

Madison McQueen  
Oskaloosa High School  
Oskaloosa, IA  
Ethiopia, Factor 11: Malnutrition

### **Ethiopia: Ending Malnutrition**

Imagine sitting down to dinner with your family. You smell the sweet aromas wafting from the delicious grilled steaks. Your mouth starts to water as the freshly baked bread is placed on the table. You can just taste the buttered up corn-on-the-cob, and can barely stop yourself from grabbing one. Now that your mouth is watering let me explain to you why I put this image into your head so that you don't think that I'm needlessly torturing you. I wanted to make you think of food, and more importantly hunger. A lot of people would read this and start to make plans so that they could have this meal for dinner, but an astonishing amount would see this as unattainable feat as petting a dinosaur would be for us. In fact, according to the United Nations Food and Agriculture Organization of the 7.3 billion people in the world 805 million of them go hungry ("2014 World Hunger and Poverty Facts and Statistics by World Hunger Education Service." 2). This is about 11% of the Earth's population who don't have enough to eat. Someone might look at this percentage and think, "Hey, that's a lot better than it used to be". This way of thinking is understandable, but not wanted. For many years scientists have been trying to fight hunger. Many improvements have been made. Thus helped a lot of people, but until every family is well feed, the fight is not over. If this problem is looked at in the sense of trying to solve hunger in one sweep a solution will never be found. This battle must be taken one baby step at a time. It might seem frustrating at the time, but if huge chunks are bitten away the foundation can become very unstable. The whole plan can come toppling down. Keeping that in mind, let's take a look at Ethiopia. This country has many factors that affect hunger. Of these many factors malnutrition is one of the most important. By getting rid of malnutrition it would, hopefully, take out many other problems, such as, stunting, pregnancy complications, and under eating, that is why this paper is on malnutrition and how to get rid of it.

Currently many families in Ethiopia are struggling to find appropriate nutrition because of drought. A high majority of farms in Ethiopia are mainly rain-feed so the crop yields are very low. The soil in Ethiopia is also very versatile. Meaning that it is unpredictable and a lot of the time causes loss of yields. Even though it is an unstable way of living, many Ethiopia's have to rely on that years harvest. If a drought, soil erosion or a lack of top soil reduces yield values, at least one, but more likely, many families will end up going hungry for the rest of the year. Anything that comes out of the fields is either eaten or sold for other goods. It is rare to find a farmer that has enough food to store so that the family eats a well-balanced diet for the rest of the year. It is very hard for a family to find enough food, let alone the right kind of food.

An average household in Ethiopia contains 5 people (Macro International Inc. 14). About half of the humans living in an Ethiopian household are children under the age of ten (Duncan 3). This is due to the fact that Ethiopia has a high fertility rate. Ethiopia families struggle with this because, when children are

growing, they require more nutrient rich foods or else they will have major problems later in life. Therefore most families, and especially mothers, sacrifice eating the right kind and amount of food so that the children eat enough. Women are the head of household in approximately one fourth of Ethiopian families (Macro International Inc. 13). This means that most women are in charge of feeding the family and are more likely to succumb to malnutrition. Not only do the mothers suffer but their offspring do too. Women who are malnourished when pregnant are at a high risk of giving birth to a low weight baby which frequently leads to stunted children (Ransom 2). Research has shown that stunted babies whom do reach adulthood have a greater chance of giving birth to a low weight child. It is an endless and vicious cycle! The only way to end it is by breaking the circle. The best way to do this is to educate mothers on what they should be eating, where they can get it, and why.

Education is a problem in Ethiopia. With only 47% of males and 33% of females attending school it is a very big hurdle that needs to be jumped in order to use schools as a way of spreading information (Macro International Inc. 15). As I said before, we need to teach the mothers. The easiest way to do this is to teach them at a young age and then they apply it to their own lives or even teach others. With a low number of females attending school though, approaching this problem through the school system would only effect roughly one third of Ethiopia's population. That is only if the children learn and remember what they are being taught.

The cities in Ethiopia have hospitals and clinics with full time doctors and nurses. However a majority of Ethiopian's cannot receive the care of the facilities. The problem is not the facilities themselves but the access to those facilities. This is because over four-fifths of Ethiopia's population is located in rural areas. When an accident happens or a person falls ill the nearest hospital is, most of the time, too far away so the families have to use their own practices. Of course some of their remedies do have the possibility to work, but with modern medicine that can solve many of these illnesses, why take the chance? The Ethiopian government has set up a new program in response to this issue. The name of the program is Health Extension Program or HEP. As observed before women are mainly seen as the care takers of the families. Using HEP, the government established a plan that takes women for a year and trains them in the medical fields. When the women return home they are now certified to give their families medical care. They are mainly taught prevention methods, such as, how to test for tuberculous and HIV/AIDS, and how to vaccinate for common diseases like Malaria. This program has already trained over 30,000 women. The way to fight hunger, and more specifically malnutrition, is through this program. (Poverty & Healthcare).

