United Nations | Department of Economic and Social Affairs

World Population Prospects 2019

Highlights

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Department of Economic and Social Affairs
Population Division

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United Nations
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What is *World Population Prospects 2019*?

People, and thus populations, are at the centre of sustainable development. Each of the four global demographic "megatrends"– population growth, population ageing, migration and urbanization – holds important implications for economic and social development and for environmental sustainability. Timely and accurate population estimates and projections allow Governments to anticipate future demographic trends and to incorporate that information into development policies and planning.

The 2019 revision of the *World Population Prospects* is the twenty-sixth edition of the United Nations population estimates and projections. It presents population estimates from 1950 to the present for 235 countries or areas, underpinned by analyses of historical demographic trends. This latest assessment considers the results of 1,690 national population censuses conducted between 1950 and 2018, as well as information from vital registration systems and from 2,700 nationally representative sample surveys. The 2019 revision also presents population projections to the year 2100 that reflect a range of plausible outcomes at the global, regional and country levels.

The population estimates and projections presented in the *World Population Prospects* describe two of the four demographic megatrends (population growth and ageing), as well as key trends in human fertility, mortality, and net international migration that are integral to sustainable development. Collectively, these data constitute a critical piece of the evidence base for monitoring global progress towards the achievement of the Sustainable Development Goals by 2030.

World Population Prospects 2019:

- Confirms that the world's population continues to grow, albeit at a slowing rate;
- Points to the challenges facing some countries and regions related to rapid population growth driven by high fertility;
- Notes that population size is decreasing in some countries due to sustained low fertility or emigration;
- Underscores the opportunities available to countries where a recent decline in fertility is creating demographic conditions favourable for accelerated economic growth;
- Highlights the unprecedented ageing of the world's population;
- Confirms the ongoing global increase in longevity and the narrowing gap between rich and poor countries, while also pointing to significant disparities in survival that persist across countries and regions;
- Describes how international migration has become an important determinant of population growth and change in some parts of the world.

Contents

Key findings from *World Population Prospects 2019*

While the global population is still growing, some countries are experiencing a decrease in their total population. Virtually all countries are experiencing population ageing.

1. The world's population continues to grow, albeit at a slower pace than at any time since 1950, owing to reduced levels of fertility. From an estimated 7.7 billion people worldwide in 2019, the medium-variant projection[1] indicates that the global population could grow to around 8.5 billion in 2030, 9.7 billion in 2050, and 10.9 billion in 2100.

2. With a projected addition of over one billion people, countries of sub-Saharan Africa could account for more than half of the growth of the world's population between 2019 and 2050, and the region's population is projected to continue growing through the end of the century. By contrast, populations in Eastern and South-Eastern Asia, Central and Southern Asia, Latin America and the Caribbean, and Europe and Northern America are projected to reach peak population size and to begin to decline before the end of this century.

3. Two-thirds of the projected growth of the global population through 2050 will be driven by current age structures and would occur even if childbearing in high-fertility countries today were to fall immediately to around two births per woman over a lifetime. This is true because the large population of children and youth in such countries will reach reproductive age over the next few decades and begin to have children of their own.

4. Continued rapid population growth presents challenges for sustainable development. The 47 least developed countries are among the world's fastest growing – many are projected to double in population between 2019 and 2050 – putting pressure on already strained resources and challenging policies that aim to achieve the Sustainable Development Goals and ensure that no one is left behind. For many countries or areas, including some Small Island Developing States, the challenges to achieving sustainable development are compounded by their vulnerability to climate change, climate variability and sea-level rise.

5. More than half of the projected increase in the global population up to 2050 will be concentrated in just nine countries: the Democratic Republic of the Congo, Egypt, Ethiopia, India, Indonesia, Nigeria, Pakistan, the United Republic of Tanzania, and the United States of America. Disparate population growth rates among the world's largest countries will re-order their ranking by size: for example, India is projected to surpass China as the world's most populous country around 2027.

6. The populations of 55 countries or areas are projected to decrease by one per cent or more between 2019 and 2050 because of sustained low levels of fertility, and, in some places, high rates of emigration. The largest relative reductions in population size over that period, with losses of around 20 per cent or more, are expected in Bulgaria, Latvia, Lithuania, Ukraine, and the Wallis and Futuna Islands.

7. In most of sub-Saharan Africa, as well as in parts of Asia, Latin America and the Caribbean, recent reductions in fertility mean that the population at working ages (25 to 64 years) is growing faster than in other age groups, providing an opportunity for accelerated economic growth known as the "demographic dividend".

8. In 2018, for the first time in history, persons aged 65 years or over worldwide outnumbered children under age five. Projections indicate that by 2050 there will be more than twice as many persons above 65 as children under five. By 2050, the number of persons aged 65 years or over globally will also surpass the number of adolescents and youth aged 15 to 24 years.

1. See page 5 for an assessment of the uncertainty associated with global population projections.

Trends in population size and age structure are shaped mostly by levels of fertility and mortality, which have declined almost universally around the globe. In some countries, international migration also has become an important determinant of population change.

9. Total fertility has fallen markedly over recent decades in many countries, such that today close to half of all people globally live in a country or area where lifetime fertility is below 2.1 live births per woman, which is roughly the level required for populations with low mortality to have a growth rate of zero in the long run. In 2019, fertility remains above this level, on average, in sub-Saharan Africa (4.6 live births per woman), Oceania excluding Australia and New Zealand (3.4), Northern Africa and Western Asia (2.9), and Central and Southern Asia (2.4).

10. Some countries, including several in sub-Saharan Africa and Latin America, continue to experience high levels of adolescent fertility, with potentially adverse health and social consequences for both the young women and their children. Between 2015 and 2020, an estimated 62 million babies will be born to mothers aged 15-19 years worldwide.

11. Life expectancy at birth for the world's population reached 72.6 years in 2019, an improvement of more than 8 years since 1990. Further improvements in survival are projected to result in an average length of life globally of around 77.1 years in 2050.

12. While considerable progress has been made towards closing the longevity differential between countries, the gaps remain wide. Life expectancy in the least developed countries lags 7.4 years behind the global average, due largely to persistently high levels of child and maternal mortality and, in some countries, to violence and conflicts or the continuing impact of the HIV epidemic.

13. In some parts of the world, international migration has become a major component of population change. Between 2010 and 2020, 36 countries or areas are experiencing a net inflow of more than 200 thousand migrants; in 14 of those, the total net inflow is expected to exceed 1 million people over the decade. For several of the top receiving countries, including Jordan, Lebanon and Turkey, large increases in the number of international migrants have been driven mostly by refugee movements, in particular from Syria.

14. It is estimated that ten countries are experiencing a net outflow of more than 1 million migrants between 2010 and 2020. For many of these, losses of population due to migration are dominated by temporary labour movements, such as for Bangladesh (net outflow of -4.2 million during 2010-2020), Nepal (-1.8 million) and the Philippines (-1.2 million). In others, including Syria (-7.5 million), Venezuela (-3.7 million), and Myanmar (-1.3 million), insecurity and conflict have driven the net outflow of migrants over the decade.

Societies can adapt to demographic realities by anticipating future trends and incorporating that information into policies and planning.

15. Countries where fertility levels remain high should prepare to meet the needs of growing numbers of children and young people. Countries where a decline in fertility is creating an opportunity for a demographic dividend need to invest in human capital by ensuring access to health care and education at all ages and opportunities for productive employment. Countries with ageing populations should take steps to adapt public programmes to the growing proportion of older persons. All countries should take steps to facilitate safe, orderly and regular migration for the benefit of all.

