

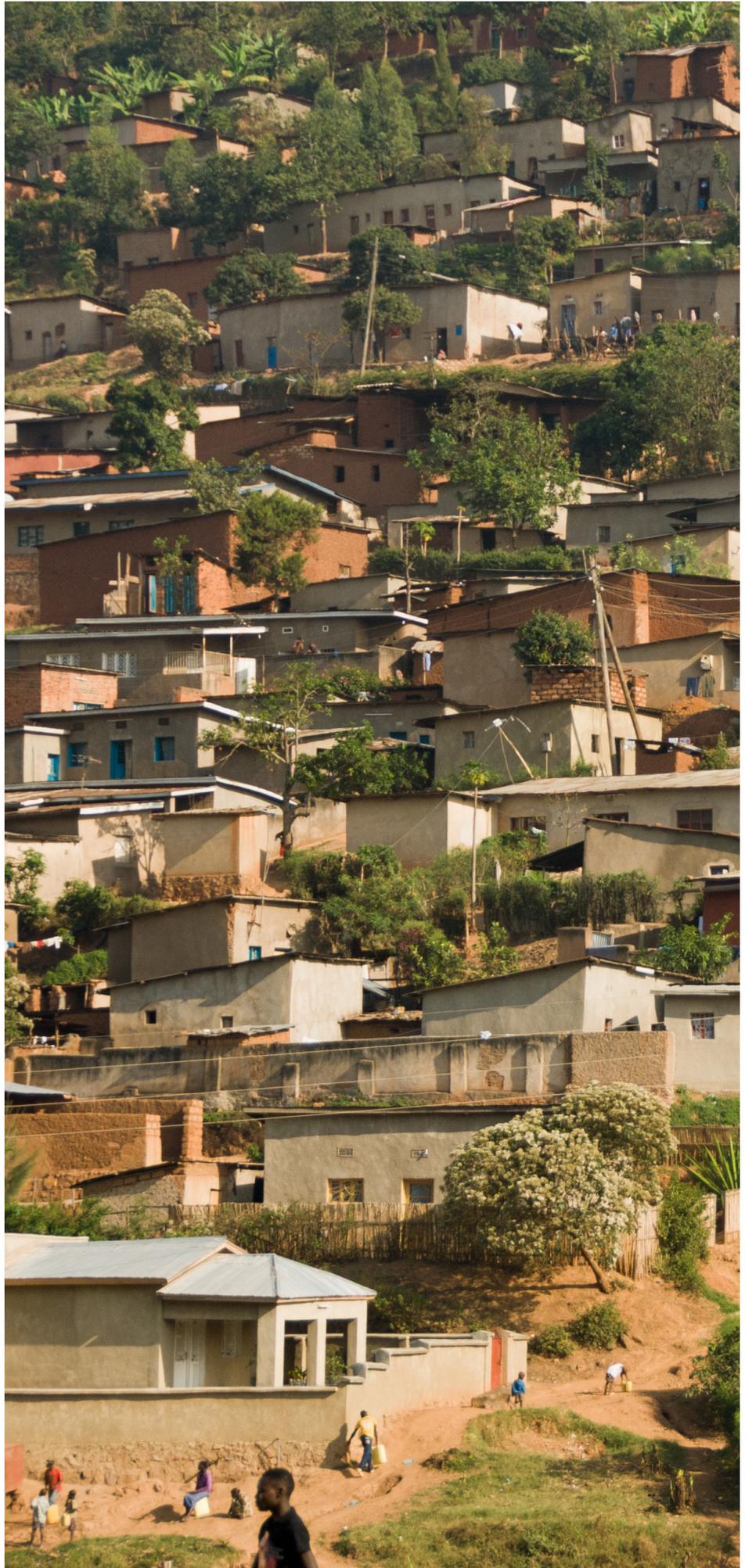
Global Agenda

Prospects for Reaping a Demographic Dividend in Rwanda

A case study by the World Economic Forum's Global Agenda Council
on Population Growth