I have been using the word malnutrition and how it effects Ethiopia, but what does it really mean? A lot of research has been put into malnutrition. Scientists have come to the conclusion that malnutrition is a sign of the human body not receiving the correct amount of fare. Some of the main contributors to malnutrition are a lack of vitamins, proteins, calories and minerals (Ransom 1). The best way to solve a problem is to identity specifics so that the path to reaching the goal is clear. Because of this idea I researched and found the specific vitamin deficiencies that cause malnutrition. They include, vitamins A,

C, D, E, K, and all of the B vitamins; Thiamine, Riboflavin, Niacin, Pantothenic acid, Biotin, B-6, B-12 and Folate (Williams 2). It was pretty easy to find what vitamins are needed but that is not all that needs to be done. In order for us to be able to solve the malnutrition problem in Ethiopia, we need to find a way to first inform the public. After that we need to make sure that every person has access and knows how to find them.

This brings me to my solution. Like any good plan my solution is separated into different steps. The first step is to research the plants in Ethiopia. With Ethiopia's soil being versatile, it is best if we could research plants and vegetation that is natural to that land. A lot of nutrient rich plants are being overlooked because people don't know about them. For instance the dandelion is packed full of things that the human body needs. If you can get past the fact that you are eating a weed it is just like eating a salad but much better for you. The key is to find a plant that easily grows with the climate and is abundant. One plant that could help in the fight with hunger is a native plant to Ethiopia. It is called Enset or the "false banana". This amazing plant is not only drought-resistant but it also is packed full of vitamins that are needed in the Ethiopian diet. Vitamins like A, K, C, and many more. However this plant, unlike the banana it is falsely named for, cannot reproduce independently. This causes the owners of the plant to have to work harder; so finding another plant would be helpful. Not that Enset shouldn't be used but it would be smart to find a plant that wasn't unstable. For this reason I have made this the first step because, for one, it's a good starting point but it also is essential to the solution as a whole. (Ethiopia 1)

Which leads me to my next step. Teach the women. Of course you could also teach the men but in the Ethiopia society the women are more likely to stay home and teach their children, so it is more effective to go this route. My proposal is to use the program already set by the Ethiopia government, HEP. This program is a great idea but it could also do so much more good. What I mean is when the women are sent for the year of medical training, we incorporate eating habits and how to maintain good ones into their studies. What they need to learn is the adverse effects to not eating enough, what kinds of foods they need to eat and, most importantly, where to get that food. In the average Ethiopian diet they receive enough proteins because the land is better for animals than for crops (Mangistu 3). Because of this in the schools the curriculum should mainly focus on vitamin rich foods. Specifically, the ones that fight malnutrition. By teaching the women my goal is to not only inform them but also those around them.

Step three is more of a backup plan than an actual step. This is because step three is to incorporate supplements. The main goal is obviously find and use the native, nutrient rich foods but it can never hurt to have a backup plan. A supplement will never make up for under eating but it will help with making sure that you receive the right vitamins. However, this step can be unstable. If the people see these supplements as "bad", "wrong", or against their religion they will not use them. Thus, research and resources should be poured into the education and native plants before this step.

Ethiopia has many problems, one of the most important ones is malnutrition. There are many ways to approach this problem. I picked the way of education. In order to solve this problem I utilized many

different aspects of Ethiopian culture and agronomy. The first thing that I used to my advantage was the fact that the Ethiopian society places the women as the head of household or in charge of feeding the family. I used this by making them my point of focus for education. The second thing that was helpful to me was the native plants of Ethiopia. Most of the time, if a plant is native to a country it has a built in resistance to what every diseases or climate problems that is in that area. So my plan is to use those plants to make up for the under nourishment problem. The third and possible most helpful thing that I found was HEP set up by the Ethiopian government. By expanding that I think that I would be critical in the fight against malnutrition. I also applied a backup step to my plan for a just in case situation. That step is to use supplements for any vitamins that are not reachable through native plants. Way back, in the beginning of this paper I talked about a delicious meal. Go ahead and reread the beginning again. Didn't it make you hungry? Well think about it this way. If we can move our focus from trying to plan that dinner for ourselves to try to make it happen for somebody else, just think how much of a difference that would make! When it comes down to it, it is not a question of what we *can* do but of what we *will* do.

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