

Review Article

Dynamics and Policies: Assessing the impact of Population in Kenya

Abstract

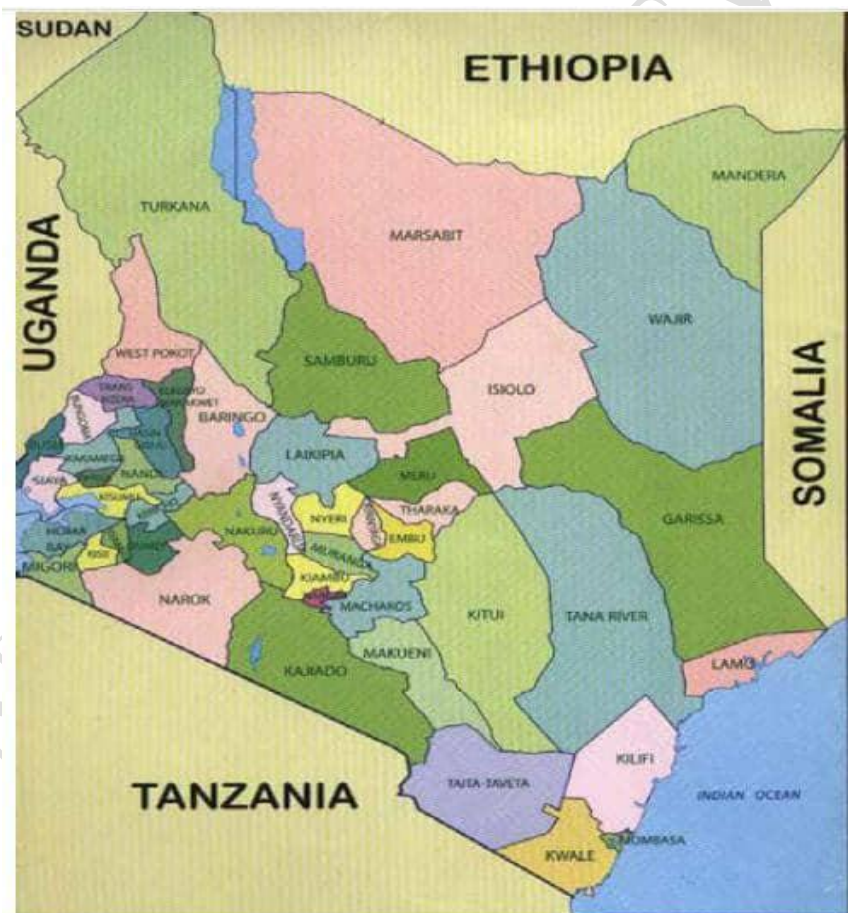
The increase in population of a nation positively influences its economic growth via increase in its gross domestic product. However, this also puts pressure on some other factors that the same population relies on and thus, some measures and policies should be put in place to address these. In this paper, the population trends in Kenya alongside the impact of the population growth was discussed. The various policies and measure that should be put in place by the government were discussed. This paper explores the significance, challenges and impact that population has on Kenya because of its high fertility rate. This will broaden readers' mind on the impact of overpopulation on the country's economy, household, country's GDP, education, food, agriculture and so on. Also, readers will be able to understand the policies adopted by the government of Kenya to avert the situation. Recommendations were given for government to adopt for implementation policies.

Keywords: Population, governmental policies, Kenya, housing, economy

1. Introduction

Kenya is a country that belongs to Africa and is located in the Eastern part of the continent bordering with Ethiopia, Tanzania, Uganda, Somalia and Sudan (Juma et al. 2011). It comprises 47 counties and 302 sub-counties as shown in Figure 1. In December 1963, Kenya gained independence from Britain after a prolonged struggle with a short-term guerrilla war. It practices multi-party democracy and was led by a coalition governmental system till March 2013. This resulted from the occurrence of the disputed general election which was conducted in 2007. In 2010, new constitution was promulgated and a republican system with a bicameral Parliament was elected which was tenable to change every five years (Obere et al. 2013). There is provision for 47 devoted county Governments as stated by the Country's Constitution which are distinct from, but interdependent with the national Government, each with a governor and a county assembly. The counties replace the previous provinces and the over 250 districts they presided over. The counties are in turn sub-divided into sub-counties, wards and villages. The constitution gives room for counties to elect their respective governors. Each county elects ward representatives to its county assembly who is solely charged with the responsibility of local legislation and monitoring of governor's county executive committee performance (Kimenyi et al. 2015).

