United Nations | Department of Economic and Social Affairs

World Population Ageing 2023

Challenges and opportunities of population ageing in the least developed countries

UN DESA/POP/2023/TR/NO. 5

Department of Economic and Social Affairs
Population Division

World Population Ageing 2023

Challenges and opportunities of population ageing in the least developed countries

United Nations
New York, 2023

United Nations Department of Economic and Social Affairs, Population Division

The Department of Economic and Social Affairs of the United Nations Secretariat is a vital interface between global policies in the economic, social and environmental spheres and national action. The Department works in three main interlinked areas: (i) it compiles, generates and analyses a wide range of economic, social and environmental data and information on which States Members of the United Nations draw to review common problems and take stock of policy options; (ii) it facilitates the negotiations of Member States in many intergovernmental bodies on joint courses of action to address ongoing or emerging global challenges; and (iii) it advises interested Governments on the ways and means of translating policy frameworks developed in United Nations conferences and summits into programmes at the country level and, through technical assistance, helps build national capacities.

The Population Division of the Department of Economic and Social Affairs provides the international community with timely and accessible population data and analysis of population trends and development outcomes for all countries and areas of the world. To this end, the Division undertakes regular studies of population size and characteristics and of all three components of population change (fertility, mortality and migration). Founded in 1946, the Population Division provides substantive support on population and development issues to the United Nations General Assembly, the Economic and Social Council and the Commission on Population and Development. It also leads or participates in various interagency coordination mechanisms of the United Nations system. The work of the Division also contributes to strengthening the capacity of Member States to monitor population trends and to address current and emerging population issues.

Suggested citation

United Nations Department of Economic and Social Affairs, Population Division (2023). *World Population Ageing 2023: Challenges and opportunities of population ageing in the least developed countries.* UN DESA/POP/2023/TR/NO.5.

This report is available in electronic format on the Division's website at www.unpopulation.org. For further information about this report, please contact the Office of the Director, Population Division, Department of Economic and Social Affairs, United Nations, New York, 10017, USA, by Fax: 1 212 963 2147 or by email at population@un.org.

Copyright information

Front cover: An elderly woman from a Herero village in Aminuis. UN Photo/Eskinder Debebe

Back cover: Fifth United Nations Conference for Least Developed Countries, 2023. World Intellectual Property Organization (WIPO).

United Nations Publication

Sales No.: E.24.XIII.1

ISBN: 9789210029926

eISBN: 9789213586747

Copyright © United Nations, 2023.

Figures and tables in this publication can be reproduced without prior permission under a Creative Commons license (CC BY 3.0 IGO), http://creativecommons.org/licenses/by/3.0/igo/.

Preface

Population ageing is an inevitable outcome of the demographic transition — the historic shift from higher to lower levels of fertility and mortality that yields a period of rapid population increase and, eventually, an older population that is much larger as share of the total. While more developed countries have completed or are well advanced in this transition, less and least developed countries (LDCs) are predominantly in the early or middle stages, when the older population is still small but starting to grow. Such countries can anticipate a continuing, gradual increase in both the number and the share of older persons, many of whom will require substantial care and support at some point in their lives. Unfortunately, many LDCs are ill-prepared to offer the essential services and support that will eventually be needed by their ageing populations.

In anticipation of the progressive ageing of their populations, countries in the early or middle stages of the demographic transition can take advantage of a window of opportunity created by the drop in fertility rates. The decline of fertility during the demographic transition initiates a period in which a country's working-age population increases as a share of the total. This increase in the relative size of the working-age population boosts the rate of economic growth on a per capita basis and provides an opportunity for LDCs to develop economically before their populations become much older.

World Population Ageing 2023 examines the potential of LDCs to benefit from this demographic dividend. Through an analysis of demographic, social, economic and health-related indicators, as well as associated policies and investments, the report assesses the challenges and opportunities of translating favourable demographic trends into economic and developmental gains. A comparative study of LDCs in the Asia-Pacific region and in Africa, with a focus on Angola, Bangladesh and Rwanda, provides insights into the challenges and opportunities that arise at various stages of the demographic transition. The report concludes by summarizing its key findings and offering policy guidance to help countries maximize the potential benefits of the demographic dividend.

Acknowledgements

This report was prepared by Guangyu Zhang and Karoline Schmid. The authors wish to thank John Wilmoth, Jorge Bravo, Bela Hovy and Stephen Kisambira for their suggestions while reviewing the draft.

Assistance from Giulia Gonnella with data visualization, and from Bintou Papoute Ouedraogo and William Dunbar with editing and desktop publishing is much appreciated and has contributed to the quality of the final product.

Contents

Preface III

Acknowledgements IV

Explanatory notes VI

Executive summary 1

Introduction 7

Chapter I. Major trends in LDCs and the demographic dividend 11

Chapter II. Population ageing: Levels and trends to 2050 and beyond 23

Chapter III. Country case studies: Angola, Rwanda and Bangladesh 29

Chapter IV. Lessons learned and best practices: The demographic dividend and population ageing in LDCs 49

References 53

Annex I. Glossary of terms 59

Annex II. Key demographic indicators, LDCs, 2023 and 2050 61

Explanatory notes

The following symbols have been used in the tables throughout this report:

A minus sign (-) before a figure indicates a decrease or negative number.

A full stop (.) is used to indicate decimals.

Years given refer to 1 July.

Use of a dash (–) between years, for example, 1995–2000, signifies the full period involved, from 1 July of the first year to 1 July of the second year.

Numbers and percentages in this table do not necessarily add to totals because of rounding.

References to region, development group, country or area:

The designations employed in this publication and the material presented in it do not imply the expression of any opinions whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The term "country" as used in this report also refers, as appropriate, to territories or areas.

In this publication, data for countries and areas are often aggregated in six continental regions: Africa, Asia, Europe, Latin America and the Caribbean, Northern America, and Oceania. Further information on continental regions is available from: https://unstats.un.org/unsd/methodology/m49/. Countries and areas have also been grouped into geographic regions based on the classification being used to track progress towards the Sustainable Development Goals of the United Nations (see: https://unstats.un.org/ sdgs/indicators/regional-groups/).

The designation of "more developed" and "less developed", or "developed" and "developing", is intended for statistical purposes and does not express a judgment about the stage in the development process reached by a particular country or area. More developed regions comprise all countries and areas of Europe and North-ern America, plus Australia, New Zealand and Japan. Less developed regions comprise all countries and areas of Africa, Asia (excluding Japan), Latin America and the Caribbean, and Oceania (excluding Australia and New Zealand).

The group of least developed countries (LDCs) includes 46 countries, as of 1 October 2023, located in sub-Saharan Africa (32), Northern Africa and Western Asia (2), Central and Southern Asia (4), Eastern and South-Eastern Asia (4), Latin America and the Caribbean (1), and Oceania (3). Further information is available at: https://www.un.org/ohrlls/.

The classification of countries and areas by income level is based on gross national income (GNI) per capita as reported by the World Bank (June 2023). These income groups are not available for all countries and areas Further information is available at: https://datahelpdesk.worldbank.org/knowledgebase/articles /906519-world-bank-country-and-lending-groups.

List of abbreviations

COVID-19	Coronavirus Disease 2019
DHS	Demographic and Health Surveys
DPoA	Doha Programme of Action
FDI	Foreign Direct Investment
GDP	Gross domestic product
GNI	Gross national income
ICPD	International Conference on Population and Development
ILO	International Labour Organization
IMF	International Monetary Fund
LDCs	Least developed countries
NTA	National Transfer Account
ODCs	Other Developing Countries
ODA	Official development assistance
SDGs	Sustainable Development Goals
TFR	Total fertility rate
UN DESA	United Nations Department of Economic and Social Affairs
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UN-OHRLLS	United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing countries and Small Island Developing States

WORLD

POPULATION

AGEING 2023

Executive summary

Executive summary

The United Nations created the category of the least developed countries (LDCs) in 1971 to mobilize international support for sustainable development in places facing the most severe structural impediments.

The majority of the 46 LDCs (as of 1 October 2023)[1] are in sub-Saharan Africa and are currently in early stages of the demographic transition, the global trend towards longer lives and smaller families. Most of the LDCs in Africa continue to experience high levels of fertility, rapid growth of their populations and youthful age structures. Some LDCs in the Asia-Pacific region, meanwhile, have a higher proportion of older persons in their populations, but continue to lack well-developed social protection systems and health-care services. All LDCs are expected to experience a significant rise in both the proportion and the number of older persons between 2023 and 2050 and accelerated population ageing in the second half of the century. Preparing for population ageing in LDCs will be essential for upholding the promise of the 2030 Agenda for Sustainable Development that no one will be left behind.

As countries move through the demographic transition, their age structures also change, going through three distinct stages: a period of rapid population growth and high youth dependency, followed by a period of slower growth and declining youth dependency and then a period of negligible or negative population growth and increasing old age dependency. A clear understanding of the process of demographic transition in each country-specific context is essential to set priorities for development policies and related interventions. In the middle stage, the rising share of the working-age population increases the growth rate of per capita income, a phenomenon known as the demographic dividend (Bloom, Canning and Sevilla, 2003; Lee and Mason, 2006). Early-transition countries with rapidly growing and youthful populations may wish to prioritize investments in health care, including for reproductive health and family planning, and in education and job creation to maximize the benefits of the ensuing demographic dividend. Mid-transition countries, where a sustained drop in the fertility level has ushered in a period of demographic dividend, are advised to proactively develop their social protection and health-care systems in preparation for future population ageing. Late-transition countries with increasing older populations should focus on closing gaps in their social protection systems to ensure that all are protected and that no one is left behind.

All LDCs can benefit from multiple opportunities to advance their economies and improve living standards. Examples are the mechanization of agricultural production and the development of value-added industries and manufacturing which contribute to faster economic growth. Trade, regional integration and incentives for foreign direct investment can further support development while investment in infrastructure and support for entrepreneurship can create jobs and foster innovation. Human capital development, increased women's labour force participation, new technologies and innovation and expanded access to finance can fuel additional economic growth. Strengthening governance and the rule of law can lay a foundation for building trust with domestic and foreign investors. In addition, international support and partnerships with donor countries and multilateral development agencies play an important role in advancing the economic and social development of LDCs.

Major demographic challenges and opportunities, levels and trends of population ageing:

- Among 36 LDCs with fertility levels above 3 births per woman in 2023, none is expected to reach "replacement-level" fertility (approximately 2.1 births per woman) by 2050. Nevertheless, for all but Niger fertility levels are projected to lie below 4 births per woman at mid-century.

- The population of 28 LDCs in Africa is presently growing at over 2 per cent per year, which implies a doubling every 35 years. Seven of these countries will continue to experience annual growth of more than 2 per cent until at

[1] In this report, LDCs refer to the 46 countries currently designated by the United Nations as of 1 October 2023, which applies to population estimates back to 1970 and projections forward to 2100.

least 2050. Thus, rapid population growth is expected to remain a significant challenge for many African countries over the next few decades.

- Net enrolment rates for primary and secondary education in LDCs in 2018 were 81 and 38 per cent, respectively. Unless enrolment rates increase in the coming decades, more than 100 million young people between ages 12 and 17 years in 2050 could be excluded from secondary education. While all LDCs need to invest in the development of human capital, those in Africa will face the greatest pressure to absorb a rapidly growing school-age populations into the education systems.

- In 2021, the employment-to-population ratio in LDCs was 61 per cent, and a majority of those employed worked in subsistence agriculture. Between 2023 and 2050, the size of the working-age population will increase more than threefold in African LDCs and Haiti, and at a much slower pace in LDCs of the Asia-Pacific region.

- In 2023, most LDCs had a young age structure. The proportion of older persons (aged 65 years or over) was 3.7 per cent, compared with 9 per cent in other developing countries and 20 per cent in developed countries. This proportion is expected to increase substantially in LDCs and elsewhere over the next several decades.

- Ten of today's LDCs had more than 1 million older persons in 2023. By 2050, this number will increase to 27, including two countries with more than 10 million older persons.

- As in other parts of the world, women constitute the majority of older persons in LDCs.

Major findings from country case studies:

A common feature of the case studies for Angola, Rwanda and Bangladesh included in this report is that the current situation has been shaped by a history of colonialization and subsequent path to independence. The populations of these three countries continue grow, with the highest growth rates in Angola and Rwanda and considerably lower growth in Bangladesh. Population ageing is more advanced in Bangladesh and still in early stages in Rwanda and Angola. All three countries have made considerable strides in economic and social development since independence, but they are still hindered by high levels of poverty and inequality, low levels of education, weak healthcare systems, and a lack of diversity in their economies. To finance their education, social and health-care systems, they often depend on official development assistance (ODA) or require considerable payments by their users. Domestic budgets are often constrained by weak governance and exorbitant foreign debt, further reducing the resources available to invest in education, health care and economic development. Multiple global crises, from the COVID-19 pandemic to the war in Ukraine, as well as impacts of climate change on agriculture and food production and geo-political tensions at the global and regional levels, will continue to dampen their prosperity. Yet, while LDCs do have many commonalities, they remain a heterogeneous group with unique histories and development trajectories. The country case studies presented here are intended to provide insight into their specificities that need to be reflected in government policies and programmes.[2]

- Angola's population is expected to continue to grow rapidly through 2050. Most of the adult population has only primary education and is mainly employed in low-productivity jobs, such as subsistence farming, assembly-line manufacturing and unskilled labour in the informal sector. Although the proportion of older persons is still low, the absolute number is projected to triple from just under 1 million at present to nearly 3 million in 2050. The Government needs to address the dual challenges of responding to the demand for education and employment from a growing population of children and youth while also starting to prepare for the anticipated ageing of the population.

[2] A more detailed discussion of country-specific development pathways and related policy recommendations can be found in the following publications that include the countries discussed in this document: www.un.org/development/desa/dpad/2018/expanding-productive-capacity-lessons-learned-from-graduating-least-developed-countries/ and www.un.org/development/desa/dpad/publication/background-paper-37-lessons-learned-in-developing-productive-capacities-fourteen-case-studies/.

• Despite significant economic growth since gaining independence, Angola's economy remains highly dependent on its oil industry and has failed to create broad-based opportunities for employment. Meanwhile, low levels of education continue to limit the growth of skilled employment. To reap the benefits of the demographic dividend now and in the future, the Government needs to increase investments in health care, including for reproductive health and family planning, and in quality education for youth. Improved governance and debt restructuring may help the country to secure additional financial resources. Together, these actions would lay a better foundation for expanding coverage of the social protection system and moving towards universal access to affordable health care.

• After the ethnic violence and genocide of 1994, Rwanda has embarked on a rebuilding process that has been accompanied by significant economic growth, poverty reduction and social development. Nonetheless, the country is still mostly rural, displays modest performance in the areas of health and education and has a social protection system with low coverage and inadequate benefits. Fertility has been declining since 2000 thanks in part to the successful integration of family planning into the national development agenda, and this decline is expected to yield benefits from a demographic dividend over the next few decades.

• While the proportion of older persons in Rwanda is projected to nearly double by 2050, the number of older persons is projected to triple over the same period. Presently, the Rwandan population is still growing rapidly, requiring the Government to invest heavily in youth. Despite the urgent need, there is a lack of financial resources to strengthen the social protection system and address high levels of poverty among older persons.

• Compared to LDCs in Africa, Bangladesh is in a more advanced stage of the demographic transition having maintained fertility below the replacement level since 2016. Although the share of older persons was only 6 per cent in 2023, the number of older persons has already surpassed 10 million, putting considerable fiscal pressure on the country's social protection and health-care systems. The population shift towards older ages is expected to continue during the coming decades due to sustained low levels of fertility and continuing improvements in rates of survival.

• Bangladesh has achieved remarkable economic and social development and is on track to graduate from LDC status by 2026. In addition to its sustained economic growth, Bangladesh has performed well in achieving universal primary education. It has increased enrolments in secondary education significantly while also achieving gender parity at that level. While the country has passed the peak of its demographic dividend, the accumulation of human capital and other achievements have enhanced its ability to prepare for future population ageing.

Policy recommendations:

• Governments of countries in the early and middle stages of the demographic transition should strengthen investment to ensure universal access to sexual and reproductive health and reproductive rights – including for family planning – to help individuals realize their reproductive preferences. This will also help slow growth and move towards population stabilization.

• Governments of countries approaching or already in a late stage of the demographic transition should reinforce their social protection programmes and health-care services, endowing them with sustainable financing mechanisms so they can meet the needs of both present and future generations of older persons and ensure that no one is left behind.

• Governments of countries with rapidly growing school-age populations should invest heavily in education to ensure continued development of their human capital, aiming to increase enrolment and completion rates for primary and secondary education and to achieve gender parity in educational outcomes. Continuously upgrading the skills of the working-age population will be essential for successful adaptation to the future world of work.

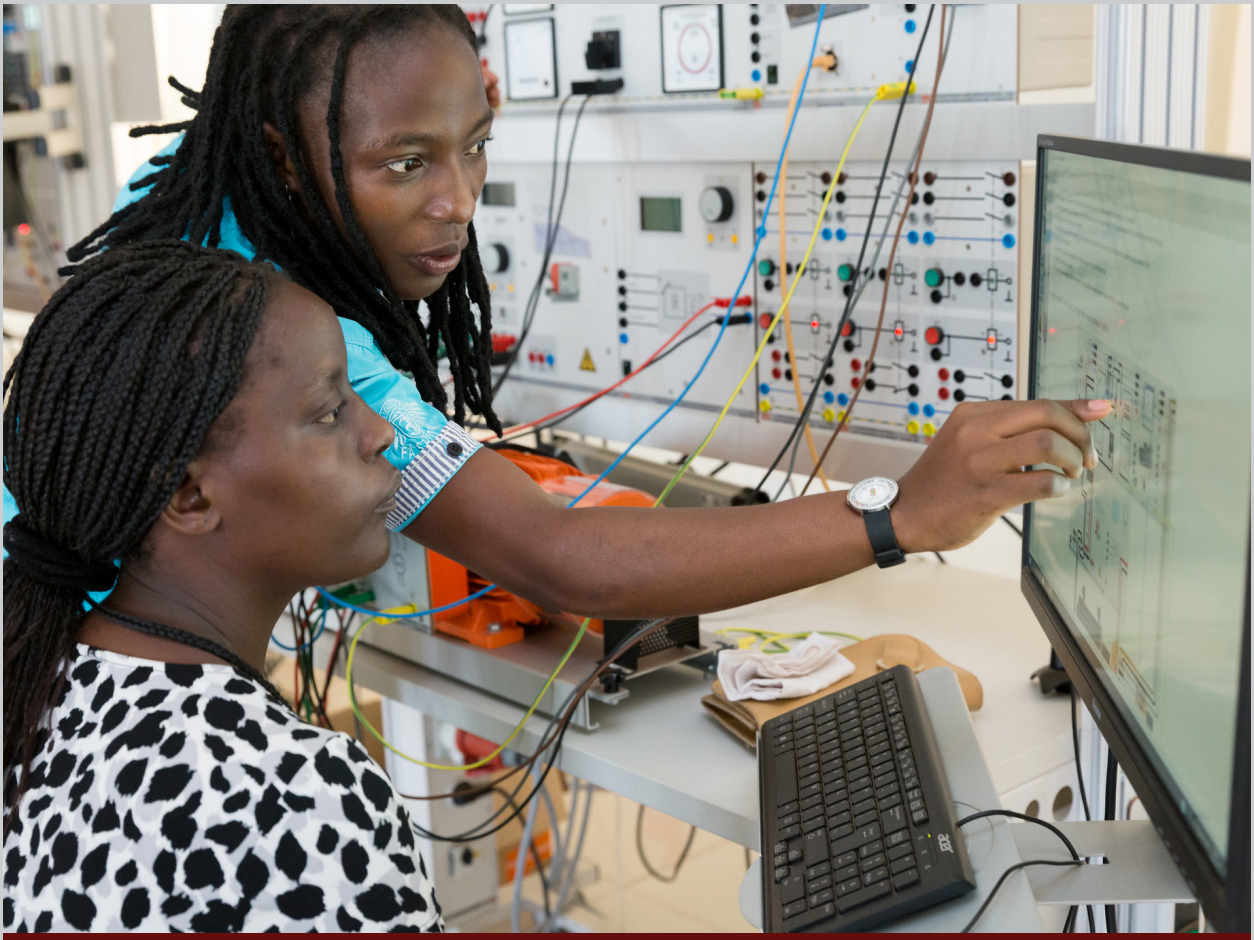
• Governments of countries with large cohorts entering the working ages should foster the creation of productive and decent jobs for all to avoid wasting skilled labour and to maximize the benefits of the demographic dividend.

- The advancement of women in LDCs requires comprehensive strategies to address economic, social and institutional barriers. Governments should implement and enforce policies that promote gender equality in education, employment, and healthcare.

- Governments of countries with limited human and financial resources that seek to harness the demographic dividend, should balance forward-looking investments in youth with improvements in social protection and healthcare for the older population, which is expected to continue to increase rapidly in the coming decades.

- Strong governance frameworks will allow countries to mobilize resources more effectively, attract foreign investment and reduce dependency on development assistance and external debt.

- In the meantime, the international community should continue to provide LDCs with development assistance and technical cooperation to help tackle climate change and invest in their people and the future.



First year Master's students at the World Bank supported African Center of Excellence, 2022, Rwanda.

World Bank/Kelley Lynch

WORLD

POPULATION

AGEING 2023

Introduction

Introduction

Population ageing in least developed countries (LDCs)[3] presents unique challenges and opportunities. All LDCs have been later in entering the "demographic transition" – a transition from high to low levels of fertility and mortality – than other countries and are also progressing through the transition more slowly, while most of which are experiencing persistently high fertility and rapid population growth. Like the rest of the world, most LDCs are experiencing population ageing, albeit at a slower pace and at lower levels than other countries.

All LDCs are currently either experiencing or are on the verge of experiencing a demographic dividend, a window of opportunity to accelerate economic and social development by taking advantage of the rising share of the population in the working ages. It is important to note that harnessing this demographic dividend is not automatic, but rather requires careful planning, policy coordination and long-term vision.

