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Combating Malnutrition and Gender Inequality in East Africa

Malnutrition is a terrible reality for many impoverished families in East Africa. The most profound example of this is the 73% of the people in the country of Eritrea who are undernourished. Although this is the most extreme example, other countries of the region also experience severe undernourishment and the total percentage of undernourished people in sub-Saharan Africa is 30% (2005 UN Development Report). Although there are many factors that effect malnutrition, the role of women in society is especially crucial, because many of the farmers in East Africa are women. The women are typically not only responsible for farming, but also for the preparation of food. It is essential that these women obtain the education necessary to know how to prepare food that has a high nutritional content. Education about malnutrition and access to more nutritious foods can improve the status of women and the nutrition of their entire family. Knowing how to use the food they grow can help women and their families to rise above subsistence farming. It can help women who are pregnant learn how to properly care for themselves. Good nutrition can contribute to the healing and prevention of many diseases. Without the education of women, there is a missing link in the solution to malnutrition.

It is important to note that the HIV/AIDS pandemic is shifting the fundamentals of East African life, making it nearly impossible to define a "typical family." HIV/AIDS is wiping out an entire generation of mothers and fathers, teachers and nurses. It is leaving behind millions of orphaned children and their grandparents to care for themselves. AIDS is a complex issue that is redefining the world of many East Africans. However, for the purpose of this paper and the description of a typical East African family, we will assume that neither parent has died of HIV/AIDS. A typical East African family living in a rural setting consists of 6-8 people. In many cases, the mother will be the only parent in the household because the father is often forced to find a job away from home to supply the family with an income. Often, the income made by the father will not even make it home to the family because he uses it for his own living. Unfortunately, while there is a definite correlation between the status and income of the mother and the nutritional status of her children, there seems to be little correlation between the income of the father and the nutritional status of his children (Young 89). Small changes in the mother's circumstances, such as receiving more education and having the ability to earn an income, can have a substantial impact on the nutrition of the child. However, the status of women often prevents mothers from improving their financial situation.

The mother is left to run the household. Most families living in a rural setting rely on subsistence farming to feed themselves. "Subsistence farming, by definition, produces only enough food to sustain the farmers through their normal daily activities. Good weather may occasionally allow them to produce a surplus for sale or barter, but surpluses are rare. Because surpluses are rare, subsistence farming does not allow for growth, the accumulation of capital or even for much specialization of labor. The farming family is left almost entirely without implements or goods that it cannot produce itself" (Wikipedia). This most often means that the mother is unable to produce an income herself, because she is too busy cultivating and harvesting the crops, as well as providing for the other needs of her children.

In East African nations, women are traditionally considered subordinate to men. This has many implications for the lives of women and their children. In some East African nations, women do not even have the right to own land. This is ironic, since the majority of labor hours in the fields are done by the women. The man of the household often has complete control of the resources of the household, including both the money and the property. If her husband dies, and a woman has no sons, she may be

denied the right to own the land she has worked on for years. This inequitable system, when taken to the extreme, can lead to the displacement of a widow and her children.

Although a few of the younger children may be able to attend primary school, most of the older children will not have the opportunity to attend secondary school. Many families simply cannot afford to send their children to school and children are often needed at home to help with the farming. Women are at an additional disadvantage when it comes to schooling because a larger percentage of men attend school in East African nations than women. According to the 2005 UN Development Report, for every 100 men in Mozambique that can read, there are only 50 women. This is partly because the girls of a household are expected to help with the farming or daily household chores, such as fetching water, which can sometimes be over an hour's walk away. The problem is further intensified in areas such as northern Uganda and Ethiopia. Conflict often prevents girls from attending school either because it is dangerous for them to walk there or because their families have been displaced. Families who are displaced are at a further nutritional disadvantage because they are away from the farms that usually provide their food (Joireman).

In many African societies, malnutrition among expecting mothers is very high and very dangerous. Many African women are married and pregnant at a very young age. A woman who has not had sufficient nutrition or has not fully developed her reproductive system is extremely susceptible to stillbirth or infant death. An adolescent whose pelvis has not completed growing may experience obstructed births and damaged internal organs. Many African women are expected to give birth to many children, and pregnancy and childbirth are both extremely nutritionally demanding. If a woman does not get enough nutrients, the fetal growth is impaired, resulting in low birth weight or prematurity. For example, in the Sukuma tribe in Tanzania, the situation for many young women is extremely oppressive. Young women are usually married by the time they turn fifteen. In this tribe, pregnant women are expected to hide their conditions out of a fear that someone will bewitch their baby. The Sukumas value strong women, which means that women often give birth alone, quietly (Maykuth 20). The result of this stigmatization of women leads to an alarmingly high maternal death rate for the women of Tanzania: about 1,500 per 100,000 births. This is one of the highest maternal death rates in the world. In the United States, 17 mothers die for every 100,000 births (UN Development Report). Education about nutrition and health matters is extremely important for maintaining the health of women and their children. It is vital that women be educated about nutrition so that when they are pregnant they will eat foods that will provide more nutrition for themselves and the fetus.

Adequate nutrition can make a huge difference when it comes to a safe pregnancy and a healthy baby. Protein is a necessary nutrient for development of maternal tissue as well as for fetal growth. Protein is absolutely essential because it provides the structural basis for all new cells and tissues in the mother and fetus. An insufficient protein supply during pregnancy leads to a reduced number of brain cells, which cannot be formed or replaced after birth (Wabuyele).