16. The quality of population estimates and projections hinges on the collection of reliable and timely demographic data, including through civil registration systems, population censuses, population registers, where they exist, and household surveys. The 2020 round of national population censuses, which is currently under way, will provide critical demographic information to inform development planning and to assess progress towards the achievement of the Sustainable Development Goals.

Introduction

Understanding global population trends and anticipating the demographic changes to come are crucial to the achievement of the 2030 Agenda for Sustainable Development. The 2030 Agenda emphasizes that people are at the centre of sustainable development, echoing the ideals set forth in the Programme of Action of the International Conference on Population and Development adopted in Cairo in 1994. Population trends observed over the past few decades point to substantial progress made towards several of the Sustainable Development Goals (SDGs) so far. Examples include reduced mortality, particularly among children, as well as increased access to sexual and reproductive health care and enhanced gender equality that have empowered women to decide freely and responsibly the number, spacing and timing of their children.

Recent demographic trends are harbingers of the future challenges to sustainable development. For example, countries experiencing rapid population growth, most of which are in sub-Saharan Africa, must provide schooling and health care to growing numbers of children, and ensure education and employment opportunities to increasing numbers of youth. Countries where population growth has slowed or stopped must prepare for an increasing proportion of older persons and, in some cases, decreasing population size. These and other challenges can be addressed in part by anticipating coming demographic trends and incorporating that information into policies and planning.

The United Nations population estimates and projections form a comprehensive set of demographic data to assess population trends at the global, regional and national levels. They are used in the calculation of many of the key development indicators commonly used by the United Nations system, including for more than one third of the indicators used to monitor progress towards the achievement of the SDGs. The 2019 revision of the *World Population Prospects* is the twenty-sixth edition of the United Nations population estimates and projections, which have been prepared since 1951 by the Population Division of the Department of Economic and Social Affairs. The 2019 revision presents population estimates from 1950 until the present for 235 countries or areas, which have been developed through country-specific analyses of historical demographic trends. It builds on previous revisions by incorporating additional results from the 2010 and 2020 rounds of national population censuses as well as information from vital registration and recent nationally representative household surveys. The 2019 revision also presents population projections to the year 2100 that reflect a range of plausible outcomes at the global, regional and country levels.

These *Highlights* summarise key population trends described by the estimates and projections presented in *World Population Prospects 2019*. This report is organized in three parts. The first describes trends in population size, growth and age structure. Part two discusses the demographic drivers of population change, that is, fertility, mortality and international migration. Part three considers the implications of population trends for the policies and planning needed to achieve the SDGs. Several boxes discuss selected issues related to the population estimates and projections, including the fertility trajectories that will determine future population growth (box 1), the data sources and methods that underpin the 2019 revision of the *World Population Prospects* (box 2), and the need to further strengthen the collection and use of demographic data for sustainable development (box 3).

Stepping it up on the streets of New York City, UN Women/Ryan Brown

Population size, growth and age structure

1. The world's population continues to grow, albeit at a slower pace than at any time since 1950 (figure 1).

The world's population reached 7.7 billion in mid-2019, having added one billion people since 2007 and two billion since 1994.

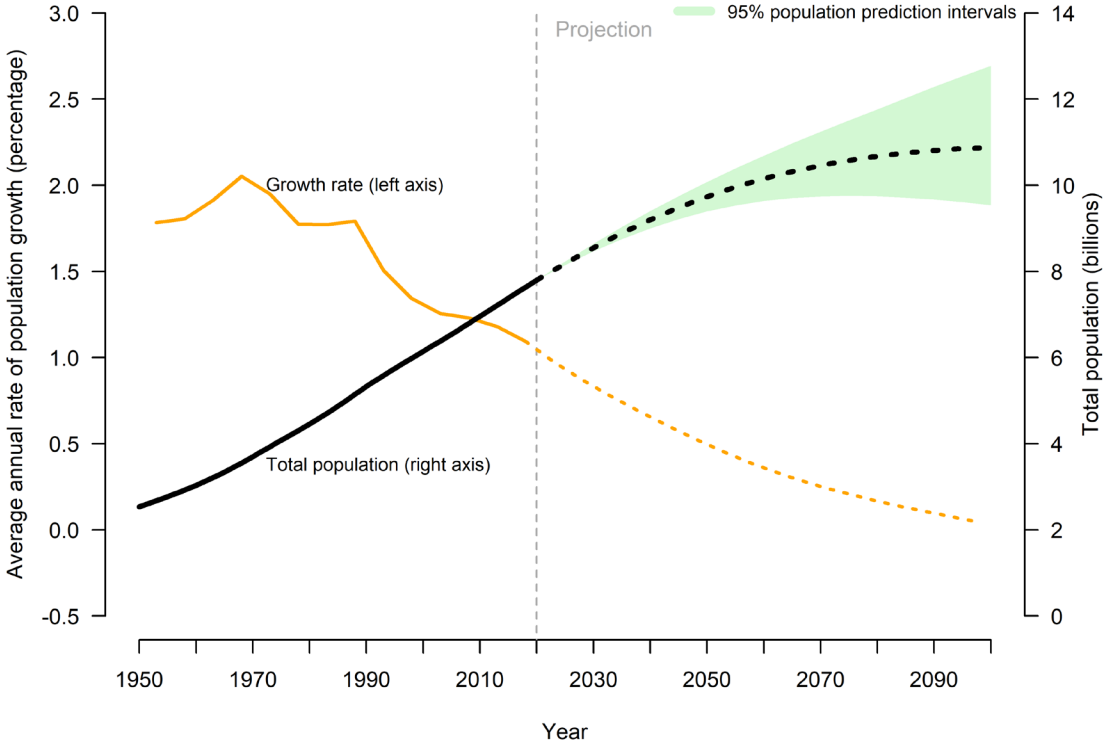
The growth rate of the world's population peaked in 1965-1970, when it was increasing by 2.1 per cent per year, on average. Since then, the pace of global population growth has slowed by half, falling below 1.1 per cent per year in 2015-2020, and it is projected to continue to slow through the end of this century.

The global population is expected to reach 8.5 billion in 2030, 9.7 billion in 2050 and 10.9 billion in 2100, according to the medium-variant projection, which assumes a decline of fertility for countries where large families are still prevalent, a slight increase of fertility in several countries where women have fewer than two live births on average over a lifetime, and continued reductions in mortality at all ages.

There is inherent uncertainty in population projections. At the global level that uncertainty depends on the range of plausible future trends in fertility, mortality and international migration, which have been assessed for each country or area using demographic and statistical methods. This analysis concludes that, with a certainty of 95 per cent, the size of the global population will stand between 8.5 and 8.6 billion in 2030, between 9.4 and 10.1 billion in 2050, and between 9.4 and 12.7 billion in 2100.

Figure 1. Population size and annual growth rate for the world: estimates, 1950-2020, and medium-variant projection with 95 per cent prediction intervals, 2020-2100

Population growth continues at the global level, but the rate of increase is slowing, and the world's population could cease to grow around the end of the century



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.

Thus, the size of the world's population is virtually certain to rise over the next few decades. Later in the century, although a continued increase of the global population is considered the most likely outcome, there is roughly a 27 per cent chance that the world's population could stabilize or even begin to decrease sometime before 2100.

2. Sub-Saharan Africa will account for most of the growth of the world's population over the coming decades, while several other regions will begin to experience decreasing population numbers.

Of the additional 2.0 billion people who may be added to the global population between 2019 and 2050, 1.05 billion (52 per cent) could be added in countries of sub-Saharan Africa. Another 25 per cent of global population growth is expected to be concentrated in Central and Southern Asia, which is projected to add 505 million people between 2019 and 2050.

