

**Kelsey Swift
McCutcheon High School
Lafayette, Indiana**

Ethiopia

Key Factor: Educating family farmers about results from agricultural yield and sustainability research, and providing access to and support for implementing methods from this research.

Having enough money to supply three meals a day for your family is nothing out of the ordinary here in America. Something a lot of people do not think of, is that not every family is as fortunate. In Ethiopia, over one million people are in need of some sort of food assistance. Ethiopia ranks 170th out of 177 of the poorest countries in the United Nations Development Program Human Development Index, and has one of the highest rates of child nutrition in sub-Saharan Africa. Causes of hunger are related to poverty. Poverty has many inter-related causes, some of which are land rights and ownership, diversion of land use to non-productive use, increasing emphasis on export-oriented agriculture, inefficient agricultural practices, war, famine, drought, and poor crop yields.

The poorest people in the world also have less access to health, education and other services. Beside hunger and malnutrition, disease afflicts the poorest in a society. The poorest are also typically marginalized from society and have little representation or voice in public and political debates, making it even harder to escape poverty.

Ethiopia is a country with a land and water mass of 1.1 million square kilometers, making it the ninth largest country in Africa. Along with being one of the largest, Ethiopia is also one of the poorest. The population in Ethiopia is roughly 54.8 million people. Population has increased while agricultural production has decreased thus creating a food shortage. With in the number of people in Ethiopia, almost 80% of people farm some kind of crop. Some of these crops include: maize, sorghum, wheat, barley, millet and coffee. Coffee is the major export crop. Until the year 1975, when a major drought swept the country, Ethiopia was not at this severe of a struggling point with crop production. In 2000, the food production growth was roughly -1.3% and fertilization consumption was 7.1 (kg/ha) Sixty-six percent of Ethiopia's land area is potentially arable, yet only about 7 million hectares are cultivated in any given year. On average an Ethiopian farmer makes fifty cents per day, where as here in America, an ordinary farmer's income ranges from \$50,000 a year to \$75,000 a year or \$137 to \$205 per day, just from their crop.

If a greater amount of land could perhaps be arable, then why is so little being what benefits Ethiopian farmers? One major problem is lack of technology and education. If children are even introduced to school, many drop out with in a few years to help with the family farm. Thirty percent of males and 23% females attend secondary school. The literacy rate for males ages 15-24 is 62% and for females is 39%.

Some other barriers to agricultural production are the wide fluctuations in agricultural production as a result of drought. Also, an ineffective and inefficient agricultural marketing system and underdeveloped transport communication networks are factors to the suffering in Ethiopia's agricultural production. Underdeveloped production technologies limited access of rural households to support services.

Ethiopian agriculture is dominated by small-scale poor farmers using traditional farming systems that are not only low yielding, but also deplete nutrients from the soil. Because the families are poor they collect and burn dung, weeds, and crop residues to use for fuel. Such practices deplete the soils organic matter content.

Although humanitarian food aid efforts have helped feed the poor, it is not the answer because it is not sustainable, and it creates a mentality of dependency within the farmers. To create food security in Ethiopia, a multi-pronged approach is needed. Improving agricultural production practices with education and technology transfer through an agricultural extension system similar to the one we use in America. Engaging and empowering the people, men and women, in creating the system will be most effective for them to accept a system and participate. According to Wikipedia, "Agricultural extension was once known as the application of scientific research and new knowledge to agricultural practices through farmer education. The field of extension now encompasses a wider range of communication and learning activities organized for rural people by professionals from different disciplines, including agriculture, agricultural marketing, health, and business studies. Extension practitioners can be found throughout the world, usually working for government agencies."

Creating markets for their surplus crops by encouraging global food companies to create business partnerships with small scale processing facilities in Ethiopia committed to purchasing raw grains locally. For example, General Mills which has expertise in food processing, food safety, marketing, and business administration, has partnered with community markets for conservation (COMACO). COMACO is a model for world development that supports natural resource management. It operates through a community-owned trading center, registered as a non-profit company. General Mills employees volunteer their time to provide technical expertise. COMACO organizes farmers into producer groups and establishes a trading depot for bulking goods for market. Producer groups must comply to land use practices. Producer membership on COMACO's Board increases community-wide support for trade in products that enhance conservation success. COMACO facilitates community share holder ownership of the community trading center. All new revenues are reinvested to increase food security, rural income, and conservation.

Creative business solutions could be created by supporting organizations that fund social entrepreneurs such as Ashoka. Ashoka is the global association of the world's leading social entrepreneurs. According to Ashoka's website, "We have elected over 2,000 leading social entrepreneurs as Ashoka Fellows, providing them with living stipends, professional support, and access to global network of peers in more than sixty countries. The definition of an entrepreneur is a person who organizes and manages any enterprise, especially a business, usually with considerable initiative and risk.

Educating and influencing the attitudes of the Ethiopia government and men regarding the role and importance of women in their society is an important part of the solution. Over 85 percent of Ethiopian women reside in rural areas and provide most of the labor in subsistence agriculture. Women need to have a voice in the agricultural extension system as well as other programs affecting them.

The population of Ethiopia is increasing at a rate faster than their food production can support. Educating women about birth control can help with population growth. Also educating women in Ethiopia about STD's and other health issues will improve Ethiopian society. The virus HIV then turning into the disease AIDS is familiar with women and men in Ethiopia. General

practices like having safe sex (wearing condoms) could greatly decrease the spread of this virus. Also, washing your hands and basic safe food handling could prevent diseases in Ethiopia.

In conclusion, a multi-pronged agricultural extension education system, along with partnerships with global food companies and social entrepreneurial programs could improve the food security in Ethiopia. These programs will be more effective when other factors contributing to Ethiopia's poverty are also addressed, such as: educational programs about birth control, HIV and AIDS, and the important role women play in their society. Empowering the farmers and engaging them with the government and community leaders of programs will increase their participation and thus improve the effectiveness of the programs.

Works Cited

Achieving Greater Impact from Research Investments in Africa
<SAA/Global 2000/Casin Steven A. Breth, editor>

Agriculture
<<http://countrystudies.us/ethiopia/87.htm>>

Agriculture in Ethiopia
<http://en.wikipedia.org/wiki/Agriculture_in_Ethiopia>

ASHOKA
<ashoka.org>

CIA- The World Fact Book- Ethiopia
<<http://www.cia.gov/library/publications/the-world-factbook/geoa/et.html>>

Ethiopia- The Role of Women
<<http://countrystudies.us/ethiopia/59.htm>>

Ethiopia Statistics
<http://www.unicef.org/infobycountry/ethiopia_statistics.html>

Food and Agricultural Issues
<<http://www.globalissues.org/issue/749/fppd-and-agriculter-issues>>

"General Mills A GOBLAL LEADER in FOOD PROCESSING, JOINS HANDS WITH COMACO."
< <http://www.itswild.org/n0109/partnership-with-general-mills> >

New Agriculturist
<<http://www.new-ag.info/country/profile.php?a=98>>

Rural poverty in Ethiopia
<<http://www.ruralpovertyportal.org/web/guest/country/home/tags/ethiopia>>