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Kenya, Factor 13: Demographics

Kenya: The Benefits of Education

Food security is a major issue worldwide. Many countries across the globe experience great struggles in the production of food for a healthy and happy population. Kenya is only one of the many countries that experience this daily struggle of survival. In 2008, an estimate of 1.3 million rural residents and nearly 4 million urban residents were considered food insecure. Official estimates currently show that over 10 million people in Kenya are food insecure. A high proportion of this population is even living off of food relief. Unfortunately, this is not enough for the majority of Kenyans. With the rapidly growing population, farmers and the agricultural industry struggle to produce a sufficient amount of food to support the people. Currently, the country has a population of 48 million. By 2050 the population will nearly double to 94 million people, increasing by about 3% each year. This increase negatively impacts such a small area of land. As a result of the growing population, the little land that is currently available for production of food will decrease. Only 20% of the land is used for the production of agriculture (Jayne and Muyanga). A proportion of this land will soon be forced to become the residence of an increasing Kenyan population. That is something that the country cannot afford. Urbanization is already occurring at high rates. Soon, the land will no longer be able to support the population, and there will be too little land left for production. In order to prevent this from occurring, the population must attain stability. In order for this feat to be achieved, education among Kenyan women must improve. Although primary education is equally accessible to boys and girls, 47% of rural girls still fail to complete their primary education. In the Northeastern Province, 70% of girls receive no education at all (The Nature Conservancy Central Science). In turn, these high percentages of educational deficits result in females producing more children. Rather than being focused on an education and a career, many women find themselves having more children. This largely contributes to an unhealthy growth in the population, which negatively affects the food production of Kenya. In order for food security to be achieved in Kenya, education among women must increase.

Families who live in a rural community of Kenya tend to have more children than families who live in urban communities. The average size of a Kenyan family is 4.4 children (Kiriti and Tisdell). The demand for a large number of children stems from an economic necessity. Children are needed to assist as laborers on the smallholder farms. Kenyans prefer to have male children over their female counterparts. The males are expected to care for the parents when they reach an age of declining health and mental capacity. Male children are also expected to carry on the family lineage. It is not surprising that women prefer male children, even more so than men. They fear the possibility of disinheritance by their husband, if they are unable to produce male heirs.

A rural Kenyan family's diet is composed of mainly corn, maize, potatoes, and beans. Ugali, a porridge made from maize, is a customary dish in the country. A typical meal of a rural Kenyan family consists of Ugali or potatoes and is often served with a side of vegetables or a saucy stew. For an average Kenyan family, the meal is completed with a serving of fruit. According to the World Bank, about 41% of the country's population is undernourished due to the lack of food supply. Among children under the age of five, 23% are underweight. In this same age group, 35% of the children have stunted growth rates.

The formal education system of Kenya occurs in different phases. The primary education phase begins when a child is age six and continues for the next eight years. The intended outcome of primary education is to prepare children to be fully active in the social, political, and economic aspects of their culture. Primary education's secondary purpose is to provide for the well being of the pupils. However, female

students are at a disadvantage in the sense that they are viewed as inferior and are expected to help with the home. In the past, the responsibility of primary education had been that of the local communities. Now that Kenya is independent, the government has gradually begun taking an active role in the administration of primary education and releasing the obligations from the local authorities. Thus, they have also taken on more of the financial responsibilities. Nearly all of these primary schools are now in the public sector and rely on the government to support their daily operations. These expenses and duties include providing teachers and maintaining their salaries. Government expenditure on school supplies and equipment is minimal. Educational fees are imposed on the parents by Parent Teacher Associations. Parents are also expected to endure the responsibility of construction and maintenance of schools and staff housing. The second phase of the formal Kenyan educational system is secondary education. This phase begins at age 14 and continues for four years. During this period, students participate in job-oriented courses such as business and technical education. Both public and private secondary schools exist at this level. The public schools are funded by the government, while the private schools are established and managed by individuals outside of the government as well as private organizations. In 1963, there were 151 secondary schools throughout Kenya, with 30,120 pupils enrolled. Currently 3,000 secondary schools are active with an enrollment of 62,000 students. Slightly over 40% of these students are girls (Education in Kenya). The next phase of the Kenyan education system is post secondary education. In this phase, students attend institutions that train individuals in vocational subjects. The country of Kenya has only four public universities to provide these opportunities. This may account for the fact that each year, about 30,000 young Kenyans leave the country to attend school overseas.