East Asian countries, particularly South Korea and Singapore, are often cited in the literature (Bloom, Canning and Sevilla, 2003) as examples of successfully translating this demographic windfall into economic growth and prosperity. The results are more mixed for countries in Latin America and the Caribbean, where many countries have been unable to increase investments in education that resulted in a more skilled labour force that gained access to increased opportunities in the formal labour market, which contributed to economic growth. However, inadequate macroeconomic policies, income inequality and the persistence of informal labour markets have limited access to quality education for all.

An overarching problem in LDCs is the need to address the emerging fiscal pressures of population ageing, while at the same time ramping up investments in education and skills development to ensure that young people and workers are well equipped for the job market of today and the future. The often-narrow range of industries or sectors that dominate the economies of LDCs lacks the diversification needed to create decent jobs for the young people entering the job market in rapidly growing numbers. Social safety nets remain limited, and poverty rates remain high. Apart from domestic challenges, LDCs continue to be impacted by continued global emergencies and crises such as the lingering impacts of the COVID-19 pandemic, food shortages and high inflation resulting from the war in Ukraine, and the global geo-political instability that continues to raise uncertainties in international economic relations, impacting trade and economic stability. Finally, climate change has profound impacts on LDCs, including floods and droughts in addition to rising temperatures, made worse by their limited resource basis, vulnerability, and lack of adaptive capacity (United Nations Global Crisis Response Group, 2023).

While LDCs face many challenges, many opportunities can also be found that help to advance their economies and to improve living standards. These opportunities include the mechanisation of agriculture, as many LDCs rely heavily on agriculture, as well as developing value-added industries and manufacturing to create opportunities for growth. Trade, regional integration and foreign direct investment can help to support development, while infrastructure improvement and supporting entrepreneurship can create jobs and foster innovation. Human capital development, technology and innovation along with expanded access to finance can drive economic growth. Additionally, international support and partnerships with donor countries and international development organisations can further advance sustainable development in LDCs. All of these will, however, rely on strengthening of governance and the rule of law.

The Doha Programme of Action (DPoA) adopted at the Fifth United Nations Conference on the Least Developed Countries (LDC5) recognizes the importance of accelerating the demographic transition and of taking advantage of the demographic dividend as part of its ambitious goal for more LDCs to graduate in the current decade. Encouraging Member States to "work together to support the acceleration of the demographic transition, where relevant" (United Nations General Assembly, 2022) is a call for action for LDCs themselves and the entire global community.

[3] In 1971, the United Nations created the category of the least developed countries (LDCs) to mobilize international support to accelerate their development (https://www.un.org/development/desa/dpad/least-developed-country-category.html).

The present report examines the potential of LDCs to benefit from this demographic dividend. Through an analysis of demographic, social, economic and health-related indicators, as well as associated policies and investments, the report assesses the challenges and opportunities of translating favourable demographic trends into economic and developmental gains. A comparative study of LDCs in the Asia-Pacific region and in Africa, with a focus on Angola, Bangladesh and Rwanda, provides insights into the challenges and opportunities that arise at various stages of the demographic transition. The report concludes by summarizing its key findings and offering policy guidance to help countries maximize the potential benefits of the demographic dividend.

Box 1
Data sources and limitations

This report uses data from the World Population Prospects 2022 (United Nations, 2022b), World Development Indicators database (World Bank, 2023a) and National Transfer Accounts (NTA) database (NTA, 2023).

Data for the analysis of demographic trends are primarily drawn from the World Population Prospects 2022, which is the twenty-seventh edition of the official United Nations estimates and projections of the global population that have been published by the United Nations since 1951. These form a comprehensive set of demographic data to assess population trends at the global, regional and national levels.

The World Population Prospects 2022 presents population estimates from 1950 to the present for 237 countries or areas. This latest assessment considers the results of 1,758 national population censuses conducted between 1950 and 2022, as well as information from vital registration systems and from 2,890 nationally representative sample surveys. The 2022 revision also presents population projections to the year 2100 that reflect a range of plausible outcomes at the global, regional and national levels. For the first time, the estimates and projections are presented in one-year intervals of age and time instead of the five-year intervals used previously. All data for the World Population Prospects 2022 are available at: https://population.un.org/wpp/.

Data for economic growth, poverty education, education and employment are primarily from the World Bank's World Development Indicators database, which compiles relevant, high-quality, and internationally comparable statistics about global development and the fight against poverty. The database contains 1,400 time series indicators for 217 economies and more than 40 country groups, with data for many indicators going back more than 50 years. The database can be accessed at: https://databank.worldbank.org/source/world-development-indicators.

Data for the first demographic dividend are from the National Transfer Accounts (NTA) project. The NTA data quantify how people at each age acquire and use economic resources to meet their current material needs, to share with others and to provide for the future. The basic NTA data consist of economic flows for one or more recent years measured in nominal terms in the currency of each country. The accounts are constructed to be consistent with National Accounts data. More information can be found at: https://ntaccounts.org/web/nta/show/Browse%20database.

FAO Angola-Cabiri Youth Center, 2014, Angola.
FAO/Liliane Kambirigi

WORLD

POPULATION

AGEING 2023

Chapter I

Major trends in LDCs and the demographic dividend

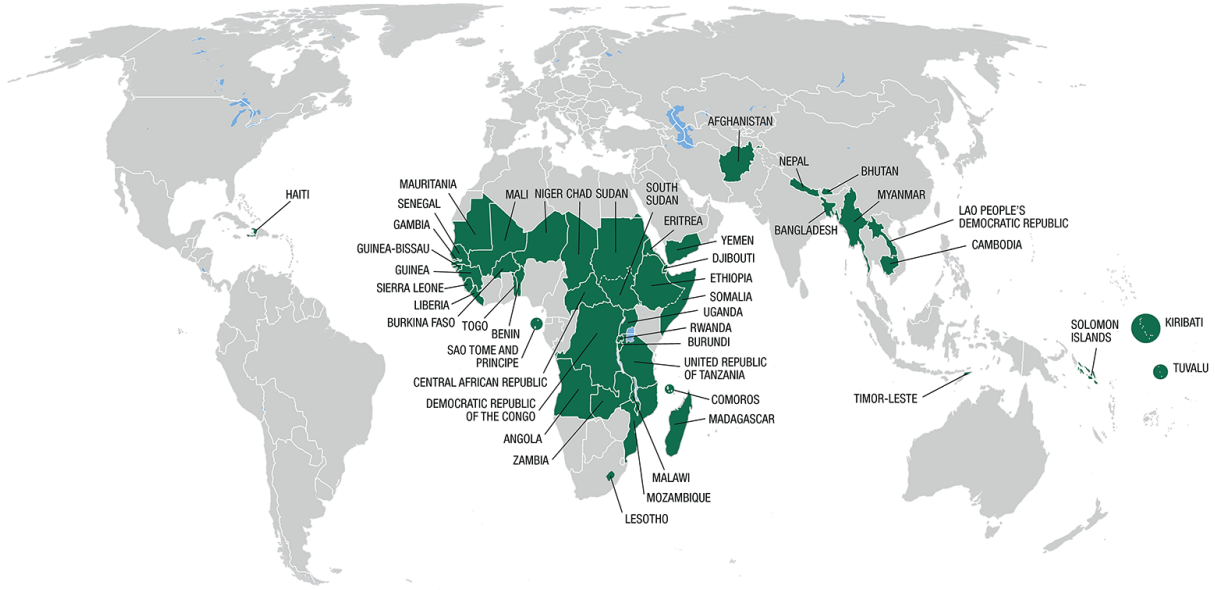
Chapter I. Major trends in LDCs and the demographic dividend

Overview of the LDCs

In 1971, the United Nations created the category of the LDCs to identify developing countries which have low levels of income and face severe structural impediments to sustainable development. Being included in the LDC category enables countries to benefit from exclusive international support measures in the areas of trade, development cooperation and participation in international organizations and processes (UN-OHRLLS, 2023).

As of 1 October 2023, there were 46 countries designated as LDCs by the United Nations, including 33 countries in Africa, 9 in Asia, 3 in Oceania and 1 in Latin America and the Caribbean (figure 1.1). In 2023, LDCs represent 14 per cent of the world's population but only 1.3 per cent of global GDP, with 40 per cent of the population in LDCs still living below the international poverty line (World Bank, 2023a). Benefiting from fast economic growth since the early 2000s – despite setbacks due to the COVID-19 pandemic – 16 countries are in various stages of the graduation process (UN-OHRLLS, 2023).

Figure 1.1
Least developed countries, 2023



Source: UN list of LDCs as of October 2023 (UNCTAD, 2023a). Available at: https://unctad.org/topic/least-developed-countries/list
Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

In this report, LDCs in Africa (and Haiti, the only LDC in the Latin America and the Caribbean region) are analysed separately from those in Asia and the Pacific due to considerations of geographic proximity as well as their respective levels of socioeconomic development and stages in the demographic transition.

High fertility and rapid population growth

The demographic transition is a universal phenomenon, characterized by a shift from high to low levels of mortality and fertility, occurring with varying timing and speed across countries. This transition has often been accompanied by fundamental economic and societal changes, such as industrialization, urbanization, improved health and educational outcomes and rising standards of living (Kirk, 1996; Dyson, 2004). The demographic transition can roughly be divided into early, intermediate and late stages, according to levels and paces of decline in mortality and fertility rates. For the present analysis, we consider that an early-transition country has a total fertility rate (TFR) that is higher than 4 births per woman[4] and a life expectancy at birth lower than 65 years, a mid-transition country has a TFR between 2.1 (the replacement level of fertility) and 4 births per woman and a life expectancy between 65 and 75 years, and a late-transition country has a TFR below 2.1 births per woman and a life expectancy of 75 years or higher (United Nations, 2021).[5] Early-transition countries are typically low-income countries, while a mid-transition country is more likely to be in the low- and lower-middle-income group (World Bank, 2016) and late-transition countries are generally upper-middle- and higher-income countries. Overall, there are 24 LDCs in the early-transition stage, 19 in the mid-transition stage, and only 3 (Bangladesh, Bhutan and Nepal) in the late stage (see table 1.1).

The pace of the demographic transition in most LDCs has generally been slower than in other developing countries (ODCs). Despite a fast decline in under-five mortality to an average level of 55 deaths per 1,000 live births in 2023, most LDCs still face challenges reducing infant and child mortality. At the time of writing in 2023, the average life expectancy at birth in LDCs is 65.6 years, almost 8 years lower than in ODCs, at 73.2 years, and almost 15 years lower than the 80.3 years seen in developed countries. Fertility, the main driver of the demographic transition, continues to be high in LDCs in spite of a one-third reduction from nearly 6 to 4 births per woman between 1990 and 2023, and is still almost twice the global average of 2.3 births per woman.

Most African LDCs are in the early-transition stage, while all Asia-Pacific LDCs, except Afghanistan, are in the mid-transition stage, with fertility in seven Asian countries near or below replacement level. Only 10 African LDCs have fertility rates below 4 births per woman. Fertility in sub-Saharan Africa did not start to drop until the late 1980s, and the pace of fertility decline has been slower than in many countries in Asia and Latin America and the Caribbean. This trend is closely associated with low levels of socioeconomic development, cultural factors and weak family-planning programmes (Bongaarts and Casterline, 2012; Bongaarts, 2020). Fertility decline slowed in many sub-Saharan African countries in the early 2000s (Schoumaker, 2019), due possibly to disruptions in women's education in the 1990s (Kebede, Goujon and Lutz, 2019). However, more recent surveys have reported resumed fertility declines in several countries in the region (The Economist, 2023).

[4] The TFR always refers to live births per woman over a lifetime.

[5] When there is inconsistency, the fertility level was given precedence over life expectancy in determining the appropriate classification of the stages of demographic transition (United Nations, 2021).

Table 1.1

LDCs by stage of demographic transition and fertility levels, 2023

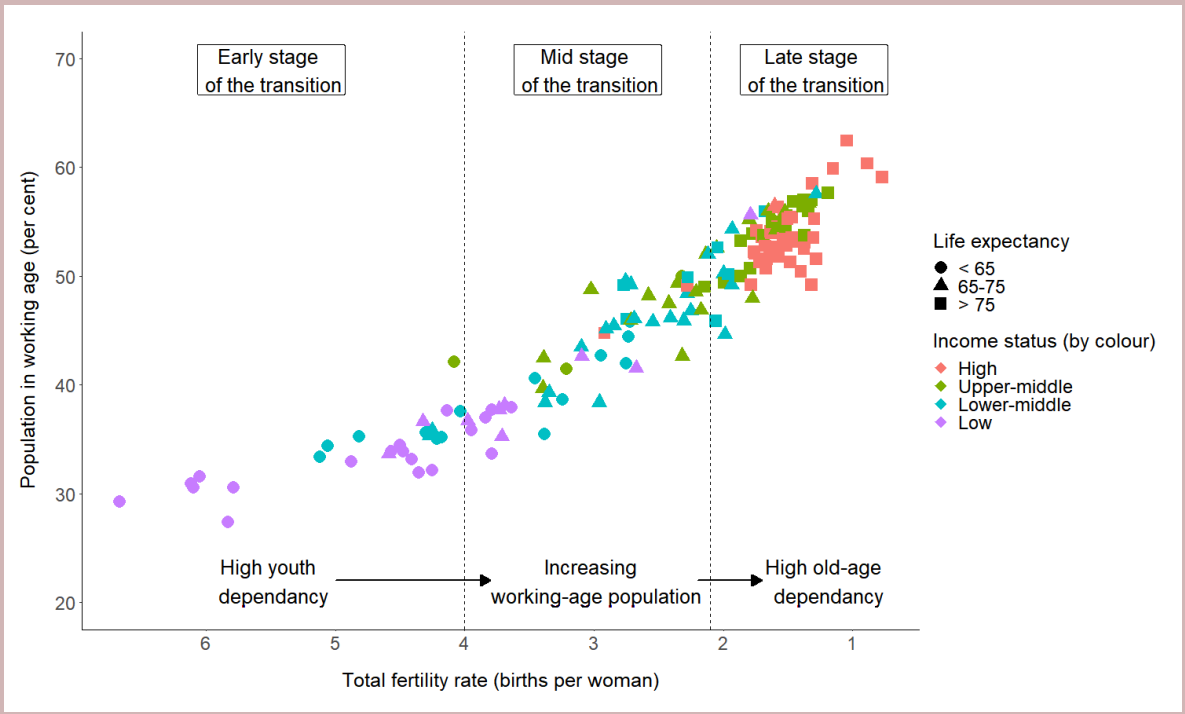
Countries at the early-transition stage (24)		*Countries at the mid-transition stage (22)*	
TFR >=5 births	**TFR between 4 and 5 births**	**TFR between 3 and 4 births**	**TFR between 2.1 and 3 births**
Niger	Senegal	Solomon Islands	Lesotho
Chad	Togo	Comoros	Haiti
Democratic Republic of the Congo	United Republic of Tanzania	Guinea-Bissau	Djibouti
Somalia	Sudan	Malawi	Lao People's Democratic Republic
Mali	Burundi	Sierra Leone	Cambodia
Benin	Mauritania	Madagascar	Myanmar
Central African Republic	Zambia	Eritrea	Nepal*
Angola	Burkina Faso	Rwanda	Bangladesh*
	Mozambique	Sao Tome and Principe	Bhutan*
	Guinea	Yemen	
	Liberia	Kiribati	
	South Sudan	Tuvalu	
	Afghanistan	Timor-Leste	
	Gambia		
	Ethiopia		
	Uganda		

Source: *World Population Prospects 2022* (United Nations, 2022b).
Note: Countries are ranked in order by TFR in 2023.
* Bangladesh, Bhutan and Nepal had below-replacement fertility, but still had life expectancy below 75 years in 2023. In this report, these 3 countries are presented together with the 19 countries/areas in the mid-transition stage.

Box 2
Changing age structure during the demographic transition

Figure 1.2 shows a close association between level of fertility, share of the working-age population, and income status and life expectancy across countries in 2023. Although it represents a cross-sectional relationship, it also illustrates the relationship between these variables as a country moves through different stages of the demographic transition. For example, a country in the early-transition stage that is characterized by a young age structure (youth-dependent), with high fertility and low life expectancy and rapid population growth, is most likely a low-income country. As fertility continues to decline, the share of the working-age population (25–64 years) gradually increases from below 30 per cent to around 35 per cent. As the country moves to the mid-transition stage with decreasing fertility and increasing life expectancy, which is most likely in low- and lower-middle-income status, the share of the working-age population increases from about 35 per cent to about 55 per cent. Although the demographic dividend period starts toward the end of the early-transition stage (when the share of the working-age population begins to grow), potential benefits for economic development and human capital improvement from the changing age structure are maximized during the mid-transition stage. Generally, the dividend period lasts for four to five decades and ends when the share of the working-age population begins to decline.

Figure 1.2
Changing age structure across the demographic transition, selected countries, 2023



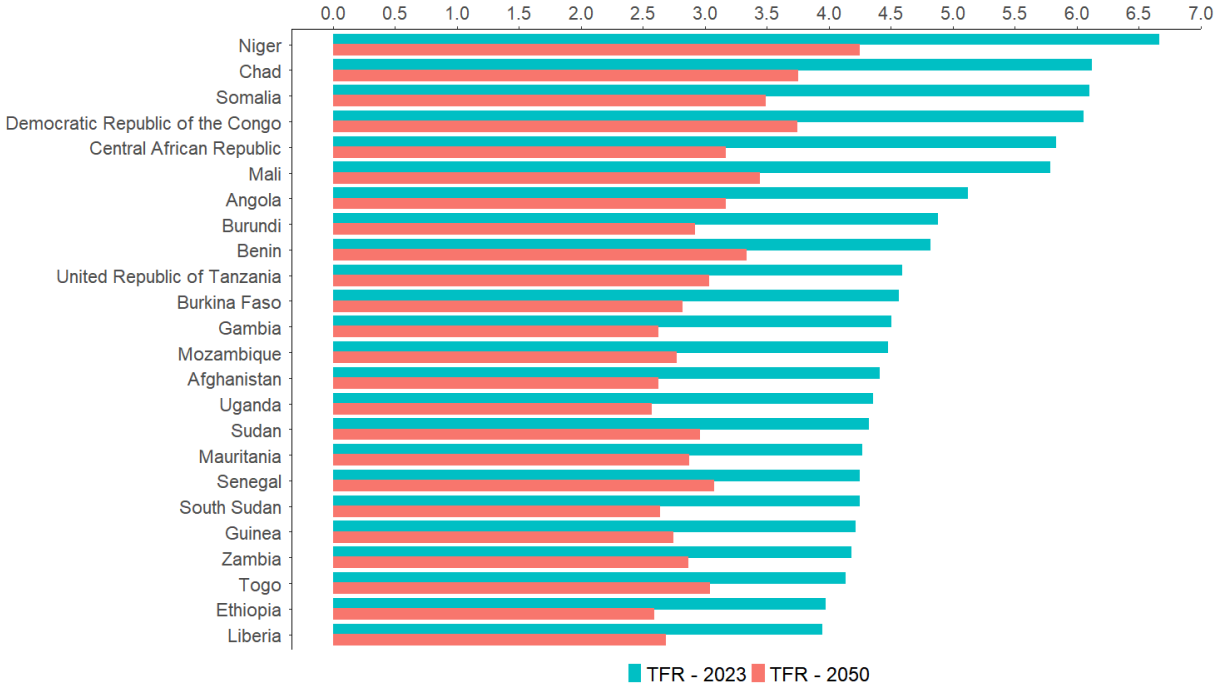
Source: World Population Prospects 2022 (United Nations, 2022b) and World Development Indicator Database (World Bank, 2023a).
Notes: 1) Data include 154 countries or areas with population of at least 1 million in 2023, excluding 6 Gulf countries with high levels of labour migrants, namely Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates; 2) In this report, working-age population refers to persons aged 25–64 years.

Figure 1.3 presents estimated and projected fertility levels for early-transition countries in 2023 and 2050. It is expected that all countries in this group will experience a fertility decline in the coming decades. The fertility rate of the four countries with fertility rates of over 6 births per woman, namely Chad, Democratic Republic of the Congo, Niger and Somalia, is expected to decrease to levels between 3.5 and 4.5 live births per woman by 2050. In Ethiopia

and Liberia, two countries with fertility just over 4.0 births in 2023, fertility levels are not expected to reach the replacement level of 2.1 births by 2050. As a result, all early-transition countries (except Niger) are projected to shift to the mid-transition stage, but none will enter the late stage before the end of the century.

The persistently high levels of fertility in most LDCs together with improved survival have resulted in rapid population growth. While the average annual population growth rate is already negative (-0.03 per cent) in developed countries and 0.75 per cent in ODCs, it was still 2.28 per cent in LDCs in 2023. If this growth rate remains constant, the population of LDCs will double in 30 years. In 2023, six countries – Angola, Chad, Democratic Republic of the Congo, Mali, Niger and Somalia – had population growth rates above 3 per cent, and 24 other LDCs had rates between 2 and 3 per cent. If these growth rates continue to remain constant, they will result in the doubling of these populations in around 35 and 23 years, respectively.