Sub-Saharan Africa is projected to become the most populous of the eight geographic regions[2] (hereafter "regions" or "SDG regions") around 2062, surpassing both Eastern and South-Eastern Asia and Central and Southern Asia in size (figure 2).

While population growth in Northern Africa and Western Asia has been slower than in sub-Saharan Africa over recent decades, the region is also projected to continue to grow through the end of this century, adding 237 million people between 2019 and 2050 and another 170 million people between 2050 and 2100.

The world's two most populous regions in 2019 are Eastern and South-Eastern Asia, with 2.3 billion people, representing 30 per cent of the global population, and Central and Southern Asia, with 2.0 billion (26 per cent). Both regions, which experienced rapid population growth since

2. The regions referred to throughout this report are those used in *The Sustainable Development Goals Report* (https://unstats.un.org/sdgs/indicators/regional-groups/)

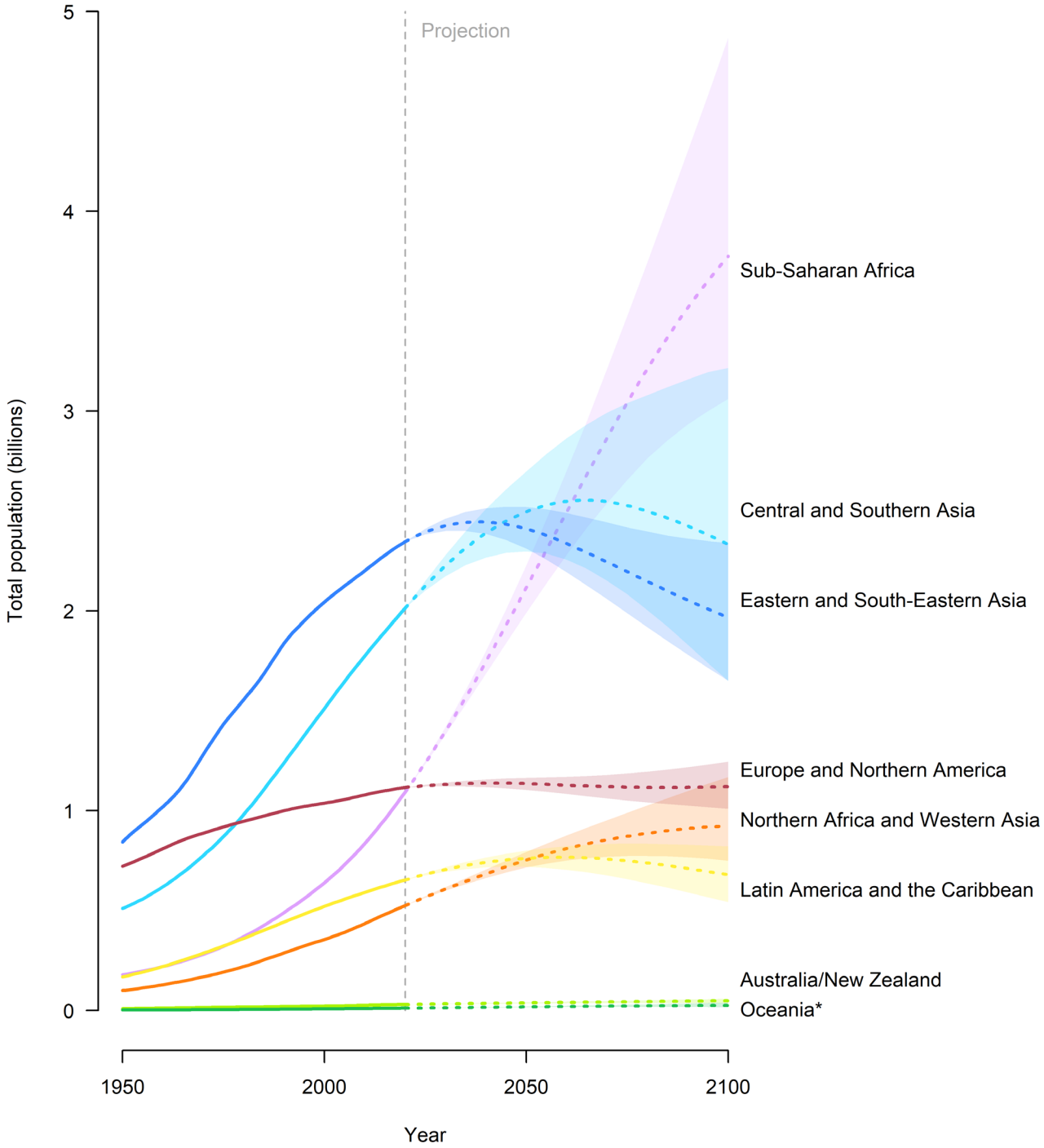
Table 1. Population of the world, SDG regions and selected groups of countries, 2019, 2030, 2050 and 2100, according to the medium-variant projection

	Population (millions)			
Region	2019	2030	2050	2100
World	**7 713**	**8 548**	**9 735**	**10 875**
Sub-Saharan Africa	1 066	1 400	2 118	3 775
Northern Africa and Western Asia	517	609	754	924
Central and Southern Asia	1 991	2 227	2 496	2 334
Eastern and South-Eastern Asia	2 335	2 427	2 411	1 967
Latin America and the Caribbean	648	706	762	680
Australia/New Zealand	30	33	38	49
Oceania*	12	15	19	26
Europe and Northern America	1 114	1 132	1 136	1 120
Least developed countries	1 033	1 314	1 877	3 047
Land-locked Developing Countries	521	659	926	1 406
Small Island Developing States	71	78	87	88

Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.
* excluding Australia and New Zealand

Figure 2. Population by SDG region: estimates, 1950-2020, and medium-variant projection with 95 per cent prediction intervals, 2020-2100

Of the eight SDG regions, only sub-Saharan Africa is projected to sustain rapid population growth through the end of the century, according to the medium-variant projection



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.
* excluding Australia and New Zealand

the mid-twentieth century, are expected to reach their peak population size in the coming decades. Eastern and South-eastern Asia is projected to reach a maximum population size of 2.4 billion around 2038 and Central and Southern Asia is projected to peak some 27 years later at under 2.6 billion around 2065.

The combined population of Europe and Northern America is stabilizing, having reached 1.11 billion in 2019 and, according to the medium variant, projected to grow slowly to just under 1.14 billion around 2042 and decline thereafter to about 1.12 billion at the end of the century.

The population of Latin America and the Caribbean, which more than tripled in size between 1950 and 2019, is projected to peak at just below 768 million around 2058 and decline thereafter to about 680 million in 2100.

The population of Oceania*[3] is projected to continue to grow through the end of the century. The total population of the region, excluding Australia and New Zealand, is expected to increase from just over 12 million in 2019 to 19 million in 2050 and 26 million in 2100. Australia and New Zealand, which are home to 30 million people in 2019, could see their population grow to 38 million in 2050 and 49 million in 2100, according to the medium-variant projection.

3. Two-thirds of the projected growth of the global population through 2050 will be driven by current age structures. It would occur even if childbearing in high-fertility countries today were to fall immediately to around two births per woman over a lifetime.

Globally, the generation of young people now entering their reproductive years is larger than their parents' generation. Thus, even if the global level of fertility were to fall immediately to around two births per woman, the number of births would still exceed the number of deaths for several decades, and the world's population would continue to grow.

The implication of the current population age structure for future population growth is called "population momentum" and can be assessed at the global level by projecting the population while assuming that (a) mortality rates remain constant at current levels; and (b) fertility instantly equals the replacement level associated with the current level of mortality.