The citizens of Kenya have limited access to health care. Basic primary healthcare centers and dispensaries provide outpatient services for simple ailments only. These centers and dispensaries are staffed and managed by enrolled and registered nurses who are not always able to fulfill every medical need. Sub-district, district, and provincial hospitals provide secondary care. Sub-district hospitals are similar to the primary health centers, but these hospitals have an additional surgery unit. This allows them to perform c-sections and other services. District hospitals typically possess resources to provide comprehensive medical and surgical services. Provincial hospitals, or regional centers, provide more specialized care such as intensive care, life support, and consultations from specialists. Kenyan healthcare consists of three categories. These include public, private not-for-profit (faith or mission based), and private for-profit entities. Private hospitals are mainly found in Nairobi, although there are a few located in Mombasa. Of all the health care facilities in the country, 41% are operated by the government. Non-Government Organizations operate 15% of the health care facilities (Healthcare in Kenya). The country's health care facilities are below international standards. This is largely due to their limited resources and capabilities to provide care. Another contributing factor is that the facilities are understaffed, poorly equipped, and lacking necessary supplies in public hospitals.

In Africa, at least half of the smallholder farms are under 1.5 hectares, approximately 3.7 acres, in size. This leaves an extremely limited potential for any area expansion. The majority of individuals in Kenya enter their working years being employed off of a farm. Land is not inherited, therefore they must work to purchase their own. In Kenya, over half of the rural population lives in areas that far surpass 250 persons per square kilometer, which is less than four tenths of a mile. This dense population has directly resulted in a decline of the average farm size over the past 50 years. The increase of the rural population has overwhelmed the little land that is suitable for growing crops. Of the country's rural population, 40% lives on 5% of its farmland. This in turn means that 20% of the land is controlled by only 3% of Kenya's population (Jayne and Muyanga). As the rural population is continuously increasing, farmers are forced to utilize different agricultural practices. It is common for a farmer to go from shifting cultivation to annual cropping of the same plots of land. This change in procedures requires more labor of the individuals involved in the care of the crops. The majority of the crops grown in these areas are maize and a variety of vegetables.

The African climate has proven to be a significant barrier to Kenya's agricultural productivity. The average daily temperature ranges from 21°C to 30°C, or 69.8°F to 86°F. Throughout the different regions of Kenya, the annual precipitation ranges from only 510mm to 3000mm (Kenya-Climate & Agriculture). This causes the country to have an extremely arid climate. Droughts are a common occurrence. The frequency of droughts in Kenya has a negative effect on crop productivity. With the lack of precipitation, crops struggle to survive. Kenyan farmers spend much time concerned about rainfall patterns, a factor that is out of their control. Another barrier against agricultural productivity is the price of fertilizer. The majority of Kenyan farmers cannot afford fertilizer. This causes fertilizer use in the sub-Saharan Africa to be far lower than that of the global average. The exhaustion of nutrients in the soil causes a drastic reduction in crop yields. This results in an increase of soil exposure to the effects of weathering and advancing erosion, which takes a toll on the soil.

In recent years, Kenya has been facing major food security issues. A significant proportion of the population has no access to the proper amount of quality food. Officials have shown that over 10 million Kenyans are food insecure. A majority of these people depend on food relief to satisfy their needs. Households have extremely limited choices of food and food varieties. Many are burdened with significant food bills due to the high cost of nourishment. Kenya's access to proper nutrition is minimal at best. There are 35% of children under five that are considered to be stunted. In this same group of children, 23% are underweight. Of these same children, 46% are considered anemic. Lastly, only 24% of breastfed children in the age range of 6-23 months receive a diet deemed minimally acceptable (National Nutrition Action Plan).

Kenya's significant population growth greatly contributes to issues of food security. The country's population grew from 5.4 million in 1948 to 41 million in 2012. Kenya's current population is 48 million. By 2050, the population is projected to reach 94 million, and 160 million by 2100. This is primarily a result of high fertility rates of the past. Although the fertility rate has declined from 8.1 children in 1978, to 4.6 children in 2013, Kenya's population will continue to see a rapid growth. This has caused many Kenyans to turn to modern contraception. The use of these population control alternatives has increased from 7% in 1978 to 46% in 2008. Considering the increase of modern contraception use, it is shocking to find that in 2008 close to one in four women who wanted to postpone their next birth or prevent childbearing, were still not using any form of contraception. Looking at all of the recent births, 17% of these were unintended and 26% were mistimed (Population, Climate Change, and Sustainable Development in Kenya).