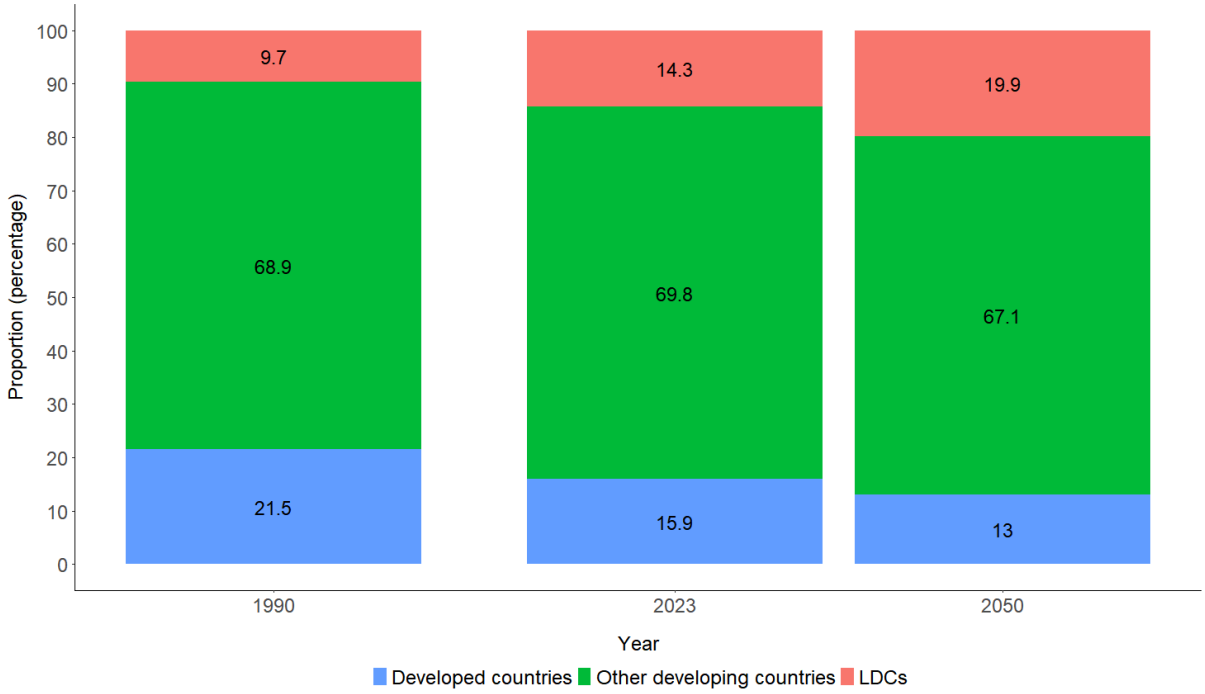
Figure 1.3
Total fertility rates of countries at the early stage of the demographic transition, 2023 and 2050



Source: World Population Prospects 2022 (United Nations, 2022b).

Between 2023 and 2050, the average annual population growth rate for LDCs is projected to decline to 1.53 per cent. In comparison, the projected average annual population growth rate at the global level will decline to 0.45 per cent. Since most LDCs still have fertility levels well above the replacement level, high fertility plus the impact of the population momentum will result in rapid population growth in LDCs well beyond 2050 (United Nations, 2021). In 1990, the population of LDCs represented just under 10 per cent of the world's population, but by 2023 this proportion had increased to 14 per cent. It is projected that this proportion will further increase to about one-fifth of the global population in 2050 (figure 1.4).

Figure 1.4
Proportion of the global population by development group, 1990, 2023 and 2050



Source: World Population Prospects 2022 (United Nations, 2022b).

The demographic dividend

The concept of the demographic dividend was introduced by Bloom, Canning and Sevilla (2003) in the context of examining the relationship between changing population age structures and economic growth during the demographic transition at global and regional levels. Their analysis drew on the experience of rapid economic growth in East Asian countries and Ireland while benefiting from a period of rising share of the working-age population produced by rapid fertility decline.

A virtuous relationship between changing age structure and economic growth was observed in East Asia from the 1960s to 1990s, including in the Republic of Korea, Singapore and Taiwan Province of China. With improved child survival and declined fertility, families had fewer children and governments could increase per capita investments in health and education, while women with fewer childbearing and child rearing responsibilities could participate in the labour force. Large investments by governments in human capital formation helped ensure a skilled labour supply, while export-oriented policies helped to produce strong labour demand that could absorb the increasing working-age population. As a result, more people were working and saving with rising living standards while these countries or areas enjoyed rapid economic growth (Bloom, Canning and Malaney, 2000; Mason, 2001).

The demographic dividend includes an "accounting" effect of the rise in per capita income from changes in the age structure, as well as "behavioural" effects from increasing productivity due to increased human capital formation and female labour force participation, among others (Bloom and Canning, 2008). This dividend is expected to be larger if fertility declines faster, since the dependency period is shorter as the proportion of dependents decreases quickly, freeing up resources to be invested in other sectors, such as health and education, that can further contribute to economic growth.

Lee and Mason (2006) further elaborated this concept with a distinction between the first and second demographic dividends. The first dividend is roughly equivalent to the accounting effect referred to above, while the second dividend refers to the effects of higher productivity arising from factors such as increased human capital, female labour force participation, rising savings and accumulation of assets, which support increased long-term and sustainable economic growth (Lee and Mason, 2010; 2011; Mason and others, 2017). The National Transfer Accounts (NTA) framework was developed to quantify these effects, using more refined measures of economic dependency based on effective consumers and producers, rather than simply the numbers of people in the various age ranges (United Nations, 2013). Under this framework, the first demographic dividend is defined as the growth rate of the economic support ratio (ESR), which is the ratio of effective producers to effective consumers (see also figures 1.5 & 1.6).[6] In this report, we use the NTA approach to define and measure the period of the first demographic dividend as the time during which the economic support ratio is rising. However, it is important to bear in mind that the total gain from the demographic dividend can be as much as triple that realized from only the accounting effect arising from the changing age structure (Canning, 2010).

The dividend period offers a window of opportunity rather than a guarantee of improved standards of living (Lee and Mason, 2006). The actual result is contingent upon how well a country does in providing quality employment for its growing labour force and making productive investments during its demographic transition. A first requirement, therefore, is the acceleration of the demographic transition, followed by policies to raise investments in education and health, economic reforms and job creation, and to promote good governance (Gribble and Bremner, 2012; AFIDEP and UNFPA, 2015). Further, a favourable global economic environment, peace and security, supplemented by sustained development assistance, technical cooperation and capacity-building support are also important. If not properly managed, the large share and rapidly increasing number of young people can lead to social and economic challenges (Canning, Raja and Yazbeck, 2015; Asafu-Adjaye and Brown, 2021).

The pace of fertility decline during the demographic transition determines how much of a demographic dividend a country can enjoy. Typically, fertility declines start slowly, pick up momentum when fertility reaches a level of around 4 to 5 births per woman, and then slow again as fertility levels reach or dip below replacement level. The share of the working-age population in an early-transition country is at its lowest point prior to the onset of fertility decline, but once the decline starts, it can progress quickly. As a result, the annual growth rate of the support ratio may be larger in countries at the initial stages of the demographic transition than in countries that are already further along in the process (Mason, 2005).

Figure 1.2 in Box 2 above clearly shows the connection between lower levels of fertility and higher shares of working-age population, together with higher life expectancy and income. Economic modelling demonstrates that fertility decline is closely associated with both the increase of investments in human capital and rising female labour force participation (Bloom and others, 2009; Lee and Mason, 2010). However, these changes fully materialize only after countries progress to the mid-transition stage, as fewer children enable both the government and households to make such choices. Conversely, a slow pace of fertility decline results in a correspondingly slow rise in the share of the working-age population. Large cohorts of children and youth make it extremely challenging for LDCs to invest in human capital while at the same time creating enough decent jobs for all, making it difficult for a country to take advantage of the demographic dividend (Canning, Raja and Yazbeck, 2015; Cleland and Machiyama, 2017).

The demographic dividend in LDCs

The analysis of the demographic dividend in LDCs presented here distinguishes those in Asia and the Pacific from those in sub-Saharan Africa (with Haiti, the only LDC country in the Caribbean, grouped together with African LDCs). NTA data (figures 1.6 and 1.7) show the economic support ratio (red line) and the first demographic dividend (blue

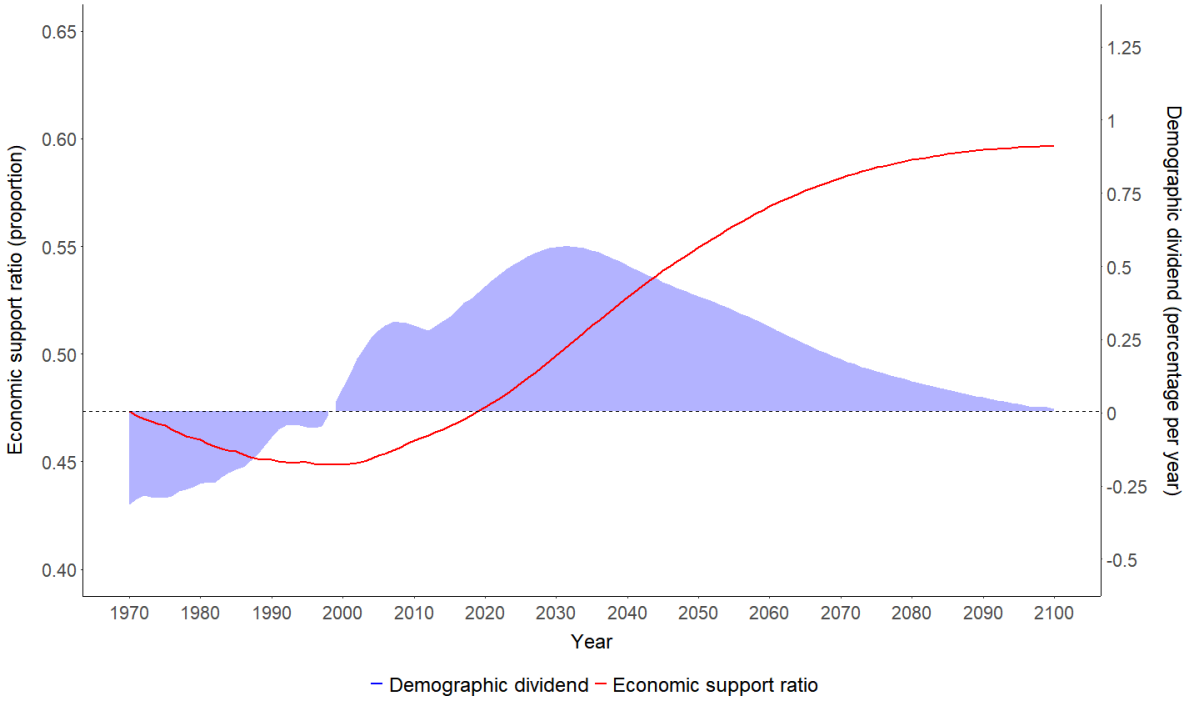
[6] Detailed information on the definitions of effective producers and effective consumers and the calculation of the economic support ratio can be found at the NTA manual (United Nations, 2013) and technical paper (Mason and others, 2017).

coloured area) for the two groups. In both cases, the first demographic dividend starts when the economic support ratio begins to rise and ends after it reaches a peak, decades later.

In the case of Africa and Haiti (figure 1.5), the demographic dividend starts around 2000, when the support ratio began to increase, and is expected to last until the end of the twenty-first century when the economic support ratio finally starts to fall, relatively late due to the relatively slow fertility decline.[7] The slowly but steadily rising economic support ratio thus remains below 0.6 until the end of the century. This demographic dividend is consequently rather small in terms of magnitude, with a maximum of around 0.6 per cent per cent per year through the end of the century. Such a slow demographic transition in sub-Saharan African countries with persistently high fertility may not generate a demographic dividend large enough to produce rapid socioeconomic progress (Cleland and Machiyama, 2017).

The second case, Asia and the Pacific (figure 1.6), is characterized by a shorter window of opportunity. Driven by a faster fertility decline, the dividend period lasts from the late 1980s through 2050 when the economic support ratio reaches its peak at 0.6. The demographic dividend reaches a maximum of 0.9 per cent per year, significantly higher than in the case of Africa and Haiti.

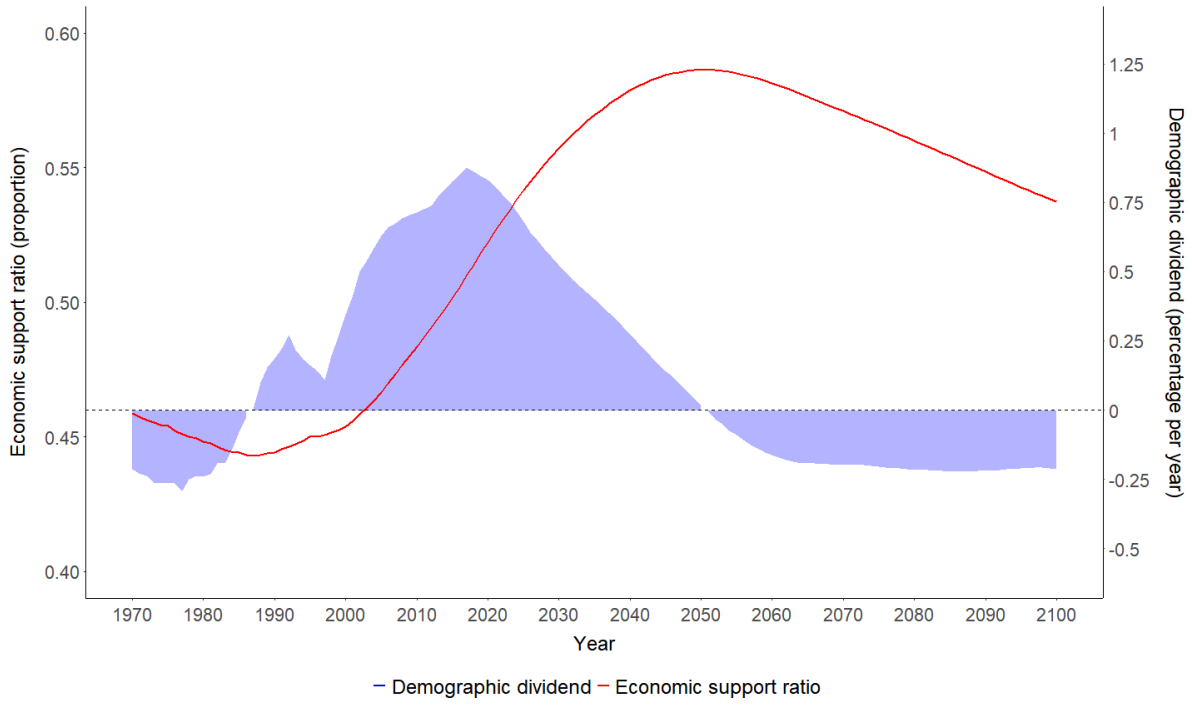
Figure 1.5
Economic support ratio (line, left scale) and first demographic dividend (area, right scale) for African LDCs and Haiti, 1970–2100



Source: National Transfer Accounts (NTA) database (NTA, 2023).
Note: The dashed line indicates the zero value for the demographic dividend (see right scale). The demographic dividend values are the annual rates of change of the economic support ratio (percentage per year). These values are positive when the support ratio rises. The area above the dashed line represents the total size of the gain during the first dividend period.

[7] Caution in interpretation is required as the projection of the economic support ratio involves a number of strong assumptions (Mason and others, 2017). These estimates are presented primarily for the purpose to illustrative future possibilities.

Figure 1.6
Economic support ratio (line, left scale) and first dividend (area, right scale) for Asia-Pacific LDCs, 1970–2100



Source: National Transfer Accounts (NTA) database (NTA, 2023).
Note: The dashed line indicates the zero value for the demographic dividend (see right scale). The demographic dividend values are the annual rates of change of the economic support ratio (percentage per year). These values are positive when the support ratio rises. The area above the dashed line represents the total size of the gain during the first dividend period.

This report focuses mainly on the first demographic dividend, characterized by a decline in the economic dependency ratio[8] and increased opportunities for investment in human capital and development. However, the second demographic dividend, which represents an additional potential for accelerated economic growth, is also important for a country's economic development. While the first demographic dividend lasts for several decades, the second demographic dividend has a wider window of opportunity. The first dividend requires policies focused on improving child and maternal health, and most critically, expanding access to family planning for couples to effectively control their fertility in accordance with their preferred number and spacing of children, whereas the second dividend shifts to harnessing the potential of the working population through enhanced productivity and increased retirement savings leading to increased economic growth.

Changing age structures, human capital formation and job creation

With rapid population growth, LDCs are expected to have expanding school-age populations in the coming decades. It is projected that the population aged 6–11 years, corresponding to children in primary education, and 12–17 years, corresponding to those in secondary education, will increase from 171 and 153 million in 2023 to 235 and 223 million in 2050, respectively. LDCs have made significant progress in school enrolment of children and youth, especially in primary education, but still have significantly lower rates than the global average, in secondary education enrolment.

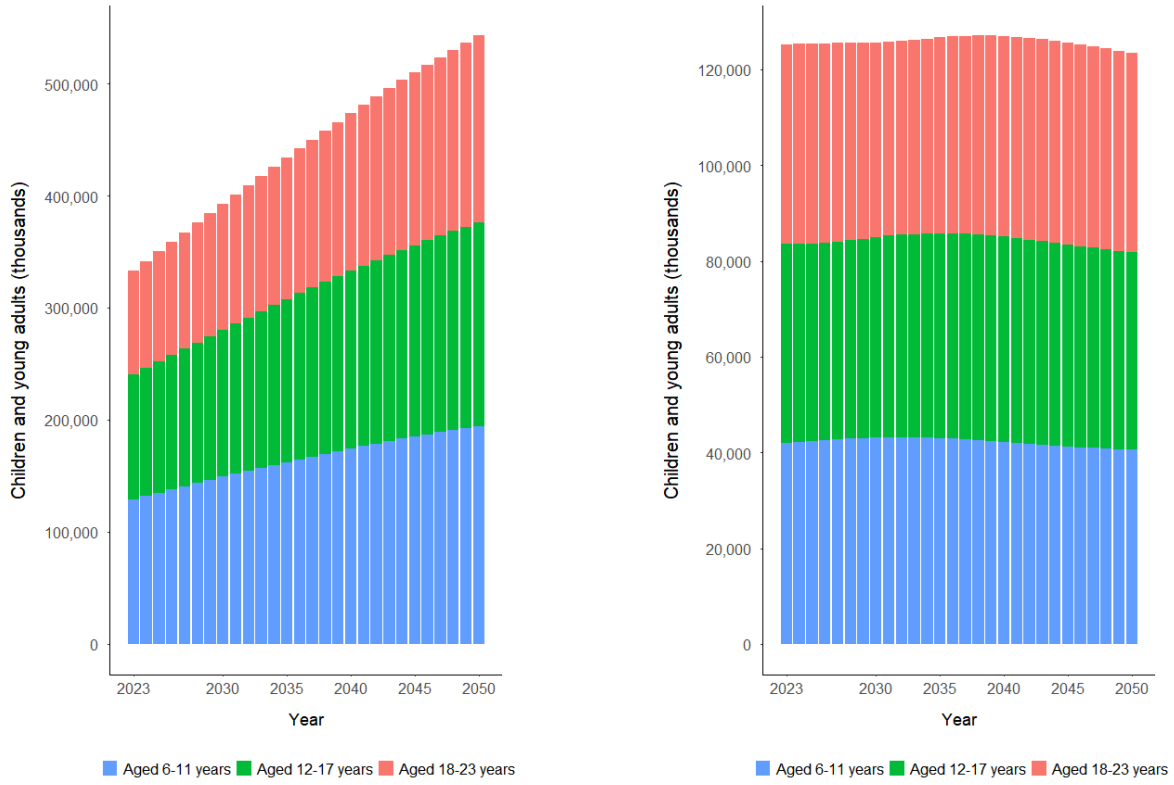
[8] A decline in the economic dependency ratio is arithmetically equivalent to an increase in the economic support ratio, which defines the first demographic dividend.

The latest available statistics for 2018 suggest that the net enrolment rates for primary and secondary education in LDCs were 81 and 38 per cent, respectively (World Bank, 2023a). It is estimated that about 95 million young people aged 12–17 years in LDCs were not enrolled in secondary education in 2023. If the estimated net enrolment rate of 38 per cent in 2018 was kept constant, about 138 million young people would not be enrolled in secondary education in 2050.

LDCs in Africa and Haiti and those in Asia and the Pacific face different challenges regarding education: with high fertility in most African LDCs, the school-age population from primary through tertiary education is expected to continue to grow through 2050. As a result, Governments will encounter more pressure to enhance investment in human capital formation, not only in terms of raising enrolment rates, but also in improved educational attainment (United Nations, 2023a). With lower fertility levels but large cohort sizes resulting from the population momentum, Asia-Pacific LDCs should be able to maintain a stable school-age population, allowing to devote more effort to improving the quality of education.

Governments in LDCs need to take exceptional measures to raise the enrolment rate for secondary education to achieve SDG target 4.1 and to ensure that all children and young adults complete quality primary and secondary education.

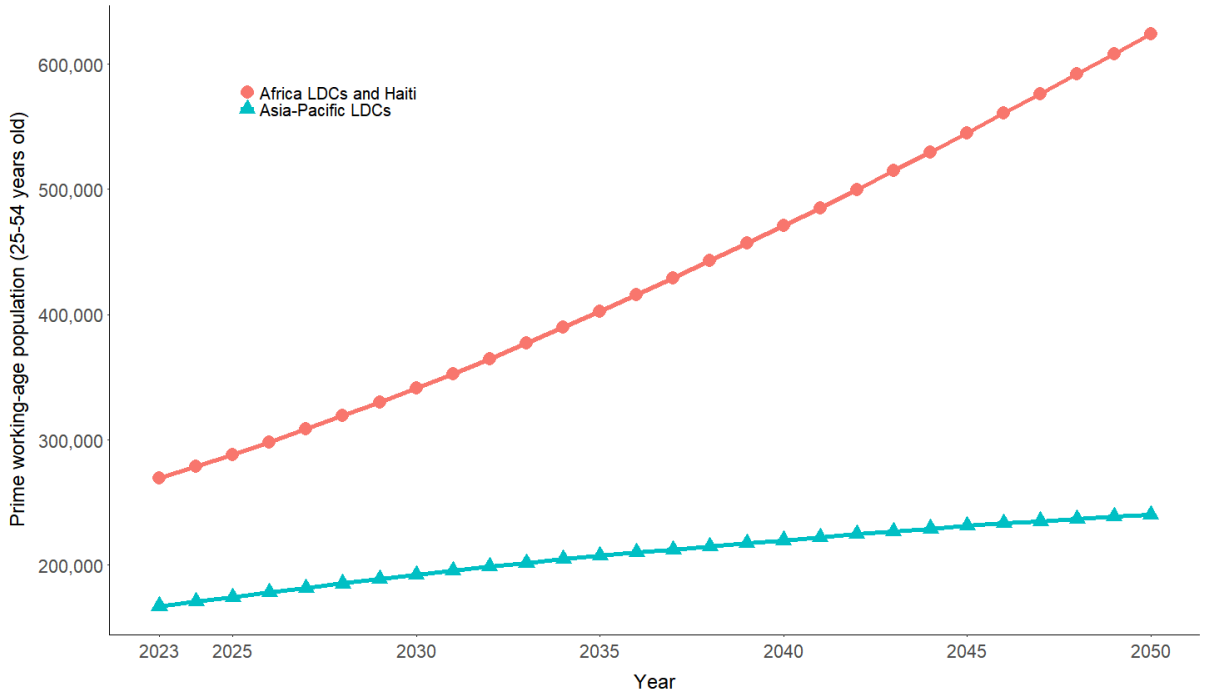
Figure 1.7
Projected school-age population in Africa LDCs and Haiti (left panel) and Asia-Pacific LDCs (right panel), 2023–2050



Source: World Population Prospects 2022 (United Nations, 2022b).
Note: The two figures use different scales and are not intended for direct comparison.