A comparison of the projected size of the world's population according to the medium variant and the "momentum scenario" indicates that 68 per cent of global population growth between 2020 and 2050 is implied by the current population age structure (figure 3). That is, this growth would occur even if global fertility were to fall immediately to around two births per woman over a lifetime. The remaining 32 per cent of the growth projected by the medium variant is due to fertility above the level required to balance mortality, as well as improvements in survival, that are considered likely over that period. After 2050, the population size projected by the momentum scenario gradually levels off at around 9.3 billion, and the impact of the current age structure on projected growth between 2050 and 2100 is negligible.

This assessment of population momentum implies that over the short term, between 2020 and 2050, only a limited portion of world population growth can be influenced by policies that slow or accelerate fertility decline.

In regions where fertility has declined recently such that it is close to two births per woman over a lifetime, including Central and Southern Asia and Latin America and the Caribbean, virtually all of the projected population growth between now and 2050 will be driven by relatively youthful population age structures. By contrast, in regions where lifetime fertility remains well above two births per woman, such as sub-Saharan Africa and Oceania*, population momentum accounts for 42 and 58 per cent, respectively, of projected growth between 2019 and 2050. In these regions, future growth is additionally driven by levels of fertility above the level required to balance mortality and yield zero growth over the long run.

3 . Oceania* refers to Oceania excluding Australia and New Zealand, throughout this report.

Box 1. Future population growth is highly dependent on the path that future fertility will take

In the medium-variant projection, global fertility falls from just under 2.5 births per woman in 2019 to around 2.2 in 2050 and further to 1.9 in 2100. Underlying such projections for the world are implicit assumptions about ongoing progress in social and economic development, which will influence future fertility levels. Specifically, the medium variant assumes that fertility rates will continue to decline in current high-fertility countries and will increase slightly in countries where women on average are now having well under two live births in a lifetime.

How likely is continued fertility decline in high-fertility countries?

For countries with high levels of fertility, the projected decline built into the medium variant is based on a country's own fertility trend, informed as well by data on historical fertility transitions from all regions of the world, focusing on the period after the middle of the twentieth century when modern methods of contraception came into use. These transitions were driven by multiple factors of human development, including reductions in child mortality, increased levels of education in particular for women and girls, increased urbanization, expanded access to reproductive health-care services including for family planning, and women's empowerment and growing labour force participation. Thus, the medium variant implicitly assumes that high-fertility populations will experience development-related fertility decline similar to past transitions observed in countries that developed earlier.

The substantial reductions in fertility depicted in the medium variant seem likely to occur if there is continued progress in all facets of development noted above, especially in the least developed countries. Further improvements in access to family planning information and services will enable women and couples to achieve their desired family size, which is likely to continue falling with increased levels of development. If the international community does not follow through on its commitment to ensure that all men and women are informed and have access to safe, effective, affordable and acceptable methods of family planning of their choice, then future fertility declines may occur more slowly, and future population growth may be faster than what is depicted in the medium variant. Conversely, an accelerated expansion in access to family planning information and services could result in a more rapid fertility decline and a smaller global population in the future than projected under the medium variant.

Will very low fertility levels be sustained in current low-fertility countries?

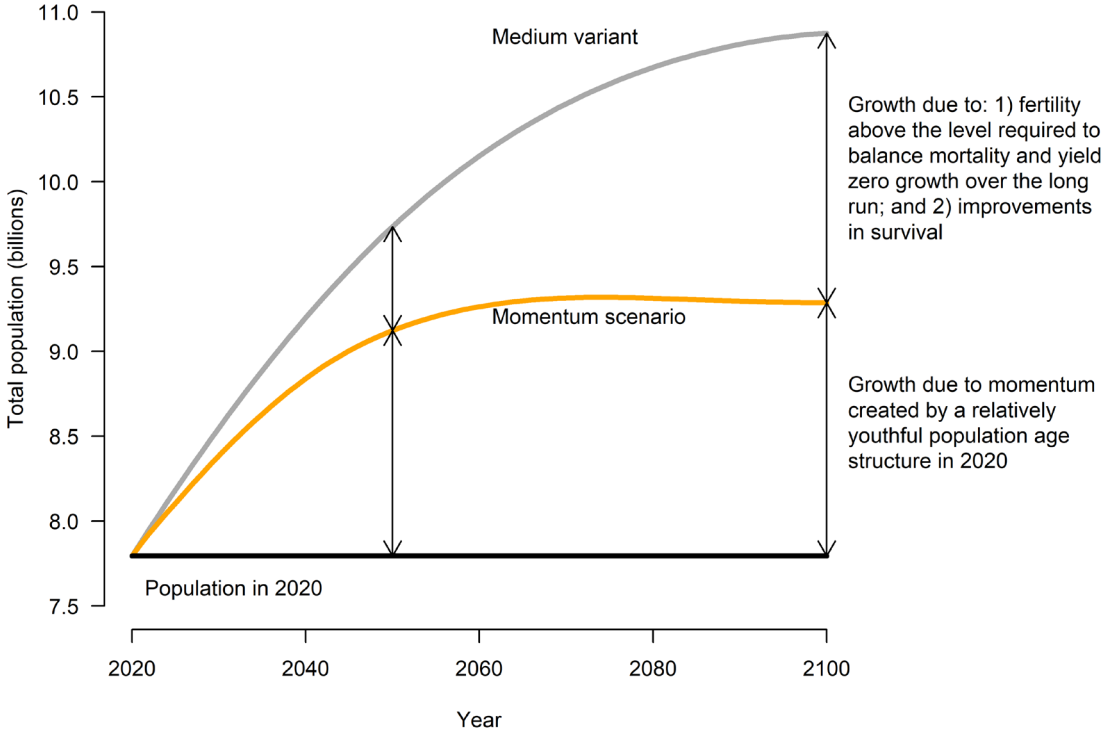
The transition from higher to lower levels of fertility has unfolded almost universally around the world over the past two centuries. By contrast, sustained periods of very low fertility, in a range of 1 to 1.5 births per woman over a lifetime, are without a comparable historical precedent to inform the assumptions underlying the medium-variant fertility projection for countries currently with very low levels of fertility.

Evidence from surveys of childbearing preferences indicate that even in populations with low or very low fertility for decades, women continue to express a desire for around two children on average. The myriad reasons for the gap between desired and completed fertility include such factors as an incompatibility between childrearing and the demands of higher education and career building, a lack of affordable high-quality child care, the decline of reproductive capacity at advanced maternal ages, and imbalanced gender roles for housework and child care.

The fact that fertility preferences remain close to two children per woman, even as realized fertility has fallen well below that level, suggests that the fertility rate in low-fertility countries may increase as populations learn to manage and mitigate some or all impeding factors. The trend in many countries towards gender equality and women's empowerment, as well as expanded access to sexual and reproductive health care and services, also indicates that it may become possible for more women and couples in current low-fertility countries to achieve their desired family size, eventually raising the average fertility levels. Given that a growing number of countries is expressing a desire to increase the fertility rate and that some have achieved this outcome, supported by government policies and programmes, a rebound in the fertility trend in current low-fertility countries seems the most plausible future trajectory over the long run.

Figure 3. Projected size of the world's population, medium variant and momentum scenario, 2020-2100

Most of the population growth that will occur between today and 2050 is driven by "population momentum" and would occur even if fertility rates in high-fertility countries were to fall immediately to around two children per woman over a lifetime



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.

4. Continued rapid population growth presents challenges for sustainable development.

The rate of population growth remains especially high in the group of 47 countries designated by the United Nations as least developed[4], including 32 countries in sub-Saharan Africa. With an average growth of 2.3 per cent annually from 2015 to 2020, the total population of the least developed countries (LDCs) as a group is growing 2.5 times faster than the total population of the rest of the world (figure 4). Although the growth rate of LDCs is projected to slow in the future, the population of this group of countries is projected to nearly double in size from 1 billion inhabitants in 2019 to 1.9 billion in 2050, and to increase further to 3.0 billion in 2100.

