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Ethiopia: Improving Market Access through Increased Road Quality and Preservation Methods

Ethiopia is a lush farm land that is ideal for livestock, but due to over farming and deforestation the land is in the imminent threat of desertification. This threat is very difficult to address when most of the work force consists of farmers, and education is difficult to acquire.

A proposition that is recommendable would be to increase the pay for farmers so that more children will get education. This process will pump money into the economy when children are leaving the country and making money. The problem that is most pressing is that farming is very cheap labor in Ethiopia. Since most of the work forces in Ethiopia are farmers the population is mostly poor.

Ethiopia has a rising economy that with a little nudge in the right direction could become one of the first to revolutionize sustainable development. If roads are built to help farmers gain access to markets and get food for their children, they could use money to send them to school. If farmers make money to sustain their families, they will be able to pay taxes giving money to their government so they can build roads and hospitals. Organizations like USAID could help fund road construction.

Because of large families and the lack of transportation and conservation methods farmers are left to watch their hard earned crops go to waste even before they get to sell them. If Ethiopia was to fix some of the rudimentary problems, it could be come a good example for other developing countries.

The average family consists of one father and one mother as well as five to six children which is one of the highest rates of children per parents in the world ("Family Planning: Ethiopia"). The diet of the average Ethiopian is mostly cereals like, sorghum, maize and teff, as well as root plants like potatoes and sweet potatoes. The percentage of meat is very low despite the abundance of livestock being raised in Ethiopia ("Federal Democratic Republic of Ethiopia"). The literacy rate is around 60% in Ethiopia ("Education in Ethiopia"). In Ethiopia over 7.8 million children were missing school. More than 4 million of the 7.8 million are girls. The number one reason for absences was related to attendance because the parents did not have the money to pay the fees; this contributed to 69% of the absences. Then second issue was limited access to school materials required at schools, this represented 29% of the absences ("In Ethiopia, better education for a better future"). Ethiopia is known for its exports in livestock and grains ("Agriculture in Ethiopia"). A bad agricultural marketing system contributes to the difficulty of marketing products. Ineffective transportation of goods results in spoilage. Bad production methods result in poor product quality. Limited access to rural housing results in poor living standards. Increased amount of draughts have affected the output of crops and land ("Rural Poverty in Ethiopia").

Small plot farmers which make up most of the work force in Ethiopia usually don't have direct access to the marketplace and usually have to work with a middle man which brings down the money they make for their goods. A normal Ethiopian family with a farm would have problems with transportation of goods due to poor road networks. They also usually get paid less because the markets get overflowed with food at harvest time and families will have to keep food till they can sell it. Since they do not have effective storing methods; the food gets spoiled. If the food is in poor condition they make less money for their produce, which is hard on families to get natural resources ("Market Access Facilitation").

Most smallholder farmers make up the poor in Ethiopia. The trading of goods is very ineffective and ends up making the families receive less money for their labor. Since the transportation is bad it makes it very hard for farmers to make a living from farming; this is why farmers make up most of the poor. Since quantity and quality of land are what determine the price and output of crops the degradation of land is very taxing on the small farmer. Only 15% of the workforce engages in wage labor the other 85% works in subsistence farming which is a very unreliable and unstable source of income (Highland Restoration in Ethiopia).

Deforestation and degradation of land and the looming threat of desertification seriously affects the income of a small farmer who is relying on his crops for money. Since global warming is increasing the severity of droughts and the quickening the effects of desertification it seems that if something is not done to counteract these issues the living conditions and market situations will only get worse over time in Ethiopia. If these problems are not addressed the income situation could get worse which would only harm the possibility of being able to put children into schools (Asefa and Zegeye).

Because of poor road conditions which increase transportation costs for goods and the fact that a middle man who probably underprices their goods so they can make money in a market are both factors that affect the average small plot farmer in Ethiopia. If we were to cut out the middle man and improve the road conditions as well as expanding market access would make farming much more profitable. If markets become more accessible as well as able to store goods effectively and in larger quantities so that during harvest season the farmers would not encounter an overflow of crops. If these problems were addressed it would decrease the percentage of poor in Ethiopia significantly as well as increase the amount of children with access to education (Takashi Yamano and Yoko Kijima).

In the next couple decades, desertification will become a very pressing issue for farmers. Since more trees are being cut down every day for farm land which holds plants that do not hold moister in the ground and without the support of trees to keep moister in the ground desertification starts by making the ground less fertile. Global Warming is increasing the areas affected by drought as well as intensifying droughts in Ethiopia. Low altitude areas like planes and farmlands are expected to experience decreased plant productivity due to altered precipitation and weed and pest modification ("Effects of Global Warming"). Trees protect the soil from the sun and keep it cool and moist. Deforestation leaves the soil bear to the suns heat and turns it to dust ("Effects of Deforestation"). Eventually most of the farmland will become infertile. This will very adversely affect farmers in Ethiopia. Overall unless these issues are addressed the situation will only get worse in Ethiopia. Population Growth is affecting Ethiopia by limiting resources. Overpopulation can put pressure on the demands of food, water and farm land. The need for development is also a strain on the environment. Since places like The U.S. and Europe have mostly industrialized economies and have found the flaws in emissions. With this knowledge we are trying to hold back the unsustainable development with slower more sustainable methods of development. Most countries like Ethiopia want to develop to the standards of western economies but are restrained by the interest of the environment.