Kenya has a land area and a total area of 571,466 sq km and 582,646 sq kms respectively. Eighty percent of her land area is arid/semi-arid while the remaining is arable. The arid and semi-arid lands (comprising the north, north-east and much of the southern areas towards the Tanzania border) are primarily covered with shrubs and bushes making the place unsuitable for agricultural purposes but mainly for wildlife conservation and pastoralism. The two main regions in Kenya are categorized as either highlands or lowlands. The former is located on both sides of the Rift Valley and the latter comprises both the coastal and the lake region. The temperature and rainfall of Kenya are determined by its proximity to the Indian Ocean and altitude (Degefa et al. 2017). The coastal region of the lowlands is characterized with a tropical climate having both its temperatures and rainfall to be higher throughout the year than the rest of the country.



Map 1 : Map of Kenya and the counties

2. Population trend in Kenya

Previous reports have shown that Kenya's rapid population growth was first observed in the early 1960s and will continue against the setting of relatively high mortality and fertility

rates(Klasen et al. 2006). Development and demographic challenges related to a rapidly growing population will be continuously experienced by the country. These include increase in youth numbers which is interrelated with the employment and population growth constraint which could result in high dependency burden. Additionally, the population growth force which arose from youthful population is such that total population would rise even if Kenya were to reach an immediate lessening of its current total fertility rate of 4.5 births per woman to the replacement level of about 2.2 births per woman. Even though Kenya does not seem to be among the fastest growing countries in East Africa, the country still has a bigger population as compared to most global north countries. Even though Africa has the highest crude death rate of 50% as compared to the world average, Kenya is having the lowest death rate in East Africa as compared to death rate across the world. Kenya also has the lowest rate of natural increase of 2.2%.

In some of the rural areas such as Kakamega, Kiambu, Kisii, Vihiga and Kisumu counties, Population trends have greatly caused increase in population densities with over 500 persons per sq km. The 2009 population and housing census indicates that slightly less than one-third of the population lived in urban areas. This accounted for a substantial increase from the 19.3 % recorded in the 1999 population census. The rapid increase in urban population has overshadowed existing infrastructure and services which led to growth of informal settlements attributed with overcrowding. It is established that lack of basic infrastructure will consequently increase poverty and delinquency (Bayati et al. 2013). The population density and population of Kenya was projected to be 85.3 per square kilometer and 50.8 million in 2018. In 2022, Kenya's projected population in 2022 was 52.37 million according to the Kenya Health Information System (KHIS) (Mugo et al. 2018). Figure 1 presents the population trends in Kenya between 1980 and 2019.