All LDCs are challenged with creating productive and decent employment for all as part of the global commitment to achieve the SDGs by 2030. In 2021, the employment-to-population ratio (15+) in LDCs was 61 per cent, with employment in agriculture representing 60 per cent of all employment (World Bank, 2023a). In coming decades, LDCs will not only need to create more jobs to accommodate the increasing working-age population but will also need to create more decent jobs and reduce the share of people working in the informal economy and subsistence farming. The working-age population (aged 25–64 years) in African LDCs and Haiti will more than double from 2023 to 2050, while Asia-Pacific LDCs expect only an increase of one-third (figure 1.9).

Figure 1.8
Projected number of working-age population in Africa LDCs and Haiti and Asia-Pacific LDCs, 2023–2050



Source: World Population Prospects 2022 (United Nations, 2022b).

WORLD

POPULATION

AGEING 2023

Chapter II

Population ageing: Levels and trends to 2050 and beyond

Chapter II. Population ageing: Levels and trends to 2050 and beyond

Issues of measurement of population ageing in LDCs

Population ageing, meaning a shift in a population's age distribution towards older ages, represents the third stage of the demographic transition. For the purposes of this report, as in other publications of the Population Division, older persons are defined as persons aged 65 years or over. The proportion of older persons in most LDCs is small compared to other development groups, but in countries with large populations, such as Bangladesh, Democratic Republic of the Congo, Ethiopia, Myanmar and United Republic of Tanzania, with populations over 50 million in 2023, even a small proportion represents a large absolute number of older persons.

Despite increasing uncertainties for long-term projections (box 3), this report touches briefly on the trends of population ageing in both Asia-Pacific LDCs and Africa LDCs and Haiti between 2050 and 2100. Even though the uncertainty of any forecast is larger the longer the projection horizon, the people who will be aged 65 years and over by mid-century in the LDCs were already born before 2023, meaning that the uncertainty for ageing trends between 2050 and 2100 is somewhat lower for this group.

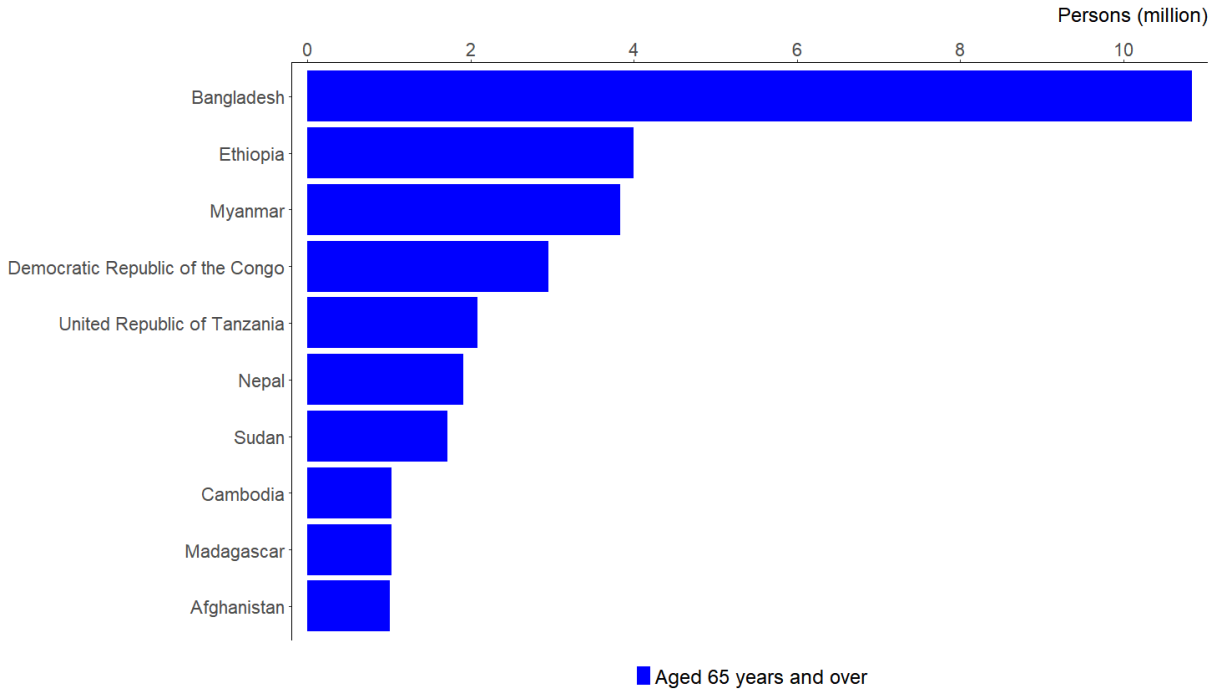
Current levels of population ageing

As of 2023, the proportion of persons aged 65 years and over in LDCs was just under 4 per cent, significantly lower than 20 per cent in developed countries and nearly 9 per cent in ODCs. However, there are significant regional variations, as Asia-Pacific LDCs in the mid-transition stage in general report higher proportions of older persons. For example, the proportions of the older population in Bangladesh, Bhutan, Cambodia, Myanmar, Nepal, Timor-Leste and Tuvalu are between 5 and 7 per cent.

An estimated half of the population in LDCs was under 20 years of age in 2023, whereas half the population is over 30 years old in ODCs and over 40 in developed countries. Several Asian LDCs also have a high median age, such as Bhutan and Myanmar, where it is close to 30 years.

High fertility and rapid population growth in the past are responsible for a relatively large number of older persons in many LDCs, such that there were 10 LDCs with more than 1 million persons aged 65 years and over and another 10 with between 0.5 and 1 million as of 2023. Figure 2.1 presents the 10 LDCs with over 1 million older persons, with 5 of them (Bangladesh, Democratic Republic of the Congo, Ethiopia, Myanmar and United Republic of Tanzania) having over 2 million older persons.

Figure 2.1
Ten LDC countries by number of persons aged 65 years and over, 2023



Source: World Population Prospects 2022 (United Nations, 2022b).

Trends of population ageing by mid-century

Globally, all regions and areas are experiencing population ageing and will continue to do so over the next several decades. Developed countries are expected to move to a more advanced stage of population ageing, with the proportion of older persons rising from 20 per cent in 2023 to 28 per cent in 2050. For ODCs, this proportion also rises from 9 to 17 per cent. LDCs, while still at a lower level, are expected to experience a more rapid increase of about 180 per cent – from nearly 4 per cent to over 6 per cent – during this period (table 2.1). Although in 2023 no LDC had a share of older population over 10 per cent, six LDCs are expected to reach this share by 2050.

The number of older persons aged 65 years and over in LDCs will increase at a more rapid pace compared to other developing countries. From 2023 to 2050, the total number of older people in LDCs is expected to almost triple while it will more than double in ODCs.

Table 2.1
Number (in thousands) and proportion of persons aged 65 years and over by development group, 2023 and 2050

Region/year	*2023*		*2050*	
	Number	*Percentage*	*Number*	*Percentage*
Developed countries	258,311	20.2	351,500	27.8
ODCs	506,841	9.0	1,132,877	17.4
LDCs	42,637	3.7	118,566	6.1

Source: World Population Prospects 2022 (United Nations, 2022b).

In 2023, Bangladesh was the only country with over 10 million older persons (figure 2.1), and by 2050 Ethiopia will also reach this threshold. The number of countries with between 1 and 10 million older persons is expected to rapidly increase from 9 to 25 by 2050. In 2023, no LDCs had a median age over 30 years, while nine are expected to by 2050.

Table 2.2
Number of countries with over 0.5 million persons aged 65 years and older, 2023 and 2050

Older persons aged 65 years and over	*2023*	*2050*
0.5-1 million	10	4
1-10 million	9	25
10 million and over	1	2
Total	**20**	**31**

Source: World Population Prospects 2022 (United Nations, 2022b).

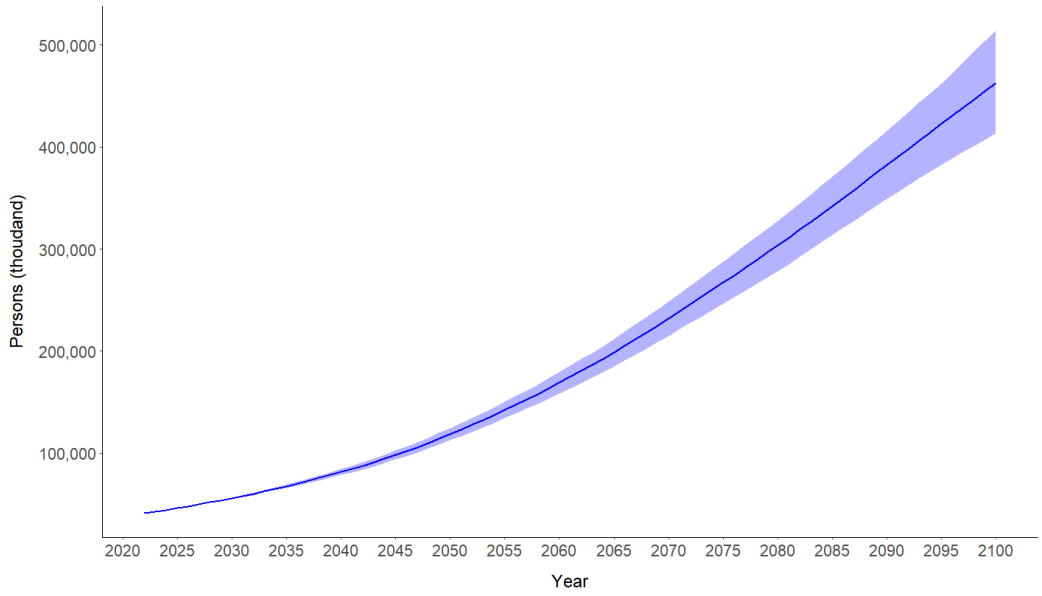
As in both developed countries and ODCs, in LDCs, the proportion of older women is expected to increase faster than that of older men, from 4 to 7 per cent and from 3 to 5 per cent between 2023 and 2050, respectively.

Accelerated population ageing in LDCs beyond 2050

It is expected that the pace of population ageing in all LDCs will accelerate after 2050, although caution is required in interpreting the results of long-term projections because of increasing uncertainty (box 3). Figures 2.2 and 2.3 present the projected numbers and proportions of older persons from 2022 to 2100 with 95 per cent prediction intervals for all LDCs. As shown in both figures, between 2022 and 2050, the 95 per cent prediction intervals are quite narrow for both numbers and proportions of older persons. This is because these people are already born and are benefitting from global increases in life expectancy.

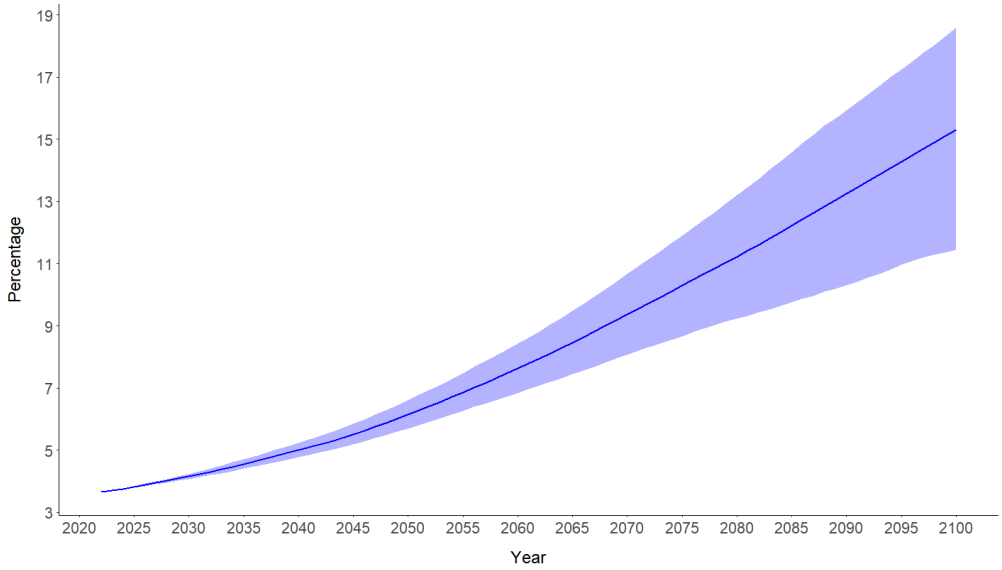
Based on the medium variant of the projections in World Population Prospects 2022, in African LDCs and Haiti, the number of older persons is expected to rapidly increase by more than 400 per cent from 63 million to 340 million. In Asia-Pacific LDCs, the number is expected to more than double from 55 million to 122 million. In terms of proportion, African LDCs and Haiti will see an increase from 4 per cent to 14 per cent, while Asia-Pacific LDCs will witness a more than doubling from 12 per cent to 25 percent (United Nations, 2022b). Despite inherent and increasing uncertainties of long-term population projections, these figures clearly illustrate the accelerated pace of population ageing in both groupings of LDCs.

Figure 2.2
Projected number of persons aged 65 years and over with 95 per cent prediction intervals in LDCs as a whole, 2022-2100



Source: World Population Prospects 2022 (United Nations, 2022b).

Figure 2.3
Projected proportions of persons aged 65 years and over with 95 per cent prediction intervals in LDCs as a whole, 2022-2100



Source: World Population Prospects 2022 (United Nations, 2022b).

Box 3
Uncertainties for long-term population projections

The medium scenario of United Nations population projections can be interpreted as the most likely future trend among the various projections presented in World Population Prospects 2022 (United Nations, 2022b). This corresponds to the median of several thousand simulated future trends, each one based on distinct trajectories of fertility and mortality for individual countries and areas.

The predictive model was derived from a probabilistic analysis of the variability of observed changes over time in levels of fertility and mortality. Since these models have been calibrated using historical data on trends in fertility and mortality, an implicit assumption that underlies the medium projection is that the pace of change in these variables will be similar in the future to what it has been in the past. The prediction intervals reflect the spread in the distribution of the simulated population trajectories and thus provide an assessment of the magnitude of the uncertainty inherent in the medium projection.

As fertility is the most important determinant of future population trends, uncertainty around the number of births in populous high-fertility countries is a major source of the uncertainty inherent in these projections. A continued improvement in survival in all countries is assumed for the long-term mortality trends, which has been informed by historic trends in average and extreme longevity. In addition to the medium scenario, and probabilistic 80 per cent and 90 per cent prediction intervals, the United Nations publishes detailed results for nine other projection scenarios. More information can be found at https://population.un.org/wpp/.

WORLD

POPULATION

AGEING 2023

Chapter III

Country case studies: Angola, Rwanda and Bangladesh

Chapter III. Country case studies: Angola, Rwanda and Bangladesh

This chapter includes country case studies on Angola, Rwanda and Bangladesh, which were selected based on their geographic location, stage of the demographic transition – with Angola at an early stage, Rwanda at a middle stage and Bangladesh at a late stage of the transition – challenges associated with population ageing and prospects to harness the demographic dividend. All three countries have made considerable strides in economic and social development since independence, but all are still challenged by high poverty and inequality, low levels of education, limited health care systems and a need to diversify their economy. To finance their education, social and health care systems, the three countries often depend on ODA or on payments by their users. Further, domestic budgets are strained by weak governance structures and foreign debt that reduces the resources available to advance education, health and economic development. Multiple global crises from the COVID-19 pandemic to the war in Ukraine, the impacts of climate change on agriculture and food production and geo-political tensions at the global and regional levels will continue to dampen their prosperity.

The case studies include a review of country-specific demographic, economic, social, cultural and historic contexts to assess challenges and opportunities that may be encountered in anticipating and preparing for the inevitable population ageing in each country.

Angola

Background

Following its independence from Portugal in 1975, Angola faced a devastating 27-year civil war that inflicted severe damage on the nation. By the time peace accords were signed in 2002, much of the country lay in ruins. The conflict resulted in an estimated 500,000 casualties and the internal displacement of around one million people. Additionally, famine and disease claimed the lives of another estimated half million individuals (Britannica, 2023a). The war's impact extended beyond the loss of lives, as it extensively damaged Angola's social, health, and civil infrastructure. This destruction disrupted critical services, including transportation, education, and healthcare.

With independence, there was a large exodus of skilled Portuguese workers and, because of rather limited local educational systems and formal job opportunities available during colonial times, few Angolans were able to take their place. The resulting loss of capital and skills had an immediate negative impact on economic development.

The combination of post-independence economic reorganization and warfare caused a virtual economic collapse, and food production reached such low levels that food was either imported or provided by foreign aid and humanitarian sources, as famine or near-famine conditions prevailed in much of the country from the mid-1980s until after the end of the civil war in 2002. The resumption of agricultural production after the civil war was complicated by the thousands of land mines that were strewn throughout the country during the conflict.

Angola has been producing oil since 1955 and is the second largest oil exporter in Africa behind Nigeria. Revenue from the petroleum industry has enabled the country to reach lower-middle-income status according to the World Bank classification in 2015 (Britannica, 2023a; AfDB, 2023). Angola was designated as an LDC by the United Nations in 1994.[9] The country remains one of the most unequal societies in the region and has only to a limited extent been able to diversify its economy and transform its oil wealth into a higher living standard for its people. Most of

[9] Angola was designated to graduate from the LDC category in 2021, but the United Nations General Assembly has adopted a resolution to provide Angola with an additional preparatory period of three years before its effective date of graduation.

the population lives in poverty and many support themselves as subsistence farmers. The economic and health crisis caused by the COVID-19 pandemic, aggravated by a fall in the oil prices upon which the Angolan economy is dependent, has hampered further progress.

If predictions hold, Angola will run out of oil by 2030, raising pressure on the country to steer away from oil dependency towards diversifying its economy. To continue to prosper, the country needs to improve its public service institutions and strengthen governance structures to mobilize domestic resources and to attract foreign investments that are essential to advance development.[10]

Today, Angola is a member of various regional bodies, such as the Southern African Development Community (SADC), the Economic Community of Central African States (ECCAS), the International Conference for the Great Lakes Region (ICGLR), the Community of Portuguese-Speaking Countries (CPLP), the African Union (AU) and the Gulf of Guinea Council (GGC), as well as of the WTO and OPEC.

Economic development

Between the end of the civil war in 2002 and 2014, Angola's economy experienced accelerated economic growth in terms of GDP per capita. The economy's heavy reliance on oil production and exports caused economic growth to slow down and turn into a continued recession from mid-2014 to early 2016,[11] when the world experienced one of the biggest drops in oil prices (around 70 per cent) in modern history. Negative growth rates persisted until 2020, when the impact of the COVID-19 pandemic and the drop in oil prices reduced government revenues considerably and strained domestic resources for education and health, and led to the suspension of construction and maintenance projects including road maintenance and electricity infrastructure.[12]

The country's economic performance was further negatively impacted by high inflation and growing public debt (Angola's debt to GDP ratio was estimated at 130 per cent at the start of 2021) (IMF, 2023). According to the latest national budget figures, most of the budgeted expenditure (53 per cent) is allocated to debt servicing, while another 21 per cent is devoted to the military and the national police force, leaving only a quarter of the national budget for the social and health sectors (18 per cent) and economic development (7.4 percent) (Bertelsmann Stiftung, 2022).

While the country continues to rely heavily on the oil exports that account for more than one third (38.3 per cent) of its GDP, Angola has continued to undertake efforts to diversify its economy by investing in agriculture, which has continued to absorb the majority of the country's workforce. An estimated 70 per cent of the economically active population in rural areas is employed in subsistence agriculture, although this only contributes 7.5 percent of GDP (UNFPA, 2023). Other non-oil sectors, such as the service sector, need to be expanded to reduce vulnerabilities from the dependence on the rather volatile oil industry.

Climate impacts through 2060 are predicted to take a heavy toll on the Angolan economy and its people, and without adaptation measures, Angola's gross domestic product (GDP) could be reduced by up to 6 per cent by 2050. Therefore, it will be critical for Angola to use revenue from its remaining oil wealth to invest in climate resilience and intensify efforts to diversify its economy (World Bank, 2022a).

[10] According to the World Bank (2023b), much remains to be done to achieve this transformation. Reforms over the past years have improved macroeconomic management and public sector governance. Corruption is, however, still widespread in Angola. The assessment of corruption based on the Transparency International Corruption Perception Index gave Angola a score of 33 on a scale from 0 (highly corrupt) to 100 (very clean). The country is currently ranked 116 among the 180 countries in the Index, in which the country ranked first is perceived to have the most honest public sector (Transparency International, 2023).

[11] See the World Bank Blog by Marc, Baffes and Vorisek (2018).

[12] Less than half the population (47 per cent) has access to electricity in 2020 (World Bank, 2023a).

