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#### **Subsistence Farmers of Southern Africa**

# Introduction

"By 2020, instead of an Africa that's malnourished, we'll see an Africa that will have flourished!" Those are the inspirational words of seventeen-year-old Nelisiwe Mbali Mtsweni of South Africa, expressing hope for Africa's future while taking part in the "A Full Food Basket for Africa by 2020" project. The light that beams from Nelisiwe's hope for an Africa that has flourished is greatly shadowed by the fact that Africa continues to be the only region is the world where the number of hungry people will still be increasing in 2020. A large part of this can be contributed to the simple fact that Africa consumes more food then it produces. At the same time the population is increasing. Some of the people who are feeling the hardships of this food insecurity the most are the subsistence farm families of southern Africa. The region is suffering from low crop yields, which have led to a lack of economic development, poverty, and malnutrition.

Southern Africa is a region of prolonged droughts. These droughts as well as flooding and low levels of crop planting are the immediate causes of the current food crisis. This crisis has made 14 million people in southern Africa experience famine or the threat of famine. The region has been made so vulnerable to famine because of chronic poverty and insufficient policies. All of these conditions have led to shortage in food production as well as high prices for maize, a staple food in the region. Southern Africa also has the world's highest rates of HIV/AIDS occurrence. All of this makes life very difficult in southern Africa, especially in the rural areas of the region and leaves many families with food insecurity.

Through careful planning and the cooperation of local, country, and world organizations, groups, and governments, perhaps this extreme situation can improve the quality of life for people in southern Africa. The food insecurity that exists in southern Africa could be improved by providing subsistence farmers with better and cheaper fertilizers as well as modernizing their agricultural practices. Also, if natural resources, such as clean water, were more accessible it would help to provide a higher quality of life. These suggestions would also help to adapt farmers to climate change, such as severe droughts, and improve crop yields. So how can Africa flourish or at least meet the needs of its people in southern Africa? This paper will look at the plight of the subsistence farmers today and discuss possible solutions to help this group of people who live in southern Africa in the countries of Botswana, Lesotho, Nambia, South Africa, St. Helena, Swaziland, and Zambabwe.

### **Subsistence Farmers**

Subsistence farming is defined as farming whose products are intended to provide for the basic needs of the farmer, with little surplus for marketing. It is farming for survival. Even though farming requires a very large amount of time it does not account for more then four percent of the subsistence farm family's total income. In many of the families the men are forced to look to the urban areas for jobs to help provide for their families. Still the average annual income per person is a mere \$513 and about 39% of the population lives on less then a dollar a day. This leaves the women and children to care for the farm and survive day to day with very little.

The subsistence farm families farm less then two hectares of land (one hectare equals 10,000 meters squared) each. However, there is a limited amount of arable land and inadequate irrigation for farms. They also lack modern farming equipment and technology; so much of the work is very hands on and labor intensive. Some of the main crops grown by the subsistence farmers in southern Africa consist of maize (corn), cassava, wheat, sorghum, potatoes, carrots, and peanuts. Cassava is a perennial plant that thrives in poor soil, making it a great source of food during drought. Livestock such as beef cattle, sheep, and goats are also raised. The diet of the southern Africa subsistence farm families consists mainly of meats and starches as well as cereal grains and mixtures of vegetables. A traditional meal in southern Africa consists of rice or maize and a stew containing boiled vegetables. However, many of the families lack nutrients and rarely have enough food.

Education for the southern Africa subsistence farm families is rare. Schools do not tend to be near the farms and the families tend to have very low levels of education and literacy rates. In fact less then 20% of the adults of the lowest income families in South Africa have shown to have basic literacy skills. A survey conducted in 1997 showed that among black farm workers 50% had no schooling and another 40% had only received between a second grade and seventh grade education.

