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## Food Production in Kenya and Its Relationship to Malnutrition

"200 million people-one sixth of the developing worlds' population Suffer from hunger and the fear of starvation." (International Technology Development Group, ITDG, 2004)

Joseph, a former pastoralist and now farmer, lives in the southwestern section of Kenya between Mount Elgon and the Siaua district of Nyanze province. Hunger and malnutrition affect his life and his family's lives on a daily basis.

Joseph's grandfather had multiple wives, as was the custom of his generation and the generations before him. While polygamy was practiced in Kenya, it was not uncommon for a man to have land in both Mount Elgon and another piece of knd in Kisumu, where the second wife was able to manage the second farm. It was difficult to manage two farms effectively unless the second wife assisted on the second farm. A friend of Joseph's grandfather claimed that "to gain recognition in the community one needed to be polygamous. Polygamy enhanced your status...and it also symbolized that you were a wealthy man...The people who were monogamous were ridiculed as being single eyed and would not actually have a say in front of polygamous men."(Samuel, male 90 years) Joseph's grandfather had several children. In his day, boys were more valued than girls because they were the ones who passed on the family name. Girls, however, could bring wealth to the family. Bridal wealth was traditionally paid in cattle, usually numbering three.

Today, life in Mount Elgon, Kenya, is changing. The men in Kenya have become aware of the Christian Church's open disapproval of polygamy. Joseph's parents married and had two children, a daughter and Joseph. His father has adapted to the practices of the Christian Faith and no longer believes in polygamy. As polygamy becomes less widespread, family structure has become more nuclear. Today, a girl's marriage will be arranged by her parents and as soon as the payment is agreed upon by the future in-laws, the daughter moves in with the husband's clan. Men today complain that dowry payments have increased, and many times money is asked for as well as cattle. As more girls become educated, parents attempt to make up for the loss of their daughter's educational costs. As a result, many young people increasingly elope and marry without their parents' consent and with no exchange of dowry. This has impacted farming practices, family life, and community involvement in the raising of children in the Nyanze region. Joseph's community encourages girls to get married early, between sixteen and twenty years of age, because it is believed they will get spoiled if they stay in the custody of their parents.

Typical families consist of four to six children. Although polygamy is not promoted by the Christian Faith, there are still some men who have two or more wives. The parents, young children and girls live in the main house and the older boys and grandparents have their own hut. Women are always the busiest in the homestead. Their days consist of cooking, cleaning, collecting firewood and water, caring for the children, the farm, and building their own house. The family has additional huts for the kitchen and storerooms. The bathroom is outside. Oil is used for lighting lamps and cooking is done on open hearths. For recreation, families catch up on the news and soccer by listening to the radio. People like to meet in the market places, at bars, places of worship, at the water hole, or at the local chief's house (Family Life, Kenya).

Joseph farms along the north side of Mount Elgon. The land in Mount Elgon is fertile and productive. One man in his neighborhood stated, "If you could go to my house during the harvest, there were so many sacks of grain all over, we had to push all the chairs against the wall." (Mountain Voice) Some parts of Mount Elgon are naturally fertile because it has a large number of waste matter. Therefore, there is no need to use artificial fertilizer, which are used on exhausted land. In Kenya, most people are involved in agriculture in some way. If the family does not have a large field they usually have a small family plot, shamba, to grow food. The wife tends the shamba. In the last fifty years, agriculture has gradually taken over livestock as the main source of income with the introduction of cash crops such as maize and coffee. Kenya used to farm for subsistence, producing planting sorghum, millet, bananas, cassava, and sweet potatoes. One of the important cash crops is coffee because, "now we are in a position to get the cash when the crops are taken to the factory." (Mountain Voices) Before the Sabaot, the pastoralists of Mount Elgon, became farmers, life was very difficult: there was shortage of food nearly every year, there were times when people would even feed on banana stems. In spite of the frequent droughts in the past, the main cause of famine at that time was the low productivity of the crops cultivated. Today people have better methods of farming which enable them to have a surplus (Mountain Voices, Agriculture).

Food production, which includes traditional crop and animal combinations, can be adapted to increase productivity, when the biological, land and labor resources are efficiently used (International Technology Developing Group, ITDG). Farmers can use the knowledge acquired over centuries of crop production and animal husbandry, adapting and developing the huge range of varieties and resources available in their specific local environments. The ITDG is investigating and demonstrating the potential of appropriate technologies to provide practical answers to the world hunger crisis, if the direct raising of production and incomes in some particular communities does not suffice.

In Kenya, twelve percent of the population is obese. Most of the obese people are found in urban areas such as Nairobi, Kenya. The major reason is AIDS. "On an African level we see now that obesity is a really major disease, in line with HIV and malnutrition. And it's quite clear that malnutrition and obesity co-exist at the same time and in the same country." (Astrup, Professor Arne) Traditionally, weight was considered a sign of wealth. Being obese has another significant meaning for the people of Africa. AIDS has meant "slim" for many years because it makes its victims waste away. As a result, people do not want to lose weight so that others won't think they have AIDS. So, people eat, they want to look fat so that it is clear to all they do not have AIDS. As a result, obesity has increased along with Type 2 diabetes in the urban areas of Kenya. About sixty percent of all deaths across the world can be attributed to non-communicable diseases such as diabetes. Cities are developing in this part of the world without thought given to exercise. In addition, there is the increased availability of fast food outlets in the cities. Without education and good planning for developing cities in Kenya, obesity could become as large a problem as malnourishment and HIV/AIDS have been.