Education and employment

Education

Angola's education system was severely affected by the civil war, which partly accounts for its current state of underdevelopment. Recent information on school enrolment and education is difficult to find. According to the latest available data (from 2014), 78 per cent of eligible children were enrolled in primary education, although only 44 per cent of the students completed their education – 33 per cent of girls and 56 per cent of boys. Far fewer students were enrolled in in secondary education, 11 per cent in 2010, of whom only 18 per cent complete their education – 22 per cent of young men and 17 per cent of young women. In addition to gender disparities, gaps in education exist between urban and rural youth as well as between poorer and more affluent segments of society. (Bertelsmann Stiftung, 2022).

Even those who complete their schooling receive an education of limited quality. Given that education in public schools is free, schools are often oversubscribed and understaffed, and teachers are insufficiently qualified as primary school teachers have often only completed secondary education themselves. Families with the necessary resources send their children to private schools that offer expensive degrees of varying quality. There is limited space available in the few public universities in the country and doctoral studies need to be pursued abroad.

Government expenditures on education are currently 2.5 per cent of GDP, insufficient for the success of a major education reform initiative the Government has embarked on to improve the quality and relevance of education in producing a skilled and globally competitive workforce.

Employment

With skill levels low among workers domestically, companies continue to hire higher-skilled workers from abroad. The consequence of continued concentration on the oil and gas sector with limited and even decreased labour demands is that available jobs are in lower value-added sectors, such as agriculture, commerce and hospitality, that offer neither a contract nor benefits. Most people are self-employed, and many firms are small and highly informal with limited scope for hiring.

According to the ILO (2023a), the informal economy represents 79 per cent of the economically active population, with a larger share of women (88 per cent) than men (71 per cent). Informal employment accounts for 95 per cent of employment in rural areas, and even in urban areas, 65 per cent of the population work in the informal sector.

This continued challenge to create the number and quality of jobs needed to employ the growing cohorts of young people limits the country's future economic growth and stability. According to the World Bank, an estimated 3.5 million new jobs were created between 2009 and 2019, of which 2.7 million were in the low-paying agriculture and commerce sectors (World Bank, 2023c).

To create enough jobs for its rapidly growing labour force, ensure long term economic growth, lift people out of poverty and reduce inequality, high quality jobs, not limited to the oil and gas sector, subsistence agriculture or temporary construction jobs, are required.

Social dimensions of development

Since the civil war, the Government of Angola has focused on reconstruction and development efforts, including measures to improve healthcare, education and social services. However, despite the accelerated economic growth following the end of the civil war, limited progress has been made in the main areas of development such as education, job creation and health. Inequalities continue to persist with a Gini coefficient of 51.3 in 2018 (World

Bank, 2023a) and the share of the population living in poverty has more than doubled in the 10 years between 2008 (15 percent) and 2018 (32 per cent) with half the employed population living on less than $2.15 per day as of 2023.[13] Poverty is higher in rural areas than in urban areas, with 53 per cent of the rural population but only 17 per cent of the urban population living in poverty. Poverty is heavily prevalent among the young but also affects older persons and people of working age.

With only a rather small share of the population employed in jobs that offer benefits, the compulsory social security system only covers a minority of the employed population (11 per cent of the working population 15–60 years of age) (ILO, 2023b). Further, public expenditures on social protection are rather minimal at 2 per cent of GDP in 2017, and social security programs[14] are scarce and cover only 5 per cent of the poor (ILO, 2023b).

A study of pension systems in sub-Saharan Africa (Nyang`oro and Njenga, 2022) shows that pension schemes in the region provide low coverage, since pension systems are contributory and focus mainly on formal sector employees, excluding the large numbers of workers in the informal sector. According to this study, only an estimated 14.5 per cent of the older population received pension payments in Angola in 2017.

Even those who do receive a pension are often unable to sustain themselves because actual benefits tend to be far lower than income levels at retirement, increasing vulnerability among older persons even among those who do receive pension benefits. As there is no social assistance programme aimed at older persons (ILO, 2018a), most older individuals depend on continued work in the informal sector – mostly subsistence agriculture – and support from their extended families.

With household and living arrangements in sub-Saharan Africa following global trends of declining household and family sizes (United Nations, 2022c), less support from extended family networks can be expected in the future. Therefore, there is a need to address social security and protection mechanisms and to reform existing pension schemes to ensure coverage for the large share of the population in the informal sector and secure a minimum income for all.

General health conditions, sexual and reproductive health and family planning

Angola continues to be vulnerable to infectious diseases, such as yellow fever, malaria, cholera and Zika virus outbreaks that overload health services and threaten the life and health of the country's citizens. Communicable diseases account for more than 50 per cent of deaths recorded. Despite some progress since 2000 in various areas of health care by Angola's National Health System (NHS), which provides free primary health care, infant, child and maternal mortality remain among the highest in the world (WHO, 2018). The maternal mortality ratio is 222 per 100,000 live births, while the infant and child mortality rates are 50.4 and 72.1 per 100,000 live births in 2020, respectively,[15] and only half of births are attended by a skilled health-care professional (United Nations, 2023b). Currently, universal health coverage is a low 39 on a scale from 0 meaning "no health coverage" to 100 meaning "full health care coverage".

The needs and problems that continue to be encountered by the NHS cannot be addressed with the limited resources dedicated to health care (only 2.5 per cent of GDP was spent on health care in 2019), leading to a shortage of healthcare facilities, medical equipment and health care service providers, particularly in rural areas. Further, limited

[13] UNSDG database (United Nations, 2023), accessed on 8 Sept 2023.

[14] The Basic Law on Social Protection (Law 7/04 of October 15, 2004), is the main social protection policy in Angola, providing the first legal framework to organize the sector. This legislation structures the social protection system in three levels: basic social protection; compulsory social protection; and complementary social protection. These last two, based on the premise of social insurance, are associated with employment and financed by the contributions of workers and their employers (ILO, 2023b).

[15] The under-five mortality rate declined rapidly from 255 deaths per 1,000 live births in 1975 to 210 deaths by 2002 and to 69 deaths in 2023 (United Nations, 2022b).

access to safe drinking water continues to strain the health of the population. Only slightly more than half of the country's population (57.2 per cent) had access to safe drinking water as of 2020 (United Nations, 2023b), with considerable differences between the urban (71.7 per cent) and rural (27.8 per cent) populations.

Population policies and family planning

The history of population policies and family planning in Angola only began after the end of the civil war in 2002, when the government, in collaboration with international organizations, started to implement family planning policies comparable to those in other sub-Saharan countries (LeRoy, 2022). The Government has not yet included sexual education in their population programs, apparently fearing backlash from conservative religious groups that continue to support traditional gender roles that often limit women's control over their own decisions.

Key indicators on sexual and reproductive health, including fertility and family planning show that, while progress has been achieved, challenges remain. Available data on sexual and reproductive health (United Nations, 2023) highlight the country's continued struggle with providing access to family planning, prenatal care and safe delivery services. Maternal mortality rates are among the highest in the world (see above), use of modern contraception is still low with only 29.8 per cent of women ages 15–49 having their need for family planning satisfied with modern methods, and early marriages are frequent with 30.3 per cent of women aged 20–24 years being married before age 18 as of 2016. Teenage pregnancies are among the highest worldwide – 10.7 births per 1,000 girls aged 10–14 and 162 births per 1,000 young women aged 15–19 in 2014[16] – posing high risks to the health and survival of young mothers and their babies. Further, the significant prevalence of HIV/AIDS continues to be a matter of concern, with HIV incidence at 1.3 per 1,000 people aged 15 years and over (WHO, 2021).

While the government, supported by international organizations, is working to improve sexual and reproductive healthcare, cultural beliefs and societal norms continue to play a significant role in shaping attitudes towards gender roles as well as sexual and reproductive health and related care in the country (LeRoy, 2022).

Population levels and trends and population ageing

In 1975, when the country gained independence, 7 million people lived in Angola. Twenty-seven years later in 2002, at the end of the civil war, the total population had more than doubled to 16.3 million. The population has continued its rapid growth and has more than doubled over the last 20 years to reach 37 million in 2023. In 2030, the year by which the world has pledged to achieve the SDGs, Angola will be home to an estimated 45 million people, and in 2050, the country's population is estimated to grow by another 26 million to 72.3 million people, almost double its current size in 2023.

This rapid population growth, currently 3 per cent annually, one of the highest on the continent, is mainly driven by the country's persistent high fertility (TFR 5.1 in 2023). The TFR has only declined marginally, from 7.5 births per woman in 1975 to 6.6 births in 2002 and to 5.1 births today. Fertility is expected to remain above the replacement level (2.1 births per woman) through almost the end of the century. Early marriage and high adolescent fertility as well as low use of contraceptives (see above) continue to constitute the key drivers of high fertility among Angolan women.

Angola's age structure will continue to be youthful, with at least half the population under 25 years of age, at least until 2050. It is important to remain aware of the rapid increase in the youth population (here defined as persons between 15–24 years of age) who will need to be prepared to make a successful transition into the labour market

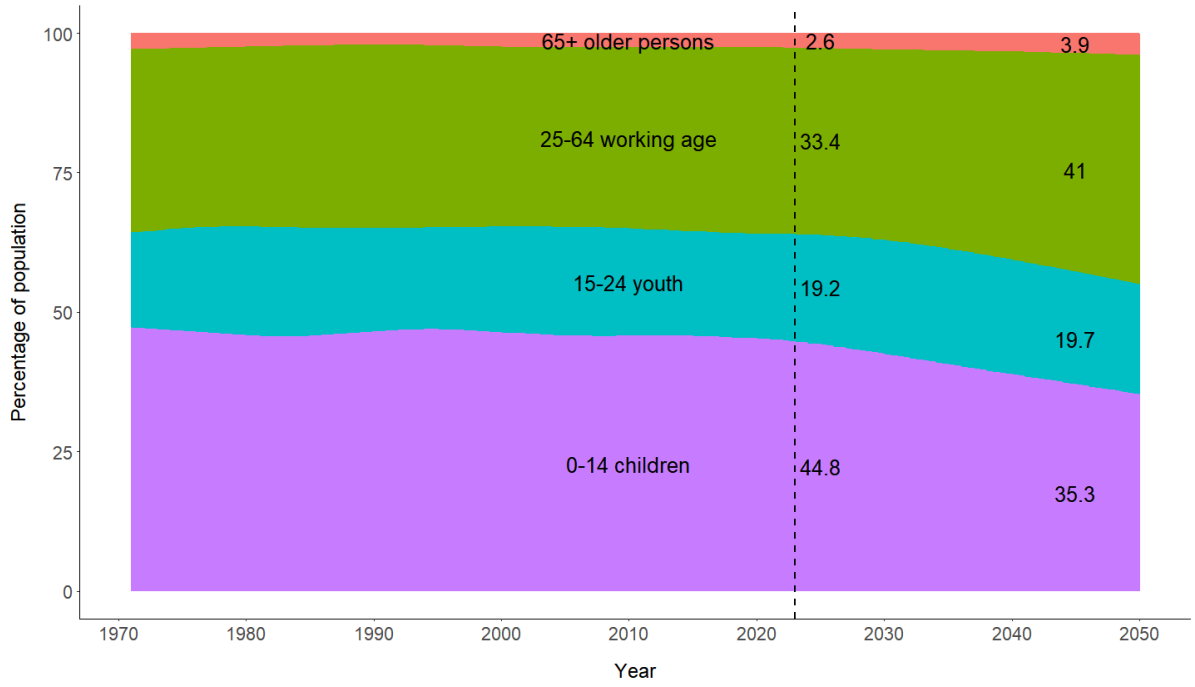
[16] UNSD SDG Indicators database (United Nations, 2023a), accessed on 11 September 2023.

(figure 3.1). The share of this age group has increased from 18.3 per cent in 1975 to 19.2 percent of the total population currently and is expected to grow to 20.4 percent by 2030 when it will start to decline slowly and reach 19.7 per cent in 2050.

While the share of the youth population tends to remain rather constant, the absolute number of youths has grown rapidly, from 1.3 million in 1975 to 3.4 million in 2002 and more than doubling again to reach an estimated 7 million today. This growth is expected to continue by an additional 2 million to total 9.1 million by 2030 and reach 14 million by 2050, all of whom will require a good education and opportunities to enter the labour market.

While the share of older persons continues to grow slowly (figure 3.1) due to continued high fertility rates and increased survival in early ages, Angola is also experiencing a substantial increase in the absolute size of its older population. The total number is nearly 1 million (2.6 per cent of the total population) as of 2023, and this number will triple to reach 2.9 million by 2050 and then grow to more than 15 million by 2100.

Figure 3.1
Population by broad age group, Angola, 1970–2050

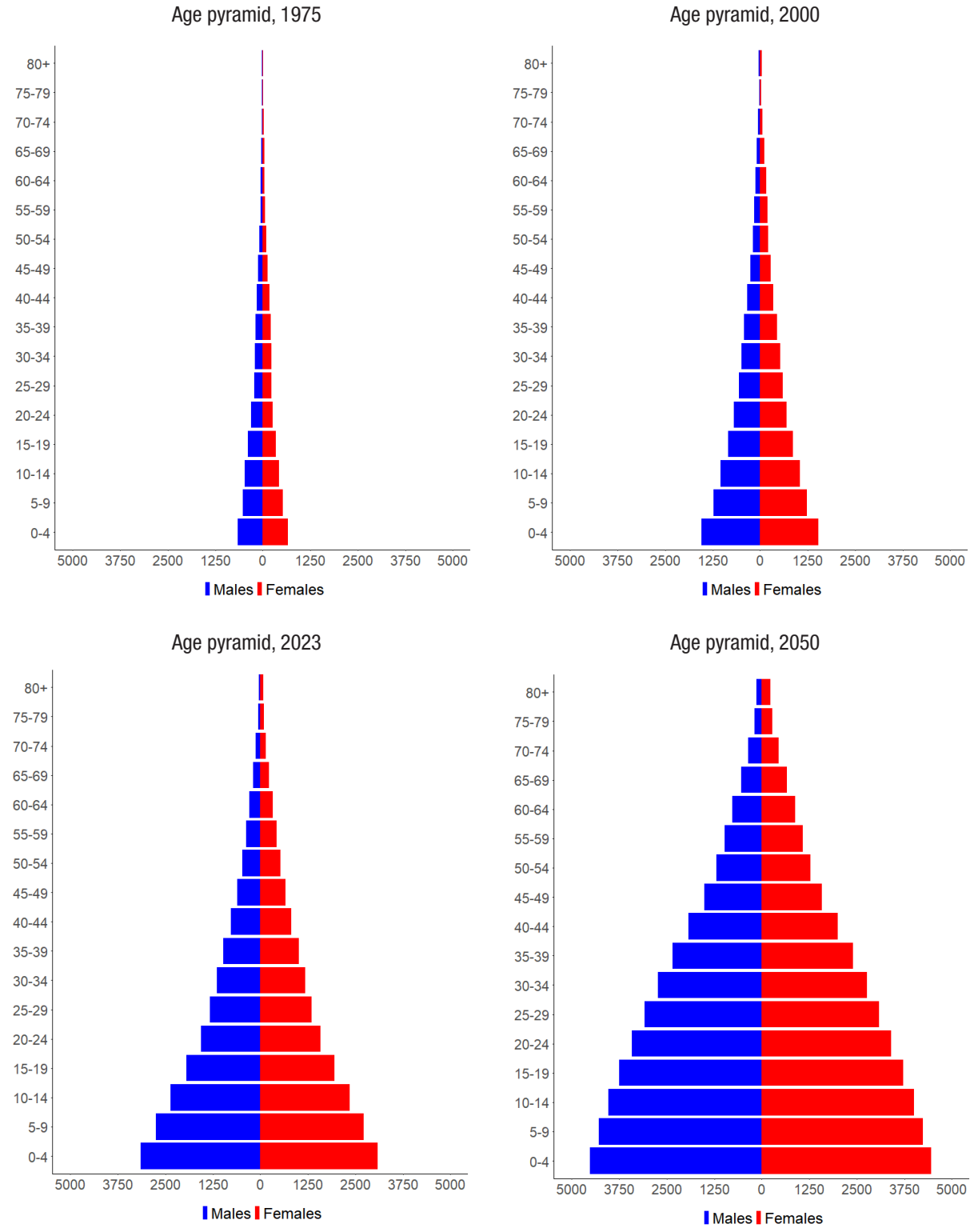


Source: World Population Prospects 2022 (United Nations, 2022b).

The demographic transition and population ageing

According to the categorization of the demographic transition used by the Population Division (United Nations, 2021), Angola is in the early stages of its demographic transition, with a TFR of 5.1 live births per women and a life-expectancy at birth of 63.2 years in 2023. It is expected to reach the intermediate stage with a life-expectancy of 65.7 years and a TFR of 3.9 births in 2037. Given its slow fertility decline and continued decline in mortality, Angola will need more than 68 years to complete the intermediary stage of the fertility transition, reaching a TFR of 2.1 and a life-expectancy of 72.7 years by the end of the century.

Figure 3.2
Population by age and sex (in thousands), Angola, 1975–2050



Source: World Population Prospects 2022 (United Nations, 2022b).

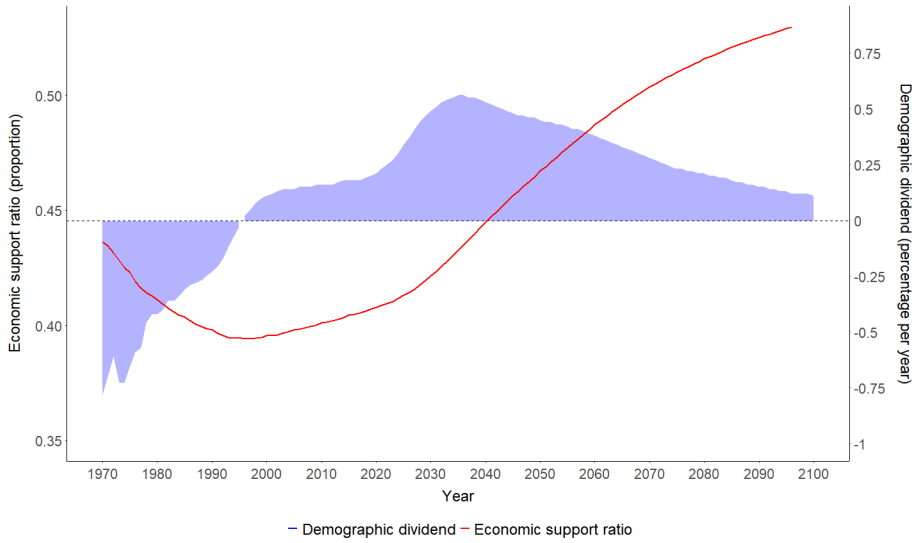
This rather slow transition from a younger to an older age-structure can be demonstrated using population pyramids (figure 3.2). Population pyramids are special bar graphs that represent the structure of a population by age and sex and provide valuable insights into its demographic and other characteristics. They help in understanding the demographic composition of a population, predicting future demographic trends, and can play a critical role in government planning for the social, economic and healthcare needs of the population. For each of the years shown in figure 3.2, Angola's population pyramid has a broad, albeit declining, base that reflects its high fertility rate and large youth population. This indicates a small share of older individuals, reflecting lower life expectancy and consequently few people reaching older ages. While the triangle shape of the pyramid remains, a continued narrowing of the base can be seen, indicating a slowly declining fertility rate and gradual improvement in life expectancy leading to a steady but rather slow increase in the number of older persons over the observed period. The graphs also show a growing number of persons in the working ages (20–65), particularly in the younger working ages (under age 40), throughout the years 1975–2050. The onset of population ageing is visible in the 2050 pyramid, which shows growing cohorts of older persons, and among those, larger numbers of older women than older men.

Demographic dividend

As discussed earlier, Angola will continue to remain in the early stages of the demographic transition until 2037, when its fertility rate is expected to drop below 4 births per woman and its life expectancy will have increased to at least 65 years. It is expected to reach the late stage of the demographic transition only around the end of the century.

Figure 3.3 below shows estimates of the annual change in the economic support ratio and the first demographic dividend between 1970 and 2100. According to the figure, Angola's window of opportunity to experience a demographic dividend began in 1996, when the economic support ratio (red line) started to rise. Due to the relatively slow fertility decline, this window is expected to remain open through the end of this century. The slowly but steadily rising economic support ratio will remain relatively low – below 0.6. In terms of magnitude, the demographic dividend (blue area) is consequently also rather small, remaining below 0.6 per cent per year over the same period. This slow demographic transition with continued high fertility may not generate a demographic dividend large enough to produce rapid economic progress.

Figure 3.3
Economic support ratio (line, left scale) and first demographic dividend (area, right scale), Angola, 1970–2100



Source: National Transfer Accounts (NTA) database (NTA, 2023).
Note: The dashed line indicates the zero value for the demographic dividend (see right scale). The demographic dividend values are the annual rates of change in the economic support ratio (per cent per year). These values are positive when the support ratio rises. The area above the dashed line represents the total size of the gain during the first dividend period.

Conclusions

Angola faces enormous challenges in preparing for population ageing and responding to the current demands of a growing youthful population. The population overall continues to grow rapidly, and the size of the youth cohorts that will need education and decent jobs is expected to double from 7 million in 2023 to around 14 million in 2050, which in turn will result in continued rapid growth of the total population and particularly its workforce. Important to note is that this rapid population growth occurs amidst ongoing economic contraction and dwindling domestic revenues. Providing high-quality education and decent employment for the current youth population is already a major challenge since most of the population has only primary education and is mainly employed in the informal sector, in agriculture or other low-qualified work. Low education levels are detrimental to the economic future of Angola, limiting the amount and quality of present and future employment opportunities in the formal sector. Given the high dependency on the oil industry with its limited opportunities for job creation, future employment opportunities will be rare if urgent efforts are not undertaken to restructure and diversify the economy. If present forecasts prove correct, Angola will run out of oil in the next decade, putting even more pressure on the country to take action to move away from its sole dependency on oil exports for domestic revenues. The country's resources are further constrained by high foreign debt, reduced ODA, growing impact of external shocks such as climate change, political instability in the region and the impact of the continued war in Ukraine. Domestic governance structures to raise domestic resources and attract foreign investments need to be improved. Given the fact that the country continues to benefit from a demographic dividend, advancing access to quality education, health care and better jobs as well as effective, efficient, and accessible family planning would provide an environment that could help the country to translate its demographic windfall into opportunities for growth and development.

