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Somalia: The Fight to end Hunger

Somalia is located on the tip of the Horn of Africa. In the north, desert grasslands provide enough food to support nomadic herds of sheep, goats, camels, and cattle. In the south, rivers provide a water source to irrigate surrounding crops. However, droughts, flooding, and years of conflict have caused severe food shortages in Somalia.

There are two main types of agricultural practices in Somalia- pastoralism and agro-pastoralism. Pastoralism is the practice of herding animals in search of good grazing. It is concentrated in the north and central regions of Somalia. Animals raised include sheep, goats, cattle, and camels. In the south, the Juba and Shebille Rivers, along with wet season rains, provide enough water to irrigate the crops of the agro-pastoralists. These crops include maize and sorghum for their own use, and sesame and bananas as cash crops. The average farm size of ten acres must support the animals of these people as well as their crops. These animals may include a small herd of sheep or goats, and maybe a camel or ox to work the fields. During the dry season, any unused land is rented to the pastoralists that come down from the north. Livestock provides the main source of income to over 65% of the population and makes up about 80% of the country's exports (FAO, 2015). However, in a good year, farmers can only raise about 50% of the country's cereal grain requirements (FAO, 2015).

Somalian families are usually composed of a husband, his wife, and their children. Although most women have six or seven children, the actual number of children they raise varies because of a high infant mortality rate. There is 100.14 deaths per 1,000 live births (CIA, 2014) and 10% of these children die before they turn one (FAO, 2015). This high death rate is attributed to poor diets and widespread malnutrition. Somalian families manage the best they can on goat or camel milk, cereal grains, and what meat they can afford. Fruits and vegetables are almost unheard of. Those that live near the coast may have some access to fish. This poor diet has caused one in seven children to be acutely malnourished. The lack of clean drinking water has caused waterborne diseases such as diarrhea and malaria. Unfortunately, Somalians also have little health care access with only 0.04 physicians per 1000 people (CIA, 2006). Also contributing to these problems is a low education level with only a 37.8% literacy rate and a school life expectancy of three years (CIA, 2007).

There are several major barriers to increasing adequate nutrition and they are all tied together. At the root of them all is water scarcity and ongoing conflict. Somalia has suffered several years of drought, and when there is water, it is too much and floods drown out the crops. Although the floods don't have much effect on animal production, drought decreases herd sizes significantly. The ongoing conflict disrupts the trade routes, so even when people do have food to sell, it can't get to where it is needed and food prices continue to rise in those areas. The conflict prevents outside assistance from getting to those areas and helping them. The controlling group of much of south and central Somalia, the "al-Shabaab," believes in self-sufficiency and rejects outside aid. Unfortunately, they not only reject aid for themselves, but they prevent anyone under their control from receiving aid.

Malnutrition does not affect agricultural productivity, food availability, or household income; however, it is affected by them. Malnutrition affects typical Somalian families in other ways. One out of seven children five years old and under are acutely malnourished, and the median global acute malnutrition rate is 12% (FAO, 2015). The median global acute malnutrition rate for just central southern Somalia is 15.3% (FAO, 2015). A rate of 10% to 14.9% is considered serious and greater than 15% is critical. While the

population as a whole struggles with malnutrition, children and pregnant women are especially vulnerable. Children, because they are still growing, so malnutrition has long lasting effects; and pregnant women because of their need of extra nutrients to support their babies as well as themselves. Although the percentage of malnourished people is still extremely high, it has improved. In 2012, 16% of children were acutely malnourished and 3.5% were severely malnourished (UNICEF, 2013). In 2014, only 1 out of 7, or about 14%, were acutely malnourished (FAO, 2015)

Because children and pregnant women are the most vulnerable to malnutrition, it only makes sense to create a program to help them. The United Nations Children's Fund (UNICEF) has implemented a successful program targeting these groups. There is an old proverb that says "Give a man a fish and you feed him for a day, teach a man to fish and you feed him for a lifetime." This community-based program provides food and nutrition supplements, but more importantly teaches women how to better care for their families, as the proverb suggests. Women learn how breastfeeding, washing hands and dishes with soap, and purifying drinking water can help reduce malnutrition through preventing disease. Other things they learn are to make sure they have good nutrition themselves while they are pregnant and to immunize their children. While these things are harder to accomplish, the UNICEF program provides them as part of the overall effort. This program has been highly successful in Burao, Somalia. A similar program implemented by the World Food Programme (WFP) has also been very successful in Mogadishu. The WFP effort includes distributing food, but every time a woman receives food or gets a medical check-up, they also receive education. Also, the food they receive is fortified food, meaning it provides even more of the nutrients they are missing than their regular foods would provide. If UNICEF and the WFP worked together to establish these programs in strategic locations, the positive impact they have could become nationwide. One of the really good things about these programs is that by providing the education, they help break the cycle of poor sanitation, disease and malnutrition.