Mai 2014





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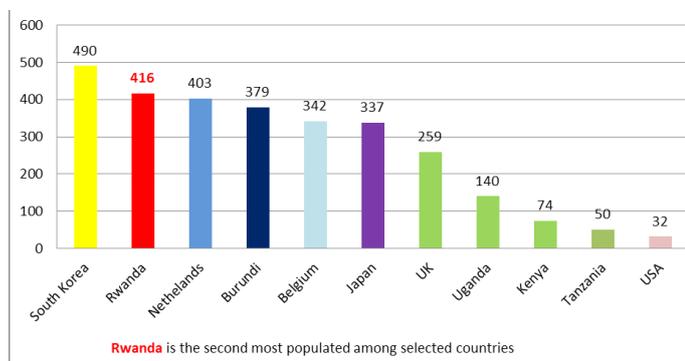
Introduction

The 21st century has seen unprecedented population growth. Globally, the number of people has grown from 1.6 billion in 1900 to 7 billion in 2012. Sub-Saharan Africa has had the largest population increase, with its population growing from 186 million in 1950 to 859 million in 2010, representing a 2.6% average annual rate.

In Rwanda, the results of the 4th Population and Housing Census show a total resident population of 10,537,222 as of August 2012. Comparing to the enumerated population of 8,128,553 in the 2002 census, an average annual growth rate of 2.6% has been observed. This is among the highest in Central and East Africa.

Population density rare for selected countries in 2012

Source: 2012 census report



Population Status

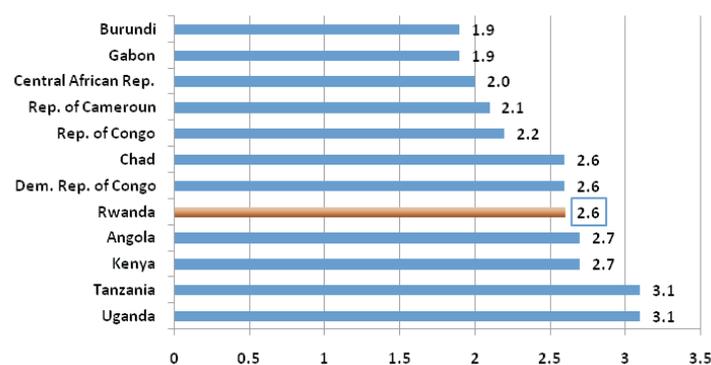
In pre-colonial Rwanda, having many children was seen as an investment and/or as a form of pension; having more children was considered a blessing in the traditional sense. Rapid population growth has, therefore, been a long-standing reality in Rwanda.

According to previous surveys, the country's population has experienced a rapid growth since the 1940s. It rose from 1,595,400 people in 1934, to 2,694,990 in 1960, then to 4,831,527 in 1978 and to 7,157,551 in 1991. The socio-demographic survey carried out in 1996 estimated the population size at 6,167,500 people.

Rwanda's population density has increased from 321 persons per square kilometre in 2002 to 416 in 2012 at the national level – the highest in the East African region and quite high compared with other countries globally. Rwanda's high population growth rate is a serious challenge that puts pressure on land, environment and infrastructure such as schools and health facilities, and access to utilities such as energy, water and sanitation.

