

THE IMPACT OF RAPID POPULATION GROWTH ON SOCIAL ECONOMIC  
DEVELOPMENT IN TANZANIA

Prepared

By

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## **Abstract**

This paper is about the impact of rapid population growth on social economic development in Tanzania and uses two population projections to look at the impact of different fertility rates on the future size of the population. Tanzania continues to have high birth rates and one of the fastest growing populations in the world. At the current rate of growth, the population would double in size in about 25 years. The population projection for Tanzania was developed under two assumption of fertility from 2005 to 2035. The purpose of this projection is to consider some of the implications of this rapid rate of growth for the social and economic development of the country. Tanzania is a high fertility, rapid population growth country with a youthful age structure. The population is going to continue to grow rapidly despite the HIV and AIDS epidemic. More importantly, the course of fertility will be a key determinant of the future size of the population. The projection uses two different population projection assumptions to consider the impact of population growth on achievement of the development vision.

## INTRODUCTION

This paper is about population and development. Since independence, Tanzania undertook census enumerations in 1967, 1978, 1988 and, most recently, in 2002. In addition, the country undertook Demographic and Health Surveys in 1991–1992, 1996 and 2004–2005 and the Reproductive and Child Health Survey in 1999. These census enumerations and surveys provide the basis for our understanding of national population dynamics. The incontrovertible picture that emerges is that the country continues to have one of the fastest growing populations in the world. Tanzania Mainland had an estimated population of around 38.3 million people in 2007, and the population growth rate was about 2.9 per cent per year. At this rate, the population would double in size in about 25 years.

*Tanzania Development Vision 2025* sets the national development agenda. The major aims are to achieve a high-quality livelihood for the people, attain good governance through the rule of law and develop a strong and competitive economy.

The purpose of this paper is to explore some of the challenges that rapid population growth poses for the national vision to emerge as a strong, middle-income economy in coming decades. The paper is divided into four sections:

- ***Population Characteristics and Projections*** – what are some of the noteworthy demographic characteristics of the country; how will the HIV and AIDS epidemic affect population growth; how will the population grow under different assumptions
- ***Population, Economic Development and Poverty Reduction*** – what does international experience tell us about the relationship among population, economic development and poverty reduction
- ***Impact of Rapid Population Growth on Social and Economic Development*** – how different rates of population growth might affect the ability of the country to achieve its development objectives
- ***Conclusion***

## 1.0 POPULATION CHARACTERISTICS AND PROJECTIONS

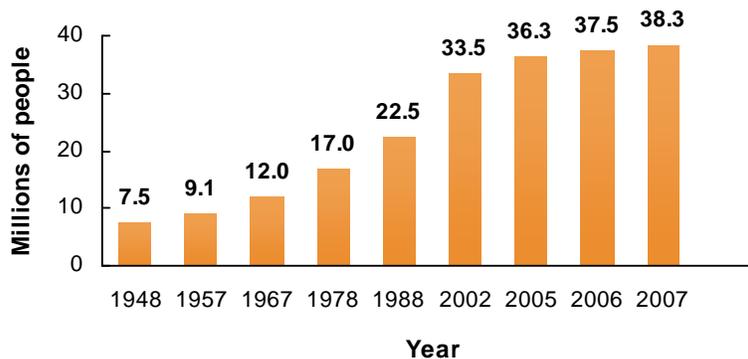
This section first looks at the population situation in the country. Importantly, it explores the impact of the HIV and AIDS epidemic on population growth. It then projects the population to 2035 using different assumptions about the future pattern of fertility.

### 1.1 Population Growth

Tanzania Mainland continues to have one of the fastest growing populations in the world. The population, estimated at about 38.3 million people in 2007, is growing about 2.9 percent a year, a rate at which it would double in size in approximately 25 years.

The different censuses show that rapid population growth has characterized Tanzania for a long time. In 1948, Tanzania (Mainland) had a small population of 7.5 million people. By the time of the 1978 census, another 10 million people had been added to the size of the population. By 2005, the population was near 36 million, nearly five times larger than it had been in 1948.

**Chart 1. Population Trend**



Source: Tanzania Population and Housing Censuses, 1948, 1957, 1967, 1978, 1988 and 2002. The 2005, 2006 and 2007 estimate is based on the projections prepared for this analysis using the RAPID model and may differ modestly from estimates that use other projection methodologies.

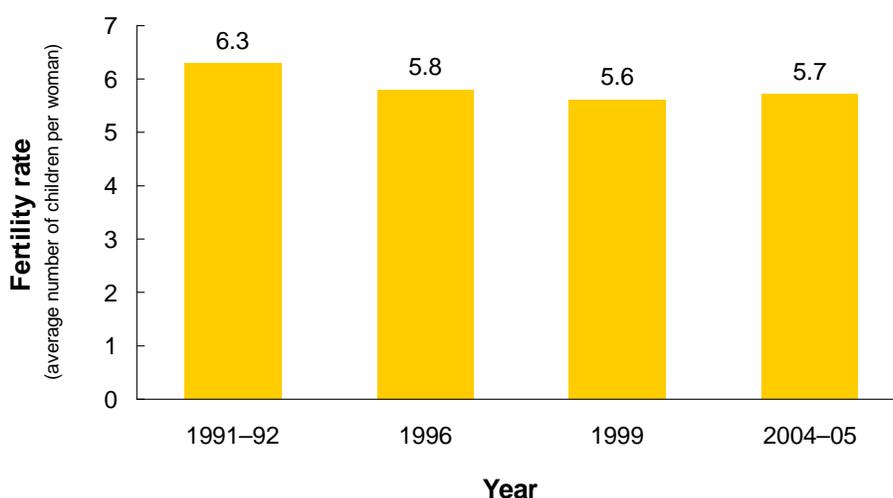
This rapid increase in population occurred for many reasons. Traditional Tanzanian society was overwhelmingly rural, agrarian and organized along traditional kinship lines. Death rates tended to be high and went up even further during periods of crisis. This meant that, despite the high birth rates, the population grew very slowly. However, improved public health measures, medical services, hygienic practices and other factors contributed to steady declines in mortality earlier in the 20<sup>th</sup> century. Death rates dropped while birth rates remained high and the rate of population growth soared. These changes started in the 1920s, but intensified in the post-World War II era. Consequently, the Tanzanian

population grew very rapidly after 1950. The same process occurred in other African countries and elsewhere in the developing world.

## 1.2 Fertility

The fertility rate is a measure used to describe the average number of children per woman during her lifetime. Fertility rates have dropped only modestly over time, and high fertility still continues to be one of the most important characteristics of the Tanzania population. At the time of independence (1961), the fertility rate was close to 6.8 children per woman. The first two Tanzania Demographic and Health Surveys (TDHSs) reported the fertility rate at 6.3 in 1991–1992 and 5.8 in 1996. However, the 1999 Tanzania Reproductive and Child Health Survey (TRCHS) and the 2004–05 TDHS, respectively, indicated fertility rates of 5.6 and 5.7 children per woman. This basically means that the fertility rate has not changed over the past decade in Tanzania.