Rwanda

A small landlocked country with a population of 14 million as of 2023, Rwanda is classified as a low-income country and was designated an LDC in 1971 (United Nations, 2022b). Following the Rwandan genocide in 1994, the country has embarked on a rebuilding process driven by a shared Vision 2020 and aspires to achieve upper-middle-income status by 2035 (Government of Rwanda, 2012). With significant fertility decline since 2000, Rwanda is poised to benefit from the demographic dividend. However, its rapidly growing population shows a very young age structure and pronounced population ageing that constitute dual challenges for the coming decades.

Progress in economic growth, human capital formation and employment

Rwanda's economy is based mostly on subsistence agriculture. Coffee and tea are the major export cash crops. Rwanda's economic growth has relied heavily on large public investment through grants and concessional and non-concessional borrowing, but this development model has shown its limitations (World Bank 2023d). The World Bank has recommended that Rwanda boost growth and trade integration with East African Community (EAC) members and other countries (World Bank, 2022b).

Rwanda has made significant progress in economic development and structural transformation, achieving an annual GDP growth rate of over 7 per cent during 2000–2019 (World Bank, 2023a). It was ranked one of the best performing countries in sub-Saharan Africa in terms of global competitiveness (World Economic Forum, African Development Bank and World Bank, 2017).[17] Despite the shock of the COVID-19 pandemic, the economy showed resilience, and economic growth quickly resumed in 2021. Rapid development helped to lift people out of poverty, with the proportion of people living in poverty at $2.15 per day decreasing from 75 per cent in 2000 to 53 per cent in 2016. Meanwhile, its Gini coefficient declined from 49 per cent in 2000 to 44 per cent in 2016, representing progress towards more inclusive growth (World Bank, 2023b).

[17] The Global Competitiveness Index is a comprehensive index which captures the microeconomic and macroeconomic foundations of national competitiveness (https://databank.worldbank.org/metadataglossary/africa-development-indicators/series/GCI.INDEX.XQ#:~:text=The%20Global%20Competitiveness%20Index%20(GCI,of%20productivity%20of%20a%20country).

Starting from a very low level of urbanisation of about 5 per cent in 1990, Rwanda experienced rapid urbanisation in the 1990s due to internal migration precipitated by fear of conflict and insecurity, as well as returnees from neighbouring countries (Uwimbabazi and Lawrence, 2011). The share of the urban population tripled to 15 per cent in 2000. In the following two decades, however, this percentage increased slowly and is projected to rise only slightly to 18 per cent in 2025 (United Nations, 2018). Moreover, more than half of the urban population lived in slums in the mid-2010s, although this was far less than 96 per cent in 1990 (UN-HABITAT, 2016).

Rwanda has a high population density with about 580 persons per square kilometre as of 2023 and is highly vulnerable to climate-induced natural disasters, in particular floods, landslides, and droughts. With a Green Growth and Climate Resilience Strategy, the Government aims to develop a green economy in the long term while adapting to climate change (Government of Rwanda, 2020).

Rwanda achieved universal primary education for both, boys and girls, in the mid-2010s. However, progress in raising enrolment in secondary education was very slow with the net enrolment rate just reaching 35 per cent in 2018 (World Bank, 2023a). Moreover, UNICEF (2023) has highlighted that quality of education requires significant attention as primary students have scored very low in numeracy and literacy exams. Despite progress in gender parity achieved in primary and secondary education, significant gender inequalities have persisted in tertiary education and technical and vocational education and training (NISR, AFIDEP and UNFPA, 2017).

The labour force participation rate for people aged 15–64 years was about 57 per cent in 2021, but just over half of this group was employed[18]. Among those employed, about 87 per cent – 85 per cent of men and 89 per cent of women – were in informal employment in 2022 (ILO, 2023a). The labour force participation rate for youth aged 15–24 years was about 42 per cent, and the youth unemployment rate was 17 per cent in 2021. Meanwhile, the share of youth not in education, employment or training (NEET) was also high, about 25 per cent in 2019 (World Bank, 2023).

Demographic transition, demographic dividend and population ageing

Population dynamics, fertility decline and the family planning programme

Rwanda has entered the intermediate stage of the demographic transition, with a TFR of 3.7 births per woman and a life expectancy of 67.4 years in 2023. It successfully met Millennium Development Goal 4 in reducing under-five mortality, with a dramatic three-quarters decline to reach 47 deaths per 1,000 live births during 2000–2015. It is projected that the TFR will continue to decline to 2.6 births while life expectancy will rise to 72 years in 2050 (United Nations, 2022b).

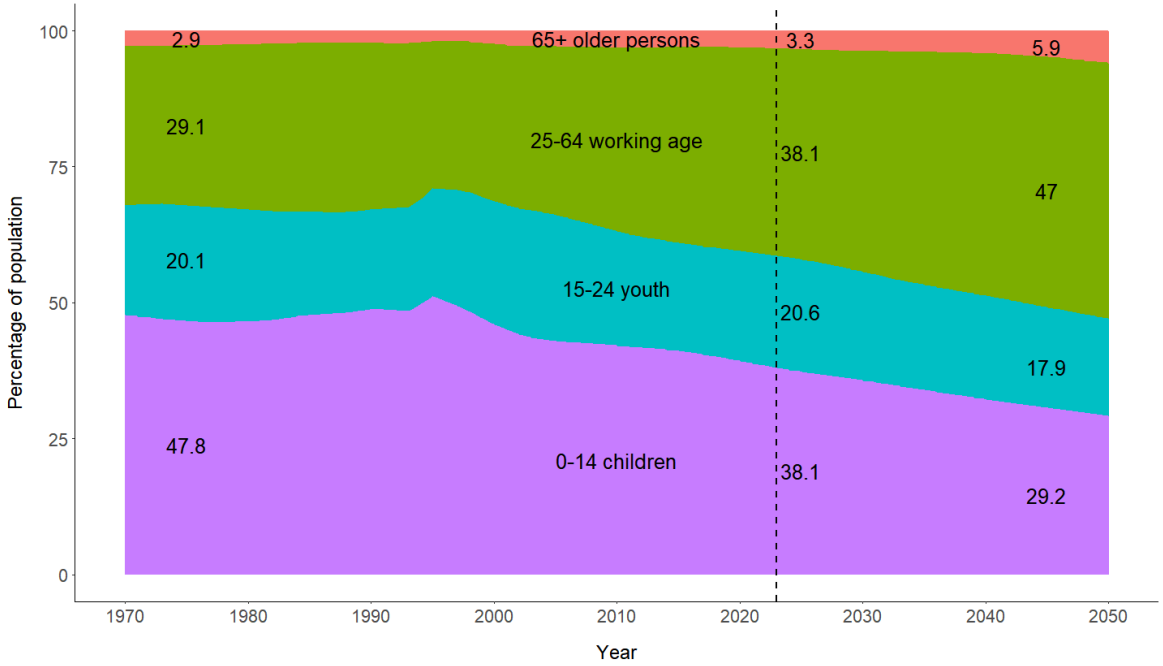
As part of the national rebuilding effort, a national family planning policy and five-year strategy for 2006–2010 was formulated in 2006 (Government of Rwanda, 2006). The Government has placed strong emphasis on family planning in its development agenda by increasing domestic resources to ensuring equitable access to quality, rights-based family planning services for all by 2030 (Government of Rwanda, 2023). This strengthened family planning programme focuses on underserved groups, in particular teenage women, through keeping girls in school and via implementation of comprehensive sexuality education programmes in schools. The contraceptive prevalence rate (CPR) for modern methods rapidly increased from 10.3 per cent to 47.5 per cent during 2000–2015. A rapid decline of fertility from 6.1 to 4.2 births also occurred during the same period (NISR, AFIDEP and UNFPA, 2017). However, the CPR was lowest among women aged 15–19 years (NISR, AFIDEP and UNFPA, 2017) and among poor and lower-educated women and those living in rural areas. The current CPR (2020) for modern methods is estimated at 57 per cent, while the level of unmet need for family planning is still as high as 14 per cent as of 2020 (United Nations, 2022a).

[18] A person in employment as defined by the International Labour Office (ILO) is a person aged 15 or over who has done at least one hour's paid work in a given week, or who is absent from work for certain reasons (annual leave, sickness, maternity, etc.) and for a certain period of time. All forms of employment are covered (employees, self-employed, family helpers), whether the employment is declared or not.

Changing age structure and the demographic dividend

Figure 3.4 presents the estimated and projected percentage distributions of the population by broad age group from 1970 to 2050. In the early 1970s, the share of children represented nearly half of the total population (around 48 per cent) but began a gradual decline from the late 1990s, reaching a level just under 40 per cent in 2023, and is projected to decline to less than 30 per cent by 2050. The share of older persons has not changed much to date but is expected to be double the level of the early 1970s by 2050.

Figure 3.4
Percentage distribution of population by broad age group, Rwanda, 1970–2050

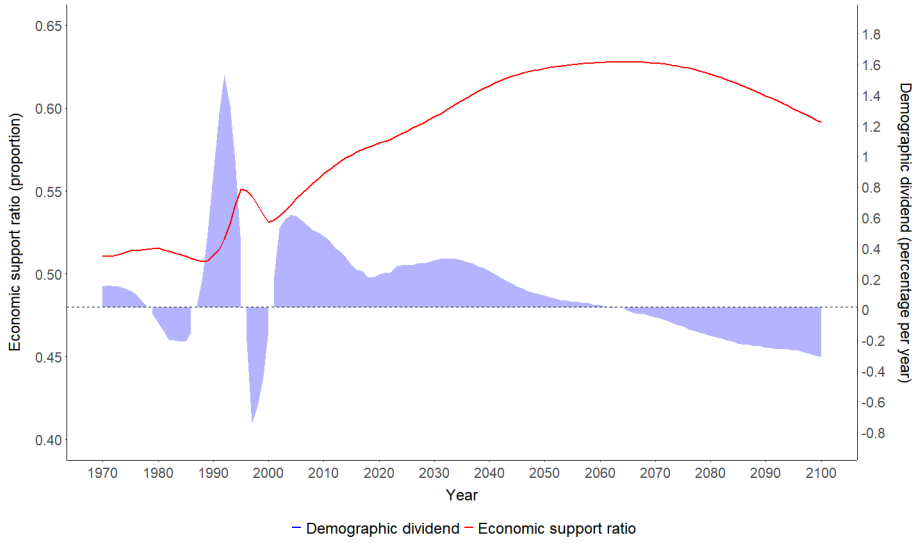


Source: World Population Prospects 2022 (United Nations, 2022b).

A "youth bulge" occurred in the mid-1990s that has increased slightly by 2023 but is expected to decline to less than one fifth of the population in 2050. Meanwhile, the share of the population aged 25–64 years has been increasing and is expected to grow from just under 30 per cent in 2000 to nearly 50 per cent in 2050. The absolute number of the working-age population is expected to nearly double from 8.0 million in 2023 to 15 million by 2050.

This changing age structure offers Rwanda a window of opportunity to accelerate its economic growth and realize its ambition to become a high-income country by 2050. Using NTA data, figure 3.5 shows that the first demographic dividend period, which started around 1990 but was disrupted by the genocide, is expected to last over 50 years. The economic support ratio should remain at a high level from 2050 until the mid-2070s, with a smaller average dividend per year during these decades. In comparison, countries in East and South-East Asia which have maximized economic benefits from the demographic dividend all experienced accelerated demographic transitions with shorter dividend periods but larger dividends (Mason, 2005).

Figure 3.5
Economic support ratio (line, left scale) and first demographic dividend (area, right scale), Rwanda, 1970–2100



Source: National Transfer Accounts database (NTA, 2023).
Notes: 1) The dashed line indicates the zero value for the demographic dividend (see right scale). The demographic dividend values are the annual rates of change of the economic support ratio (percentage per year). These values are positive when the support ratio rises. The area above the dashed line represents the total size of the gain during the first dividend period. 2) Rwanda's rising support ratio and the first demographic dividend period was disrupted by the genocide in 1994.

The Government of Rwanda has stated its commitment to an integrated approach to ensure fertility decline is supported by essential investments in human capital development and economic reforms to create a healthy, well-educated and highly skilled labour force and opportunities for decent employment (Government of Rwanda, 2020b). A Government-commissioned study of Rwanda's demographic dividend (NISR, AFIDEP and UNFPA, 2017) concluded that this approach needs to be supported by an accelerated fertility decline to increase the share of the working-age population. Under this scenario, the TFR is expected to reach a level of 2.3 births per woman in 2050, a level below the TFR of 2.6 births projected in the medium variant in the World Population Prospects 2022 (United Nations 2022b).

Population ageing and associated challenges

With continuous fertility decline and improvements in survival, Rwanda is expected to experience progressive population ageing with the share of older persons doubling from 3 per cent in 2023 to 6 per cent in 2050. Meanwhile, the number of older persons is expected to triple from just under 0.5 million to 1.4 million from 2023 to 2050.

In the absence of social pensions, informal labour market participation is as high as around 75 per cent among the half-million older persons aged 65 years and over (UNFPA Rwanda Office, 2022). There is evidence indicating that the actual level of poverty among older persons is higher than that reflected in aggregate official statistics (Sabates-Wheeler and others, 2018; Davis, Murangira and Daehnhardt, 2019).

The 1994 genocide that killed more men than women has lasting impacts on the sex structure of the population with fewer males than females in many age groups, particularly in older age groups. Many older women are widowed, either living alone or in a skip-generation household, and many older persons are left without close family members to provide support.

The Government has invested strategically in youth to harness the demographic dividend. However, given limited fiscal capacity, the Government needs to address the balance its investments between the different generations while needing to address poverty among the increasing number of older persons (Sabates-Wheeler and others, 2020).

Government policies and programmes on social protection and population ageing

The Government of Rwanda has recognized the central role of social protection in eradicating poverty and enhancing living standards. Its flagship "Vision 2020" social protection programme, introduced in 2008, provides direct support for people living in extremely poor households without inadequate social protection coverage. A community-based health insurance programme has been developed for the most vulnerable, including older persons, which covers about 85 per cent of the population (ILO, 2023b).

At present, no universal or non-contributory pension system is in place and contributory pension plans for workers in the formal economy have less than 10 per cent coverage. A long-term saving scheme was introduced in 2018 with membership available to the entire population, aimed at financing a more comprehensive social protection system for the future (UNFPA Rwanda Office, 2022).

The Rwandan Constitution, amended in 2015, states that the State has "the duty…to undertake special actions aimed at the welfare of" vulnerable groups, including older persons. The National Social Protection Policy and the National Older Persons Policy both recognize the high rate of poverty among older people caused by a lack of pension benefits and developed supporting policies and measures (Government of Rwanda, 2020a; 2021). The country has also ratified the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Older Persons.

The National Older Persons Policy, aimed at providing 67,000 older people with direct income support, covers only 10 per cent of the population over 60 years (UNFPA Rwanda Office, 2022). This policy offers a framework for social protection, care and residential service, and encourages continued participation in socio-economic activities by its beneficiaries. The National Social Protection Policy has set a goal to provide a universal pension by 2050 (Government of Rwanda, 2020a; 2021).

Conclusions

Rwanda has embarked on a national rebuilding process following the 1994 genocide and has made significant progress in economic and social development. The country is still in the early stage of the demographic transition, and extra efforts are required to accelerate the transition with an integrated approach to harness the demographic dividend. In the coming decades, Rwanda is expected to experience rapid population ageing. One particular challenge that the country has been facing is that the low education level poses a major challenge to the Government to raise the quality of education and to educate the rising numbers of children and youth while also diversifying the economy. Meanwhile, the Government needs to address poverty among older persons given its low pension coverage.

Bangladesh

Bangladesh gained independence in 1971 and was designated as an LDC in 1975. As the world's eighth most populous country with a population of 173 million in 2023 and high population density, it is also one of the most environmentally vulnerable countries (United Nations, 2022b). Bangladesh reached lower-middle-income country status in 2015 and is well on track for LDC graduation in 2026 (UN-OHRLLS, 2022),[19] and the Government has is ambitious to achieve upper-middle-income country status by 2031 (Government of Bangladesh, 2020). With sustained low fertility, the country has reached the late stage of the demographic transition and is expected to experience accelerated population ageing in the coming decades.

[19] Bangladesh is scheduled to graduate from the LDC category on 24 November 2026. See United Nations General Assembly resolution A/76/L.6/Rev.1.

Economic growth, human capital formation and employment

Bangladesh has made significant and broad-based progress in economic growth while reducing poverty and inequality. Its GDP recorded a nearly six-fold expansion during the period 1990–2022 and has outperformed the average annual GDP growth rate of LDCs since 2010 (World Bank, 2023a). The economy demonstrated strong resilience during the COVID-19 pandemic period, benefiting from strong ready-made garment exports, improvements in agricultural productivity and rising remittance inflows. With only three years left to LDC graduation, a continuing challenge facing the Government is to ensure "graduation with momentum" for sustained economic growth and sustainable development, with a continued focus on diversifying exports and enhancing domestic governance structures and resource mobilization to mitigate its reliance on LDC-specific international support measures (IMF, 2022; UNCTAD, 2022). Bangladesh also needs to strengthen its regional integration by widening and deepening economic relations with key trade partners in the region, notably the Association of Southeast Asian Nations (ASEAN) Member States, India, China and Japan to realize market opportunities and trade potential (UNCTAD, 2023b).

The Government has managed to achieve more inclusive development. The poverty headcount ratio at $2.15 a day (2017 Parity Purchasing Power) declined from 34 per cent in 1995 to less than 10 per cent in 2022. Despite rising income inequality during the 1990s, Bangladesh's Gini coefficient reached 33.4 in 2000 and has since stabilized, with the latest figure slightly under 32 in 2022 (World Bank, 2023a).

Rapid economic development has been accompanied by accelerated urbanization. The proportion of people living in urban areas more than doubled from just under 10 per cent to nearly 24 per cent during 1995–2000, then rose to 38 per cent in 2020 and is projected to rise further to 58 per cent by 2050 (United Nations, 2018). Urbanization itself has multiplier effects on socioeconomic growth resulting from enhanced demand for human capital and changes in occupations, lifestyle, economic structure and other factors.

The Government, in partnership with NGOs, has invested heavily in expanding access to education and has also made progress in girls' education. Since 1990, primary education has been compulsory and free at public schools for all children from age six. The gross secondary school enrolment ratio reached 76 per cent in 2021, with gender parity maintained for secondary education since 2000. However, the dropout rate was still high at 19 per cent in primary school and 37 per cent in secondary school in 2018 (UNCTAD, 2022; UNICEF, 2023a). The Government faces ongoing challenges in expanding access to and completion of education while maintaining quality. Drawing on human capital investments, the adult literacy rate for people aged 15 years and over reached 75 per cent and the youth literacy rate reached 95 per cent in 2020 (World Bank, 2023a).

The labour force participation rate for people aged 15–64 years has been around 60 per cent in recent years. There has been an increase in female labour force participation, from 35 per cent in 2015 to about 40 per cent in 2021 (World Bank, 2023a), mainly thanks to the expanding garment industry. Meanwhile, the employment to population ratio for those aged 15 years and over has fluctuated around 56 per cent since 2000. Like many other developing countries, the majority of employed people are working in the informal sector, with 87 per cent employed in the informal economy in 2010. Recognizing challenges in job creation associated with a changing age structure, the Government began to put efforts towards shifting employment from low-productivity agriculture and informal jobs to higher-productivity jobs in manufacturing and formal services already in its five-year plan for 2011–2015 (ILO, 2023).

The labour force participation rate for youth aged 15–24 years was close to 50 per cent during the 1990s and early 2000s but has declined to around 40 per cent in recent years. While the unemployment rate for the total labour force was about 5 percent in 2022, youth unemployment was nearly 13 percent. It is a good sign that the share of youth not in education, employment and training (NEET) declined from 31 per cent in 2005 to just over 27 per cent in 2017 (World Bank, 2023a).

In light of its environmental vulnerability, Bangladesh has adopted a more proactive approach to disaster preparedness and to climate change adaption. The country has consistently met the established graduation thresholds of environmental vulnerability towards LDC graduation (UNCTAD, 2022).

Demographic transition, demographic dividends and population ageing

Population dynamics, fertility decline and family planning

When Bangladesh was designated as an LDC in 1975, its under-five mortality was as high as 223 deaths per 1,000 births, but this figure has been remarkably reduced since then to merely 24 deaths per 1,000 births as of 2023. While fertility is expected to remain below the replacement level through mid-century, life expectancy is projected to rise to 80 years by that time. The current population size is nearly three times that of 1970 and is projected to further increase to 204 million by 2050, primarily due to the population momentum resulting from past high fertility. Bangladesh has experienced labour outmigration during the past several decades, with an average of 440,000 young people emigrating on an annual basis (United Nations, 2022b) and remittances have become one of major sources of finance for development (UNCTAD, 2022).