Population growth rate for selected countries in 2012

Source: NISR, 2012 Population and Housing Census

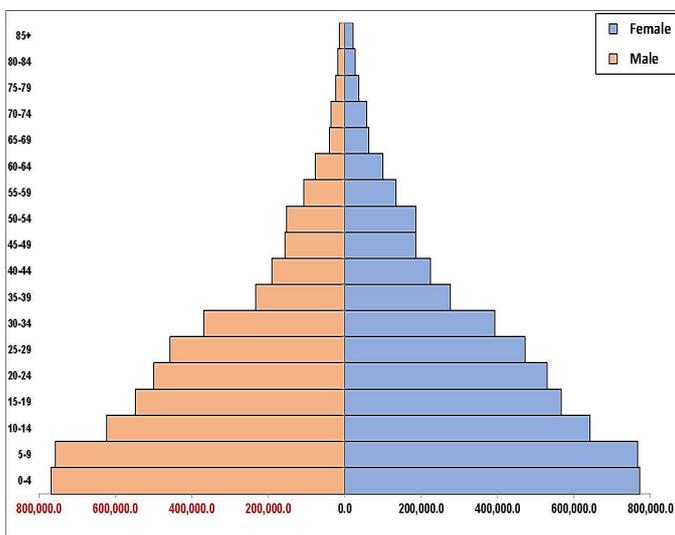


Population pyramid

Rwanda's population pyramid, as in many other developing countries, is very wide at the base, indicating high birth rates and a decline of death rates. It shows more females than males in the older age group due to females' longer life expectancy. According to 2012 Population and Housing Census, the proportion of women is 51.8% compared to 48.2% of men. The life expectancy at birth has increased by 13.3 years in the last 10 years from 51.2 to 64.5 years; an indication of overall improving health, education, safety and security.

Five-year age group pyramid of the Rwandan population in 2012

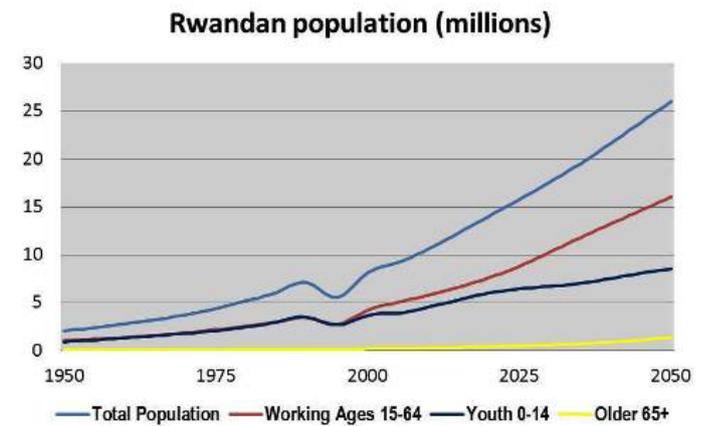
Source: Rwanda 4th Population and Housing Census, 2012 (NISR)



The predominance in working-age adults in Rwanda is already here. Of the total resident population in 2012, there are 4.1 million persons (40%) aged 14-35 – an increase of 30% from the 3.2 million in 2002. The working-age population is set to grow by 2 million in 2022, hence increasing its share in total population to almost 60% (up from the current 55%). The transition is projected to accelerate after 2025, when the working-age population will grow much faster than both the youth (younger than 15 years of age) and the elderly.

Rwandan population (millions)

Source: Rwanda 2012 Population and Housing Census



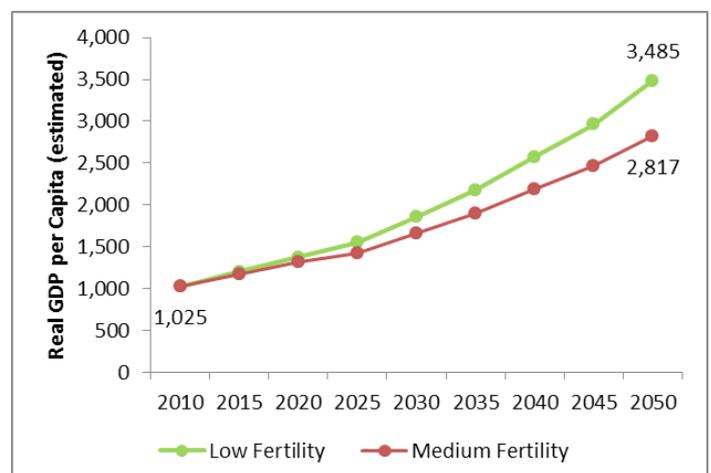
This situation provides a unique opportunity for Rwanda's development. Providing this large, young and energetic workforce with productive employment will boost output and put the country on a path to long-term development. However, it also provides a unique challenge. Failing to do so will not only mean foregoing this window of opportunity, but also the risk of having a large number of jobless people due to a growing mass of unemployed young adults. The demographic dividend is not a given. But if it is well prepared for, and the right policies are in place, it may positively transform Rwanda in the decades to come.