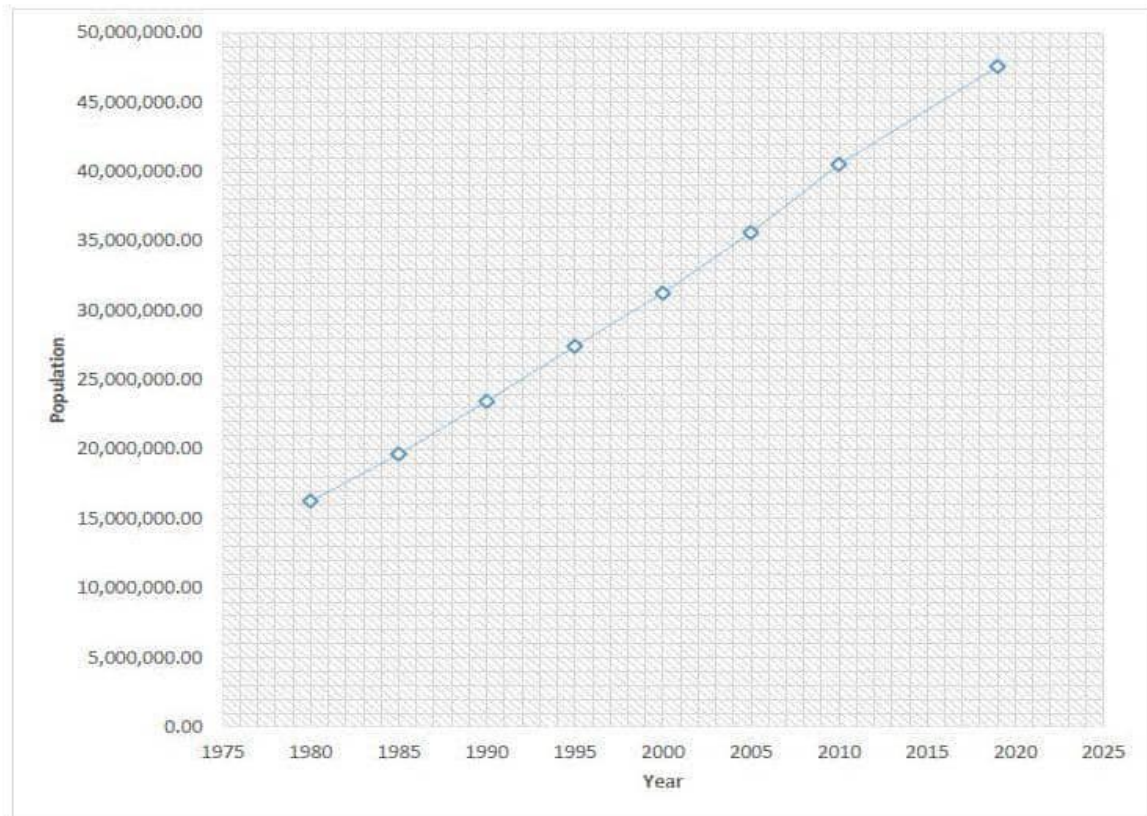


Figure 1: Population trends in Kenya between 1980 to 2019 (Mutunga 2020)

Although the Government does not relent in the implementation of measures that will influence demographic trends, the population of the country currently estimated at 42.0 million is expected to reach nearly 60 million in 2030 and 77 million by 2050. On average, each woman will be expected to have attained a fertility level of less than 3 births by that time with an associated infant mortality ratio (Bucci 2015). The structure and size of Kenya's population have become major threats. The average growth rate of Kenya population on a yearly basis is 2.5%. In recent times, the fertility rate has increased above 3.5%. The adult population's crude death rate is more than 5%, with numerous deaths related to diseases. Additionally, the working class of the age distribution within the population has increased rapidly. This has caused a growing supply of productive workforce which makes it essential to address the difficulties associated with insufficient formal and casual job opportunities. The current number of young people in Kenya has been rising. In spite of the expected increase in population size, Kenya can benefit greatly from the changing age structure arising from the demographic transition that the country has been undergoing since the late 1980s. This could result in a situation in which a large number of the working age population is

sufficiently productive to support the dependent population, namely children and old-age population. Figure 2 presents trends in population density in Kenya between 1980 and 2019.