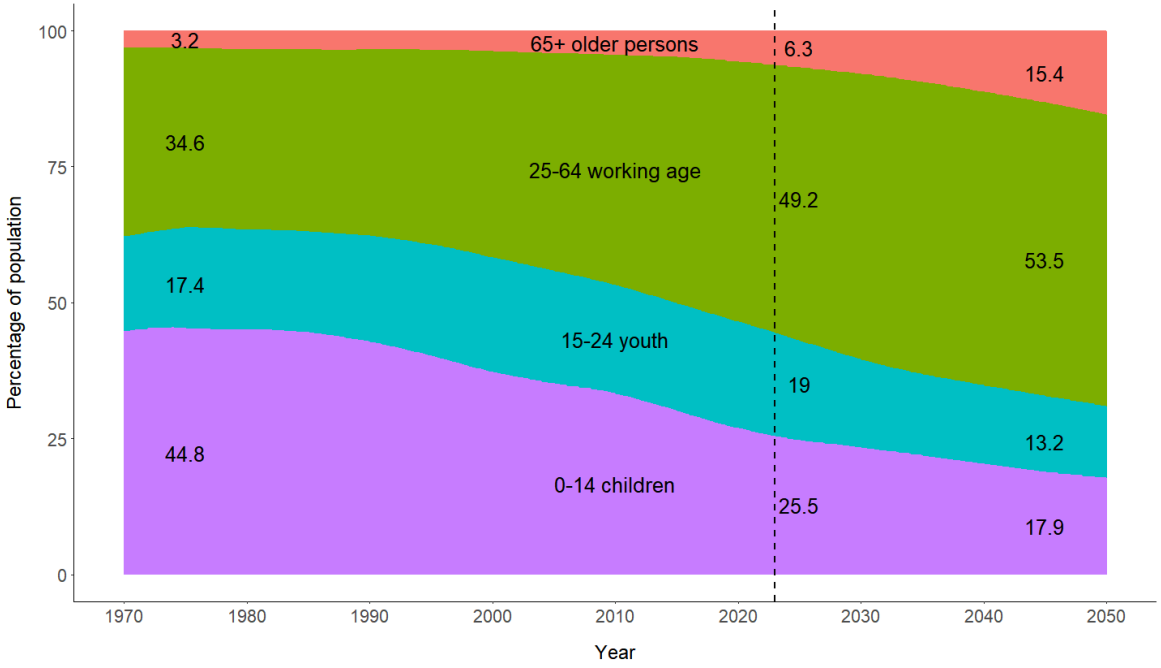
Bangladesh has entered the late stage of the demographic transition, with a TFR of 1.9 live births per woman and life expectancy of 74 years at birth in 2023. Fertility declined from about 6.8 births per woman in the early 1970s to about 3.6 births in the mid-1990s (Cleland and others, 1994) and continued its decline to fall below the replacement level in 2016. The Government intensified its family planning programme in the early 1970s (Caldwell and others, 1999), achieving contraceptive prevalence rates of 54 per cent in 2000 and over 60 per cent in recent years (United Nations, 2022a). It was generally agreed that both the family planning programme and socioeconomic development, in particular improvements in maternal and child health, girls' education and empowerment of women all made contributions to its remarkable fertility decline (Joshi and Schultz, 2013; Bora and others, 2023).

Changing age structure and the demographic dividend

In the early 1990s, Bangladesh was still in the early stage of the demographic transition and had a young age structure. In 1990, the share of children aged under 15 years represented 43 per cent of the total population (figure 3.6), but over the following quarter of a century, this share declined quickly to 30 per cent in 2016 and is projected to fall further to 13 per cent in 2050 due to sustained low fertility. By contrast, the share of the working-age population (25–64 years) rose from 54 per cent in 1990 to 66 per cent in 2016. In 2023, the share of the working-age population further increased to 68 per cent and is expected to remain at this level until around 2035, followed by a slow decline up to 2050.

The country is projected to have an increasing labour force in the coming decades, growing from 57 million in 1990 to 118 million in 2023 and further to 136 million in 2050. While the increase in the proportion of the working-age population will continue until around 2035, the proportion of youth aged 15–24 years had already reached its peak around 2000 owing to fertility decline. The absolute number of youths, which increased from about 21 million in 1990 to about 33 million in 2023, will decline to around 27 million in 2050.

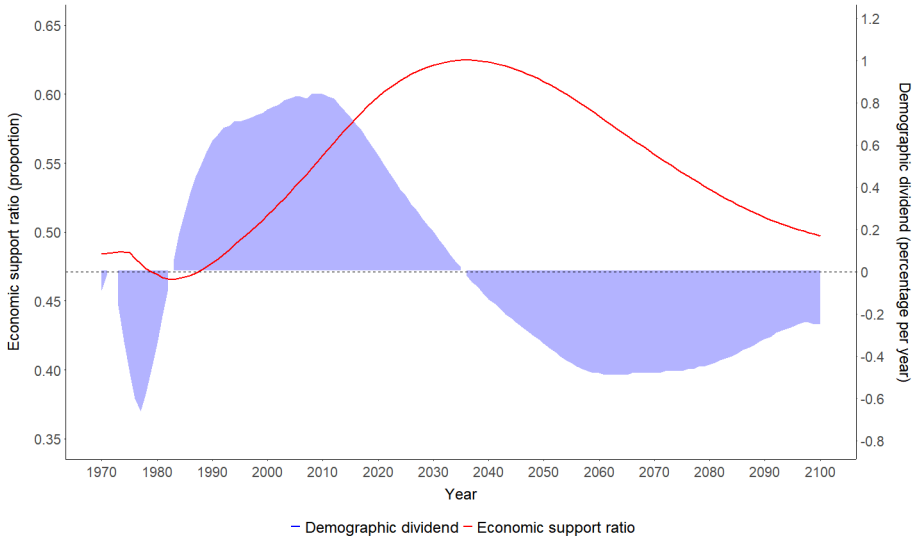
Figure 3.6
Percentage distribution of population by broad age group, Bangladesh, 1970–2050



Source: World Population Prospects 2022 (United Nations, 2022b).

Figure 3.7 provides annual estimates of the demographic dividend and the economic support ratio (ESR) from 1970 to 2100. The demographic dividend period is expected to last 45 years from 1990 to 2035. Since the pace of development before 2000 was comparatively slower than that after 2000, it has been argued by Rahman and Khondker (2016) that Bangladesh "may miss the first dividend" based on progress at least until 2010 due to a lack of adequate investments in human capital including vocational and technical training, a lack of adequate investments for creating employment and very low female labour force participation. However, the broad-based progress in economic and social development achieved since the early 2000s, in particular with structural transformation, human capital accumulation and empowerment of women could help the country maximize the opportunities from the demographic dividend.

Figure 3.7
Economic support ratio (line, left scale) and first demographic dividend (area, right scale), Bangladesh, 1970- 2100



Source: National Transfer Accounts database (NTA, 2023).
Note: The dashed line indicates the zero value for the demographic dividend (see right scale). The demographic dividend values are the annual rates of change of the economic support ratio (percentage per year). These values are positive when the support ratio rises. The area above the dashed line represents the total size of the gain during the first dividend period.

Population ageing and associated challenges

The share of older people increased slowly from 3 per cent in 1970 to 5 per cent of the total population in 2016 and the pace of population ageing gradually started to accelerate with sustained low fertility. The current share of older persons is about 6 per cent, but it will reach 10 per cent around 2035 and further rise to over 15 per cent by 2050. Meanwhile, the absolute number of older persons already exceeds 10 million in 2023 and is projected to triple, exceeding 30 million in 2050. Despite increasing uncertainties in population projections (box 3), the proportion and number of older persons are projected to further increase to 27 per cent and 55 million in 2075, respectively (United Nations, 2022b).

The large number of older persons is already posing severe challenges to Government efforts to provide adequate pensions and health care. Available data indicate that at least two thirds of older people did not receive a pension in 2015 (HelpAge International, 2017) and many older people suffer from health problems, exclusion and negligence, deprivation and socio-economic insecurity (Government of Bangladesh, 2022).

Gender differences are an ongoing challenge among older persons in Bangladesh, with more older women widowed, divorced or separated and more likely to live in poverty than older men. High levels of poverty and vulnerability limit the amount of support children can provide to their older parents despite strong traditions of family support (HelpAge International, 2017).

Government policies and programmes on social protection and population ageing

The constitution of Bangladesh guarantees social protection for vulnerable population groups, and in 2015, the Government formulated a comprehensive National Social Security Strategy to streamline and strengthen the existing safety net. Coverage of social safety net programmes increased from 12 per cent in 2005 to 40 per cent in 2016 (World

Bank, 2023a). All citizens are entitled to health care services from the statutory public health system with nominal user fees charged to patients, but the system is struggling to provide adequate levels of care. The Government has set an ambitious goal to achieve universal health coverage by 2030 (ILO, 2021).

In 1998, the Government introduced an old-age allowance programme (Begum and Wesumperuma, 2013) to subsidize poor and vulnerable older persons, comprising a monthly cash payment financed through the Government's revenue budget. This was the first time that the Government officially recognized the state's obligation to support poorer older persons in the country. Other relevant policies include the 2014 National Social Welfare Policy, 2013 National Older Persons Policy and its 2015 work plan, and the 2013 Maintenance of Parents Act (Government of Bangladesh, 2022). It also established a National Committee on Ageing, one of the first Government initiatives to address ageing issues at the national level (Government of Bangladesh, 2022).

Conclusions

Bangladesh has made broad-based progress in economic and social development towards its expected graduation from LDC status in 2026. As the country enters the late stage of the demographic transition, it faces dual challenges to maximize benefits from the changing age structure before the window of opportunity for the demographic dividend closes, and to prepare for accelerated population ageing in the coming decades while also taking care of the present generation of older persons. The working-age population is projected to continue to grow between now and 2050. The Government needs to invest not only in secondary and tertiary education, but also in technical and vocational education and training and in upskilling and reskilling the existing work force (United Nations, 2023a). In anticipation of expanding cohorts of older persons, the Government needs to take actions to improve its social protection and health-care services. Progress achieved towards LDC graduation, particularly in human capital accumulation and progress towards gender equality, will help the country be in a better position to prepare for population ageing.

International Women's Day activity to highlight the importance of better and easier access to finance for women, 2022, Bangladesh.

UNDP Bangladesh/Sarah Apu

WORLD

POPULATION

AGEING 2023

Chapter IV

Lessons learned and best practices: The demographic dividend and population ageing in LDCs

Chapter IV. Lessons learned and best practices: The demographic dividend and population ageing in LDCs

While some Asia-Pacific LDCs are approaching or have entered the late stage of the demographic transition, the majority of LDCs in sub-Saharan Africa are still in the early stages of the transition. The major demographic challenges facing these countries include persistently high levels of fertility and rapid population growth. As a result, Governments are anticipating tremendous challenges and considerable pressures to accommodate their rapidly expanding school-age and working-age populations.

LDCs also have already begun or are expected to soon face the challenge of population ageing, the inevitable consequence of the demographic transition. They are expected to experience a significant rise in both the proportion and absolute number of older persons between now and 2050 and an accelerated pace of population ageing beyond 2050. Despite the current young age structure in most LDCs, some Asia-Pacific LDCs already have a large number of older persons, but they lack well-established social protection programmes and health care services. Early preparations for population ageing will be needed for these countries to fulfil the 2030 Agenda for Sustainable Development's promise to leave no one behind.

As countries move through the different stages of the demographic transition, those in the early- and mid-transition stages have an opportunity to achieve accelerated economic growth and social development, which may help them to avoid "getting old before getting rich". LDCs should put supportive policies in place and allocate the resources necessary to advance human capital formation, including life-long learning, with a particular focus on education of girls and women, promote economic reforms and job creation to harness the demographic dividend, drawing lessons from more successful experiences from East Asia and less successful stories from Latin America and the Caribbean. Improving domestic governance structures and benefitting from debt restructuring or debt relief will boost the domestic resource base needed to support the successful implementation of these policies.

This report presents three country case studies from Angola, Bangladesh and Rwanda that showcase how this gradual shift towards an older population age structure may impact the risks and opportunities in realizing the benefits of the demographic dividend. The experience of Angola highlights that rapid economic growth must be accompanied by creating ample opportunities of decent employment to help people escape poverty and reduce inequality. Rwanda's Government has focused on family planning in its development agenda to accelerate its demographic transition, supported by a range of policies aimed at harnessing the demographic dividend. The Government of Bangladesh has made remarkable progress in human capital formation and achieving gender equality, laying a good foundation for sustainable development.

Lessons and best practices learned from these and other experiences provide the basis for the policy recommendations provided below for Governments of LDCs to take advantage of the democratic dividend and support sustainable development, social inclusion and preparedness for an ageing society:

- For countries still in the early- and mid-stage of the demographic transition Governments should continue to prioritize investments to ensure universal access to sexual and reproductive health and reproductive rights including family planning, to help individuals to realize their reproductive preferences, which also helps accelerate the demographic transition.

- For countries that are approaching or have entered the late stage of the demographic transition, Governments should prioritize enhancing social protection programmes and health-care services to take care of the large number of older persons.

- For countries with expanding school-age populations in the coming decades, Governments should invest heavily in human capital formation, not only by improving enrolment rates for primary and secondary education, but also by ensuring retention, quality education and gender parity. Upskilling the workforce in anticipation of the emerging needs of the future world of work, such as digitalization and automation is critical.

- For countries with large cohorts entering the working-age population, Governments should focus on creating productive and decent jobs to avoid wasting the skilled labour force while maximizing the benefits from the demographic dividend. For countries with economies relying on extractive industries and export of raw materials, Governments should redirect resources to create more jobs in the formal sector while reducing inequality.

- To advance women in LDCs, policymakers should focus on comprehensive strategies to address economic, social and institutional barriers. This includes implementing and enforcing policies that promote gender equality in education and workforce participation, as well as ensuring access to healthcare and family planning.

- Women need to be actively involved in decision-making processes. Additionally, efforts should be made to challenge cultural norms that perpetuate gender inequalities and to establish legal frameworks that protect women's rights and ensure equal opportunities.

- For countries aiming at harnessing the demographic dividend, Governments with limited fiscal space should balance investments in youth for the future with improving social protection and health care services, in particular for increasing numbers of older persons.

The world has recently been hit by a series of overlapping crises, including the COVID-19 pandemic, the war in Ukraine, growing political instability in sub-Saharan Africa and a resurgence of conflict in the Middle East, all amidst the ongoing challenges related to climate change. These crises continue to have global reach, with high inflation, food insecurity, soaring energy and food prices, supply chain disruptions and mounting debt impacting LDCs in particular ways both in economic terms and in terms of the importance of domestic policies and macroeconomic resilience against external shocks. Countries and people with limited capacity to cope are the most affected by these ongoing crises. Therefore, the international community is called upon to continue to provide the support needed to live up to the promises made in 2015 when world leaders pledged to deliver on the 2030 Sustainable Development Agenda.

Seniors writing Chinese calligraphy, Hong Kong, 2023.
UN/Karoline Schmid

WORLD

POPULATION

AGEING 2023

References

References

African Development Bank (2023). Country notes: Angola, in African Economic Outlook: Mobilizing Private Sector Financing for Climate and Green Growth in Africa.

African Institute for Development Policy, and United Nations Population Fund (2015). *Synthesis Report on the Demographic Dividend in Africa*. UNFPA East and Southern Africa Regional Office.

African Union (2017). *AU Roadmap on Harnessing the Demographic Dividend through Investments in Youth: In response to AU Assembly Decision* (Assembly/AU/Dec.601 (XXVI) on the 2017 theme of the year. Available at: https://addis.unfpa.org/sites/default/files/pub-pdf/AU%202017%20DD%20ROADMAP%20Final%20-%20EN_2.pdf.

Asafu-Adjaye, John, and Edward Brown (2021). Reaping Africa's Demographic Dividend: Two Scenarios of Africa's Youth. Imagine Africa Series, Brief, No. 25. European Institute for Security Studies. Available at: https://www.iss.europa.eu/content/reaping-africa%E2%80%99s-demographic-dividend.

Begum, Sharifa, and Dharmapriya Wesumperuma (2013). The Old-age Allowance Programme in Bangladesh: Challenges and Lessons. One Pager, No. 218. International Policy Center for Inclusive Growth, Asian Development Bank. Available at: https://www.ipc-undp.org/pub/IPCOnePager218.pdf.

Bertelsmann Stiftung (2022). *BTI 2022 Country Report: Angola*. Gütersloh: Bertelsmann Stiftung, 2022. Available at: https://bti-project.org/fileadmin/api/content/en/downloads/reports/country_report_2022_ AGO.pdf.

Britannica (2023). Angola. Available at: www.britannica.com/p lace/Angola. Accessed on 20 September 23.

Bloom, David, David Canning, and Pia N. Malaney (2000). Population dynamics and economic growth in Asia. *Population and Development Review*, vol. 26, pp. 257–290.

Bloom, David., David Canning, and Jaypee Sevilla (2003). *The Demographic Dividend: A New Perspective on the Economic Consequences of Population Change*. Santa Monica, CA: RAND Corporation. Available at

https://rand.org/pubs/monograph_reports/MR1274.html.

Bloom, David, and David Canning (2008). Global demographic change: Dimensions and economic significance. *Population and Development Review*, vol. 34, pp. 17–51.

Bloom, David, and others (2009). Fertility, female labor force participation, and the demographic dividend. J*ournal of Economic Growth*, vol. 14, No. 2, pp. 79–101.

Bongaarts, John, and John Casterline (2012). Fertility Transition: Is sub-Saharan Africa different? *Population and Development Review*, vol. 38, pp. 153–168.

Bongaarts, John (2020). Trends in fertility and fertility preferences in sub-Saharan Africa: the roles of education and family planning programs. *Genus*, vol. 76, No. 32. Doi: 10.1186/s41118-020-00098-z.

Canning, David (2010). The Macroeconomic Consequences of Family Planning. Presentation at the United Nations Expert Group Meeting on Fertility, Reproductive Health and Development. 7 December 2010, New York. Available at: www.un.org/development/desa/pd/events/expert-panel-fertility-reproductive-health-and-development.

Canning, David, Raja Sangeeta, and Abdo Yazbeck (2015). *Africas Demographic Transition: Dividend or Disaster?* Washington, D.C.: The World Bank Group.

Bora, Jayanta Kumar, and others (2023). Revisiting the causes of fertility decline in Bangladesh: The relative importance of female education and family planning programs. *Asian Population Studies*, vol. 9, No. 1, pp. 81–104.

Caldwell, John, and others (1999). The Bangladesh fertility decline: An interpretation. *Population and Development Review*, vol. 25, No. 1, pp. 67–84.

Cleland, John, and others (1994). T*he Determinants of Reproductive Change in Bangladesh: Success in a Challenging Environment*. World Bank regional and sectoral studies. Washington, D.C.: World Bank.

Cleland, John, and Kazuyo Machiyama (2017). The challenges posed by demographic change in sub-Saharan Africa: A concise overview. *Population and Development Review*, vol. 43, pp. 264–286.

Davis, Francis, Emmanuel Murangira, and Madleina Daehnhardt (2019). *Ageing in Rwanda: Challenges and opportunities for church, state and nation*. Teddington/Birmingham: Tearfund and University of Birmingham.

Dyson, Tim (2010). *Population and Development: The Demographic Transition*. London and New York: Zed Books.

Eckstein, David, Vera Kuenzel, and Laura Schaefer (2021). Global Climate Risk Index 2021: Who Suffers Most from Extreme Weather Events? Weather-Related Loss Events in 2019 and 2000–2019. Briefing Paper, Germanwatch. Available at: www.germanwatch.org/en/cri.

Government of Bangladesh (2020). *Bangladesh National Report on Istanbul Programme of Action (IPoA)* 2011-2020.

_____ (2022). *Country Report: Madrid International Plan of Action on Ageing (MIPAA).* Ministry of Social Welfare.

Government of Rwanda (2012). *Rwanda Vision 2020: Revised 2012*.

_____ (2019). *2019 Rwanda Voluntary National Review (VNR) Report.*

_____ (2020a). *National Social Protection Policy*.

_____ (2020b). *Vision 2050 (Abridged version)*.

_____ (2021). *National Older Persons Policy*.

Gribble, James, and Jason Bremner (2012). Achieving a Demographic Dividend. *Population Bulletin*, vol. 67, No. 2.

He, Wan, Isabella Aboderin, and Dzifa Adjaye-Gbewonyo (2020). *Africa Ageing: 2020.* US Census Bureau, International Population Reports, P95/20-1.

HelpAge International (2017). Old Age Income Security in Bangladesh: Work, Family and Social Protection. HelpAge Briefing. HelpAge International Bangladesh Country Office. Available at: www.refworld.org/pdfid/5a8a85a77.pdf.

Hobbs, Frank B. (2004). Age and sex composition. In *Methods and Materials of Demography*, J. S. Siegel and D. A. Swanson, eds. London: Elsevier Academic Press.

International Labour Organization (2018a). Social protection for older persons: Policy trends and statistics 2017–19. ILO Social Protection Papers, Paper 17. Available at: www.ilo.org/secsoc/information-resources/publications-and-tools/policy-papers/WCMS_645692/lang--en/index.htm.

_____ (2018b). *National social Security Fund: An adequate and sustainable pension scheme for the private sector.*

_____ (2021). *Country Brief: Bangladesh: Social Protection in Action: Building Social Protection Floors for All.* Available at: www.social-protection.org/gimi/gess/RessourcePDF.action?id=57648.

_____ (2023a). Labour Force Statistics. Available at: https://ilostat.ilo.org/resources/concepts-and-definitions/description-labour-force-statistics/. Accessed on 25 September 2023.

_____ (2023b). Social Protection: Angola. Available at: www.social-protection.org/gimi/gess/ShowCountryProfile.action?iso=AO. Accessed on 11 September 2023.

_____ (2023c). Informal Economy in Bangladesh. Available at: www.ilo.org/dhaka/Areasofwork/informal-economy/lang--en/index.htm.

_____ (2023d). ILOSTAT Explorer. Available at: https://www.ilo.org/shinyapps/bulkexplorer10/?lang=en&id=SDG_0831_SEX_ECO_RT_A.

_____ (2023e). Social Protection: Rwanda. Available at: https://www.social-protection.org/gimi/ShowCountryProfile.action?iso=RW.

International Monetary Fund (2022). *Bangladesh: Selected Issues*. IMF Country Report No. 22/72. Washington, D.C.: International Monetary Fund.

_____ (2023). General Government Gross Debt: Percent of GDP. Available at: https://www.imf.org/external/datamapper/GG_DEBT_GDP@GDD/SWE. Accessed on 25 September 2023.

Joshi, Shareen, and Paul Schultz (2013). Family planning and women's and children's health: Long-term consequences of an outreach program in Matlab, Bangladesh. *Demography*, vol. 50, No. 1, pp. 149–180.

Kirk, Dudley (1996). Demographic transition theory. *Population Studies*, vol. 50, No. 3, pp. 361–387.