Demography-based Income Forecast

If Rwanda could achieve a more rapid reduction in fertility, potential effects on economic growth could be higher. If the total fertility rate were to drop to 2.1 by 2050 (low fertility scenario), projected income levels would more than triple to \$3,500 by 2050, compared to \$2,800 under the medium fertility scenario. The medium fertility scenario implies a total fertility rate of slightly less than 2.6 by 2050.

Estimated real GDP per capita under a medium and low fertility scenario (2012 revision)

Source: WPP, 2013



The estimates presented in the figure above shed light on how the economy could expand in light of the steadily increasing labour force and the decreasing dependency ratio. The demographic shifts will, however, not by themselves lead to higher economic growth and income levels. To take advantage of a much larger labour force, accompanying investments are required to increase the quality and productivity of the labour force and to sustain or even accelerate the pace of the fertility transition. The following section will elaborate on the policies that are believed to be required for a country to make the most out of the demographic transition.

Population and Development Issues

In the aftermath of the 1994 Rwanda genocide, population reforms have been initiated towards improving quality of life and attaining economic empowerment through, notably, the Poverty Reduction Strategy Paper, Economic Development and Poverty Reduction Strategy (EDPRS) I and II.

Given the substantial implications that population growth has for economic development, EDPRS I aimed to:

- Reduce high fertility rates
- Reduce maternal and early childhood morbidity and mortality rates
- Introduce high-quality education for all in an effort to reinforce human resource capacity
- Encourage rational management of the environment
- Integrate population issues in the policy and programme formulation and development planning process at all levels

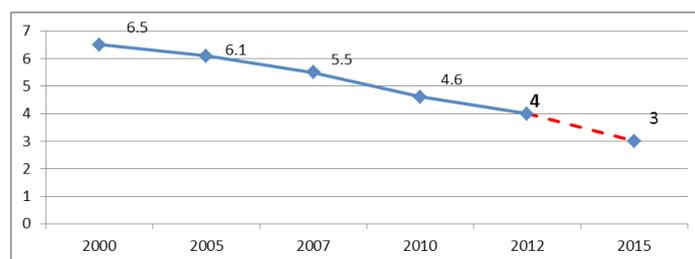
In brief, the policy was about developing a society that is both informed and conscious of the challenges emanating from rapid population growth and its implications on national development and its role in the improvement of the quality of life of all Rwandans.

Over the past five years, economic growth rates have been significant and have averaged 8.2% with a high double digit growth rate of 11.2% in 2008. Consequently, the share of the population living in poverty has been reduced from 56.9% in 2005-2006 to 45% in 2010-2011, while extreme poverty has been reduced from 37% in 2005-2006 to 24% in the same period. This means that in that period under review, more than 1 million Rwandans were lifted out of poverty.

Accordingly, Rwanda expects that the population living under poverty line will continue to drop to 30% by 2017 and to 20% by 2020. This will be achieved through the continued implementation of a set of programmes set up to assist poor citizens to improve their social welfare. The programmes include Vision 2020 Umurenge,¹ Ubudehe,² one cow per poor family (Girinka), health insurance (mutuelle de santé), support to survivors of the genocide, reintegration of returnees, relocation of people living in high risk zones and support to people with disabilities.

Total fertility rate

Source: NISR, 212



¹ Vision 2020 Umurenge is an integrated local development programme to accelerate poverty eradication, rural growth and social protection.

² Ubudehe refers to the long-standing Rwandan practice and culture of collective action and mutual support to solve problems within a community.



Fertility and mortality

In Rwanda, the fertility and mortality rate have declined over the past two decades. Currently, women in Rwanda have an average of 4.6 children, down from 6.5 in 2000. Since the start of the demographic and health surveys, no other sub-Saharan African country has experienced such an intense drop in fertility. Usually, the drop of fertility coincides with a sharp drop in child and maternal mortality.