Between 2019 and 2050, the populations of 18 LDCs, all in sub-Saharan Africa, have a high probability of at least doubling in size, while in one country, Niger, the population is projected to nearly triple by 2050 (figure 5). Most of the LDCs that are expected to double in population size are the world's poorest countries, with gross national income (GNI) per capita below US$1,000.

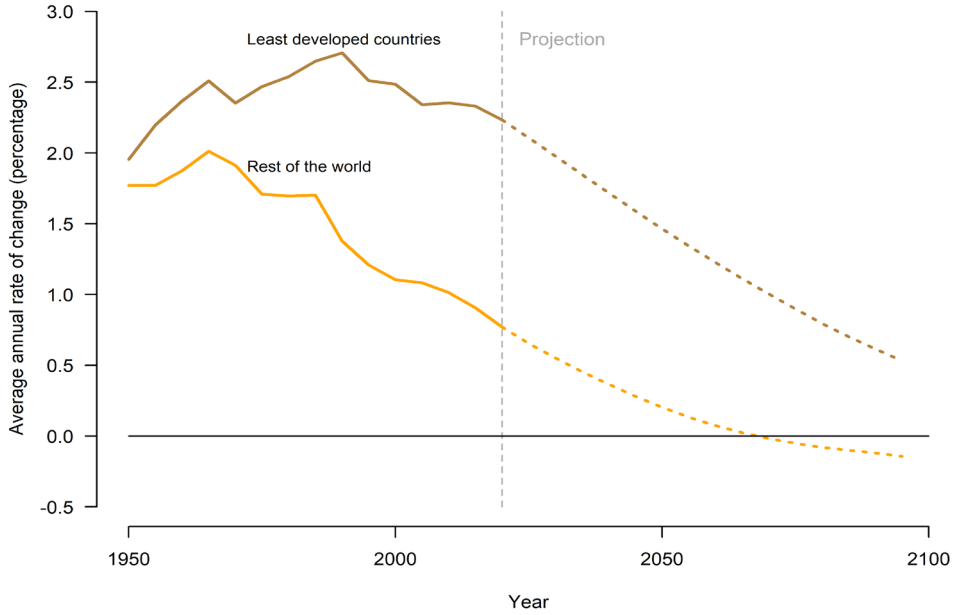
Several of the least developed countries that are experiencing rapid population growth are Small Island Developing States (SIDS)[5], such as Comoros, Guinea-Bissau, Sao Tome and Principe, the Solomon Islands and Vanuatu. For many SIDS, the challenges to achieving sustainable development are compounded by their vulnerability to climate change, climate variability and sea-level rise. The SIDS collectively are home to 71 million people in 2019. It is projected that this group of countries or areas will house 78 million people in 2030 and 87 million in 2050.

4. The group of least developed countries includes 47 countries: 32 in Sub-Saharan Africa, 2 in Northern Africa and Western Asia, 4 in Central and Southern Asia, 4 in Eastern and South-Eastern Asia, 1 in Latin America and the Caribbean, 4 in Oceania. Further information is available at http://unohrlls.org/about-ldcs/

5. The group of Small Island Developing States (SIDS) is composed of 58 countries or territories: 29 in the Caribbean, 20 in the Pacific and 9 in the Atlantic, Indian Ocean, Mediterranean and South China Sea (AIMS): Further information is available at http://unohrlls.org/about-sids/Figure

Figure 4. Estimated and projected annual rates of population growth for the 47 least developed countries and the rest of the world, 1950-2100, according to the medium-variant projection

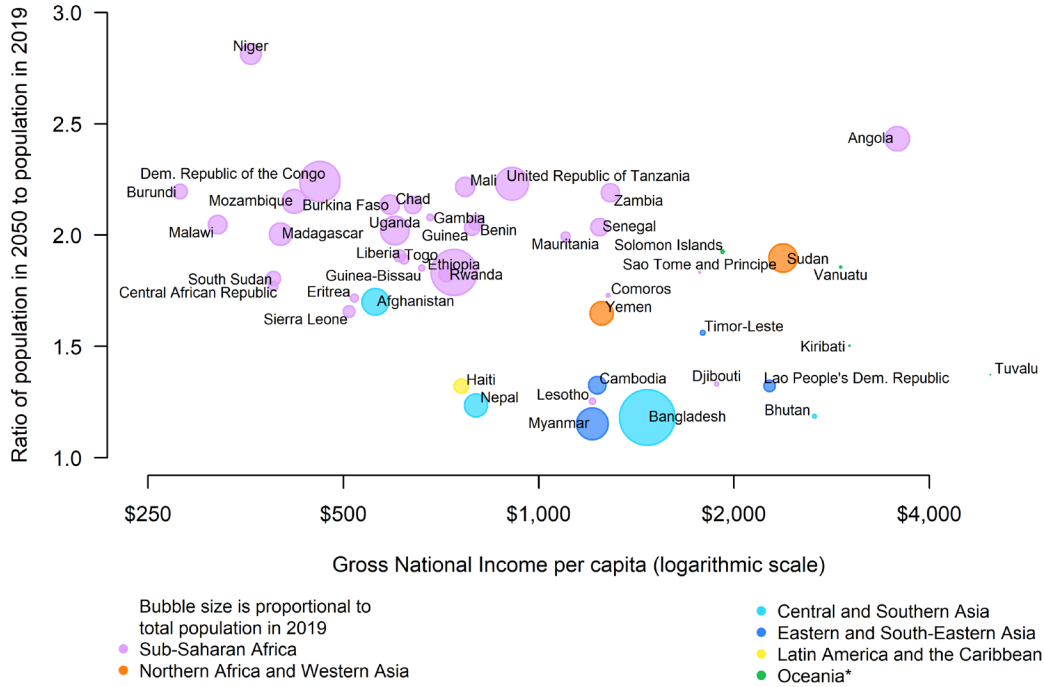
The total population of the least developed countries is growing at a rate that is 2.5 times faster than the growth rate of the total population of the rest of the world



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019.*

Figure 5. Ratio of medium-variant projection of population in 2050 to estimated population in 2019 and per capita annual gross national income of the least developed countries

Many of the least developed countries that are anticipating rapid population growth are also among the poorest, with per capita annual GNI below US$1,000



Data sources: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*. GNI is from World Bank (2018). *World Development Indicators. GNI per capita, Atlas method.*
* excluding Australia and New Zealand

5. Several of the world's largest countries will drive much of anticipated global population change.

More than half of the projected increase in the global population to 2050 will be concentrated in just nine countries. Ordered by the absolute increase in population, they are: India, Nigeria, Pakistan, Democratic Republic of the Congo, Ethiopia, the United Republic of Tanzania, Indonesia, Egypt and the United States of America (figure 6).

India is expected to add nearly 273 million people between 2019 and 2050, while the population of Nigeria is projected to grow by 200 million. Together, these two countries could account for 23 per cent of the global population increase to 2050.

Close to 1.5 billion of the 2.0 billion projected to be added to the world's population between 2019 and 2050 is expected to be concentrated in the 22 countries listed in figure 6.

Disparate population growth rates among the world's largest countries will re-order their ranking by population size (figure 7).

China, with 1.43 billion people in 2019, and India, with 1.37 billion, have long been the two most populous countries of the world, comprising 19 and 18 per cent, respectively, of the global total in 2019. They are followed by the United States of America, with 329 million in 2019, and Indonesia, with 271 million.