Kebede, Endale, Anne Goujon, and Wolfgang Lutz (2019). Stalls in Africa's fertility decline partly result from disruptions in female education. *PNAS*, vol. 116, No. 8, pp. 2891–2896.

Lee, Ronald, and Andrew Mason (2006). What is the demographic dividend? *Finance & Development*, vol. 43, No. 3.

_____ (2010). Fertility, human capital, and economic growth over the demographic transition. *European Journal of Population*, vol. 26, No. 2, pp.159–182.

_____ (2011). *Population Ageing and the Generational Economy: A Global Perspective*. Cheltenham, UK: Edward Elgar.

LeRoy, Eli (2022). The future is female: Women are the key to successful population control in Nigeria and Angola. *Global Majority E-Journal*, vol. 13, No. 2, pp. 97–111. Available at: www.american.edu/cas/economics/ejournal/upload/global_maj_13_2_leroy.pdf.

Liu, Daphne, and Adrian Raftery. (2020). How do education and family planning accelerate fertility decline? *Population and Development Review*, vol. 46, No. 3, pp. 409–441.

Marc, Stocker, Baffes John, and Dana Vorisek (2018). What Triggered the Oil Price Plunge of 2014-2016 and Why it Failed to Deliver an Economic Impetus in Eight Charts, January 18, 2018. World Bank Blog. Available at: https://blogs.worldbank.org/developmenttalk/what-triggered-oil-price-plunge-2014-2016-and-why-it-failed-deliver-economic-impetus-eight-charts.

Mason, Andrew (2001). *Population Change and Economic Development in East Asia: Challenges Met, Opportunities Seized*. Stanford, CA: Stanford University Press.

Mason, Andrew, and others (2017). Support ratios and demographic dividends: Estimates for the world. Population Division of the United Nations Department of Economic and Social Affairs Technical Paper, No. 2017/1.

Moultrie, Tom (2017). A case of an almost complete demographic transition: South Africa. In *Africa's Population: In search of a demographic dividend*, Hans Growth and John F. May, eds. Cham, Switzerland: Springer.

National Institute of Statistics of Rwanda, African Institute for Development Policy, and United Nations Population Fund (2017). *Unlocking Rwanda's Potential to Reap the Demographic Dividend*. Available at: www.afidep.org/publication/unlocking-rwandas-potential-to-reap-the-demographic-dividend/.

National Institute of Statistics of Rwanda, Government of Rwanda, Ministry of Health, and ICF. (2021). *Rwanda Demographic and Health Survey 2019-20 Final Report*. Kigali, Rwanda, and Rockville, Maryland, USA: NISR and ICF.

National Transfer Accounts (2023). Time Series Indicators: Key indicators. Available at: www.ntaccounts.org/web/nta/show/Time%20Series%20Indicators. Accessed on 20 September 2023.

Nyang`oro, Owen, and Githinji Njenga (2022). Pension funds in sub-Saharan Africa. WIDER Working Paper, No. 2022/95. Available at: www.wider.unu.edu/sites/default/files/Publications/Working-paper/PDF/wp2022-95-pension-funds-in-sub-saharan-africa.pdf.

Rahman, Muhammd Moshiur, and Bazlul Khondker (2016). Will Bangladesh Miss out on First Demographic Dividend? Presented at 11th Global Meeting of the NTA Network. 20-24 June 2016, Senegal. Available at: https://ntaccounts.org/doc/repository/NTA11_8.pdf.

Sabates-Wheeler, Rachel, and others (2018). *Population Ageing in Rwanda: Current needs, future projections, and implications for policy*. Brighton: Institute of Development Studies.

_____(2020). The implications of demographic change and ageing for social protection in sub-Saharan Africa: Insights from Rwanda. *Journal of Development Effectiveness*, vol. 12, No. 4, pp. 341–360.

Schoumaker, Bruno (2019). Stalls in fertility transitions in sub-Saharan Africa: Revisiting the evidence. *Studies in Family Planning*, vol. 50, No. 3, pp. 257–278.

Transparency International (2023). Country Data: Angola. Available at: www.transparency.org/en/countries/angola.

United Nations Children Fund (2023a). UNICEF in Bangladesh: Education. Available at: www.unicef.org/bangladesh/education.

_____(2023b). UNICEF in Rwanda: Education. Available at: www.unicef.org/rwanda/education.

United Nations Conference on Trade and Development (2021). *The Least Developed Countries Report 2021: The least developed countries in the post-COVID world: Learning from 50 years of experience*. UNCTAD/LDCS/2021.

_____ (2022). Vulnerability Profile: Bangladesh. UNCTAD/ALDC/2021/1. Available at: https://unctad.org/publication/vulnerability-profile-bangladesh.

_____ (2023a). UN List of Least Developed Countries. Available at: https://unctad.org/topic/least-developed-countries/list. Accessed on 1 November 2023.

_____ (2023b). Regional Integration as a Strategic Avenue for Bangladesh: LDC Graduation with Momentum. Available at: https://unctad.org/system/files/official-document/aldc2022d9_en.pdf.

United Nations, Department of Economic and Social Affairs, Population Division (2013). *National Transfer Accounts Manual: Measuring and analysing the Generational Economy.* United Nations publication, Sales number: E.13. XIII.6. Available at: www.un.org/development/desa/pd/content/capacity-development-0.

_____ (2018). *World Urbanization Prospects 2018*. Available at: https://population.un.org/wup/.

_____ (2020). *World Fertility and Family Planning 2020: Highlights*. ST/ESA/SER.A/440. Available at: www.un.org/development/desa/pd/news/world-fertility-and-family-planning-2020.

_____ (2021). *Global Population Growth and Sustainable Development*. UN DESA/POP/2021/TR/NO. 2. Available at: www.un.org/development/desa/pd/content/global-population-growth.

_____ (2022a). *World Contraceptive Use*. POP/DB/CP/Rev2022. Available at: www.un.org/development/desa/pd/data/world-contraceptive-use.

_____ (2022b). *World Population Prospects 2022*. Available at: https://population.un.org/wpp/.

_____ (2022c). Living Arrangements of Older Persons. Available at: www.un.org/development/desa/pd/data/living-arrangements-older-persons.

United Nations, Department of Economic and Social Affairs, Economic Analysis and Policy Division (2023a). Harnessing the Economic Dividends from Demographic Change. Frontier Technology Issues, July 2023. Available at: www.un.org/development/desa/dpad/wp-content/uploads/sites/45/FTI_2023_July.pdf.

United Nations, Department of Economic and Social Affairs, Statistics Division (2023b). SDG Indicators Database. Available at: https://unstats.un.org/sdgs/dataportal.

United Nations, Department of Economic and Social Affairs (2023c). *World Social Report 2023: Leaving No One Behind in an Ageing World*. ST/ESA/379. Available at: www.un.org/development/desa/pd/content/launch-world-social-report-2023.

United Nations General Assembly (2022). Resolution Adopted by the General Assembly on 1 April 2022, 76/258. Doha Programme of Action for the Least Developed Countries. Available at: https://digitallibrary.un.org/record/3968043/files/A_RES_76_258-EN.pdf?ln=en.

United Nations Global Crisis Response Group (2023). A World of Debt: A Growing Burden to Global Prosperity, July 2023. Available at: https://news.un.org/pages/wp-content/uploads/2023/07/2023_07-A-WORLD-OF-DEBT-SHORT-JULY_FINAL.pdf.

United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (2023). Least Developed Countries Category. Available at: www.un.org/ohrlls/content/ldc-category. Accessed on 1 August 2023.

United Nations Population Fund (2023). UNFPA Angola: Data portal. Available at: www.unfpa.org/data.

United Nations Population Fund, East and Southern Africa Regional Office (2022). *Country summary reports: Rwanda. Rapid Review of Healthy Ageing and Long-term Care Systems in East and Southern Africa*. Available at: https://eeca.unfpa.org/sites/default/files/pub-pdf/2022_healthy_ageing_country_summary_reports_rwanda.pdf.

United Nations Human Settlements Programme (2016). *Urbanization and development: Emerging Futures. World Cities Report*, 2016. Nairobi, Kenya: UN-Habitat.

Uwimbabazi, Penine, and R. Lawrence (2011). Compelling factors of urbanization and rural-urban migration in Rwanda. *Rwanda Journal,* vol. 22, Series B, pp. 9–26.

Wang, Feng and Andrew Mason (2005). Demographic dividend and prospects for economic development in China. Paper presented at the United Nations Expert Group Meeting on Social and Economic Implications of Changing Population Age Structures. Mexico City, 31 August–2 September 2005.

Wang, Feng (2017). Is rapid fertility decline possible? Lessons from Asia and emerging countries. In *Africa's Population: In search of a demographic dividend*, Hans Growth and John F. May, eds. Cham, Switzerland: Springer.

World Bank (2011). *World Development Report 2011: Conflict, Security, and Development*. Washington, D.C.: World Bank Group.

_____ (2016). *Development Goals in an Era of Demographic Change. Global Monitoring Report 2015/2016.* Washington, D.C.: World Bank Group.

_____ (2022a). Press release: Angola's Economic Diversification and Development Potential Are Inextricably Linked to Climate Resilience. Available at: www.worldbank.org/en/news/press-release/2022/12/07/angola-s-economic-diversification-and-development-potential-are-inextricably-linked-to-climate-resilience.

_____ (2022b). Rwanda Economic Update, January 2022: Boosting Regional Integration in the Post-COVID Era. Edition No. 18, World Bank, Kigali. Available at: http://hdl.handle.net/10986/36928.

_____ (2023a). World Bank Development Indicators Database. Available at: https://databank.worldbank.org/source/world-development-indicators. Accessed on 5 August 2023.

_____ (2023b). The World Bank in Angola: Overview. Available at: www.worldbank.org/en/country/angola/overview.

_____ (2023c). Good Jobs for Angolan Youth: Opportunities, Challenges and Policy Directions, Technical Report. Available at: https://documents1.worldbank.org/curated/en/099050223103730425/pdf/P17473702610cc0d208b100532834fa0b2f.pdf.

_____ (2023d). The World Bank in Rwanda: Overview. Available at: www.worldbank.org/en/country/rwanda/overview.

World Economic Forum, African Development Bank, and World Bank. (2017). *The Africa Competitiveness Report 2017: Addressing Africa's Demographic Dividend*. Available at: www.afdb.org/sites/default/files/documents/publications/africa_competitiveness_report_2017.pdf.

World Health Organization (2018). WHO Country Cooperation Strategy at a Glance: Angola. Available at: www.who.int/publications/i/item/WHO-CCU-18.02-Angola.

_____ (2021). Sexual and Reproductive Health and Rights, Infographic Snapshot, Angola 2021. Available at: https://apps.who.int/iris/bitstream/handle/10665/349208/WHO-SRH-21.25-eng.pdf.

Annex I. Glossary of terms

Contraceptive prevalence rate (CPR) is the proportion of women who are currently using, or whose sexual partners are currently using, at least one method of contraception, regardless of the method being used. It is often reported as a percentage with reference to all women of reproductive age (15–49 years).

Demographic dividend refers to a window of opportunity for accelerated economic growth resulting from rising share of working-age population due to fertility decline, if supported by right policies in human capital formation, economic reform and job creation, and good governance. The demographic dividend includes an "accounting effect" of the rise in per capita income from changes in the age structure, as well as "behavioural effects" from rising productivity due to increased human capital formation and female labour force participation, increased savings and investments among others. Under the framework of the National Transfer Accounts (NTA), the demographic dividend is distinguished between the first and second demographic dividends. The first dividend is equivalent to the accounting effect referred to above, while the second dividend refers to rising productivity form the behavioural effects referred to above, which can lead to long-term and sustainable economic growth.

Demographic transition is a process of shifting from higher to lower rates of fertility and mortality which occurs with different timings and rates in different countries. The transition can be divided into three main phases. Accelerated population growth begins early in the transition, after mortality rates have begun to decline, while the fertility level remains high. In an intermediate stage, mortality declines further, and fertility starts to decline as well, which results in rapid growth of population. During the late stage of transition, with sustained low fertility lasting for decades, population growth decelerates while a larger proportion of population becomes concentrated at older ages and the population is ageing.

Economic support ratio (ESR) is an important indicator of population age structure estimated as the ratio of the effective number of producers relative to the effective number of consumers under the framework of the National Transfer Accounts (NTA). By contrast, the traditional demographic is estimated as the ratio of the "working-age" population, often defined as age 15–64, to the total population, which, however, neglects the substantial variation in both production and consumption at every age. Under the NTA framework, the number of effective producers is calculated using labour income by single year of age, taking into account the age at which people begin to work, the income they earn at each age, and the age at which they retire from the workforce. As a result, an individual earning the average labour income of a prime-age worker (age 30–49) is counted as one effective producer. Correspondingly, a 20-year-old would be counted as less than one effective producer if 20-year-olds, on average, earn less than prime-age workers, while a 40-year-old might be counted as more than one full worker if 40-year-olds, on average, earn more than prime-age workers. In similar fashion, the number of effective consumers in the denominator of the support ratio is calculated using consumption at each age, expressed relative to the average consumption of an adult age 30–49. For the world as a whole, average consumption by older persons is about equal to consumption by prime-age adults, while children consume about 20 percent less.

Employment to population ratio is the proportion of a country's population aged 15 years and over that is employed. The ratio indicates how efficiently an economy provides jobs for people who want to work. A high ratio means that a large proportion of the population is employed. However, a lower employment-to-population ratio for young people could be a positive sign if a higher proportion of them are in education. The International Labour Organization (ILO) provided modelled estimates and projections of the statistics at the country, regional and global levels.

Gini coefficient measures the extent to which the distribution of income or consumption among individuals or households within an economy deviates from a perfectly equal distribution with a Gini index of 0 representing perfect equality and of 100 implying perfect inequality.

Population momentum is a phenomenon that a youthful population will continue to grow even if its fertility declines below the level of 2.1 births per woman, the replacement level, because the births being produced by the relatively large number of women of reproductive age outnumber the deaths occurring in the total population. Population momentum can be conducive to positive or negative population growth.

Replacement-level fertility is the fertility level of about 2.1 live births per woman, measured using the total fertility rate (see below), which represents the average number of children a woman would need to have to reproduce herself by bearing a daughter who survives to childbearing age. If replacement level fertility is sustained over a sufficiently long period, each generation will exactly replace itself in the absence of migration. When the total fertility level declines to the level below 2.1 children per woman, it is referred as below-replacement fertility.

Total fertility rate (TFR) is the average number of births that would be born to a woman by age 50 if she survived to age 50 and was subject, throughout her life, to the age-specific fertility rates observed in a given year. It is often expressed as the number of live births per woman.

Annex II. Key demographic indicators, LDCs, 2023 and 2050

Country or area	Total Population, as of 1 July (thousands)		Total Fertility Rate (live births per woman)		Life Expectancy at Birth, both sexes (years)		Under-five Mortality (deaths under age 5 per 1,000 live births)		Percentage of older persons 65+		Number of older persons (65+, thousands)	
	2023	2050	2023	2050	2023	2050	2023	2050	2023	2050	2023	2050
Niger	27,203	67,043	6.7	4.2	62.9	69.5	72.8	36.0	2.4	2.8	652	1,888
Democratic Republic of the Congo	102,263	217,494	6.1	3.7	60.6	65.4	73.8	56.1	2.9	3.4	2,956	7,339
Somalia	18,143	36,463	6.1	3.5	57.4	63.3	101.9	75.1	2.6	3.3	463	1,201
Chad	18,279	36,452	6.1	3.8	53.7	58.3	101.4	83.2	2.0	3.1	367	1,112
Mali	23,294	47,440	5.8	3.4	60.0	65.5	86.2	56.7	2.3	3.4	544	1,590
Central African Republic	5,742	11,533	5.8	3.2	55.5	61.0	93.1	70.9	2.5	2.3	145	269
Angola	36,684	72,328	5.1	3.2	63.2	67.6	68.8	44.0	2.6	3.9	963	2,851
Burundi	13,239	24,209	4.9	2.9	62.5	67.3	52.2	37.7	2.5	4.5	330	1,101
Benin	13,713	25,264	4.8	3.3	60.4	65.5	83.7	58.2	3.1	4.6	421	1,159
United Republic of Tanzania	67,438	129,932	4.6	3.0	67.6	73.0	39.7	19.8	3.1	4.8	2,086	6,182
Burkina Faso	23,251	40,542	4.6	2.8	60.6	65.5	77.6	54.5	2.5	4.3	589	1,749
Mozambique	33,897	63,044	4.5	2.8	62.4	68.3	65.3	32.3	2.6	3.9	872	2,428
Gambia	2,773	4,674	4.5	2.6	64.1	69.2	41.9	29.1	2.4	5.0	68	236
Afghanistan	42,240	74,075	4.4	2.6	64.2	70.3	48.9	25.6	2.4	4.2	1,012	3,079
Uganda	48,582	87,622	4.4	2.6	63.8	68.4	40.3	22.1	1.7	3.2	835	2,787
Sudan	48,109	84,494	4.3	3.0	66.1	69.3	52.2	38.3	3.6	5.4	1,718	4,563
Senegal	17,763	32,563	4.3	3.1	69.3	76.4	27.9	9.4	3.1	5.8	557	1,875
Mauritania	4,863	8,915	4.3	2.9	65.5	71.4	59.4	27.8	3.2	4.9	156	435
South Sudan	11,089	17,461	4.3	2.6	56.5	62.6	89.7	61.9	2.9	5.1	326	898
Zambia	20,570	37,460	4.2	2.9	63.0	67.6	52.2	39.5	1.8	4.4	364	1,655
Guinea	14,191	23,712	4.2	2.7	59.5	65.1	93.7	63.7	3.3	4.6	470	1,084
Togo	9,054	15,479	4.1	3.0	61.8	67.0	61.3	37.8	3.2	5.1	287	789
Ethiopia	126,527	214,812	4.0	2.6	66.6	72.7	41.2	18.7	3.2	5.6	3,995	12,062
Liberia	5,418	8,891	4.0	2.7	62.0	67.1	73.8	43.8	3.3	5.1	178	458
Solomon Islands	740	1,225	3.9	2.9	70.9	73.9	18.1	11.8	3.5	6.4	26	79
Malawi	20,932	37,159	3.8	2.6	63.7	70.1	38.7	22.2	2.5	4.5	532	1,680
Guinea-Bissau	2,151	3,445	3.8	2.6	60.6	66.3	74.6	48.1	2.8	5.3	61	184
Sierra Leone	8,791	13,595	3.8	2.4	60.8	65.5	98.1	65.4	3.2	5.5	277	744

Country or area	Total Population, as of 1 July (thousands)		Total Fertility Rate (live births per woman)		Life Expectancy at Birth, both sexes (years)		Under-five Mortality (deaths under age 5 per 1,000 live births)		Percentage of older persons 65+		Number of older persons (65+, thousands)	
	2023	2050	2023	2050	2023	2050	2023	2050	2023	2050	2023	2050
Comoros	852	1,246	3.8	2.7	65.0	70.1	56.0	26.6	4.3	7.2	37	90
Madagascar	30,326	51,593	3.7	2.7	66.4	72.3	42.0	20.6	3.4	6.0	1,033	3,079
Rwanda	14,095	23,030	3.7	2.6	67.4	72.0	36.8	18.0	3.3	5.9	461	1,361
Eritrea	3,749	5,964	3.7	2.5	67.3	74.2	37.0	13.9	4.0	6.1	151	366
Sao Tome and Principe	232	367	3.7	2.6	68.9	71.6	15.0	9.7	3.8	6.3	9	23
Yemen	34,450	55,296	3.6	2.4	64.5	71.1	60.2	26.5	2.6	5.6	913	3,121
Kiribati	134	189	3.2	2.5	67.8	71.8	45.8	23.2	3.9	7.6	5	14
Tuvalu	11	13	3.1	2.6	65.0	69.3	20.7	11.7	6.7	7.6	1	1
Timor-Leste	1,361	1,807	3.0	2.0	69.3	74.4	36.5	16.0	5.2	7.2	70	130
Lesotho	2,330	2,898	2.9	2.2	54.9	59.5	85.0	63.6	4.2	5.8	98	169
Haiti	11,725	15,088	2.7	2.1	64.8	69.9	53.2	30.0	4.6	8.4	540	1,267
Djibouti	1,136	1,503	2.7	2.1	63.7	69.3	49.5	30.7	4.6	9.6	52	144
Lao People's Democratic Republic	7,634	9,776	2.4	1.9	69.3	74.7	37.0	13.3	4.6	10.1	349	987
Cambodia	16,945	20,258	2.3	1.9	71.5	75.7	23.1	11.5	6.1	12.9	1,036	2,618
Myanmar	54,578	59,929	2.1	1.8	67.5	72.0	40.8	19.0	7.0	13.6	3,839	8,172
Nepal	30,897	37,401	2.0	1.8	70.8	76.9	23.1	8.0	6.2	10.7	1,907	3,994
Bangladesh	172,954	203,905	1.9	1.8	74.0	80.2	24.1	8.2	6.3	15.4	10,837	31,414
Bhutan	787	874	1.4	1.5	72.5	78.1	23.5	8.0	6.4	15.8	50	138

Source: World Population Prospects 2022 (United Nations, 2022).

Note: Countries are ranked in order by TFR in 2023.

World Population Ageing 2023 examines the potential of Least Developed Countries (LDCs) to benefit from a demographic dividend as they are transiting from higher to lower levels of fertility and mortality that yields a period of rapid population increase, and, eventually, an increasingly older population. Through an analysis of demographic, social, economic and health-related indicators, as well as associated policies and investments, the report assesses the challenges and opportunities of translating favourable demographic trends into economic and developmental gains. A comparative study of LDCs in the Asia-Pacific region and in Africa, with a focus on Angola, Bangladesh and Rwanda, provides insights into the challenges and opportunities that arise at various stages of the demographic transition. The report concludes with a summary of key findings and policy guidance to help countries maximize the potential benefits of the demographic dividend to support their efforts to prepare for population ageing.

ISBN 978-92-1-002992-6