Ethiopia's farmers could greatly benefit from improved food preservation methods for harvest seasons when the markets are too swamped and can't take all of their crops. This would help so that the crops don't go to waste before they can be sold on the market. A suggestion is drying as a method of preservation because it is the cheapest, and there is an abundance of solar energy that would help dry anything like cereals, legumes, and dates during drought (Monday). You can dry food hanging it on a rack that could be constructed outside. If the sun is ineffective during a raining season there are methods of creating homemade dryers to keep inside. If there is no money to spare for these dryers organizations like USAID and Ogaden Welfare Society can provide funds (Monday and "Ethiopia List of Funding Organizations"). Similar problems like road conditions, which are responsible for up to 80% of fruit loss during transportation of fruits like bananas, could be addressed by funding from the earlier mentioned organizations as well as organizations like UNFPA, UNESCO, and Ethiopia-Glimmer of Hope Foundation. These funds could help provide smoother roads as well as vehicles for transportation (Monday and "Ethiopia List of Funding Organizations like UNFPA, UNESCO, and Ethiopia-Glimmer of Hope Foundation. These funds could help provide smoother roads as well as vehicles for transportation (Monday and "Ethiopia List of Funding Organizations").

An example of an MDG that is relevant to this topic would be the first MDG regarding eradicating extreme poverty and hunger. All of these solutions address food waste during harvest time. If all of these solutions are addressed the small farmer in Ethiopia would make a lot more money since most of food would not be wasted and they would be able to feed their families which addresses both of the issues in what the MDG states (Monday). A project that was found relevant to this topic and that seemed very beneficial to Ethiopia is the Agriculture Growth Project which deals with agriculture, fishing, and forestry. This project deals with the MDG for environmental sustainability ("Agriculture Growth Project"). Another project called the ET: Agricultural growth Program which addresses agriculture, fishing, and forestry as well. This program deals with the same MDG as the first and has three components for success. The first is to strengthen methods, organization, and technology for farmers. The second is to enhance infrastructure in agricultural growth Program"). If these projects were scaled up, they could address this issue successfully.

In reference to a recommendation for any kind of funding organization would recommend focusing on paving roads and supporting farmers by giving them access to vehicles for transport. A recommendable solution is teaching or giving farmers access to drying methods of preservation for their crops. Drying may not work for all produce, but plants grown in Ethiopia are good for drying. Most cereals and some fruits and vegetables can be stored safely from drying. Encourage agencies to look into these solutions to help stimulate countries where most of the work force is farmers. Funding agencies could also put money into expanding local markets to help with food preservation methods like cold storage as well as drying. Markets would also expand to make it easier to for small holder farms to access without a middle man so that the farmers would make more money for their crops. Organizations like the Red Cross, United Nations, and World Bank could provide support for the solutions that have come up in Ethiopia. It would also need to include cooperation from communities to make sure that the farmers get access to the vehicles as well as spreading effective methods of preservation of crops. If we could come together to make this happen it could have a lasting positive affect on the Ethiopian farmer work force.

With improved transportation systems farmers will be able to trade and buy food for their families. With farmers making a good living the government in Ethiopia can begin taxing to construct important public facilities like schools, hospitals and roads. Hopefully Ethiopia can recover from the hardships of being a third world country and become known as a successful example of freedom like America.

When parents of large families can finally pay for food and essential resources, then they will be able to worry about sending their children to schools where they can learn to fix problems in their country. Big problems can be solved by getting others out of the way, like road conditions and transportation can fix bigger problems like starvation and poverty.

Since most food harvested in the fertile lands of Ethiopia are grains and can be preserved through drying, it would be very beneficial for farmers to use this method. The tools are there, they just need to be implemented where they are the most effective.

If drying methods are used many issues can be solved related to food loss after harvest. The same thing can be said for road conditions and food loss. Money is lost to the farmer through middle men when they are trading their goods. When the amount of food lost is decreased and the Markets become more easily accessible farmers will acquire more money to buy food or send their children to schools. With education improved methods for farming can be implemented and the concern for the environment can be addressed. With these recommendations implemented, Ethiopia can change for the better.

Works Cited

"2012 World Food Prize Indiana Youth Institute Paper." *Echo New Tech Network*. New Tech Network. Web. 23 Apr. 2012.

"Agriculture in Ethiopia." Wikipedia. Wikipedia, 10 Apr. 2012. Web. 17 April 2012

Asefa, Sisay. *Rural Poverty, Food Insecurity and Environmental Degradation in Ethiopia.* Apr. 2003. Web. 19 April 2012

"Education in Ethiopia." Wikipedia. Wikipedia, 23 April 2012. Web. 17 April 2012.

"Effects of Global Warming." Wikipedia. Wikipedia, 10 April 2012. Web. 20 April 2012

"Federal Democratic Republic of Ethiopia." Food and Agriculture Organization of the United Nations.

Food and Agriculture Organization of the United Nations, 17 April 2012. Web.

"Highland Restoration in Ethiopia." WeForest. We Forest 2012, 2012. Web. 19 April 2012

"List of Funding Organizations." *Ethiopia*. Web. 23 Apr. 2012.

"Market Access Facilitation." IDE Ethiopia. IDE Ethiopia. Web. 19 April 2012

Monday, Usman. "Reducing Post Harvest Food Losses Through Appropriate Methods of Food

Preservation." Voice of Teachers. Federal College of Education. Web. 27 Apr. 2012.

"Rural Poverty in Ethiopia." Rural Poverty Portal. IFAD, n,d. Web. 17 April 2012.

"Projects and Programs." The World Bank. The World Bank Group, 2011. Web. 23 Apr. 2012.

"USAID Health: Family Planning, Countries, Ethiopia." *U.S. Agency for International Development*. U.S. Agency for International Development, 2 June 2009. Web. 17 April 2012

Yamano, Takashi. "Market Access, Soil Fertility, and Income in East Africa." *Grips*. Grips, 22 July 2001.Web. 19 April 2012