The populations of both Pakistan and Nigeria more than doubled in size between 1990 and 2019, with Pakistan moving up in rank from the 8th to the 5th position and Nigeria from the 10th to the 7th position.

Current projections indicate that India will surpass China as the world's most populous country around 2027.

After this re-ordering between 2019 and 2050, the ranking of the five largest countries is projected to be preserved through the end of the century, when India could remain the world's most populous country with nearly 1.5 billion inhabitants, followed by China with just under 1.1 billion, Nigeria with 733 million, the United States with 434 million, and Pakistan with 403 million inhabitants.

6. A growing number of countries are experiencing a decrease in population size. This is due to sustained low levels of fertility and, in some places, high rates of emigration.

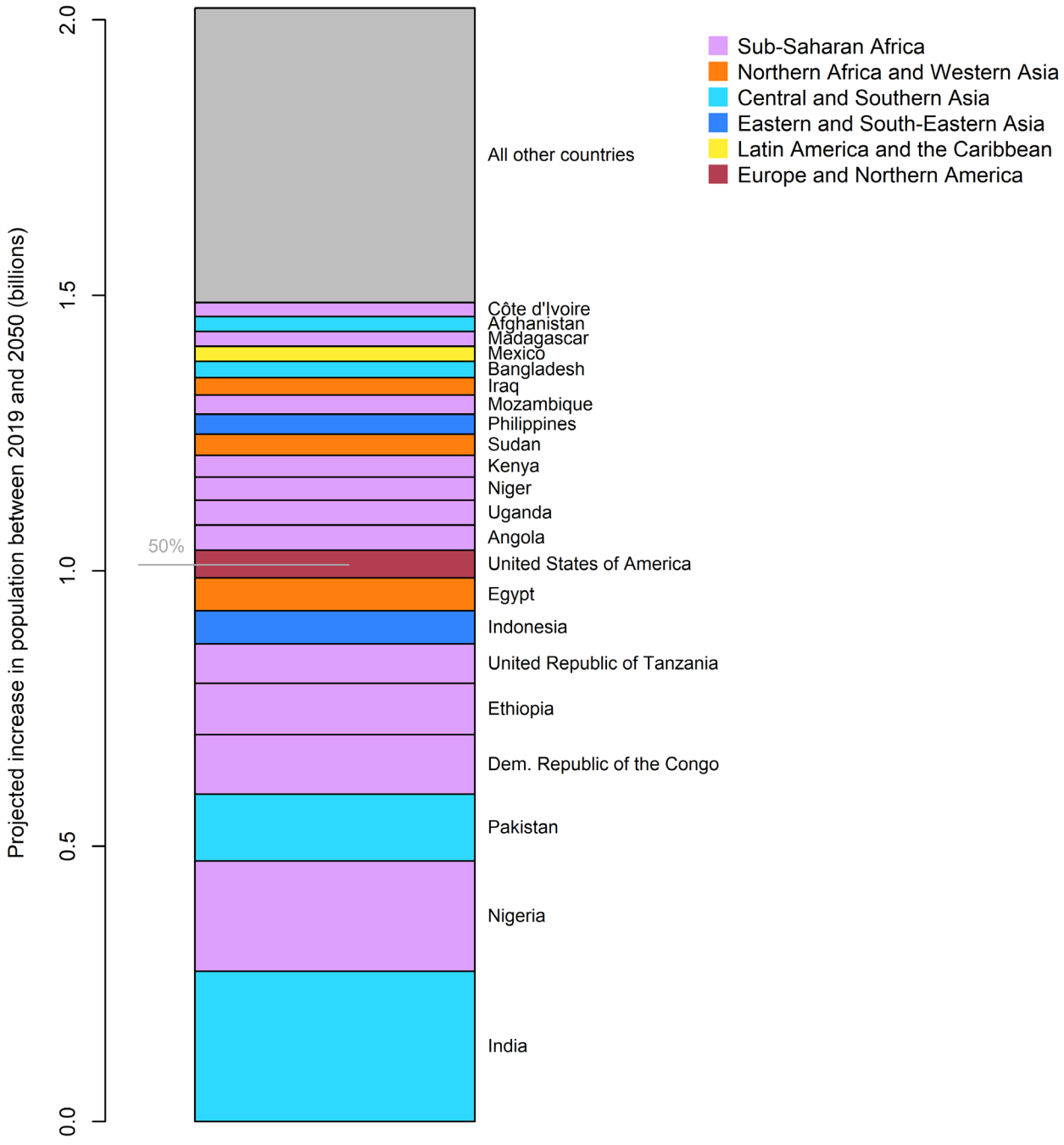
In total, 27 countries or areas have experienced population decrease of at least one per cent since 2010 (figure 8). The largest decline was observed in the Syrian Arab Republic, where the population in 2019 is 20 per cent smaller than in 2010, due to the outflow of refugees and heightened mortality risks associated with the conflict there. Already high rates of emigration from Puerto Rico increased further in the wake of Hurricane Maria in 2017 and, as a result, the island's population decreased by 18 per cent between 2010 and 2019. Another eight countries or areas also experienced population decrease of more than five per cent since 2010: Andorra, Bosnia and Herzegovina, Bulgaria, Latvia, Lithuania, Romania, Saint Pierre and Miquelon, and Wallis and Futuna Islands.

In 14 of the 27 countries or areas where the population declined by at least one per cent between 2010 and 2019, the rate of natural increase was negative over that period, that is, the number of deaths exceeded the number of births. Examples include Japan, which recorded 2.6 million more deaths than births from 2010 to 2019, and Ukraine, where deaths exceeded births by close to 2.3 million over that period. In 23 of the 27 countries or areas where the population declined between 2010 and 2019, more people left the country than arrived, that is, net international migration was negative.

Between 2019 and 2050, 55 countries or areas are expected to see their populations decrease by at least one per cent (figure 9). In the largest of these, China, the population is projected to shrink by 31.4 million, or 2.2 per cent. As a proportion of the total population, the largest projected declines are for Lithuania and Bulgaria, where the projected population in 2050 will be 23 per cent smaller than in 2019, followed by Latvia (22 per cent), the Wallis and Futuna Islands (20 per cent), and Ukraine (20 per cent). Another 21 countries are projected to experience population decrease of between 10 and 20 per cent between 2019 and 2050, many of which are located in Eastern Europe or the Caribbean. For 47 of the 55 countries with a projected population in 2050 that is at least one per cent smaller than in

Figure 6. Countries ranked by their contribution to projected global population growth between 2019 and 2050, according to the medium-variant projection

Twenty-two countries will account for around 1.5 billion of the total 2.0 billion people expected to be added to the world between 2019 and 2050



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.