It is very difficult to determine a typical family size and composition for southern African subsistence farmers as they vary greatly. They can consist of anything from a mother, father, and children to containing many generations from grandchildren to grand parents or even daughter-inlaws and son-in-laws. However, living quarters tend to be very cramped and substandard.

Also, southern Africa has a high HIV/AIDS infection rate and HIV/AIDS is one reason why it is so difficult to determine a typical family size and composition. When an individual in a family is infected with HIV/AIDS it affects the whole family. If the parents of a household are infected and lose their lives to the infection the children end up living with grandparents or other relatives. This happens frequently and the compositions of the families change greatly. In addition, when one family member is infected with HIV/AIDS it tends to lead to the deterioration of the health of the whole household.

HIV/AIDS has become a large barrier in productivity for subsistence farmers of southern Africa. When a family member, especially the head of a household or a spouse, is lost to HIV/AIDS it can severely disrupt the division of labor among the family. At the loss or infection of a family member, the rest of the family suddenly has to carry out the duties of that member. This leads to cut backs in production as tasks that tend to be gender specific, such as the plowing being done by men, become neglected or the performance of the tasks are inadequate. With the loss in productivity comes a loss in income. When the income and productivity is lessened food composition is cutback and the health of the family begins to deteriorate.

Another barrier facing the subsistence farmers is lack of fertilizers. Due to the poor soil in southern Africa; low rainfalls (which on average consist of about half the amount as the rest of the world receives on average), and droughts, fertilizers are desperately needed. The subsistence farmers, however, cannot afford them despite government polices that have attempted to make them more affordable for farmers. The poor soil and lack of fertilizers are factors that have led to low crop yields. This has been a large barrier for the subsistence farmers of southern Africa.

# Natural Resource Degradation

According to biochem.northwestern.edu deforestation is the loss of forests due to over cutting of trees. The site also states that one consequence of deforestation is soil erosion, which results in the loss of protective soil cover and the water-holding capacity of the soil. When deforestation occurs in southern Africa it creates hard times for subsistence farmers. The subsistence farmers of the region still rely on wood as fuel for cooking and heating. It is estimated that 90 percent of Africa's population uses wood for fuel while cooking and in Sub-Saharan Africa an estimated 52 percent use brush and firewood to provide about all energy sources. So when deforestation occurs the supply of fuel for the families diminishes and this means more time must be spent gathering wood for fuel. The women of these families feel the burden of the deforestation the most, as they are the ones who do 90 percent of the collecting and carrying. They may have to travel further to obtain enough fuel and that takes time and energy. Consequently, the time and energy spent collecting can take away from income generating work. Even more importantly, the farmers may not realize that, as stated above, the trees keep the soil more fertile by providing a protective soil cover and a higher water-hold capacity that is lost during deforestation. When soil quality is poor the crop yields lower and so does the family's income. At the same time the food insecurity of the family increases.

If deforestation in this region could be reversed it would help to provide a higher crop yield to the families. The yields would be larger with more fertile soil. With higher crop yields comes a higher food security and income for the families. The farmers need to be educated about deforestation to help improve their quality of life. Also, their quality of life would be improved if they had access to cheap alternative fuels or new ways to make would fuel more efficient were developed.

# Adapting Farming to Water Scarcity and Climate Change

Water scarcity is a major problem in southern Africa that can also be linked to climate change. As more severe droughts occur due to climate change issues, such as regional warming, the quality and amount of the water supply diminishes. In the year 2000 about 400 million people in Africa did not have access to clean water. The subsistence farmers of southern Africa are feeling the effects of this water scarcity. Even though rural South Africans make up almost half the total South African population, they consume only about 2 percent of the national water supply. Also, the subsistence farmers do not have access to adequate irrigation for their fields. Without adequate water for irrigation, crop yields decrease, especially in a time of drought. The food supply for the family decreases, as does the family's income. When the lack of clean drinking water and inadequate irrigation are combined the subsistence farm families are left malnourished and without basic subsistence needs. No one should have to go without such a basic necessity of life like water or be forced to drink contaminated water that can make them sick.