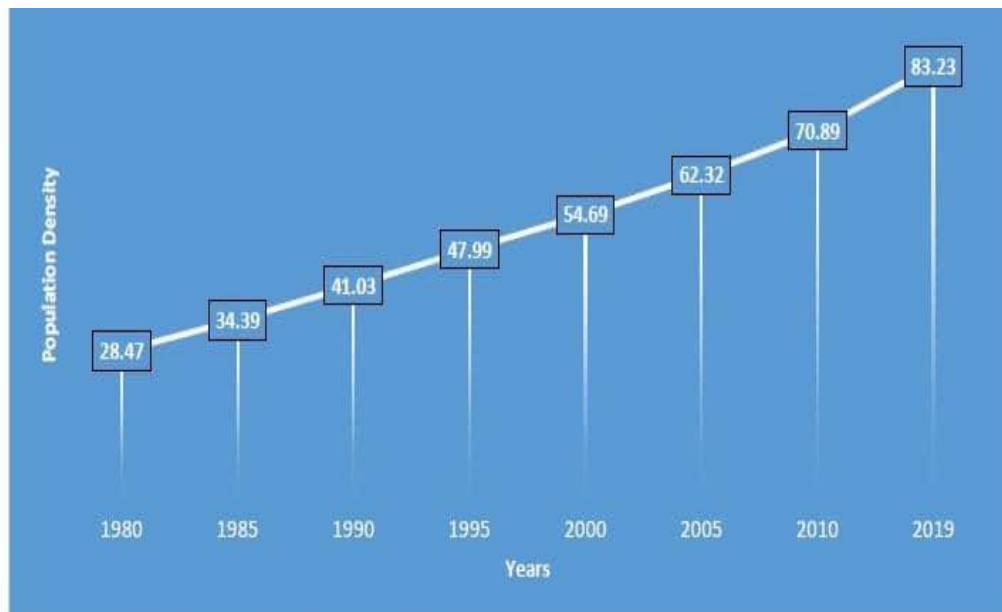


Figure 2: Trends in population density in Kenya between 1980 to 2019 (Mutunga 2020)

In the last two years, the population of Kenya has grown by 2,107,948 people which is 3.8% meaning that Kenya is a moderate growing population in Africa. This has been realized by curbing fertility through possible accessibility of contraception and family planning methods approved by the government of Kenya and international donors (Ochako, 2017). The study conducted by Simon (1992) concluded population growth to be a positive thing in Kenya and that it stimulates technological developments and innovations. This was supported by the fact that population growth promotes positive competition in business interests and, as the country's population grows, the size of its potential market also enlarges as well. However, Peterson (2017) stated that Kenya is where population growth affects many phenomena such as the age structure of a country's population, international migration, economic inequality, and the size of a country's workforce.

As much as population growth is good for the economy, it also puts pressure on some other factors that the same population relies on. A projected population growth will undermine protection of the natural world which includes food problems but also imposes constraints on the development of savings, foreign exchange, and human resources. The increase in demand for food leads to a decrease in natural resources, which are needed for a nation to survive. Other negative effects of population growth include poverty caused by low income per capita

for every household, famine due to scramble for the limited resources especially in the arid and semi-arid poverty-stricken areas, and diseases since rapid population growth complicates the task of providing and maintaining the infrastructure, education and health care needed. This paper discusses in detail the impact of population growth in Kenya in order to enable the government to implement policies that will handle the adverse effects of rapid population increase.

2.1 Fertility, mortality and migration as principal components of population dynamics in Kenya

2.1.1 Fertility

One of the recognized three principal components influencing population dynamics is fertility besides mortality and migration. Data collection on fertility levels, trends and differentials are prime objective of the Demographic and Health Surveys (DHS) programme since its commencement in the 1980s. In Kenya, continuous data collection via birth records and other routes has been imperative in identifying the essential function that fertility plays in balancing Kenya's overall population growth. It has been established that fertility reduction was the thrust of the country's population policy since early 1967. This underlines the deliberate efforts made by the Government to contain it. The total fertility rate (TFR) is a key term usually used to express the influence of fertility on population growth rate. The trends in fertility of Kenya between 1977 to 2003 indicates that the TFR reduced radically during the last two decades of the 20th century. It changed from 8.1 children per woman in the late 1970s, through 6.7 in the late 1980s, to 4.7 during the last half of the 1990s. However, fertility seems to have started increasing, albeit marginally, from 1998, reaching a TFR of 4.9 children per woman during the period from mid-2000 to mid-2003. This upturn in birth rates has especially affected age groups 25-39. Figure 3 represents the fertility trend of Kenya between 1977 to 2003 (Kaneda et al. 2018) .

The recent speech delivered by the Principal Secretary, State Department for Economic Planning during the launch of the state of world and Kenya population report of 2023 stated that the current population dynamics in Kenya is characterized by the changes in fertility, mortality and migration which has caused changes in the population structure. It was stated that the proportion of children below age 15 years declined from 43 per cent in 2009 to 39 percent of the total population in 2019. Also, youth between the ages of 18-34 years in Kenya constitute about 29 percent of the total population. The population of the youth grew from 3,201,192 in 1989 to 13,177,600 in 2019 and is projected to increase to 18,966,737 by 2035.