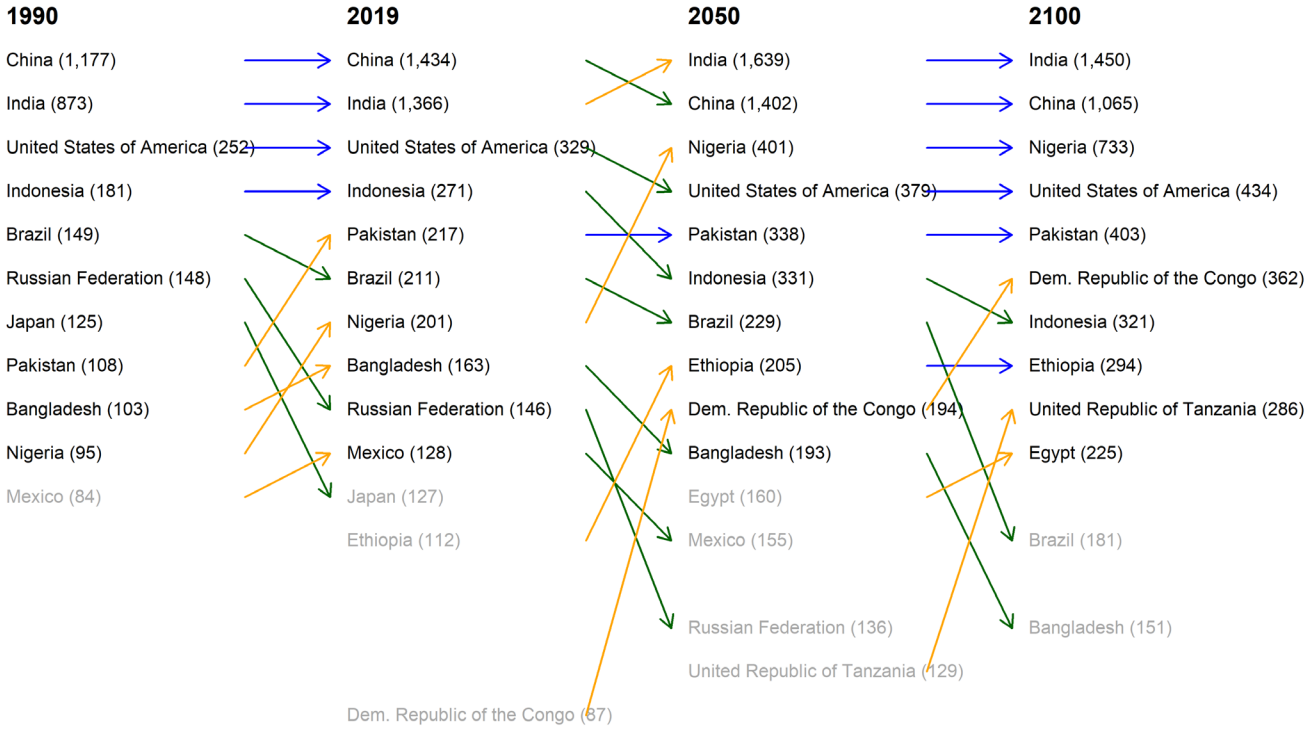
2019, the projected number of deaths exceeds the projected number of births over that period. For 31 of the 55 countries, projected net international migration during 2020-2050 is negative.

7. In some parts of the world, populations are still relatively young. In some countries, the number of people in the working ages is growing faster than in other age groups, creating a window of opportunity for rapid economic growth known as the "demographic dividend".

Although the populations of all countries are expected to grow older within the foreseeable future, populations will remain relatively young, at least for the short-term, in regions where fertility is still high. In sub-Saharan Africa, for example, 62 per cent of the population is below age 25 in 2019 (figure 10). This percentage is expected to fall only slightly to 59 per cent in 2030 and to decline further to around 52 per cent in 2050.

In most of sub-Saharan Africa, as well as in Oceania* and parts of Asia, Latin America and the Caribbean, the working-age population (25 to 64 years) is growing faster than other age groups (figure 11). These conditions can yield an opportunity for accelerated economic growth known as the "demographic dividend". The percentage of the population that is aged 25 to 64 years in sub-Saharan Africa is projected to rise for several decades, from 35 per cent in 2019 to 43 per cent in 2050 and to 50 per cent in 2100. In Latin America and the Caribbean, the window of time for an increasing proportion of the population at working ages will be shorter, with a peak around 2039, while in Central

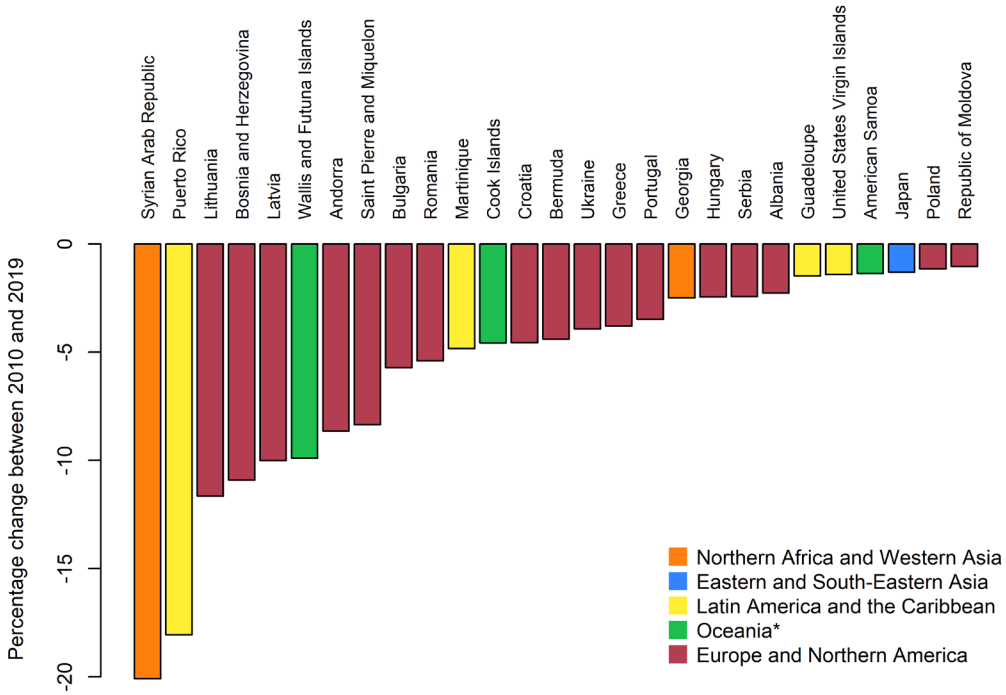
Figure 7. Rankings of the world's ten most populous countries, 1990 and 2019, and medium-variant projection, 2050 and 2100 (numbers in parentheses refer to total population in millions)



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.

Figure 8. Countries and areas where population decreased by at least one per cent between 2010 and 2019

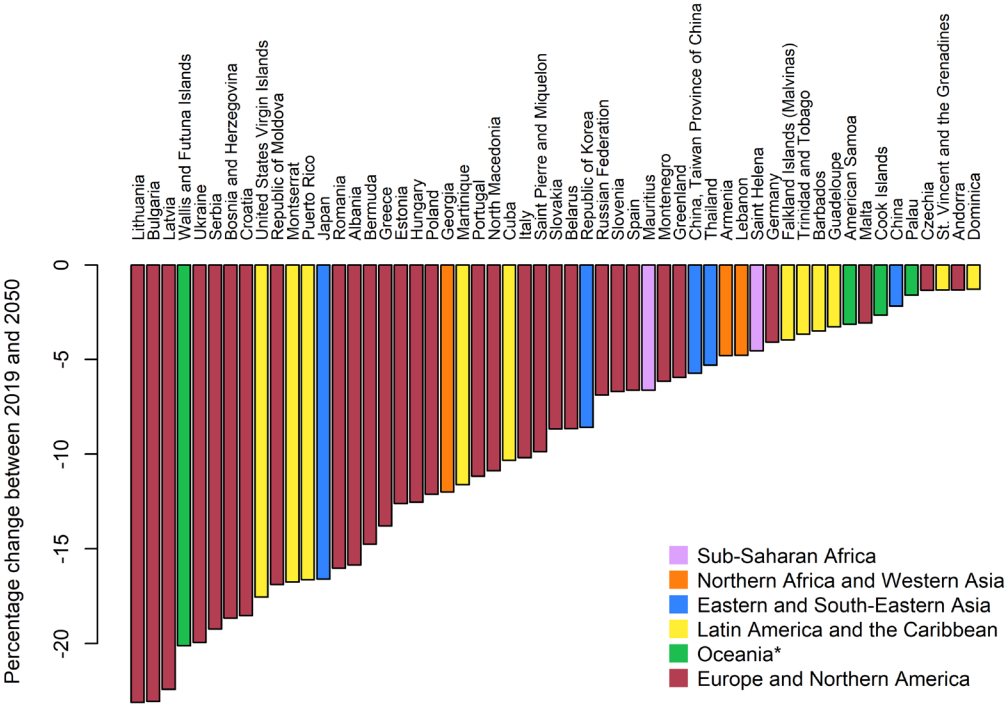
Twenty-seven countries or areas have experienced population decrease of at least one per cent since 2010



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.
* excluding Australia and New Zealand

Figure 9. Countries and areas where population is projected to decrease by at least one per cent between 2019 and 2050 according to the medium-variant projection

Fifty-five countries or areas are expected to see their populations decrease by at least one per cent between 2019 and 2050



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.
* excluding Australia and New Zealand

and Southern Asia the proportion aged 25 to 64 is expected to peak around 2047.