The rapid population growth of Kenya largely contributes to the enormous amount of pressure on natural resources. Farmland, which is already scarce in Kenya, must be divided among many people. This in turn produces smaller, overused plots and poorer land quality, which has a negative impact on food production. The land cannot keep up with the growing population. Therefore, the amount of land is not sufficient enough for the ideal food production. In another sense, the lack of land also contributes to high unemployment rates and low income among rural Kenyan families. Agriculture is the base of Kenya's economy. Considering this, the growing population translates into the lack of land to provide work. A growing population results in the scarcity of land. When land is scarce, there are less farm operations, which significantly limits the potential for employment and a sufficient income to sustain a family. This also results in poor nutrition among these rural families. Individuals are unable to provide their families with the proper food and nutrients as an effect of their low income. As stated earlier, 35% of young children are stunted, 23% are underweight, and 7% are wasted. Less than one-quarter of children 6-23 months receive a minimally acceptable diet.

Kenya relies heavily on the agricultural industry. In fact, 75% of the country's population makes a living by farming. This percentage of the population also includes children, whom commonly assist in helping the family to earn money. In turn, this lowers school attendance. Many young people struggle to find

work, which crowds the slums in the nation's capital. Kenya has an alarmingly high unemployment rate of 40%. Even when work can be found, a typical day of labor provides payment of only \$3.

Seventy-five percent of Kenya's workforce is dependent on agriculture. Over the past 35 years, Kenya's population has tripled. The country's growing population causes the agricultural industry to suffer by straining resources and forcing half of the population into poverty. This also leads to the lack of nutrition among Kenyans, especially children. Not only does the population negatively affect people, but it also affects the land. Only 20% of Kenya's land is deemed sustainable for agricultural production (Population, Climate Change, and Sustainable Development in Kenya). When nearly 75% of the country's population resides on this land, essential nutrients are drawn from the soil resulting in poor crop production. While the already growing population continues to increase, this will only result in the dramatic decrease of sustainable land.

The rural population is at much more of a disadvantage than the urban population. The constantly increasing population affects the rural areas by decreasing their farmland and leaving them very limited potential for employment and a sustainable income. Those who reside in rural Kenya are forced to face the issues of depleting land daily. They are in constant worry of how they will produce food to not only provide for their own families, but families throughout the country. They also struggle to find employment for themselves. Women find themselves facing more struggles than men. The women are expected to not only take care of the family and the home, but also to assist the men in the production of food. Women are also burdened by being expected to produce male children in order to continue the lineage.

The growing population trends are only worsening. Kenya's national census, which is carried out every 10 years, has shown a continuously increasing population growth rate. With each census, there is a significantly greater increase in population than that of the past census. Other entities provide data on the country's population each year. All data projects that the population will only increase. Research indicates that in the year 2050, Kenya will be home to nearly 94 million people. In 2100, this number is projected to surpass 160 million (Population, Climate Change, and Sustainable Development in Kenya). This dramatic increase will prove to be difficult among Kenyans, especially the rural population. Many rural areas are already becoming urbanized. In the future, Kenya will become more urban and could potentially lose all of their rural land. Many Kenyans will have to face the harsh reality of no food and no employment. The lack of land to grow food will result in even more Kenyans going hungry. The urbanization of Kenya's land could also potentially result in even higher rates of unemployment. With agriculture supporting the majority of the workforce, this will leave many jobless and living in an even worsened state of poverty.

A stabilized population in Kenya would benefit food production and quality. The rural population would thrive off of the stability. This would provide them with a sufficient amount of land to produce food for the country, unlike the struggle they currently face. The land would be able to obtain and replenish the vital nutrients in food production, rather than being stripped of them as in the current situation. This would also lead to strengthening employment rates and poverty reduction. The amount of land would then be sufficient in supplying employment to the rural population. Rural farmers reap the most benefit. For them, the stabilized population would provide more land for them to provide food and to earn money, as well as support their families.

