RAPID
Population and Development

National Coordinating Agency for Population and Development (NCAPD)
March 2010
Foreword

Kenya has an ambitious vision to provide a high quality of life for all the people and to develop a strong and competitive economy. Population planning needs to be an integral part of all efforts to achieve this vision.

The National Coordinating Agency for Population and Development (NCAPD) is mandated to guide and coordinate strategic initiatives that address population issues and their role in the social and economic development of Kenya. This booklet, *Kenya: Population and Development*, is designed to contribute to that effort. It considers the current status of the country’s population and examines how population trends might affect the long-term development of Kenya.

Population factors are very relevant to development planning. As the population continues to grow rapidly, the education sector needs to plan for more students, teachers, and schools; the health sector has to anticipate a need for more facilities, physicians, nurses, and supplies; and the agricultural sector has to plan for greater food production. A much larger population means greater pressures on arable land, the forests, and other natural resources. Cities will continue to expand, and there will be relentless needs for more housing, water, transport, sanitation, and other urban services. The economy will have to be more diversified and less dependent on agriculture to support a growing population, and industries will need to grow to provide employment, improve living standards, and eliminate abject poverty.

The Kenyan population is expected to be much larger in the future than it is today no matter what happens to birth rates; however, the future size and rate of growth can be influenced by public policy measures taken now and in the coming years. While the need for population based strategies and family planning has not been directly addressed in *Kenya Vision 2030*, several references have effectively examined the associations between population growth and increasing competition for resources (land, water, etc.), need for job creation, and an increasing youth demographic.
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Kenya
Kenya National Vision
The Kenyan vision for national development is best found in the Vision 2030 document. The vision is to build a globally competitive and prosperous middle-income nation by 2030, with development built around three pillars: the Social Pillar, the Economic Pillar, and the Political Pillar. These pillars form the basis of plans for strong economic growth, an educated and healthy population, and a just and democratic society.
Population

Economy and Society

How does population size affect Kenya’s economic growth and social development in the coming decades?
In 1999, Kenya’s census counted 28.8 million people. In 2008, Kenya’s Central Bureau of Statistics estimated there were about 38 million people—a striking increase of 33 per cent in only nine years.

Source: 1999 Census; CBS Population Projections
Kenya’s total fertility rate, a measure of the average number of children a woman will have over her lifetime, has changed very little in the last decade. In the previous decade, fertility dropped rapidly, from 6.7 children per woman in 1989 to 4.7 in 1998. Since then, fertility increased slightly in 2003 and then descended to 4.6 children per woman in 2008.

Kenyan women begin childbearing early. Nearly one in four young women ages 15–19 have already had a child.

Source: Kenya Demographic and Health Surveys
This graph shows a population pyramid for the year 2008 that depicts the current distribution of people across age groups, with males on the left and females on the right. Half of all Kenyan women are of reproductive age (15–49). In addition, 40 per cent of Kenya’s population is below age 15. Because so many young people have already been born, the young age structure creates a powerful momentum for future population growth. Even if fertility declines rapidly among the next generation of parents, population growth will continue.
Population Pyramid (2008)

Age (Years)
- 80+
- 75-79
- 70-74
- 65-69
- 60-64
- 55-59
- 50-54
- 45-49
- 40-44
- 35-39
- 30-34
- 25-29
- 20-24
- 15-19
- 10-14
- 5-9
- 0-4

Per Cent of the Population
- Male
- Female

Source: Spectrum System of Policy Models

Kenya

40% of the population is under 15

40% of the population is under 15
Currently, Kenyan women have 4.6 births on average.

Population Size in 2040
Under Current Fertility Rate

Source: Spectrum System of Policy Models
The size of Kenya’s population will be largely determined by future fertility levels. The bar chart on the left shows the difference in population size between 2008 and 2040 depending upon whether future fertility rates remain high or decline to a low level. If fertility remains high, falling slowly from the current level of 4.6 children per woman to 4 children per woman, Kenya’s population would grow from 38 million in 2008 to 82 million in 2040—a doubling in just 32 years, a little more than a generation. Alternatively, if the fertility rate declines to 2.1 children per woman (replacement level), Kenya’s population would grow to 65 million in 2040. While this still represents a 70 per cent increase in population size, the difference of 17 million people is significant.

