23 Mar. 2016

"Haiti Statistics - Haiti Partners." Haiti Partners RSS. Web. 28 Mar. 2016.

"HHM | Bringing Health & the Gospel to Haiti." *HHM | Bringing Health & the Gospel to Haiti*. Web. 21 Mar. 2016.

"Martelly's 'Education Plan' for Haiti...." SOPUDEP. 2014. Web. 24 Mar. 2016.

"Rural Poverty Portal." Rural Poverty Portal. Web. 28 Mar. 2016.