**Chart 2. Fertility Trend**

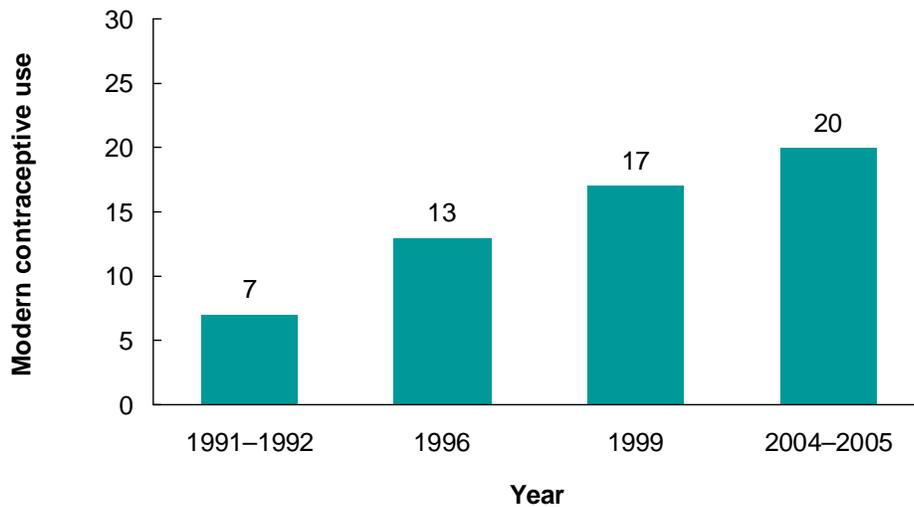


Source: Tanzania Demographic and Health Surveys, 1991/92, 1996 and 2004–05. *Tanzania Reproductive and Child Health Survey, 1999.*

## 1.3 Contraceptive Use

At the same time, modern contraceptive use among married women of reproductive age has increased, but only slowly, especially in recent years. Based on the various surveys, modern contraceptive use increased from 7 percent in 1991–1992 to 13 percent in 1996, 17 percent in 1999 and 20 percent in 2004–2005. Even at 20 percent, Tanzania has one of the lowest levels of contraceptive prevalence in eastern and southern Africa. Another 6 percent of married women use a traditional method.

**Chart 3. Trend in Modern Contraceptive Use**



Source: Tanzania Demographic and Health Surveys, 1991/92, 1996 and 2004-05. *Tanzania Reproductive and Child Health Survey, 1999.*

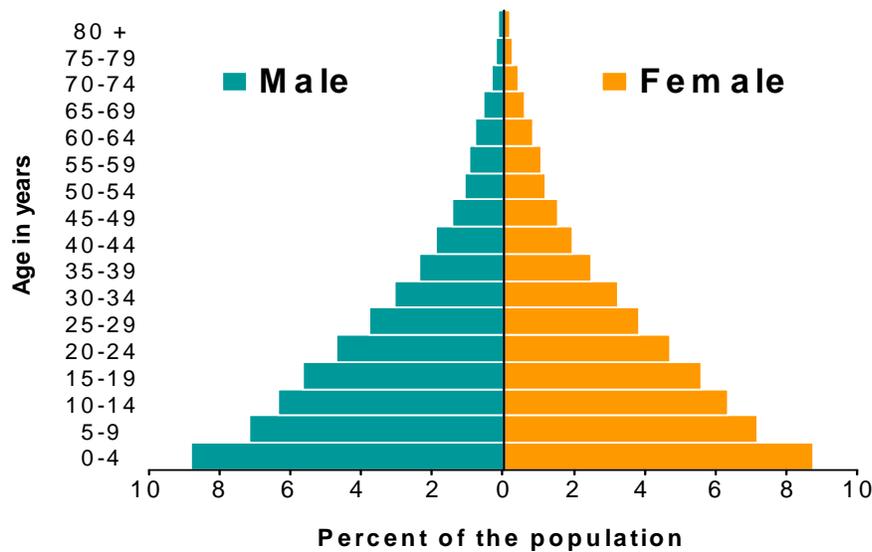
At times, inconsistent supplies of contraceptive commodities and lack of readily available services discourage use. On the demand side, a fear of side effects, opposition to family planning and a desire to have as many children as possible are the reasons most often cited for non-use. Although use of contraception is low, the 2004-05 TDHS shows that Tanzania has a high unmet need for family planning services. In Tanzania, 22 percent of currently married women want to space or limit their births but are not using contraception.

#### **1.4 Age-Sex Structure of the Population**

Tanzania has a very young population because birth rates have been so high for a long time. The 2002 census reports that about 44 percent of the population is under the age of 15. The young age structure has important population and development implications.

- It creates a high child dependency ratio that places a heavy burden on the working age population and constrains the provision of basic needs and social services. The child dependency ratio, the number of child dependents under the age of 15 for every 100 adults in the working ages, is about 85 in Tanzania.
- The young population also means that there is an in-built momentum for future population growth. Population momentum is a difficult concept, but an important one. Today's children will soon grow into their reproductive years. Because there will be so many couples having children, the population growth rate will stay high even if fertility starts to fall.

**Chart 4. Age-Sex Structure**



Source: 2002 Population and Housing Census.

### **1.5 Population Projections under Different Assumptions about the HIV and AIDS Epidemic**

AIDS is a killer disease. In the 1990s, death rates started going up in Tanzania after many decades of mortality decline. Many thoughtful people have wondered whether rising death rates as a consequence of the HIV and AIDS epidemic mean that population growth is no longer such a fundamentally important issue to Tanzanian development.

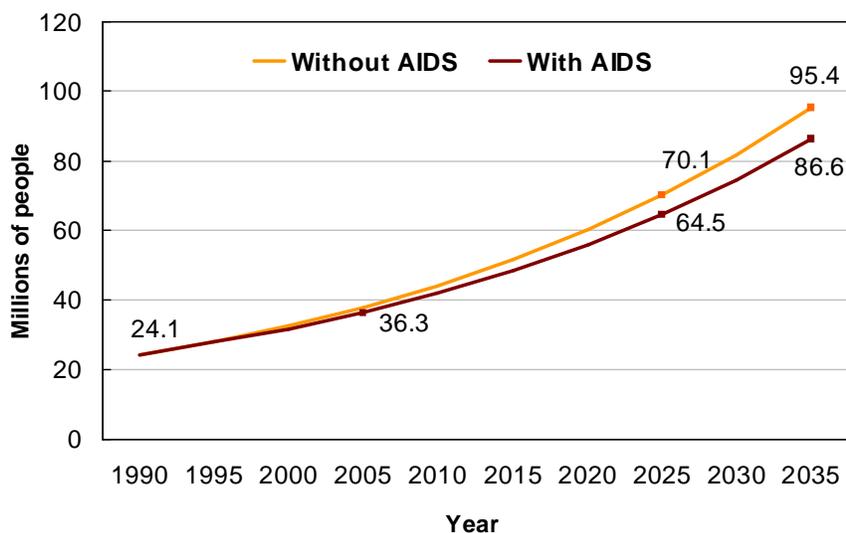
This analysis used two different population projections for the Mainland to explore this question. Both projections are for 30-year periods, 2005–2035. Both use the same set of assumptions about fertility (high fertility continued) and mortality from causes other than AIDS. The first projection is strictly hypothetical and assumes that there never was an HIV and AIDS epidemic. The second projection assumes that adult HIV prevalence remains near present levels until 2020 and then tapers off afterwards. It also assumes increasing access to antiretroviral treatment.

