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Zambia: Ending Hunger in Our Lifetime: A Call to Action

Food, to some it is as easy as a trip to the grocery store to others it is everything. According to Do Something.org 925 million people worldwide live with hunger (2013). This number is dramatically increasing. However, as agriculturists it is our duty to work towards eliminating Hunger. We are capable of doing something to stop the growth of world hunger and work toward making the world a more positive efficient place for everyone. We can work to put a stop to world hunger by developing technology, working with local agencies, making worldwide partnerships, and by simply educating those with the greatest need. Hunger affects more than 925 million people worldwide. Hunger is strongly connected to agricultural productivity as well as poverty and disease. Hunger does not discriminate it affects anyone and everyone. Malnutrition affects a large part of the world. Many different factors play roles in malnutrition however, in order to eliminate hunger we must first start small and work big. Being specific with goals within hunger elimination can help to make the process more efficient and successful. Hunger is a powerful thing. Wars are fought because of it. Malnutrition is a problem directly associated with hunger. Malnutrition affects children below the ages of two the greatest. Twenty million children suffer from malnutrition, but only three percent will receive the proper care they need (Facts on Malnutrition, 2011).

A typical family in Zambia, Africa contains on average six to seven children. The head of the household is either the father or maternal uncle. In some homes children are left to be raised by one parent or are orphaned due to HIV/AIDS. The main staple food consumed by families in Zambia is nshima made with maze, which is also known as corn. It is dried pounded corn with water added. The nshima is usually rolled into balls and dipped into a relish made of goat, chicken, or fish and a vegetable of tomatoes, onions, or cabbage depending on the season and availability. Other foods that are eaten are peanuts, sweet potatoes, and the many fruits that flourish in Zambia (Countries and Their Cultures, 2010).

It is very difficult for families in Zambia to afford the expenses that come along with getting an education. Government schools are said to be free however they require things such as uniforms and the costs quickly add up limiting many children from attending school. Most of the local schools have outdated text books and are understaffed. Zambia also has boarding schools however those are even more expensive. Those boarding schools cost around \$300 per month (Countries and Their Cultures, 2010). The fees greatly limit the amount of students that attend primary school. After primary school students who can afford it have the opportunity to attend trade colleges where they learn technical skills such as mining and architecture. Without education the cycle of poor nutrition is continuous.

The government provides basic health care even in rural areas while under President Kaunda (Countries and Their Cultures, 2010). However, the wealth in Zambia has deteriorated and is lacking the funding it needs for medicines especially for HIV/AIDS. General maintenance within the hospitals has even seen a change due to the lack of funding. These problems are even worse in rural areas. The Dutch government helped immensely with the access to healthcare for Zambians. They helped finance medical care so that those in need would not have to be carried miles to receive diagnostic attention (MediQuip, 2009).

Most farmers own large plots of land. They grow cassava, peanuts, sweet potatoes, and maize. They also grow many fruits such as bananas, mangos, and pawpaws. In addition cotton is produced in the east and coffee is grown in the north. Aquaculture is also practiced in Zambia. Freshwater fish are sold all over the country. In areas where there is no access to water livestock such as goats and cattle are raised.

A large barrier to improving agricultural productivity in Zambia is the large inequality between small family run farms and large scale farms they are incomparable. These differences make it difficult to increase products usability or to find the right genetics when there is such variance within the same field of work. The Zambian government has a tendency to neglect agriculture and pay more attention to things such as industrialization. Another large barrier is a general lack of funds. If the funds are not there to support the research or to purchase the food/product one will go nowhere. Most of the families within Zambia suffer from some form of poverty. Zambia also faces the barrier of disease which can easily be contracted both for humans and animals. Zambian agriculture relies heavily on good weather. Another problem in the rural areas for small scale farmers is lack of equipment. Jobs that should take hours take days because of long tiresome labor involved. There is no output market in Zambia so they have to sell products "one by one" (Agriculture, 1996).

Malnutrition is a rising problem in Zambia. 45% of children are chronically malnourished. As well many women are deficient of nutrients such as iron, zinc, potassium. This usually happens because of lack of variety in their diet. This type of diet plays a huge role in accessing adequate nutrition. Children that don't receive proper nutrition during the first two years of their life can develop significantly slower and can be affected for their future. The three main categories that effect malnutrition are food, appropriate care, and overall health. Often the absence of proper feeding practices in infants can account for infant malnutrition. These practices are absent because of lack of knowledge, or diseased parents with HIV/AIDS or many other threatening diseases. Poverty, food insecurity, illiteracy, lack of basic knowledge, and an unsanitary environment also play key roles in malnutrition (Nutrition, 2007).

The situation is very severe as malnourished children have a considerably lower chance for survival. Malnutrition puts one at a higher risk of death from the common illness. Malnutrition kills 80% of children in Zambia. Women are also at a disadvantage for when they have children they continue to eat their regular diets which is lacking in diversity and nutritionally (Facts on Malnutrition, 2011).