The proportion of the population in the working ages (15-64 years) increased from 53 in 2009 to 57 in 2019 percent while the proportion of the population of the elderly aged 60 and above years increased from 5 to 5.8 per cent representing an increase from 1,943,715 in 2009 to 2,740,040 2019 people of the total population. It was also revealed that the older persons are the fastest growing population segment in the country as a result of the improvement in the life expectancy that has increased among men from 58 years in 2009 to 61 years in 2019 and for women from 62 years in 2009 to 67 years in 2019 (Muhati 2023).

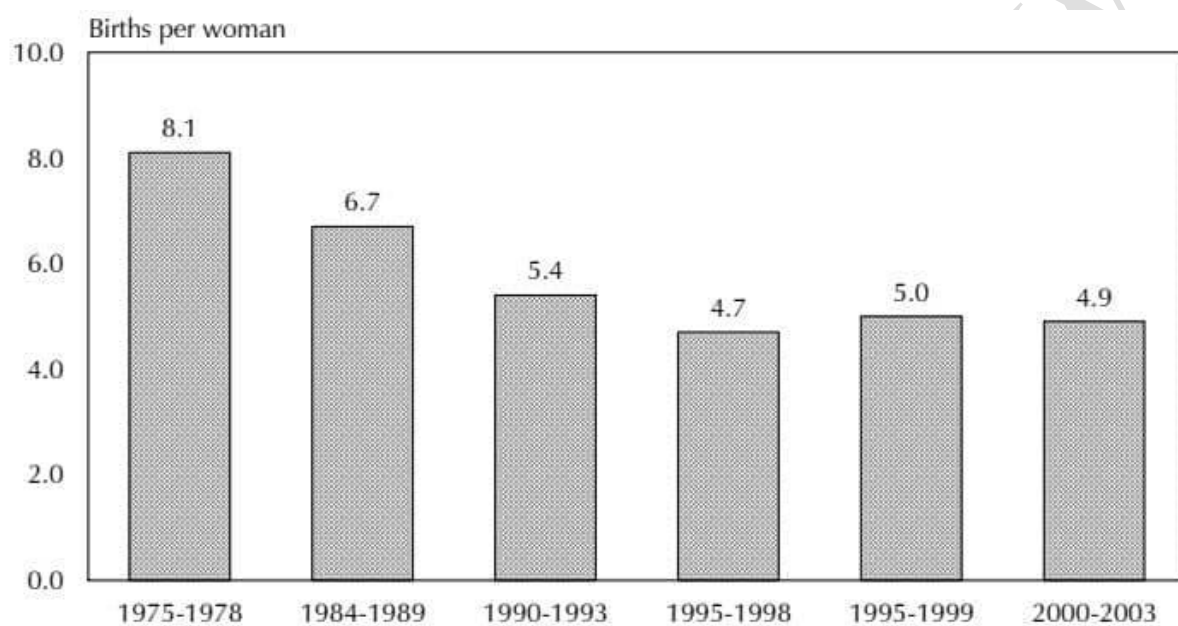


Figure 3: Fertility trend of Kenya between 1977 to 2003

2.1.2 Mortality

On mortality, Kenya is committed to strengthening her health systems in order to respond to health related complications that affect the citizens. Between 2020 and November 2022, Kenya recorded 340,431 positive cases of COVID-19 and 5,680 deaths. In 2021, out of the 3,138 children aged 0-14 who died of AIDS-related illness, 60 per cent were children below five years of age. Kenya Mortality and Cause of Death Report 2021 shows that the leading cancer-related deaths were esophagus cancer at 16 per cent, cervix cancer at 10 per cent, breast cancer at 10 per cent and liver cancer at 9 per cent. National Safety and Transport Authority (NTSA) data shows that the number of people involved in accidents has increased from 11,215 in 2017 to 21,760 people in 2022. Although mortality has been on the decline, the country has recorded increasing deaths resulting from non-communicable diseases, accidents and injuries (Roth et al. 2018).