In 2025, the population would be 70.1 million under the “Without AIDS” projection versus 64.5 million under the “With AIDS” projection, a difference of 5.6 million people or 8 percent of the population. In 2035, the population would be 95.4 million people under the “Without AIDS” projection as against 86.6 million under the “With AIDS” projection, a

difference of 8.8 million people. Clearly, the HIV and AIDS epidemic will have an important demographic impact on the Tanzanian population over time.

However, even with HIV prevalence continuing at a high level, the population would grow from about 36 million people in 2005 to 64.5 million in 2025 and 86.6 million in 2035. High birth rates are much more important in determining the future population size of Tanzania than are rising death rates from AIDS.

**Chart 5. The Impact of HIV and AIDS on Population Size**



Source: Projections prepared for this analysis using RAPID model.

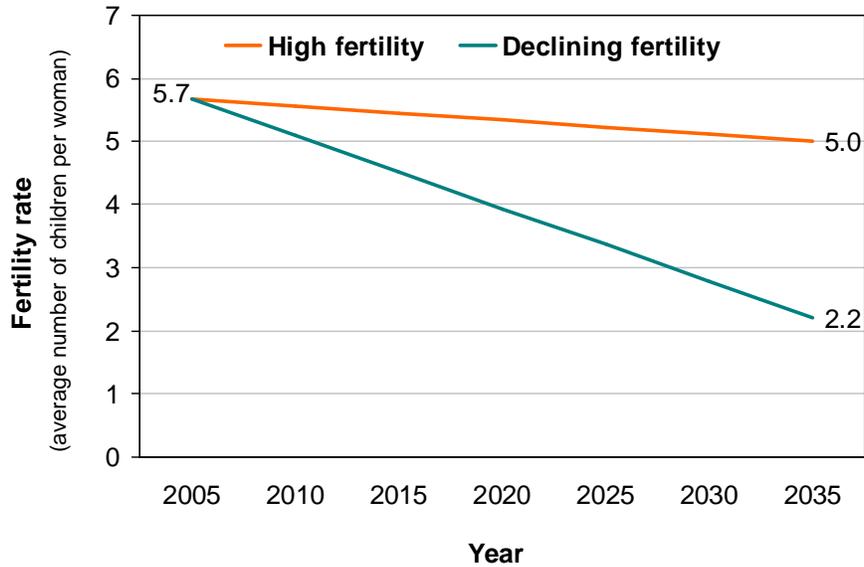
### 1.6 Population Projections under Two Fertility Assumptions

Primarily because the fertility rate is high, the Tanzanian population is inevitably going to be much larger in the future. Nonetheless, what happens to fertility in the future will have a powerful impact on the future size of the population. Based on historical experience elsewhere in the developing world, 30 years is about the minimal amount of time that Tanzania would need to achieve a complete transition from high to low fertility.

Here, this analysis again uses two population projections to look at the impact of different fertility rates on the future size of the population. The projection period is for 30 years, 2005–2035. Both projections use the same assumptions about HIV prevalence. The other assumptions in these projections are also the same except for the fertility rate. In the first

case, the fertility rate stays high, declining only from 5.7 children per woman in 2005 to 5.0 children per woman in 2035. In the second projection, fertility declines to just slightly over two children per woman by 2035, or what demographers term replacement level fertility (see Glossary). At replacement levels, the population will continue to grow for another 40–50 years because of the in-built population momentum, and will only stop increasing late in the 21<sup>st</sup> century.

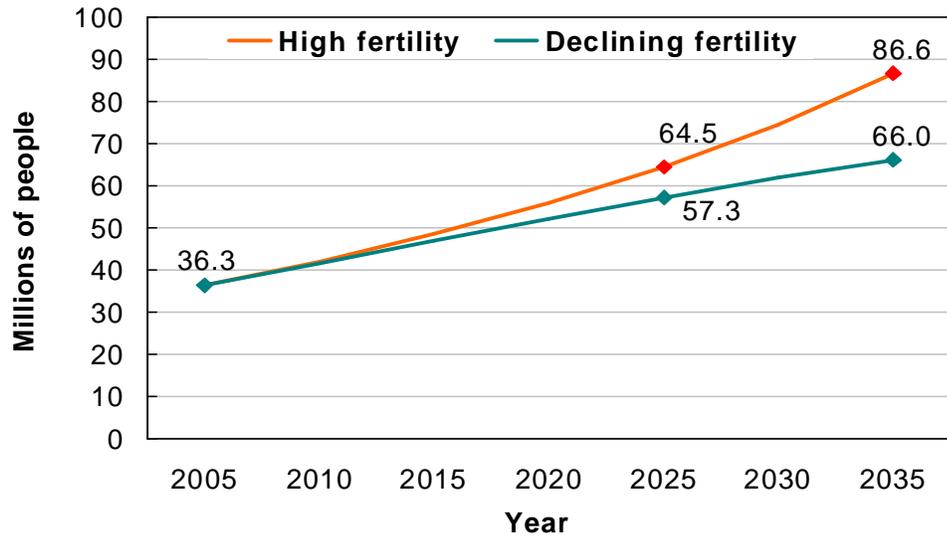
**Chart 6. Projections Using Two Different Fertility Assumptions**



Source: *Tanzania Demographic and Health Survey, 2004–05* and RAPID model assumptions

In the high-fertility projection, the population of Tanzania Mainland would grow from about 36 million people in 2005 to 64.5 million people in 2025 and 86.6 million in 2035. By contrast, in the declining fertility projection, the population would increase from near 36 million people in 2005 to 57.3 million in 2025 and 66.0 million in 2035. By the end year of the projection, there would be 20.6 million fewer people in the population in the low fertility scenario.

**Chart 7. Future Population Size under Two Different Fertility Assumptions**



Source: Projections prepared for this analysis using RAPID model.

## **2.0 POPULATION, ECONOMIC DEVELOPMENT AND POVERTY REDUCTION**

Tanzania remains a poor country. Definitions of poverty and subsequent estimates of poverty levels can vary significantly from one another. The *Poverty and Human Development Report 2005* concludes that Tanzania's poverty line is low by international and regional standards and therefore underestimates the true level of poverty in the country. The report says: "If one were to calculate poverty in Tanzania using the international dollar a day poverty line . . . poverty incidence would be around 57.5 percent of the population" (114).

Poverty reduction is the heart of the Tanzanian development effort. The *National Strategy for Growth and Reduction of Poverty, MKUKUTA* in the Kiswahili version, emphasizes rapid economic growth as the fundamental poverty-reducing approach. The country aspires to become a middle-income economy with no abject poverty.

A number of recent analyses have summarized the state-of-the-art thinking on the relationships between population growth and economic development.<sup>1</sup> Two major messages have emerged from these studies: (1) slower population growth creates the potential to increase the rate of economic growth, and (2) rapid fertility decline helps to create a path out of poverty for many families. In brief, lowering the rate of population growth can be a crucial strategy for both macroeconomic development and alleviation of household poverty.

### **The Example of the "Asian Tigers"**

In pursuing its vision of middle-income status, the country looks to the example of other developing countries, especially the "Asian Tigers," which have developed rapidly since the 1960s. Much of the recent analysis of the relationship between population and development has focused on the stunning economic achievements that Thailand, Malaysia, South Korea, Taiwan, Indonesia and others achieved in a few decades. Forty-five years ago, many East Asian countries were poor with limited resources and rapidly growing populations. Living standards were no higher than in Tanzania and most other African countries today, and many experts felt that these countries had few opportunities for social and economic development. In ensuing decades, however, the Tigers achieved an economic miracle and emerged to be among the strong economies of the world.