One new initiative that is being introduced into areas, particularly Kenya, is a project to get more people to grow a grain called amaranth. This grain, if introduced correctly, could result in not only a higher nutritional intake for many East Africans, but it could also serve to increase the status of women.

Amaranth is an ancient grain that was once used by the Aztecs as a staple crop. When the Aztec and Incan empires declined, amaranth was replaced by corn and other grains. In the past 30 years, amaranth has been rediscovered and it has been shown to hold many amazing nutritional qualities. "Grain amaranth contains the highest quality protein known on earth, high levels of minerals especially iron, calcium, phosphorous, magnesium, etc, more than what is found in animal products like milk and meat. It has high levels of vitamins such as vitamin A, Bs, C, E, etc" (Mwangi 10). Not only does amaranth have a very high level of nutrition, it is also extremely drought tolerant and requires only 2/3 the

amount of water as corn. This makes it an especially appealing grain for the areas of East Africa that have suffered droughts in recent years. Amaranth is adaptable to many different climates, which allows it to withstand great heat, as well as many different types of soil.

Amaranth has a short maturity period of only 45-75 days (the maturity period of corn is about 60-90 days), which means that the production of the food crop would not take as long as for many other grains (Mwangi 15). It also has a long shelf-life, which makes it an attractive grain to sell in the markets. As more and more people find out about this crop, the demand will continue to increase. An increase in demand could eventually make amaranth a sustainable cash crop, which would help many East African families to rise above the poverty line.

Amaranth has been found to contribute to the healing and prevention of many of East Africa's most common diseases. Amaranth is one of the only grains to contain all eight of the essential amino acids that humans require. These proteins allow the body to repair tissues more quickly. Proteins also enable the body's immune system to function more effectively. Amaranth not only contains each amino acid, but it also contains more of each acid than either wheat or soybeans. The level of protein in amaranth is roughly equal to milk protein. Amaranth has a higher digestibility than corn, wheat or rice, which means that it is more easily accessible to the body when it is healing. Dr. Davidson Mwangi, a researcher in Kenya, tells the story of how amaranth helped a woman and her children dying of AIDS to live a longer and more productive life:

... I met the very sick woman and her two boys.... [She experienced] vomiting, dizziness, a complete worn out body, and was unable to walk or do any kind of work. Her sons were too weak to go to school. ...After listening to her story, I organized how she would be receiving porridge flour from Nairobi. After about a month I went to visit her and found that she not only felt well, but was also working in her garden, planting sweet potatoes, cassavas and maize. People who hated her before started a relationship with her like her brother-in-law who had almost thrown her out of her house. Her children were also well and had gone back to school. ... she told us that if a day passes without her taking the amaranth porridge she would become very weak and vomit a lot, but after taking amaranth porridge she and her children regained their strength.

Amaranth can help many people to regain their strength and live in dignity. Currently in East Africa, HIV/AIDS is surrounded with much stigmatism. People avoid those who they know to be infected because they think it's contagious or they simply don't want to deal with it. Anti-retroviral drugs are not yet available for many of the impoverished people. If they could lead a more normal life simply because they have better nutrition, then perhaps the fear and anguish that accompanies the death sentence of AIDS could be diminished slightly. As Dr. Mwangi's story illustrates, once the woman was able to regain her strength, her community stopped shunning her.

Teaching women how to grow and use amaranth can improve not only their nutrition and the nutrition of their children; it can also be a stepping stone for working their way up in society. The problem lies in education. Amaranth is not widely grown throughout the world because it is more difficult than other grains to grow. The amaranth seed is very small and is easily stifled by weeds that may grow around it. Thus, in order for the plant to flourish, it is necessary that the caretaker be informed of all of the best ways to take care of it. If women were educated on how to cultivate and harvest amaranth, levels of nutrition would quickly rise, just as levels of hunger would fall. Amaranth addresses both the issue of the current drought in many African nations, as well as the problem of malnutrition.

Amaranth could be part of a solution to many issues related to gender and nutrition. If amaranth is introduced by educating the farmers, especially women, on how to grow it and just as importantly, how to use it, it could serve to both increase the nutritional status of many people, but also to allow women to gain a more prevalent place in society as its growers.

Currently, women are at an extreme disadvantage in the countries of East Africa, and this issue must be addressed. Confronting the issue of gender inequality could improve the situation of so many factors in East Africa, including food production, nutritional quality and the nutritional and educational status of children. It is imperative that the world address these issues before the problem is further intensified.

In some countries gender status is seeing an improvement. Women are beginning to stand up for themselves. Much of this progress is due to the effect that education has had on allowing women to broaden their horizons. It is necessary that governments and international organizations continue to vigilantly support the education of women, especially in areas concerning health and nutrition. The education of women would vastly improve the status of the typical family in East Africa. Children would be able to maintain better nutrition and better education. Infant and maternal mortality rates would decrease if women were educated on how to take care of themselves and their bodies before, during and after a pregnancy.

National governments must strongly support the education of their women. It would be highly beneficial for the governments to do this, because the economic status of their people would increase. The cost of sending women to school would surely be balanced out by the income that would be produced by having more women generating an income. If national governments and international organizations work together to promote the education of women, the solution to malnutrition and hunger will come from the bottom up. Educated women will be able to feed, clothe and educate their children. This approach is one that will continue to grow and multiply through the years, as more and more generations of women are educated and sent out into the world.

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