2.1.3 Migration

In Kenya, migration trends differentially affect fertility levels, patterns and behaviour. For economically dynamic areas, out-migration and the associated spousal separation and differential sex ratios seem to be associated with falling fertility. In lagging and/or peripheral areas, by contrast, the demographic effect of migration seems to promote high fertility by undermining some critical factors of fertility determinants and behaviour. Examples from Africa in general and Kenya in particular are invoked to examine and explain this important association between migration and fertility. One of the characteristics of demographic studies is that migration process remains the less investigated component of population dynamics. They are largely marginalized and neglected from major developments in the subject. Migration has been recognized across the demographic field as important in its own right and requiring detailed investigation (Yadava et al. 1990).

In 2005, it was estimated that nearly 1 in 7 people on the planet were migrants. Most of these were internal migrants, having moved within a country. The recently released 2022 Kenya DHS highlights that over half of Kenyan women are internal migrants; 55% were born outside their current place of residence within Kenya and 2% were born outside Kenya. Fewer Kenyan men have migrated: only 36% were born outside their current place of residence within Kenya and 1% of men were born outside of Kenya. Rural to urban is the most common type of migration among both women and men in Kenya, followed by urban to urban migration. Kenya is urbanizing very rapidly with percentage of urban population to the total population having increased from 5.3 per cent in 1948 to 31.2 per cent representing 14.8 million people in 2019. In addition, the number of urban centers increased from 47 in 1969 to 372 in 2019. Migration is regarded as a stressful process as it involves the loss of social support from the community and family members. This process is associated with stress, loss and social marginalization often leading to anxiety and depression. It causes disruption of family life and therefore loss of social support, expectations by their relatives to send remittances and acculturation quite often leads to anxiety among the in-migrants as they adapt to the new social environment and lifestyle. Rapid rural-urban migration currently witnessed in Kenya has led to an increasing number of people who are homeless and living in squalor, high crime rate, mushrooming of informal settlements, overcrowding, poor housing conditions, poor sanitation, poverty, child malnutrition and other social ills in urban areas (Chang et al. 2019).

3.0 Population impact in Kenya

3.1 Economy

The relationship between population (due to fertility) and economy are both correlated. In terms of GDP, population growth and economic growth are mutually correlated and that an increase in population will have an impact on the economic growth of a country. Many scholars have had divergent opinions when it comes to population growth and economy. The first opinion believes that Kenyan population growth promotes economic growth and subsequently economic development, while the second opinion believes that rapid population growth in Kenya and high fertility impacts negatively on economic development. The third opinion believes that the growth and high fertility results in gross national product decline per capita food consumption and land quality; a high dependency ratio; urban crowding; and inadequate health systems. Kenya seems to be agreeing with the first opinion putting population growth at the forefront of economic growth (Ren et al. 2020). Economic growth is measured by changes in a country's Gross Domestic Product (GDP) which can be decomposed into its population and economic elements by writing it as population times per capita GDP. Expressed as percentage changes, economic growth is equal to population growth plus growth in per capita GDP (Peterson, 2017).

Population growth enables the country to have industry and farm workers. It also encourages innovation where a growing informal sector is absorbing those African workers who cannot find wage employment. A good example is the Boda Bodas sector which generates one million direct jobs for riders as it rapidly evolves into a money-spinner generating billions of shillings to the taxman each year. According to a survey by listed firm Car & General (C&G), which sells motorcycles, replacement parts, and other engineering equipment, the sector indirectly supports six million jobs or nearly 10 percent of the country's population. This is equivalent to 3.4 percent of Kenya's Gross Domestic Product (GDP) and almost matches the output of Kenya's education sector, whose contribution to GDP stands at 3.8 percent. Fuel taxes from Boda Bodas, which consume an average of Kshs 300 worth of petrol every day, bring in roughly Kshs 60 billion to the Treasury each year. This amounts to Kshs 300 million in fuel per day, with Kshs 163 million going to the government in the form of taxes, levies, and other fees. There are 1.2 million riders in Kenya. Nine out of 10 are used for commercial purposes, representing over one million jobs created. Seventy-five percent are youth and six percent are female (Korir et al. 2020).