Each of the Tigers experienced a fertility transition from high to low birth rates in a single generation, and this rapid drop in fertility created a

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<sup>1</sup> See, for example, Nancy Birdsall et al., 2001.

“demographic dividend” that helped to drive rapid economic expansion.<sup>2</sup> This happened for several reasons. With declining fertility, more resources were available for education, and expenditures per student rose dramatically. This led to more educational opportunities and a better educated labour force. Economic dependency ratios changed with declining fertility. The working age population became a larger proportion of the overall population while the percentage of child and elderly dependents needing to be supported by the working age population went down. Because a larger proportion of the population was engaged in economically productive activities, Gross Domestic Product (GDP) per capita was able to rise much more rapidly than would have been the case with continued high fertility. Also, as East Asian families had fewer children, they could afford to save a greater proportion of family income. These savings are the source of investment capital to drive the growth of the economy. High savings rates were partially a result of declining birth rates and characterized the economic miracle of the “Asian Tigers.”

## **2.1 Fertility and Household Poverty**

Besides creating potential for a more rapid rate of economic growth for the country, a lower fertility rate can also help many families escape poverty. The United Nations Population Fund (UNFPA) points out the following ways that family planning can affect household poverty:

- I. The clearest impact is on the health of mothers and children. Fewer and better-spaced pregnancies result in lower maternal and child death and sickness rates. The loss or disability of the mother blocks opportunities for some households to escape poverty and drives others into poverty. Conversely, women with smaller families often have more economic opportunities, and their earnings can help families escape poverty.
- II. High fertility can limit educational opportunities for children in poor families, especially girls. Low levels of educational attainment perpetuate family poverty.
- III. Smaller families are in a better position to care for the health and nutrition of their children. Malnutrition is widespread in Tanzania. The most recent Tanzania Demographic and Health Survey reports, that in 2005, 38 percent of children are stunted. Malnutrition results in mental and physical underdevelopment, making it harder to break the poverty cycle.
- IV. Smaller family size can mean that family income is shared among fewer people, making more resources available for each.

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<sup>2</sup> See, for example, UNFPA, 2004.

In Tanzania, the fertility rate is highest among women in the poorest households<sup>3</sup> (7 children per woman) while contraceptive use is lowest among the poorest women (12 percent of married women of reproductive age use a modern method). At the same time, unmet need for family planning services among women in the poorest households (23 percent) is just as high as it is among women in other households (21 percent). Increased access to family planning services by poor women could be one effective poverty-alleviation strategy.

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<sup>3</sup> The TDHS divides households into five wealth groups of equal size. The reference is to the two lowest groups, which represent the poorest 40 percent of all households.

### **3.0 IMPACT OF RAPID POPULATION GROWTH ON SOCIAL AND ECONOMIC DEVELOPMENT**

This section explores the difference a lower rate of population growth would have on the ability of Tanzania to achieve its social and economic development objectives and to emerge as a middle-income economy. It uses the two different population projections to consider the importance of population factors to Tanzania's vision to provide a high quality of life for its people and to eliminate abject poverty.

#### **3.1 Education**

*Tanzania Development Vision 2025* identifies universal primary education (UPE) as a fundamental goal for the development of the nation. UPE is also one of the Millennium Development Goals (MDGs). Education is seen as a path to poverty reduction and the improvement of human capabilities. To that end, Tanzania abolished primary school fees in 2000. Enrolments subsequently soared, straining available resources for education. According to statistics from the then Ministry of Education and Culture (now Ministry of Education and Vocational Training), the gross enrolment ratio<sup>4</sup> (GER) went up from 78 percent in 2000 to 99 percent in 2002 and 110 percent in 2005. The net enrolment ratio<sup>5</sup> (NER) rose from 59 percent in 2000 to 81 percent in 2002 and 95 percent in 2005. Primary enrolments for Tanzania Mainland in both government and non-government schools increased from 4.4 million pupils in 2000 to 7.5 million in 2005. Males accounted for 51 percent of enrolled students and females for 49 percent.

##### **3.1.1 Primary School Enrolment**

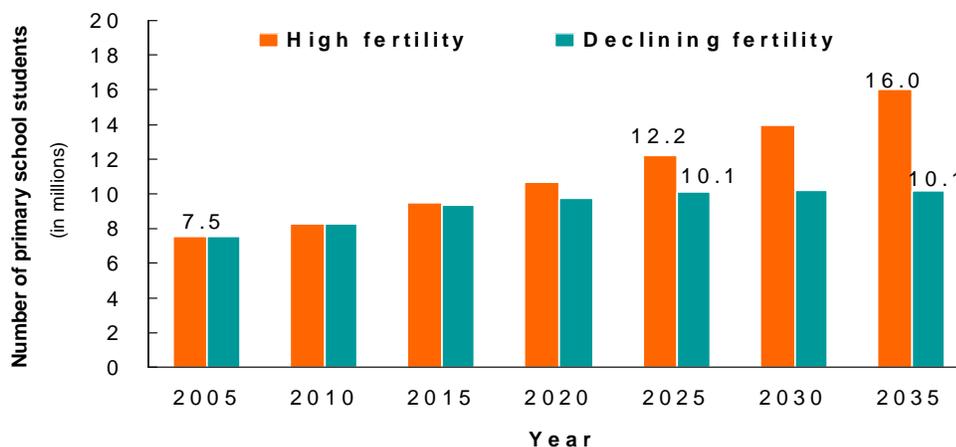
Assuming universal primary education, the rate of population growth will affect educational needs and challenge available resources over time. In the high fertility projection, the number of primary school students in Tanzania would increase from 7.5 million in 2005 to 12.2 million in 2025 and 16.0 million in 2035. By contrast, in the declining fertility projection, the number of primary students would be 10.1 million in 2025 and also 10.1 million in 2035, or 5.9 million fewer students than would be the case with the first projection. Educational planning and resource allocation will depend on the future demographic trends of the country.

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<sup>4</sup> Gross enrolment ratio is the number of primary students of all ages divided by the total number of children aged 7–13 years old.

<sup>5</sup> Net enrolment ratio is the number of primary students aged 7–13 divided by the total number of children aged 7–13 years old.

**Chart 8. Primary School Enrolment, 2005–2035**



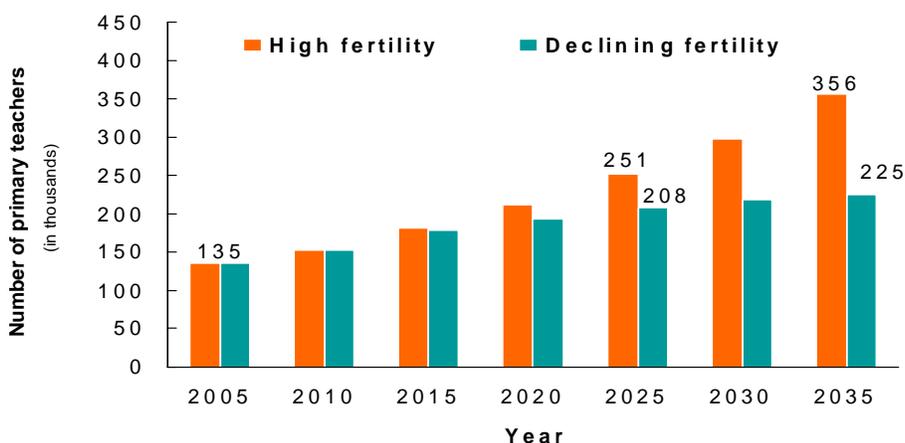
Source: *Basic Education Statistics in Tanzania (BEST), 1995–2005: National Data* and projections prepared for this analysis using RAPID model.