Note that these projections take into account the effects of HIV. Despite the deaths associated with HIV/AIDS, population continues to grow because of the large number of people who are already parents or are about to enter their childbearing years.
Africa can learn from East Asia’s experience with economic growth

Many people are surprised to learn that 50 years ago many East Asian countries had development indicators similar to those in many African countries today. The East Asian countries had low gross domestic product (GDP) per capita coupled with high rates of fertility and population growth. It seemed unlikely that they could escape the poverty trap.

Nonetheless, in ensuing decades, several East Asian countries—Thailand, Malaysia, South Korea, Taiwan, and Singapore—achieved an economic miracle and emerged among the strong economies of the world. A key factor in their transformation is that all these countries experienced a fertility transition from high to low birthrates.

The rapid decline in fertility allowed these countries to improve the quality of their labour forces and invest in education and agricultural modernisation. With less investment needed to keep up with rapidly expanding populations, the Asian countries were able to generate higher levels of savings and investment to drive the development of the economy.
In a single generation, Thailand moved from low-income status to a much more prosperous middle-income nation. In 1960, Thailand had a GDP per capita of about US$317 (in 2000 U.S. dollars), lower than the Kenyan GDP per capita today. By 1990, its GDP per capita had risen to US$1,462. During these 30 years, Thailand’s fertility rate fell from 6.4 children per woman to 2.2.

Kenya’s GDP per capita of US$785 and fertility rate of 4.6 children per woman place it near the early part of Thailand’s transition.

Social Pillar

“Kenya’s journey towards widespread prosperity involves the building of a just and cohesive society that enjoys equitable social development in a clean and secure environment.”
Kenyan leaders recognise that “the education and training of all Kenyans is fundamental to the success of the Vision.” Education indicators have improved in recent years, in part due to the introduction of free primary schooling in 2003. However, much investment is still needed to improve the quality of the education and to continue to increase enrolment rates.
Education
Primary Students

With Fewer Students, More Resources per Child

Throughout this booklet, the “high fertility” scenario incorporates a slow decline in fertility from 4.6 children per woman in 2008 to 4.0 by 2040. The “low fertility” scenario reflects a more rapid decline in fertility from 4.6 children per woman to 2.1 children by 2040.

Source: Spectrum System of Policy Models
Future fertility levels will have a major impact on the number of primary students over the next three decades. If Kenya’s fertility remains high, declining slightly to an average of four children per woman, the number of primary students will double by 2040. Alternatively, low fertility, declining to 2.1 children per woman by 2040, would result in roughly a 29 per cent increase in primary school students. The effects of fertility decline are seen relatively quickly, since only a few years elapse between birth and entry to school.
Primary Teachers  More Primary Teachers Will Be Needed

With lower student numbers, fewer teachers are required. With high fertility, the number of primary teachers needed would more than double by 2040. Alternatively, with low fertility, the number of primary teachers would need to increase by 48 per cent by 2040, but this is a much more manageable task.

Source: Spectrum System of Policy Models; Ministry of Education. Note that the projections were based on student-teacher ratios of 47 students per teacher (the current level) initially, declining to 40 students per teacher by 2012, as specified by the Vision and its medium-term plan.
In 2008, Kenya spent about US$14 annually per primary student for recurrent expenditures. At this expenditure level, primary school recurrent costs would grow to US$222 million under the high fertility scenario, compared with US$143 million under the low fertility scenario. The difference between these two scenarios would result in cumulative savings of US$211 million by 2030 and US$772 million by 2040.
Health
Kenya’s vision for health is to provide “equitable and affordable health care at the highest affordable standard” to her citizens.
Nurses

Nurses Needed (Thousands)