Somalia would benefit greatly from all eight of the Millennium Development Goals, which include eradicating extreme poverty and hunger, providing universal primary education, providing gender equality and empowering women, reducing child mortality, improving maternal health, combatting HIV/Aids, malaria and other diseases, ensuring environmental sustainability and global partnership development. Right now, eradicating extreme poverty and hunger is the most critical. However, some of the solutions to this will also be linked to other goals. Thus, once that goal is achieved, the other seven will be easier to work towards. The Food and Agricultural Organization of the United Nations (FAO), has implemented several programs to help achieve that goal. These programs include vaccinations of livestock as well as children, and cash for work schemes (FAO, 2015). The vaccination of livestock helps protect herds from epidemic diseases and outbreaks. This helps protect both the livelihood of pastoralists and the meat supply of the country. The cash for work schemes provide workers a source of income as they work to benefit the community infrastructure. Jobs include building storage catchments for drinking water, building roads that improve market access, and digging irrigation canals to benefit the crops. As these programs continue and animal health services and disease surveillance are increased and the infrastructure improved, Somalia will eventually be able to support itself without the extra help.

Another twist to the cash-for-work schemes is "food-for-work." While this program is not yet implemented in Somalia, it is my belief that it could be very successful, as they were in Ethiopia (Debela, Shively and Holden, 2014). Besides curbing hunger, this program cold positively impact the road network and the fish market. It could also be targeted to the hard-to-reach areas under the control of the "al-Shabaab" because it might not be seen as aid, but as working at a job. Despite having over 2000 miles of coastline, the use of fish as food is limited to coastline communities. One of the biggest reasons for this is that poor roads prevent fish from being shipped to inland communities. Recent, valid estimates of fish populations off the Somalia coast are not readily available. However, the knowledge that fish provides an average of only 1% to the annual GDP indicates room for expansion. So why not have FAO

or some other organization buy fish from fishermen and use it to implement a food-for-work program to build the roads needed for shipment of fish? Of course, it is not quite that simple. Even when the fish reaches inland communities, unfamiliarity with fish and how to cook it prevents people from using or buying it. This fear of fish could be overcome by starting a program that teaches people how to cook fish. Another limiting factor is poor fishing equipment. Because fishing is such a small trade in Somalia, equipment is limited to small boats, lines and nets. However, as the market for fish expands, fishermen should have enough extra income to update their equipment. An alternative solution to this barrier would be to provide fisherman with updated equipment as part of one of the programs. Despite all the possible barriers to this idea, it is still worth exploring because it would also provide a food that has very high quality protein and many B-vitamins, nutrients that are very lacking in typical diets.

Studies of food-for-work programs in Ethiopia have shown that increased job opportunities for women have also increased childhood nutrition (Debela, Shively and Holden, 2014). Generally programs that target improving the education or abilities of women also improve child nutrition. Sustainable Employment and Economic Development (SEED), is a similar program that provides an income source for women and has a lot of potential. For those who can afford it, meals in Somalia are based on meat, so over 30 million animals are slaughtered in Somalia every year (FAO, 2005). While the meat is used, there are piles of unwanted bones and hides beside every slaughter house in Somalia. However, through the SEED program, 100 trainees have learned to turn this waste into something useful that has economic value (FAO, 2012). They have learned to extract bone marrow and make into soap, and to carve camel bones into beads, bangles, flower vases, combs, and many other products. At the end of 2012, this program had successfully helped people in Somaliland, a region of Somalia (FAO, 2012). As this program is scaled up and people across the nation learn these trades, the economy could have a major boost. As the use of animal byproducts increase, the value of animals will increase. Because over 65% of the population depend on animals for their livelihood, this will be a big help to them. Another benefit is that once the nation meets their own needs, the byproducts could potentially become a major export commodity.

Despite the many prospects Somalia has that could increase food production or provide extra income to spend on food, such widespread malnutrition will be difficult to end. In order to achieve the goal to eradicate extreme poverty and hunger, organizations such as FAO and SEED will have to continue offering the support they have so far given. However, Somalians must learn not to depend on these organizations, but rather use the organization to learn to support themselves. Individuals must be willing to work hard and try new things if they want to get on the road toward development. If people are willing to put aside their differences and work together to build a stable nation instead of fighting over limited resources, Somalia has hope for their future.

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