### 3.1.2 Primary Teachers

Adequate numbers of trained teachers will be required to sustain educational reform and expansion. Ministry of Education and Vocational Training reports a ratio of 56 primary students per teacher in 2005. Not surprisingly, the primary student/teacher ratio has gone up over time with rapidly increasing enrolments after 2000. In 2000, there was one teacher for every 41 primary students, and the ratio was even lower in earlier years.

The following projections assume that the primary pupil/teacher falls back again over the projection period from about 56 to 45 students per teacher. In that case, the required number of primary teachers would increase from around 135,000 in 2005 to 251,000 in 2025 and 356,000 in the high fertility continued projection. As a point of comparison, the required number of primary teachers would be 208,000 in 2025 and 225,000 in 2035 under the declining fertility projection. By the end of the projection period, about 131,000 fewer teachers would be required under the lower fertility projection.

**Chart 9. Primary Teachers Required, 2005–2035**

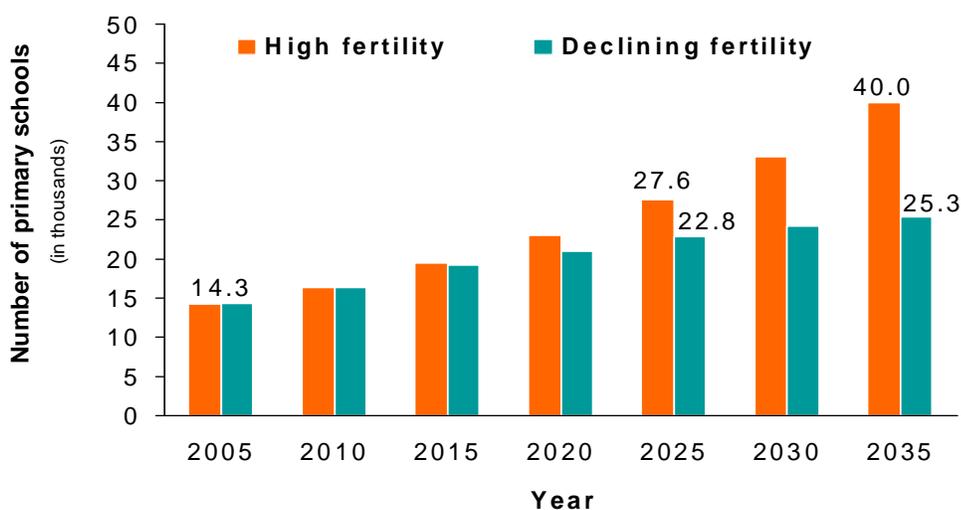


Source: *Basic Education Statistics in Tanzania (BEST)*, 1995–2005: National Data and projections prepared for this analysis using RAPID model.

### 3.1.3 Primary Schools

In 2005, there were about 529 primary students per school, considerably higher than the ratio of 376 students per primary school that existed in 2000. These projections assume that the student/school ratio drops to about 400 primary students per school by the end of the projection period. With that assumption, the required number of primary schools for the country would increase from about 14,300 in 2005 to 27,600 in 2025 and 40,000 in 2035, if fertility stays high. With fertility decline, however, the needed number of primary schools would be 22,800 in 2025 and 25,300 in 2035.

**Chart 10. Primary Schools Required, 2005–2035**

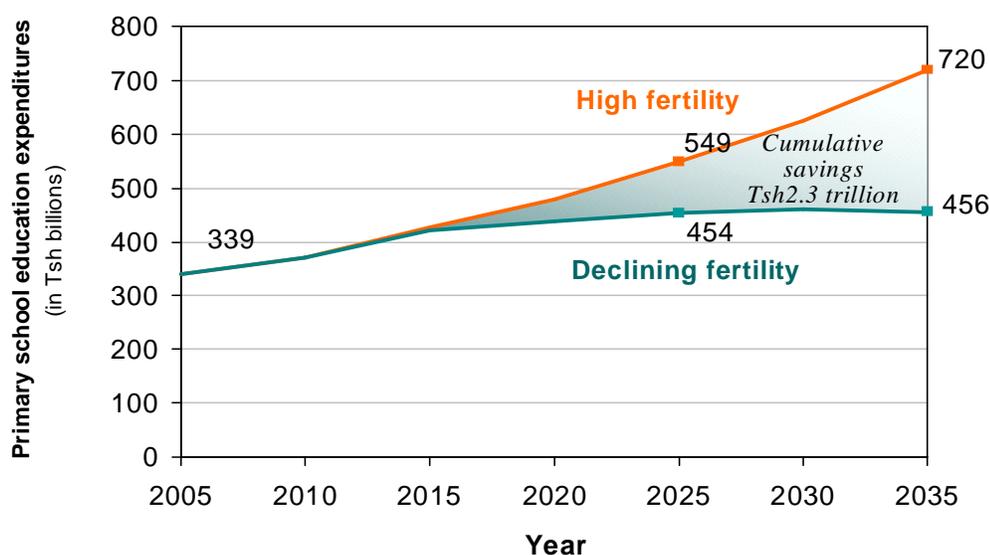


Source: *Basic Education Statistics in Tanzania (BEST)*, 1995–2005: National Data and projections prepared for this analysis using RAPID model.

### 3.1.4 Expenditures on Primary Education

In 2004, Tanzania spent about Tsh45,000 per primary student. Were that level of expenditure to continue (in constant values), primary expenditures would reach about Tsh549 billion in 2025 and Tsh720 billion in 2035 with continued high fertility. With fertility decline, however, the budget would rise more slowly to Tsh454 billion in 2025 and Tsh456 billion in 2035. Over the projection period, the cumulative difference between the two projections would be Tsh2.3 trillion. Some of the savings could be used to increase expenditures to achieve and sustain universal primary education, enhance teacher training and strengthen rural schools.

**Chart 11. Expenditures on Primary School Education, 2005–2035**



Source: *Basic Education Statistics in Tanzania (BEST), 2005: Regional Data* and projections prepared for this analysis using RAPID model.

### 3.2 Health

A fundamental goal of *Tanzania Development Vision 2025* is “access to primary health care for all.” The main priorities of the first Poverty Reduction Strategy were basic education and health. The *Poverty and Human Development Report 2005* was able to note some significant achievements in improving the health of young children. Based on reporting from the 1996 and 2004–05 Tanzania Demographic and Health Surveys, infant mortality (number of infants who die before their first birthday for every 1,000 live births) declined from 88 to 68 and under-five mortality (number of children who die before their fifth birthday for every

1,000 live births) declined from 137 to 112. The impressive declines can largely be attributed to improved malaria control, including greater use of preventive bed nets and more effective drug treatment.