Source: Spectrum System of Policy Models; Economic Survey 2009
To maintain the current ratio of nurses to people, Kenya would need to more than double the number of nurses by 2040 under the high fertility scenario. By contrast, with low fertility, the required number of nurses would rise more gradually, thereby increasing the prospects for making health care available to more people.
In 2008, the Kenyan government operated about 770 health centres, or about one health centre per 48,400 persons. The World Health Organisation recommends that countries provide one health centre per 30,000 people. To meet this goal, Kenya will need to set up an additional 1,400 health centres by 2040 under the low fertility scenario. However, under the high fertility scenario, an additional 550 health centres would be needed, bringing the total to 2,726. Such a large investment could jeopardise efforts to improve the availability and quality of health care.
Health Centres

More Health Centres Will Need To Be Constructed

Source: Spectrum System of Policy Models; Health Sector Facts and Figures. This data assumes reaching the goal of one health center per 30,000 persons.
In 2008, the Government of Kenya spent US$8.30 on health services per person. In contrast, the goals of the Kenya Essential Package for Health would require an increase over time to about US$34 per person. Assuming a shift to the higher expenditure of US$34 per person, Kenya would have to increase annual health expenditures from $344 million in 2008 to $2.7 billion in 2040 if fertility remains high. If fertility were to decline, health expenditures would be lower, rising to US$2.2 billion in 2040. With low fertility, the government would realise cumulative savings of nearly US$500 million during the time frame of the projections.
Birth Spacing Reduces Infant Deaths

Lower fertility can also contribute directly to the health of mothers and children, since many births and closely spaced births are associated with increased mortality among mothers and their infants. This graph shows how the infant mortality rate (the number of deaths to children under the age of 1 per 1,000 live births) is associated with birth spacing. Infants born less than two years after a previous birth are more than twice as likely to die within their first year as those who are born after a longer interval. In other words, by spacing births more than two years apart, parents can dramatically improve their child’s chances of survival.

Source: 2003 Kenya Demographic and Health Survey
Rapid growth puts continuous pressure on urban infrastructure—water and sanitation, roads and transport, energy, and housing, for example. In order to meet the needs of the new urban dwellers, Kenya would require 14 million new urban housing units between 2008 and 2040 under the high fertility scenario. This number does not take into account the current housing shortfall or the need to replace existing housing stock. In contrast, under the low fertility scenario, Kenya would need 10 million new housing units during this time frame.
Increasingly, Kenya’s people are becoming urbanised. One in four (26%) Kenyans now live in urban areas. By 2030, this proportion is expected to grow to 63 per cent, and two in three Kenyans will be urban dwellers. As the Vision 2030 report states, “Kenya has so far been unable to plan adequately in order to accommodate her increasing urban population. It must now do so under the Vision 2030.”
The Vision 2030 report contemplates a sustained economic growth of 10 per cent annually. After a comprehensive analysis of Kenya’s global competitiveness, six key sectors have been identified to deliver the 10 per cent economic growth rate per annum envisaged under the economic pillar: tourism; agriculture; manufacturing; wholesale and retail trade; business process outsourcing (BPO); and financial services.
This graph shows the GDP growth rates in recent years. They ranged between around 1 and 7 per cent per year.

Source: Kenya Vision 2030
The Kenyan Vision 2030 establishes a target of 10 per cent GDP growth per year. If achieved, the estimated GDP per capita would quadruple in two decades. By 2040, the GDP per capita would be 25 per cent higher under the low fertility scenario than the high fertility scenario. Under the high fertility scenario, GDP per capita would be nearly US$6,500, whereas it would reach US$8,100 under the low fertility scenario.
With rapid population growth, many new jobs must be created each year in order to support the numbers of youth entering the labour force. If high fertility continues, Kenya will need to create twice as many new jobs in 2040 as it does today. Under the high fertility scenario, annual new job requirements would rise continuously, reaching nearly 980,000 in 2040. In contrast, under the low fertility scenario, about 530,000 new jobs would need to be created in 2040.
New Job Requirements  Fewer Jobs Needed

Source: Spectrum System of Policy Models; World Development Indicators
Agriculture and the Environment
“Agriculture is a mainstay of the Kenyan economy and currently represents 24% of GDP.”
Population growth will remain a major determinant of demand for major food crops in the future. For example, Kenyans consumed more than 3.6 million metric tonnes of maize in 2008. In 2040, required production of maize would increase to 8.0 million metric tonnes if high fertility continues, but only to 6.4 million metric tonnes under the low fertility projection.