Many methods to improve food security in Kenya have been developed by various organizations and are implemented by these group as well as volunteers. A seemingly evident solution to the increasing population is proper access to healthcare and family planning. Working closely with Support for International Family Planning Organizations (SIFPO), Africare, or Amref Health Africa, just to name a few, would prove beneficial to improving the issues of the growing population. These organizations and

charities are better able to assist Kenyans in planning for their futures. They have the capabilities to strengthen the Kenyan health system by providing accessible services to families as well as training individuals in the health system. These organizations have also proven to be successful through their funding and knowledge of these issues. This project would consist of collaborating with these entities to improve the health care and family planning situation in Kenya. By these groups going into the country, especially the rural areas, Kenyans are able to gain sufficient access to the essential services of health and family planning. Family planning will prevent the total population from growing at such extreme and unstable rates. This will also help to reduce the mortality rate of women during childbirth and children under the age of 5. Organizations such as SIFPO, Africare, and Amref Health Africa that are funded by a variety of public and private sources, are able to provide the proper health assistance to mothers in order to sustain their lives during childbirth. However, their access to these organizations is limited. This is due to the time they spend working. When they do have the time available, they often lack the money necessary for such services. Family planning will also contribute to stabilizing the population by increasing the amount of time between births for each mother. This time in between births is essential to the survival among children and expecting women.

Women who receive more education tend to have smaller and healthier families. According to research done by the University of Minnesota, lack of education among Kenyans is correlated with large family sizes. The research shows that on average, women who do not receive any education have approximately 6.13 children (Kiriti and Tisdell). However, women who have received a college education have one child on average. If the current trends of education among Kenyan females continue, the population will continue to rapidly increase. Education among Kenyan females is a vital matter that is necessary to be addressed in order to achieve population stability. In turn, a stable population will result in increased food production. This will then provide food security for the country. Implementing this project will consist of educating females beginning at the primary level. First, it is necessary for female attendance in school to increase. In order for this to be achieved, awareness of the correlation between low education and the rapidly increasing population must be made apparent to the country. Laws must be put in place to insure that females are attending school. This may be a difficult hurdle to overcome, unless the male dominant government understands how not acting will negatively effect their country. With an increasing attendance among Kenyan females, education will become far more accessible. Females will become better educated, which will result in a reduction of the number of children born per female. This in turn will benefit in stabilizing the population and increasing food security.

Along with the general education of women, education of contraceptive methods can also prove to be a valuable asset. While females are in the general education setting, organizations will have better access to sharing the benefits of family planning with more women. Currently, 46% of women use modern contraceptive methods (Population, Climate Change, and Sustainable Development in Kenya). In order for the population to stabilize, this percentage must increase. With an increase of women using contraception, there will be less of a population for which to provide food. Lifting this burden off of the agricultural industry will in turn benefit the state of food security in Kenya. To assist this, there must be a push to increase funding for education, volunteers to step in where the government cannot help, and events held worldwide to bring about an awareness to the problem and solutions possible for Kenya.

A factor that may prove to be a barrier to these plans is the male-dominant government of Kenya. These men may hold traditional views that women are inferior. Although not only would these views be held by this particular set, but also of men of any kind in the country. Even after stressing the importance of female education to the male population, there will still be resistance. In order to fully achieve acceptance, awareness must begin at a younger age. Even in the earliest years of schooling it is important to integrate boys and girls in the classroom. By doing this, boys will begin to see girls as their equals. Not only will integration accomplish this, but as will discussing the matter in school and treating each child in the same manner. This equal treatment will show both boys and girls alike that they are all the same and

share the same rights. Also by having female role models as teachers, students will see at a young age that women can hold power and positions. These issues need to be presented to the government in a way to not seem overly aggressive, but through positive lobbying, peaceful boycotting, and respectfully representing the rights not just of women but all Kenyans.

Kenya experiences poor food security. This is largely an effect of the little amount of land available for agricultural production. The rapid incline of the country's population is a primary contributor to the lack of sustainable land. The necessity of a stable population has been made apparent in order to increase the state of food security. In order to achieve a stabilized population, the ratio of children per women must decrease. The amount of children a woman produces in her life is tightly correlated with the amount of education she receives. This means that in order to decrease the amount of children produced by one woman, education among Kenyan females must be addressed in a vital manner. If the females' education fails to be recognized, population will continue to increase at rapid rates. In turn, this will result in the lack of sustainable land. Food production will decrease to even lower rates causing the population to suffer from food insecurity. Kenya's female population must be better educated for the health of the country. Women are expected to produce the future of Kenya. With that being said, they must receive a satisfactory education in order to build a future of food security for the country.

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