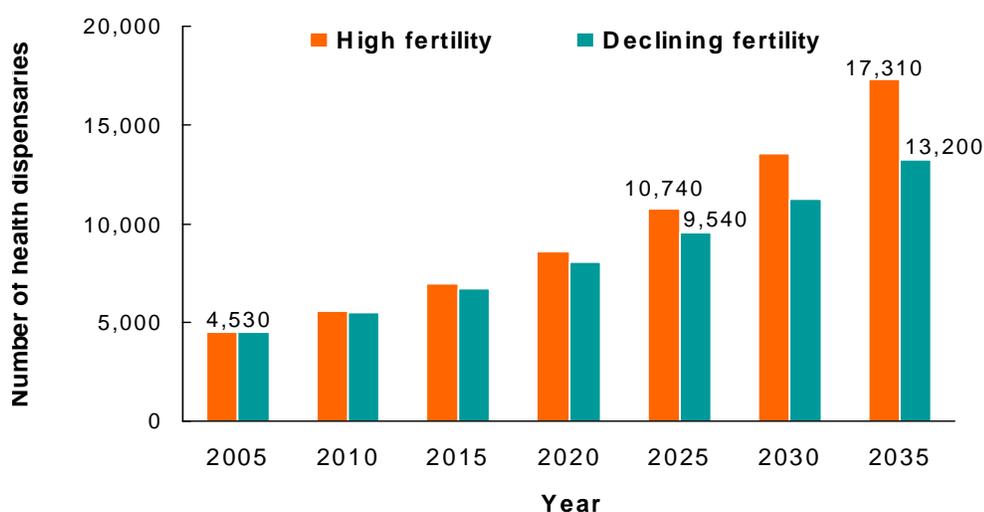
Major challenges remain, however. For example, maternal mortality shows no evidence of decline between the 1996 and the 2004–05 Tanzania Demographic and Health Surveys. Malaria remains the leading cause of sickness and death. Most child deaths result from preventable causes, such as malaria, pneumonia, diarrhea, malnutrition, complications of low birth weight and mother-to-child transmission of HIV.

### 3.2.1 Health Care Facilities

The need for health facilities in Tanzania Mainland will increase with the continued rapid growth of the population and better health-seeking behaviour. In 2004, there were 434 health centres, or one for about every 81,500 people. The general goal is one health centre for about 50,000 people.

In 2004 also, there were about 4,400 health dispensaries, or one for every 8,020 people. According to the 2003 *National Health Policy*, a dispensary is supposed to cater for 5,000 people and oversee all village health services. If the population per health dispensary declines to 5,000 by the end of the projection period, the country would need 10,740 health dispensaries in 2025 and 17,310 dispensaries in 2035 with continuing high fertility. In contrast, about 9,540 health dispensaries would be needed in 2025 and 13,200 in 2035 with declining fertility.

**Chart 12. Health Dispensaries Required, 2005–2035**



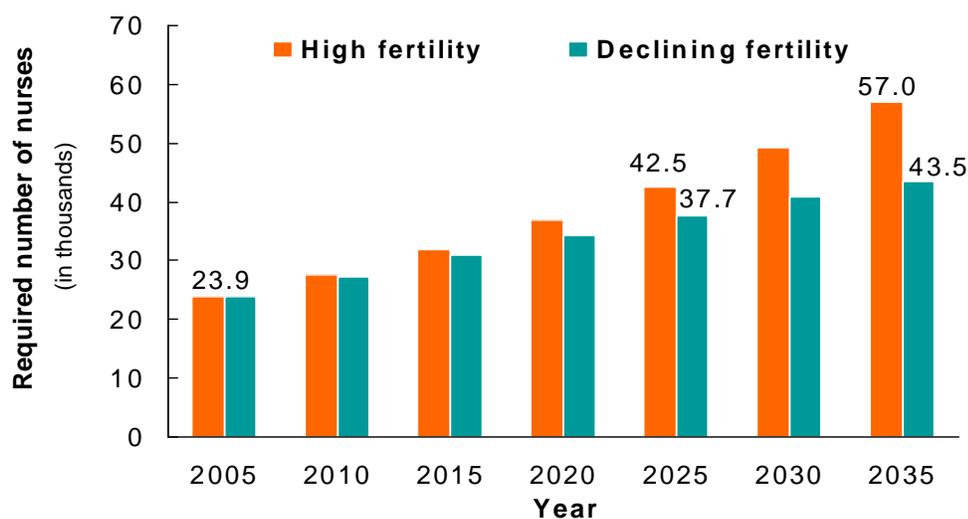
Source: *The Economic Survey, 2004* and projections prepared for this analysis using RAPID model.

### 3.2.2 Health Personnel

High population growth also has implications for the number of health personnel required. These implications are especially important because the decline in the number of health workers has been a matter of concern. A long-term hiring freeze in the public sector along with normal attrition meant that the size of the health labour force actually declined from about 67,600 in 1994–1995 to about 49,900 in 2001–2002. In turn, the population probably increased by more than 6 million people between 1994 and 2002. In 2005, Ministry of Health reported that only about one-third of medical officer positions and about 23 percent of assistant medical officer and public health nurse positions were actually occupied.

The growth of the population will affect needs for health personnel. In 2002, for example, there were about 22,000 Grade A and Grade B nurses/midwives, or one nursing person for every 1,520 people in the population. If this ratio were to continue into the future, Tanzania would need about 42,500 nursing persons in 2025 and 57,000 in 2035. In comparison, the country would require 37,700 nursing persons in 2025 and 43,500 in 2035 were fertility to decline.

**Chart 13. Nurses Required, 2005–2035**



Source: *The Economic Survey, 2004* and projections prepared for this analysis using RAPID model.

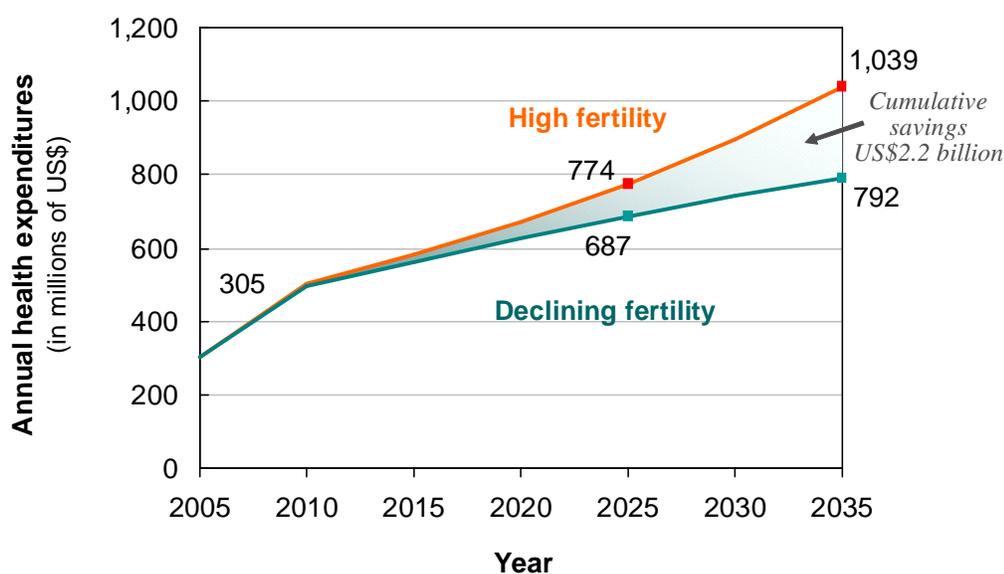
### 3.2.3 Annual Health Expenditures

According to *Poverty and Human Development Report 2005*, budgeted public health expenditures (both national and local government) equaled

about Tsh8,700 per person for 2004–2005, or about US\$8.40. This level of expenditure is inadequate for provision of a minimal level of services. Cost-sharing measures designed to mobilize additional resources have in reality hindered access to and use of health services. When modern services are inaccessible or unavailable, some people turn to traditional healers.