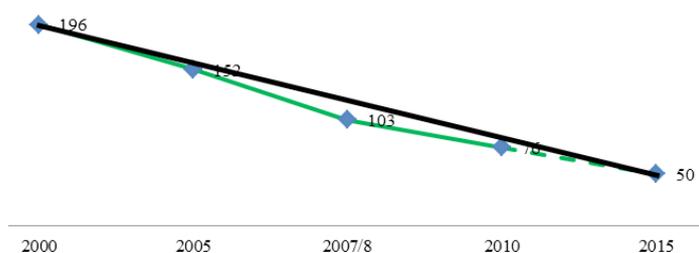
A main hypothesis in the demographic literature is that declines in child mortality reduce the need for parents to have many children. As parents realize that infant mortality has decreased significantly, they can give birth to fewer children in order to attain their desired number of offspring. It gives them assurances that the few kids they produce will grow up. There is, hence, no need to produce many as a cushion for expected high death rates.

Under-five mortality

The odds of surviving childhood have increased, with under-five mortalities decreasing from 196 deaths to 76 deaths per 1,000 live births between 2000 and 2010. Rwanda is, thus, on the right track of achieving the UN MDG target of 50 deaths per 1,000 live births. Reducing U-5 mortality rates is a high priority for Rwanda. The problem is currently being tackled at community level; community ownership is seen as fundamental. The Ministry of Health of Rwanda has increased preventive measures at the community and village levels, including the provision of mosquito nets, vaccination, medical follow-ups, family planning and hygiene sensitization programmes.

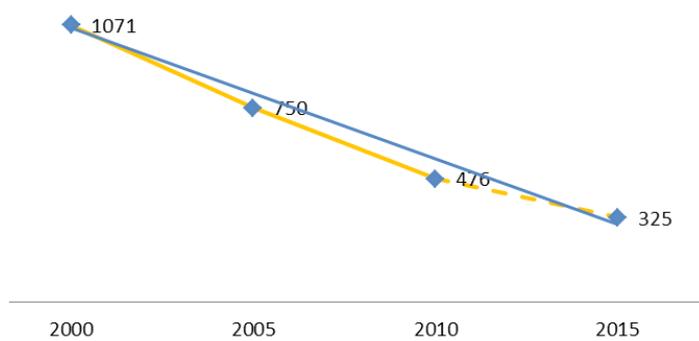
Under-five mortality rate per 1,000 live births

Source: NISR, 2011



Maternal mortality rate

Source: NISR, 2011



Maternal mortality

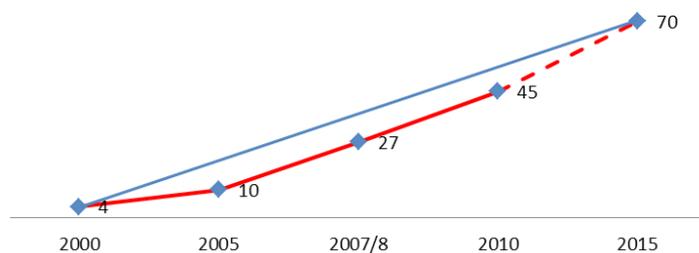
There has been a significant decrease in the maternal mortality ratio, with Rwanda making good progress towards achieving the MDG target by reducing the maternal mortality rate from 1,071 deaths per 100,000 live births in 2000 to 476 deaths per 100,000 live births in 2010.

Contraceptive use

There has been a dramatic increase in the uptake of modern contraception methods, especially since 2005 when the rate was a 10% uptake by married women of child-bearing age. However, many efforts are needed in order to reach the national target of 70%.

Married women's uptake of modern contraceptives

Source: NISR, 2011

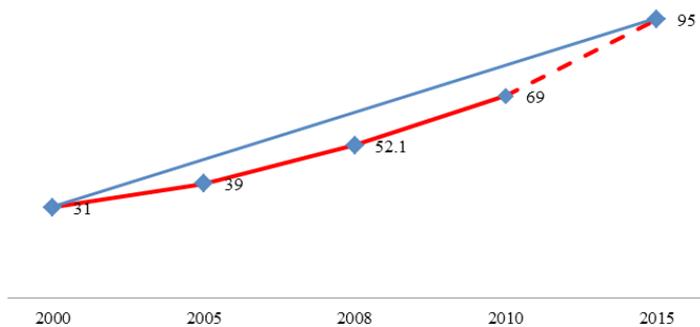


Assisted births

Assistance at delivery has also undergone significant changes. According to DHS 2010, the proportion of births assisted by skilled providers increased from 27% in 2000 to 39% in 2005 and to 69% in 2010.