3.2 Housing

When studying population growth and housing in Kenya, Nairobi is the best example to use. Being the capital city of Kenya and one of the cities with one of the largest slums in the world. It is estimated that currently, Nairobi has a total population of 5,118,844 on the surface area of 696 kilometers squared (269 square miles). This means that the current population density is approximated at 4,850 residents per square kilometer (12,600 people living per square mile). In as much as there is economic growth due to population growth, there is a huge need for housing in the urban areas. This is partly due to rural urban migration in search of greener pastures which is believed to be in cities. Due to this, a city like Nairobi is experiencing higher growth of informal settlements because of this rapid growth. This study shows that in the past 20 years, the city of Nairobi's population density has swiftly grown, and these informal settlements are the centers of that population growth and accumulation putting pressure on the housing industry by a huge demand (Ren et al. 2020).

3.3 Education

Education is another sector that is experiencing and feeling the heat of population growth. The demand for more schools and school infrastructure may not be what people know as some of the population challenges. Most people have adopted some biological statement that having too many offspring increases chances of survival. What this statement means is that in poor families, the more they give birth, the belief that one of them might be successful and help their family from their poverty. This is mostly heard among the poor and uneducated. Another challenge of the uneducated is that they marry and get married at a very early age which simply means that by the time they get to 40s and 50s with unplanned family, they will have many children and with lack of good jobs/employments, these children may not acquire education. Great concern is needed in trying to solve population problems on social matters because uncontrolled growth in population has seen social amenities to be under extreme strain. This is mostly observed in the education sector in Kenya. The consequence of this is seen in poor education because most schools are run by the government for survival. A school can have a ratio 200:1 (students to a teacher) lowering the quality of education especially in public schools owned by the government. This is evident especially for families living in slum areas choosing low-cost privately-owned schools over government schools (Zuilkowski 2018).

3.4 Food shortage

Due to rapid population growth in Kenya, 1 in every 3 Kenyans (approximately 18,626,415) which is approximately 34% of the entire population suffer from chronic food shortage and poor nutrition every year. Approximately 16,204,881 which is approximately 29% of the entire population does not attain the minimum dietary requirements to sustain a healthy and productive life (Korir et al. 2020). According to the Kenya National Economic Survey, food inaccessibility is strongly associated with poverty which stands at 46% and the high population in Kenya (Macharia 2018). It is evident that population growth has a very clear and strong relationship on food shortage. Kumba (2015) gave an example of one of the very rich counties with natural resources, good weather, enough rainfall, and a productive land. It was stated that out of the entire population of Kisii Central in Kisii county, 77.5% of households in Kisii Central, Kenya were food secure and 22.5% were food insecure. The reason this region was selected is because it is a region that should have more than 95% due to its productive land, good weather and enough rainfall.

3.5 Agriculture

The agricultural sector in Kenya is a major contribution to Kenya's Gross Domestic Product (GDP) contributing approximately 33% being the backbone of Kenya's economy. The sector also employs more than 40% of the total population and 70% of the rural population. The World Bank estimates that the agriculture sector contributes 51% percent of Kenya's GDP annually with 26% directly and 25% indirectly. Agriculture also accounts for 60% of employment and 65% of exports (World Bank Group, 2018). However, agricultural productivity has stagnated in recent years, a fact that is being attributed to urbanization of the rural areas due to high demand of housing because of population growth. Because Kenya is a relatively densely populated area with 40% of its rural people residing on only 5% of its rural land, there is a need to develop a structural model for estimating the impact of population density on input and output prices, farm size, and eventually on smallholder behavior and agricultural strengthening.

3.6 Land

In Kenya, the growing human population is associated with an increase in developmental needs thus posing a threat to the land resource. This problem has been noted in the high potential areas of the country which support a large population seeking to fully exploit the land resources for their livelihoods and welfare. Population growth in Kenya continues to

exert pressure on land and other resources. High fertility, combined with declining child mortality, gave Kenya one of the world's fastest population growth rates in the 1970s and 1980s (Ajayi et al. 1998). The total population rose from about 10 million at independence to 15 million by 1978. This rapid growth, combined with an economic slowdown, prompted the government to promote family planning to lower fertility rates. Kenya was one of the first African countries to adopt a policy to slow population growth (Ajayi et al. 1998).