The 2003 *National Health Policy* expresses national goals in terms of US dollars. The stated goal was to reach a per capita public health expenditure of US\$9 by 2004 and US\$12 thereafter. The projections assume a per capita public health expenditure of US\$12 by 2010. In that case, public health costs (in constant values) would rise to US\$774 million in 2025 and US\$1 billion in 2035 with high fertility continued. In comparison, under the declining fertility assumptions, health expenditures would be US\$687 million in 2025 and US\$792 million in 2035. Over the 2005–2035 projection period, the cumulative savings under the lower fertility projection would be about US\$2.2 billion in today's values.

**Chart 14. Annual Health Expenditures, 2005–2035**



Source: *Poverty and Human Development Report 2005* and projections prepared for this analysis using RAPID model.

### 3.2.4 Maternal and Child Health

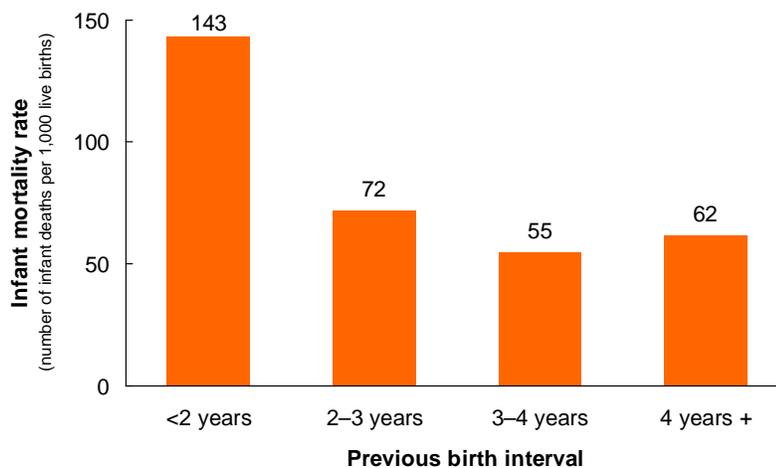
One argument sometimes heard in African countries is that governments should address high levels of maternal and child sickness and death before worrying about family planning. In fact, family planning itself can be an effective maternal and child health strategy. The risks of maternal, child and infant sickness and death increase with certain high-risk

pregnancies. High-risk births include too early (births to mothers under 20 years), too close (birth interval of less than two years), too many (more than four previous births) and too late (pregnancies after age 35). In Tanzania, about 55 percent of all births are in an avoidable high-risk category.

TDHS 2004–05 reports a maternal mortality ratio of 578 deaths per 100,000 live births, indicating no change since TDHS 1996. Even this level may be an underestimate. In addition, for every woman who dies in childbirth, estimates suggest that another five live with chronic illness or permanent disability.

The graph below shows that the risk of infant mortality in Tanzania is more than twice as high when births are spaced less than two years apart than when they are spaced two or more years apart. This happens, in part, because closely spaced pregnancies result in short breastfeeding durations. Overall, birth spacing is the single most cost-effective child survival intervention.

**Chart 15. Effects of Birth Spacing on Infant Mortality**



Source: *Tanzania Demographic and Health Survey, 2004–05.*

Family planning can help couples to delay, space or avoid unplanned and risky pregnancies for the health benefit of mothers, children and families. The benefits of family planning, of course, go beyond health. Well-spaced families mean children have better opportunities for education, good nutrition and adequate care. As the Asian Tigers found out, this investment in “human capital” is critical to long-term poverty reduction.

### 3.3 Economy, Labour Force and Employment

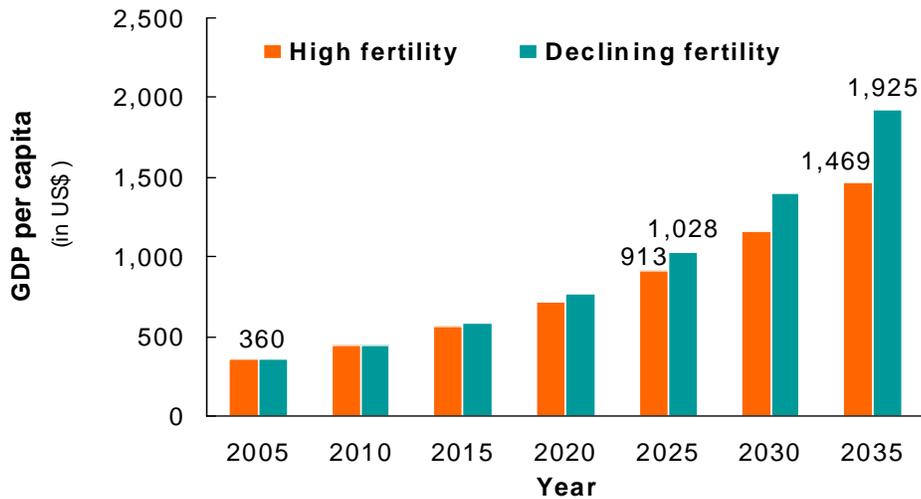
#### 3.3.1 Economy

*The Economic Survey, 2004* reports that the earliest possible data on macroeconomic performance began about 1965. In 1965–1966, the economy grew by 6.7 percent per annum in real terms (taking into account inflation to permit comparisons over time). Centralized planning policies dominated the long period from 1967 to 1985, and economic growth fell to an average of 2.9 percent per year. This rate of economic growth was lower than the rate of population growth over that period so that there was no improvement in GDP per capita over a two decade span.

Tanzania then entered an era of mixed economy reform. During the initial phase, 1986–1993, the economy grew by an average of 3.2 percent per year, very close to the rate of population growth over the same period of time. For the 1994–2004 decade, however, the economy grew by an annual average of 4.5 percent, which was higher than the rate of population growth. Of particular note, the economy grew by 6.2 percent in 2002, 5.7 percent in 2003, 6.7 percent in 2004, 6.8 percent in 2005, 6.2 percent in 2006 and 7.1 percent in 2007. The current *Poverty Reduction Strategy* goal is to achieve an 8 percent annual growth rate by 2010. As with the Asian Tigers, rapid economic transformation will be largely dependent on improvements in the quality of the labour force, rather than on increases in the number of workers. Tanzania can have a higher rate of economic growth with a smaller, but better educated and more skilled labour force.

The projections assume the rate of economic growth reaches 8 percent per year in 2010 and stays at that level for the duration of the projection period, a very high rate of growth for a sustained period of time. In 2005, GDP per capita was about Tsh360,000. With high fertility continued, GDP per capita would rise (in constant values) to Tsh913,000 in 2025 and Tsh1,469,000 in 2035. In comparison, with declining fertility, GDP per capita would increase more quickly to Tsh1,028,000 in 2025 and Tsh1,925,000 in 2035.