Percentage (%) of assisted deliveries

Source: NISR, 2011



Education

In Rwanda, the education target is for all children to complete the first nine years of basic education (YBE) to ensure functional literacy. Education for all is a major objective of government policy; the government's flagship policy in education is universal basic education, which was introduced in 2008. All children are entitled to 12 years of fee-free schooling, and education is legally compulsory from 6 to 15 years (9 YBE).

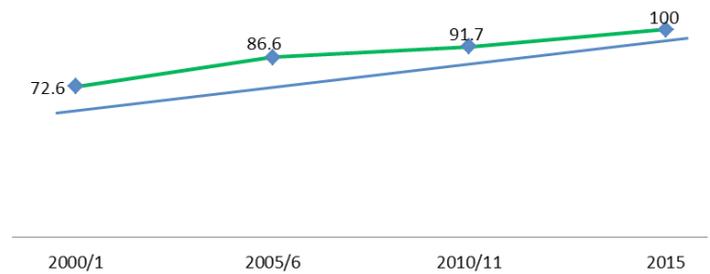
Basic education

In primary education, the number of students also continues to increase. In 2012, there were nearly 2.4 million students enrolled in primary school, of which 51% were girls. The primary net enrolment rate continues to improve for both girls and boys and, at 96.5% in 2012, has already surpassed the 2012 target of 95%. If progress continues, Rwanda will be on track to meet the MDG goal of 100% net enrolment by 2015.

The introduction of the "One Lap One-Laptop-per-Child" programme launched by the Government of Rwanda in September 2008, which targets pupils in primary four to six (P4-P6), has also contributed to the development of the education sector. In 2012, exactly four years after the launch, according to the Rwanda Education Board, there were about 115,000 computers in primary schools across the country. In 2013, there were 220,000 laptops in place in Rwanda with 42,000 others are on the way. Rwanda comes in third globally after Peru and Uruguay, according to Rodrigo Arboleda, Chief Executive of One-Laptop-per-Child.

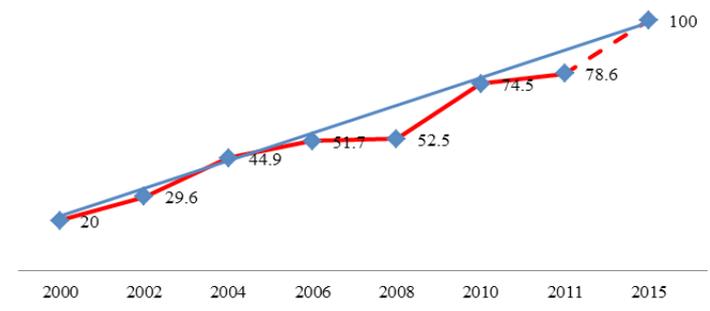
Net primary school attendance rates and linear projection

Source: NISR, 2011



Gross primary school completion rates and linear projection

Source: NISR, 2011



Secondary education

Increasing numbers of students are progressing to the lower secondary level, as seen by the 26% increase in enrolment at the upper secondary level between 2011 and 2012. Girls now make up 52% of all students in secondary education. This is thanks to the 9YBE and 12YBE policy, including classroom construction and recruitment of teachers.



Making Progress

Fertility

Rwanda experienced a significant drop in the fertility rate (15%) between 2005 and 2010 as a result of:

- Decline in infant and child mortality
- Increase in contraceptive use
- Increase in household wealth levels
- Increase in women's participation in the labour force
- Salient shift in fertility preferences for young women

Use of contraceptive

The level of the use of contraceptive methods is one of the indicators most frequently used to assess the success of family planning programme activities and one of the determinants of fertility and maternal mortality. Over half of married women in Rwanda use contraception.