Current maize production in Kenya is at 3 million metric tonnes, as shown in the line “Actual Production.” Kenya is already importing maize and its maize requirements will grow to meet the needs of a larger population. Even if maize production grows by the expected 2 per cent per year, reaching 5.5 million metric tonnes by 2040, the country will become highly dependent on food imports to maintain current per capita consumption levels.
Agriculture is a mainstay of the Kenyan economy.

Food Requirements

Maize Required (Million Tonnes) -

- High Fertility
- Low Fertility

Actual Production

*Assumes consumption per capita stays at 2007 levels.

Source: Spectrum System of Policy Models; Ministry of Agriculture: Economic Review of Agriculture -
Land Fragmentation

Rapid population growth poses major challenges to agriculture. With large families, land holdings must be divided among many family members. Within a few generations, the land plots are too small to support a family. Also, small farms are generally less productive than larger ones, resulting in less food security and less food per person.

- Larger population, less land per holder
- Lower productivity from small farms – less food security
- Less food per person
Higher Population Density Leads to Overuse and Environmental Degradation

Rapid population growth often leads to dense settlements that put pressure on the land, forests, and other natural areas as families seek to meet their needs for sustenance. Intensive agricultural production often leads to soil degradation, erosion, and increased salinity that result in lower productivity. While this decline can occur in just a few years, it takes decades to restore land productivity.
Political Pillar
As has been seen in Kenya, the pressure of population growth contributes to poverty and deprivation, especially in areas where competition for resources such as land, water, and employment can strain the capacity of the state to provide. The push of competition for these resources can lead to social and economic instability, inequities, and loss of order. The ability of Kenya to support a growing population will be improved if there is sufficient and equitable education and other social services, including investments in family planning and health. Investments in economic development, as well as health and family planning will contribute to its ability to maintain social equilibrium.

Source: World Resources Institute
Unmet Need for Family Planning

Family planning is the primary way to lower population growth. One in four married women express a desire to space or limit births but are not using any form of family planning. As a result, almost half of all births are unintended or arrive too soon. These women indicate an unmet need for family planning. If they were able to meet their reproductive desires, fertility would decline and births would be spaced at longer intervals, benefiting both the mother and child.
Call to Action

Rapid population growth contributes to poverty and deprivation, especially in areas where there is competition for resources such as land, water, and employment. Increased competition for these resources often leads to social and economic instability, inequality, and the breakdown of law and order.

Decisions made now can influence the population growth rate. Investing in family planning can help mitigate the impact of population growth on the economy, health outcomes, the environment, and social and economic stability. Achieving the goals of the Vision 2030 will be impossible if population growth is not contained, and family planning will be a crucial investment for Kenya as it seeks to realise its vision of becoming a globally competitive and prosperous middle-income nation by 2030.
Family Planning and the Vision 2030

If Kenya is serious about achieving the goals of the Vision 2030, something will need to be done to address the issue of rapid population growth. Wider use of family planning, especially modern contraceptive methods, will result in lower overall fertility and thus a lower rate of population growth. Improving access to and use of high-quality, affordable family planning services will help to satisfy unmet need, resulting in lower fertility and a lower rate of population growth, thereby contributing to social and economic development and achievement of the national vision.

The public, private, and NGO sectors all have a role to play in increasing family planning use through:

- Increasing funding for family planning
- Ensuring availability of family planning commodities
- Expanding access via community-based distribution and public and private clinics
- Improving information, education, and communication around family planning
Kenya  RAPID Population and Development

The NCAPD gratefully acknowledges the support of the

USAID  HEALTH POLICY INITIATIVE