4.0 Governmental Policies

Kenya's long-term development plan, known as Vision 2030, recognizes that rapid population growth could severely derail progress in reaching its primary goal of achieving a high quality of life for all Kenyans that is sustainable with available resources. The National Council for Population and Development (NCPD), under the Ministry of Planning, National Development and Vision 2030, initiated a series of consultations to achieve a population policy that would bolster this vision (Tumwebaze et al. 2015). Due to the pressure that population growth puts on education, agriculture, food, land and housing, there needs to be policies in place to govern these institutions or implement the existing policies. The policies on land must address a positive correlation between land tenure security and population density. This is a call for pursuit of both short-term and long-term policy measures that offer incentives for land conservation through government initiatives and participation of local communities (Kabubo-Mariara 2007).

The Kenyan government is trying to manage the overcrowding problem in most schools due to population growth by putting in place some measures and implementing some policies to decongest the overcrowding. However, government still needs to learn more from countries that have managed to address the problem of overcrowding. Sometimes this may require radical decisions such as adopting a double shift school system, where some learners come to school in the morning and others in the afternoon. This may however be relevant in areas where overcrowding is common. The government has also set out safety standards for schools to ensure learners are not exposed to avoidable risks. These standards must be better enforced and monitored to ensure compliance. The government must also work more closely with school administrators and communities to explore potential solutions by giving their understanding of the local contexts and needs.

In Agriculture, it is understood that improved agricultural productivity has a great role to play in poverty eradication and reduction of hunger among millions of people living in poverty globally (World Bank, 2018). However, any form of land resource degradation can greatly

undermine agricultural productivity and reduce the possibility for achieving these noble goals (Willy et al. 2019). The government therefore needs to implement the following policies: (i) evolving land markets and land governance institutions, with an associated shift in local power from chiefs to state authorities; (ii) changes in rural–urban multiplier effects resulting from agricultural productivity growth; (iii) changes in service provision and technologies along agricultural value chains, including the increased use of farm mechanization; and (iv) rising land scarcity for smallholders (Jayne et al. 2016).

Rapid urbanization has led to the influx of people into urban areas as people seek better life opportunities. This migration has however largely not been planned, resulting in population explosions in the cities. Planning and adequate policies should be geared towards urban planning and county governments should be actively involved in the process. The national government commitment should focus on prioritization of housing for the low-income earner and the poor through annual budgetary allocation. Furthermore, institutions such as the housing finance corporation should be incorporated. This will advocate for cheap housing amongst those who cannot afford housing (Arego 2020).

5.0 Conclusions and Recommendations

5.1 Conclusions

This study has shown that there are divergent opinions when it comes to population impact on a given country. Like in the case of Kenya, economists are split in the middle of three schools of thought. The first school of thought believes that a country's population growth enables the country's economy by accelerating economic growth and development. The second school of thought supports the theory of Robert Malthus' discoveries that population growth is harmful to a country's economy owing to a range of difficulties triggered by overpopulation. The increase in population places a huge amount of pressure on the already scarce resources available. The third school of thought believes that population increase has no impact on economic growth. This paper has critically discussed the population trends in Kenya since independence till date to enable Kenyan Government implement policies that will manage the population increase. Also, the effects of population increase in the key areas of economy, agriculture, education, citizen livelihood and so on have been examined. Favorable policies that should be put in place by the government in order to manage the increase in population have been suggested. In conclusion, as much as Kenya would borrow the first school of thought on population growth as a tool to accelerate a country's economy,

more still needs to be done to help population growth's effect on other institutions such as housing, land, agriculture, food, education and so on.

5.2 Recommendations

In this study, there are several things that stand out clear as major consequences of overpopulation and overurbanization. Some of these have been identified as cultural, social, and physical dissatisfaction. Governments (in this case the Kenyan government) need to formulate policies and strategies that will effectively deal with these dual development challenges and economic challenges or implement the already laid down policies. As much as Kenya's economy is thriving in the face of population growth, there are some negative influences on that population growth such as land, housing, agriculture, and education. Kenya in particular needs a national development plan that will include urban spatial, employment and investment policies. The urban problem can be solved by a strong urban – rural linkages of the economy focusing on the establishment of secondary towns which will require a major involvement of local authorities in support with the central government.

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