**Chart 16. Projected GDP Per Capita, 2005–2035  
(assumes a 8% economic growth rate per annum after 2010)**



Source: World Bank Development Indicators and projections prepared for this analysis using RAPID model.

The World Bank classified economies as either high, upper middle, lower middle or low income for 2004. High-income countries had a gross national income (GNI)<sup>6</sup> per capita of more than US\$10,065. Upper middle-income countries had a GNI per capita of US\$3,256–US\$10,065, while lower middle-income countries had a GNI per capita of US\$826–US\$3,255. Low-income countries had a GNI per capita of US\$825 or less.

With high fertility continued, the GDP per capita would increase to \$841 in 2025 and US\$1,354 in 2035. In 2025, GDP per capita would barely reach lower middle-income status. If Tanzania is unable to achieve and sustain an 8 percent growth rate, it will fall short of the vision of middle-income status by 2025. In comparison, GDP per capita would be US\$947 in 2025 and US\$1,775 in 2035 with declining fertility.

<sup>6</sup> The World Bank uses GNI per capita to classify economies, whereas the *Economic Review* uses GDP per capita. The two are very close in Tanzania and are sometimes used interchangeably. The World Bank benchmarks, therefore, serve as a useful reference.

#### **4.0 CONCLUSION**

The population of Tanzania is going to be much larger in the future than it is today. This is inevitable. Nonetheless, a slower rate of population growth could help the country achieve its national vision for development and poverty reduction. There are realistic steps that can be taken to improve reproductive health and to bring population growth into balance with the social and economic development of the nation.

In summation, Tanzania continues to have a high fertility rate (an average of 5.7 children per woman) that has not changed over the past decade. As a result, and despite the HIV and AIDS epidemic, the population continues to grow rapidly. At its present rate, the population will double in size in approximately 25 years. The rapid growth of the population in such a short period of time has serious implications for the national vision to achieve a high quality of life and eliminate severe poverty.

As noted by United Nations Population Fund: “Good demographic outcomes depend on good policies . . . Successful action depends above all on empowering individuals and couples to make free choices” (UNFPA 2002, 6). It is an opportune time to consider the strategic importance of population in order to attain of the Tanzanian vision and appropriate, responsive policies.

## REFERENCES

- Abel, Ed (1999). *RAPID: Computer Programs for Examining the Socioeconomic Impacts of Population Growth (Version 4)*. Washington: The Futures Group International, POLICY Project. Both the manual and the software can be downloaded from [www.policyproject.com](http://www.policyproject.com).
- Beegle, Kathleen (1995). *The Quality and Availability of Family Planning Services and Contraceptive Use in Tanzania*. Washington: World Bank.
- Birdsall, Nancy, Allen C. Kelley and Steven W. Sinding (2001). *Population Matters: Demographic Change, Economic Growth, and Poverty in the Developing World*. New York: Oxford University Press.
- Food and Agriculture Organization of the United Nations (FAO) (2006). FAO Country Profiles and Mapping Information System. <http://www.fao.org/countryprofiles/Maps/TZA/04/ec/index.html> (accessed November 6, 2006).
- Haupt, Arthur and Thomas T. Kane (2004). *Population Handbook, 5<sup>th</sup> Edition*. Washington: Population Reference Bureau.
- Ministry of Agriculture and Food Security, Participatory Agricultural Development and Empowerment Project (PADEP) (2003). *Resettlement Policy Framework*.
- Ministry of Agriculture and Food Security, Statistics Unit (2005). *Basic Data for Agriculture Sector, 1995/9–2002/2003: Tanzania Mainland*.
- Ministry of Education and Culture (2005). *Basic Education Statistics in Tanzania (BEST), 1995–2005: National Data*.
- Ministry of Education and Culture (2005). *Basic Education Statistics in Tanzania (BEST), 2005: Regional Data*.
- Ministry of Health (1990). *National Health Policy*.
- Ministry of Health (2003). *National Health Policy*.
- Ministry of Health (1992). *The Food and Nutrition Policy for Tanzania*.
- Ministry of Labour and Youth Development (1997). *The National Employment Policy*.
- Ministry of Lands and Human Settlements Development (2000). *National Human Settlements Development Policy*.
- Ministry of Lands and Human Settlements Development (1997). *National Land Policy*.
- Ministry of Natural Resources and Tourism, Forestry and Beekeeping Division (2001). *National Forest Programme in Tanzania, 2001–2010*.
- Ministry of Planning, Economy and Empowerment, United Republic of Tanzania (2006). *The Economic Survey, 2005*.
- National Bureau of Statistics (Tanzania). *2002 National Population and Housing Census*. <http://www.tanzania.go.tz/census/>.

National Bureau of Statistics (Tanzania) and Macro International Inc. (2000). *Tanzania Reproductive and Child Health Survey, 1999*. Calverton, Maryland: National Bureau of Statistics and Macro International Inc.

National Bureau of Statistics and Ministry of Labour, Youth Development and Sports (2003). *Integrated Labour Force Survey, 2000/01 – Analytical Report*.

National Bureau of Statistics (Tanzania) and ORC Macro (2005). *Tanzania Demographic and Health Survey, 2004–05*. Dar es Salaam, Tanzania: National Bureau of Statistics and ORC Macro.

President's Office, The Planning Commission (1992). *National Population Policy*.

President's Office, The Planning Commission (1999). *The Tanzania Development Vision 2025*.

President's Office – Planning and Privatization (2005). *The Economic Survey, 2004*.

President's Office – Planning and Privatization (2005). *Macroeconomic Policy Framework for the Plan/Budget, 2005/06–2007/08*.

Prime Minister's Office, United Republic of Tanzania (2001). *Rural Development Strategy*.

Research on Poverty Alleviation (REPOA) (2003). *Poverty Reduction Strategy: Are Population Parameters Overlooked?*

*Tanzania Socio-Economic Database (TSED)*, Version 3. [www.tanzania.go.tz](http://www.tanzania.go.tz)

The Research and Analysis Working Group (2005). *Poverty and Human Development Report 2005*. Dar es Salaam, Tanzania: Mkuki Nyota Publishers.

United Nations Population Fund (UNFPA) (2002). *State of World Population 2002. People, Poverty and Possibilities*. New York: United Nations Population Fund.

United Nations Population Fund (UNFPA) (2004). *State of World Population 2004. The Cairo Consensus at Ten: Population, Reproductive Health and the Global Effort to End Poverty*. New York: United Nations Population Fund.

United Republic of Tanzania (2001). *Agricultural Sector Development Strategy*.

United Republic of Tanzania (2000). *Tanzania Assistance Strategy (A Medium Term Framework for Promoting Local Ownership and Development Partnerships)*.

Vice President's Office, The United Republic of Tanzania (1997). *National Environmental Policy*.

Vice President's Office, The United Republic of Tanzania (2005). *National Strategy for Growth and Reduction of Poverty (NSGRP)*.

Vice President's Office, The United Republic of Tanzania (1998). *The National Poverty Eradication Strategy*.

World Bank (2005). *Tanzania: Second Poverty Reduction Support Credit and Grant. Simplified Implementation Completion Report.*

World Bank (2006). World Bank Development Indicators.  
<http://publications.worldbank.org/subscriptions/WDI/> (accessed November 19, 2006).