#### **Increased Productivity**

Southern Africa would benefit from increasing the yields of subsistence farmers because increasing the yields would also increase the number of people who benefit from these yields. If crop yields can be improved enough, a larger share of the crop yields can be sent to market. This helps both the farm families and those who purchase food at the market. If the farm families are able to provide enough food for themselves and earn a profit at the market they gain a greater food security. This will also provide more food security for the people who purchase food at the market because they are able to purchase more food cheaper when it comes in greater abundance. While most of the yields would still be needed to maintain the food security of the subsistence farm families, the small shares of the yields from the subsistence farmers that would go to market add up. However, the funding to provide cheaper fertilizers, modernized agricultural practices, and ways of making natural resources more accessible, is lacking. Also, the people need to have access to more and better education. If the productivity and yields of the subsistence farmers were increased the local, national, and world governments would have to become more aware of the factors affecting these farmers, such as natural resource degradation, water scarcity and climate change. These issues must be addressed at all government levels in order for their livelihoods to be improved. Once the governmental leaders of the region and also of the world are more clearly aware of these issues they are more likely to take action and change the status of the situation for the better. Only then can the crop yields and the lives of the southern Africa farmers improve.

# Recommendations

In order for increased productivity to be implemented to improve the food security and incomes of the subsistence farm families in southern Africa much must be addressed. Governments need to improve agricultural practices of the region. To do so they should provide funding to supply better fertilizers and seeds to farmers at a cheaper cost as well as funding modern farming technology. One way to provide such funding would be through a global fund. A global fund is a fund that invests in companies headquartered or traded in a variety of countries, including the United States. The fund could be created to help finance Africa's agricultural investment. This includes funds to reduce the prices farmers have to pay for fertilizer and higher yielding seeds. They could do so by improving ways of delivery and the structure of the government. Adequate water for consumption and irrigation should also be provided to the subsistence farmers in southern Africa. By providing such water, their quality of life would be improved through better health; helping to increase crop yields, and increasing their incomes. Funding to supply adequate water could also be done through a global fund.

Providing more education in the region would also benefit the subsistence farmers. If they were able to obtain more education, they would be able to contribute to their own improvement of their quality of life. If they are able to have a better understanding of issues that face them, such as deforestation and HIV/AIDS, then they will be able to address their situation and lessen the affect these issues have on them.

The United Nations could work to help provide southern Africa with a plan of action as to how to go about funding and implementing the recommendations above. The United Nations could also work to promote market access in the area by working with working with local industries and businesses to encourage the supply and demand of locally produced goods and services. The World Bank could help finance the funding needed. These organizations and others like them can also work to spread the word about the situation in southern Africa. I think this would encourage the regional governments to work more to improve the situation.

#### Conclusion

Life can be very difficult for the subsistence farmers of southern Africa. Hunger, malnutrition, and disease can be a way of life. Factors that contribute to this way of life include water scarcity, climate change, and the lack of natural resources. Hope for a different way of life, however, can still exist. The dreams of seventeen-year-old Amaha Feleke Senu of Ethiopa greatly express this hope.

"My dreams for Africa in the future are a joyful continent free from famine and drought, a green continent free from environmental degradations which are causes of famine and drought, a continent which can be regarded as a paradise where there is no human suffering, a continent where all humans stay stuffed and happy." ~Amaha Feleke Senu A Full Food Basket for Africa by 2020

In order to make those dreams come true in southern Africa these issues must be addressed. In southern Africa the subsistence farmers are faced with great food insecurity. They struggle to produce high enough yields to suffice their hunger. They do not have sufficient fertilizers, farming technology, or water to improve yields. They also do not have access to education; an education that could help them survive. The region needs to be provided with all of these services in order to produce higher crop yields, increase their income, and above all obtain food security for its people.

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