Assisted births

Good progress has been achieved in this areas thanks to combination of improved service delivery and system strengthening measures, such as an increased number of assisted deliveries, maternal death audits, the improved referral chain down to the community level, and functional emergency obstetric care facilities in health centres, district hospitals and national referral hospitals.

Reducing maternal deaths

Between 2008 and 2010, the hospital-based maternal mortality rate nearly halved from 400 to 217, as a result of the introduction of the maternal death audit introduced in 2008 by the Rwandan Ministry of Health, with the financial and technical support of the WHO and UNFPA, with an aim of reducing maternal mortality in all district and referral hospitals. The audit in 2008 showed that the two main causes of maternal mortality, accounting for 72% of all deaths, were postpartum haemorrhage and obstructed labour.

Community health workers

Community health workers have proven to be effective and efficient in providing basic healthcare services at a community level in a resource-constrained country with financial, infrastructural and geographical barriers to accessing healthcare. The significant improvements in child and maternal health witnessed over the last 5 to 10 years are undoubtedly due to the service provided by the community health workers. Each village has two workers – a male and a female; there are 45,011 community health workers countrywide.

Recognizing that improving health requires a partnership between the government and local communities, the Ministry of Health of Rwanda has put in place mechanisms that directly involve and empower local communities in health promotion. Family-oriented, community-based services consist of what families and communities can practice by themselves when provided with information and education by health workers. They integrate the management of child health and maternal health.

Performance-based financing

Performance-based financing was adopted by the Government of Rwanda in 2005 as a national policy to strengthen the country's healthcare system. The traditional approach of funding inputs did not generate good results. Providers were paid according to civil service rates, and accountability mechanisms were either weak or non-existent. The need to motivate and empower providers to produce better outcomes was thus critical. The pay-for-performance approach provided such an opportunity by financing results rather than inputs. It is in this context that performance-based financing has significantly contributed to the increase in quantity of curative and preventive care services, institutional deliveries and improved quality of prenatal care.

Basic education

The success of the child-friendly programme has inspired the Rwandan government to expand it to 400 schools, as well as to make child-friendly standards the quality norms for all schools nationwide. Schools must be educationally effective, health promoting, sensitive to gender, rights based and inclusive, protective and community engaged.

Conclusion

Despite all the achievements, Rwanda continues to face a rapidly growing population, high population density, high fertility rates and high dependency ratio, all of which have led to less than desired results in poverty levels.

To address this, some key strategies should be emphasized:

1. Focus on continuing to lower the total fertility rate and slow the high population growth rate. If the total fertility rate were to drop to 2.1 by 2050 (low fertility scenario), projected income levels would more than triple to \$3,500 by 2050, compared to \$2,800 under the medium fertility scenario (total fertility rate equal to 2.6).
2. Develop local approaches to improve the living condition of the Rwandan population.
3. Accelerate progress towards attaining a demographic dividend. Based on the progress made in reducing fertility and child mortality rate, one might expect Rwanda to be poised for a demographic dividend, but looking at the age structure of the country and future population projections reveals the substantial efforts that remain. Even with continued declines in fertility, the young population of Rwanda will remain large compared to the working-age population for several decades to come. Rwanda should continue investing in family planning and sensitize its population in using modern forms of contraceptives to hasten the demographic transition.
4. Focus on environmental protection. In the face of a growing population, Rwanda should continue to set the development of a sustainable environment high on its agenda. This transpired from the EDPRS II and the Green Growth Strategy, where environment was placed as a cross-cutting issue, calling all government entities to make concerted efforts to ensure Rwanda becomes a developed climate-resilient, low-carbon economy by 2050.
5. Focus on the youth as the potential engine for economic growth. One of the thematic areas of the EDPRS II is youth employment. To achieve the desired economic growth, the government of Rwanda should continue developing skills through the national education curricula reform and strengthening technical and vocational training, promoting technology, as well as stimulating entrepreneurship.
6. Develop a strong national employment programme that targets large-scale delivery for youth in terms of skills development, job creation, SME development and financing, among others. This will address coordination challenges, especially in linking job seekers to demand and seek finance for self-employment initiatives.





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