Many organizations are working to decrease malnutrition. However, it is a large problem that requires a great deal of help. Hunger is difficult to measure, but statistics of children born underweight and the amount of children that die each year because of malnutrition is measured. For example, organizations like Heifer International allow people the opportunity to purchase livestock for families in third world countries to raise and live off. The situation is getting better for farmers as they have the potential for success in both growing a more nutritious variety of crops for themselves and have an opportunity to raise livestock. Also they have the support of many organizations and governments that can help them to achieve their goals (Siegel & Alwang, 2005).

A way to help this factor of malnutrition would be to increase the amount of healthy foods a family can produce. In addition they may also gain productivity due to their decreased hunger and possible increased family sized. Education of the Zambian population about nutrition and the importance of variety in a healthy diet would greatly affect the country overall. Resolving malnutrition could also vastly reduce poverty levels in rural areas with the increased sale of crops other than maize. Environmental

sustainability is also an important factor to the farmers of Zambia. Water sanitation is a very significant issue in Zambia. Water is a vital resource not only for humans but for livestock as well. It is important that it be used efficiently and resourcefully, and be safe for consumption. Other sanitation issues beyond water affect Zambia. For instance many families within Zambia live in such extreme poverty that they do not have access to a proper toilet (Rain, 2010). This resolution of malnutrition would provide women with more nutritious food, but it would also provide them with a job taking care of the family garden. This resolution also provides those smaller farmers with a greater chance to make a larger amount of money selling a variety of plants. However, at the same time it could pose as a problem because of the small amount of land already is being used to grow crops for profit or should they use their land for a family garden would be a tough choice.

Climate change could greatly affect malnutrition. Many farmers use techniques that are most effective for one climate if that were to drastically change new practices would have to be quickly developed. Climate change brings unpredictable weather. Zambia is very dependent on maize so if there were to be a drought my family would suffer greatly. HIV/AIDS still continues to be a huge risk for my family and Zambia as a whole. Malaria is another disease that many people fear could change their lives at any moment (Facts on Malnutrition, 2011).

I feel that Zambia needs to increase nutritional education. However, as stated before food is not the only thing that affects malnutrition proper care and health is also important. Education about both care and health will help to reduce malnutrition. Another crucial aspect is to increase the use of technologies and farm practices. Using more technology to do work will allow for more efficiency and better yields. Using the Millennium Development Goals to eradicate extreme poverty and hunger, promote gender equality to empower women, and combat HIV/AIDS, malaria and other disease are all important in Zambia. Other Millennium Development Goals of reducing child mortality and improving maternal health can help decrease the percentage of malnutrition within Zambia (MediQuip, 2009).

Organizations are a great way to help the people of a country in need. However, the organization should work with the people to educate them along with the generous gifts they provide to balance the effects to instigate a spiral affect. For instance if one organization traveled to Zambia and taught just one community the importance and nutritional value of the sweet potato while giving out free meals of sweet potatoes. The community might do the same once they become successful at growing their potatoes or specialty crop. It is important that the people of Zambia are learning how to live through these government agencies or other corporations so that they do not become reliant on them. International research agencies have an important role in Zambia. They are necessary to continue the success of new technologies and giving practices. They provide countries with new ideas for improvement and higher quality of life.

Hunger is everywhere. It can affect anyone and everyone. An increase in hunger can be seen all over, but with work it can turn around, decrease, and hopefully one day be eliminated. It is our duty as agriculturalist to work to eliminate it. Malnutrition is a significant problem that is directly associated with hunger. We can work to eliminate it by making goals, working with other organization and agencies, doing research, and educating the people of the world. Successfully supplementing best practices I believe that hunger can be reduced and eliminated.

Bibliography

- Agriculture (1996). Retrieved February 8, 2013, from http://www.colby.edu/personal/t/thtieten/agzam.html
- Countries and Their Cultures (2013). Retrieved February 12, 2013, from http://www.everyculture.com/To-Z/Zambia.html
- Dosomething.org. (2013). Retrieved February 24, 2013, from http://www.dosomething.org/.
- Facts on Malnutrition (2013). Retrieved January 16, 2013, from http://www.msfaccess.org/facts/malnutrition
- MediQuip, P. (2009). Improving Access to Healthcare in Zambia. Retrieved February 23, 2013. From http://incenter.medical.philips.com/doclib/enc/fetch/2000/4504/577242/577256/588723/588724/5 991967/Improving_access_to_healthcare_in_Zambia.pdf%3fnodeid%3d5989690%26vernum%3 d1
- Nutrition (2007). Retrieved February 15, 2013, from http://www.unicef.org/zambia/5109_8461.html
- Rain (2013) Retrieved February 4, 2013, from https://www.concern.net/about/how-we-raise-money/concern-and-irish-aid/rain
- Siegel, P. B. & Alwang, J. (2005). Poverty Reducing Potential of Smallholder Agriculture in Zambia: Opportunities and Constraints Retrieved February 1, 2013, from http://www.worldbank.org/afr/wps/wp85.pdf