The World Bank estimates that 1.1 billion people in the world live in extreme poverty. Asia leads in numbers, but Africa has the largest proportion: nearly half its population. The Director of The U.N. Millennium Project, Jeffrey D. Sachs, has the goal of helping to cut the world's extreme poverty in half by 2015. Mr. Sachs spent many days in eight Kenyan villages known as the Sauri sub location in the Siaya district of Nyanza province. He visited farms, clinics, hospitals and schools. He stated, "We found a region beset by hunger, AIDS and malnutrition. This situation is grim, but salvageable." At a meeting held with the citizens of Kenya, only two of the two hundred farmers reported using fertilizer. Around twenty-five percent of those two hundred are using improved fallows with nitrogen fixing trees, which allows the soil to rejuvenate. The rest of the community is farming on tiny plots, sometimes no more than one-quarter of an acre with soils that are so depleted of nutrients and organic matter that even if the rains are good, the households still go hungry. If the rain fails, the households face the risk of death from severe under nutrition. The biggest surprise for the Director came from his follow up question, "How many

farmers used fertilizer in the past?" He wrote that every hand in the room went up. Farmer after farmer described how the price of fertilizer was now out of reach, and how their current impoverishment left them unable to purchase what they had used in the past. In addition, every family in the community was housing an orphaned child from the AIDS pandemics (Sachs 50).

With these kinds of statistics, changes must be made and now! Survival depends on responding to these challenges with "known, proven, reliable and appropriate technologies and interventions" (Sachs 50). These challenges can not be met by the Kenvan villages or the Kenvan government alone, assistance is need by the World Community. The Millennium Development Project speaks of five interventions, which must be activated: boosting agriculture, improving basic health, investing in education, providing clean water and sanitation and bringing power. The farmers of this region could triple their food yields and end hunger with fertilizers, cover crops, irrigation and improved seeds. These interventions would help stop the malnutrition that haunts these people. Basic health care and health education through village clinics could help end the problems of malaria and HIV/AIDS. By investing in the educational needs of the village children, girls as well as boys, could be successful by providing meals that get the children to school. This leads to a quality education through improved school attendance. Vocational training in sustainable modern farming techniques which work in good years and years of drought, computer literacy, infrastructure maintenance and carpentry will empower these Kenyan children to change their future. As Catherine Bertini, Under Secretary General for the United Nations, stated, "Food is power! We use it to change behavior. Some may call it bribery. We do not apologize." (Bertini 2004) By providing easily accessible clean water and sanitation for the villages, women and children who toil at these tasks daily, would have more time for education and food production. Bringing power, either through diesel generators or power lines, to these rural areas would allow the families to become part of the Twenty-first century, giving them access to electricity, lights, refrigeration, and computers.

Recommendations for solving the food production problems of Kenya involve Kenya and Kenyans as well as the greater international community. "Politics simply can't explain Africa's prolonged crisis. Time after time countries have promised to provide funds for Kenya but have not been able to provide enough to alleviate the problem. The Director of the Millennium Development Project states that he has seen countries in Africa such as Ghana, Malawi, Mali and Senegal fail to prosper, while societies in Asia perceived to have extensive corruption, such as Bangladesh, Indonesia and Pakistan enjoy rapid economic growth. What is the explanation? While many factors exist one is certain that Africa is burdened with malaria unlike any other part of the world. The reason for this is, that it is unlucky in providing the perfect conditions for this disease: high temperatures, plenty of breeding sites and particular species of malaria-transmitting mosquitoes that prefer to bite humans rather than cattle" (Sachs 53). Former U.S. Secretary of the Treasury Paul O'Neill expressed a common frustration when he remarked about aid for Africa, "We've spent trillions of dollars on these problems and we have damn near nothing to show for it.' O'Neill wanted to fix the system so that more U.S. aid could be justified. It needs to be realized that even though the U.S. gives \$200 million per year to Africa, that is less then \$1 per person living in subsistence farm households.

In order for Kenya and other underdeveloped nations in Africa to rise out of poverty, eight steps have been suggested which will help the world community reach the goal of Making Poverty History. These eight steps, approved by the Millennium Development Project, need to be implemented as quickly and efficiently as possible.

- 1. Commit to the Task: The entire world needs to embrace the goal of making poverty history
- 2. Adopt a Plan of Action: Follow through on the commitment to eliminate extreme poverty by 2025 which was approved by the world's governments at the start of the millennium
- 3. Raise the Voice of the Poor: Democracies in the poor world need to join together in their call to justice and action

- 4. Redeem the U.S. Role in the World: The U.S. needs to honor its commitment to give 0.7% of our national income to meet these crucial goals
- 5. Rescue the International Monetary Fund (IMF) and World Bank: Restore their role in helping all 182 of their member countries in the pursuit of enlightened globalization
- 6. Strengthen the U.N.: Empower the U.N. agencies, such as the World Health Organization, Food and Agricultural Organization, World Food Programme, etc. to do their jobs
- 7. Harness Global Science: Include not only the rich but also the world's poor in the new technology which leads to improved standards of living
- 8. Promote Sustainable Development: Increase productivity on farms without endangering the world's natural resources

Food Production is a problem that cannot be solved with out leadership and dedication from individuals taking a stand and making a difference. Each individual in this world needs to make a personal commitment and accept a fair share of the burden for ending poverty in the world. Leaders, such as Dr. Norman E. Borlaug, Father of the Green Revolution, have given us direction and methods to attain this goal. Dr. Borlaug stated, "I will not see the change in my lifetime, but I hope I will see it initiated. Someone needs to step up." The youth of Iowa can be those people who use communication and their knowledge to activate more people in the battle to end world hunger.

"Civilization as it is known today could not have evolved, nor can it survive, without an adequate food supply." (Borlaug 1970)

"...when you build a road, you build a school, and when you build a school, you build public health... There are 900 hundred illiterate adults in the world. You can not build peace on an empty stomach." (Borlaug 2004)

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