Of the eight SDG regions, the proportion of the population of working age is highest in Eastern and South-Eastern Asia, where 56 per cent are aged 25 to 64 years in 2019. This age group accounts for more than half of the population in Europe, Northern America and Australia/New Zealand as well. However, as a result of population ageing the projections indicate that by 2050 the proportion aged 25 to 64 years will fall below 50 per cent in each of these regions.

8. Historically low levels of fertility combined with increased longevity ensure that populations in virtually all countries and areas are growing older.

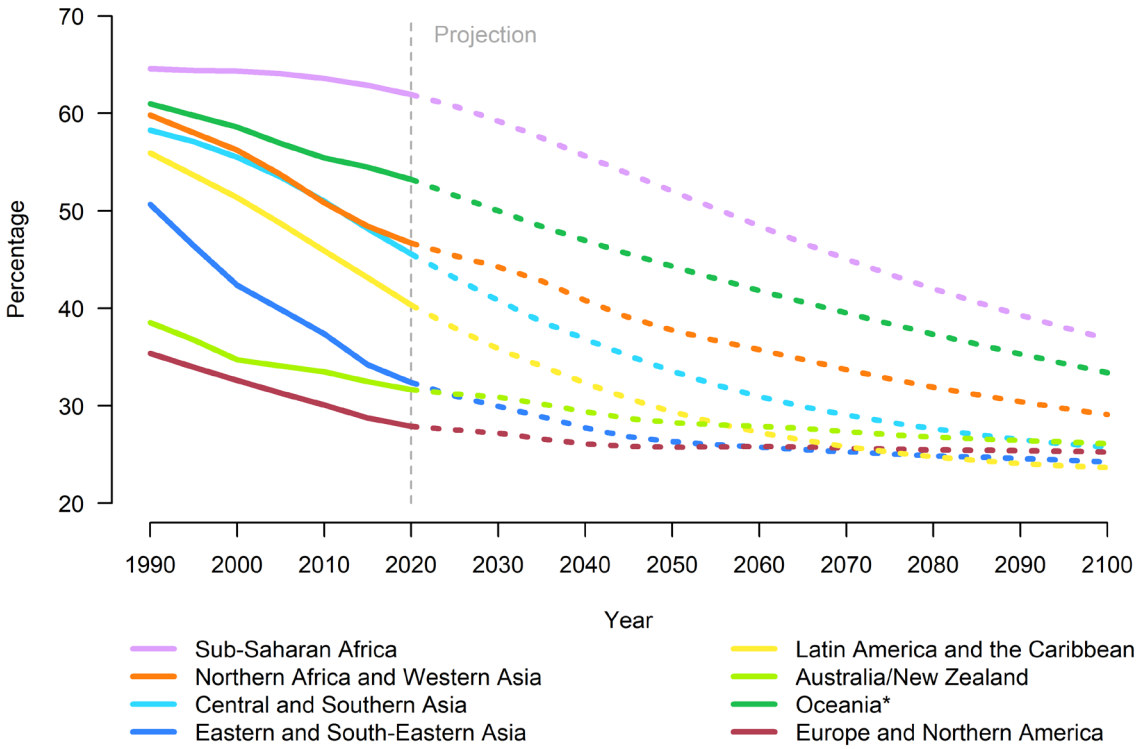
In 2018, for the first time in human history, persons aged 65 years or over outnumbered children under five years of age worldwide (figure 12). Between 2019 and 2050, the number of persons aged 65 or over globally is projected to more than double, while the number of children under five is projected to remain relatively unchanged. Consequently, the projections indicate that in 2050 there will be more than twice as many older persons as children under five. Moreover, it is expected that in 2050 the 1.5 billion people aged 65 years or over worldwide will outnumber adolescents and youth aged 15 to 24 years (1.3 billion).

Whereas the overall numbers of males and females globally are about equal, women outnumber men at older ages owing to their longer average life expectancy. In 2019, women comprise 55 per cent of those aged 65 years or over and 61 per cent of those aged 80 years or over globally.

All 201 countries or areas with at least 90,000 inhabitants in 2019 are projected to see an increase

Figure 10. Estimated and projected percentage of population under 25 years of age by SDG region, 1990-2100, according to the medium-variant projection

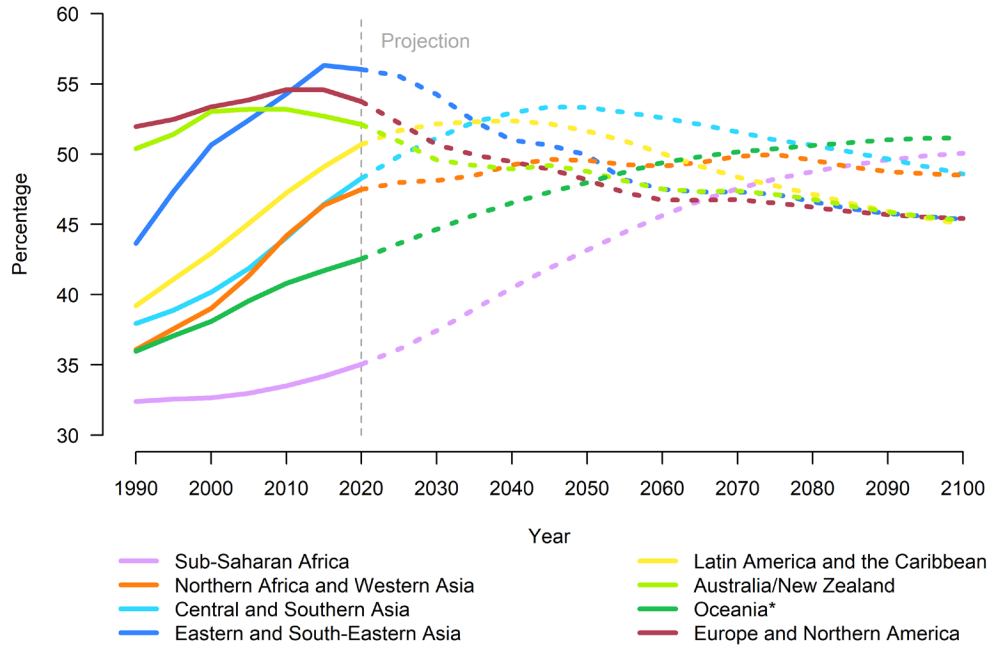
The share of the population under age 25 is declining in each of the eight SDG regions



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.
* excluding Australia and New Zealand

Figure 11. Estimated and projected percentage of population aged 25-64 years by SDG region, 1990-2100, according to the medium-variant projection

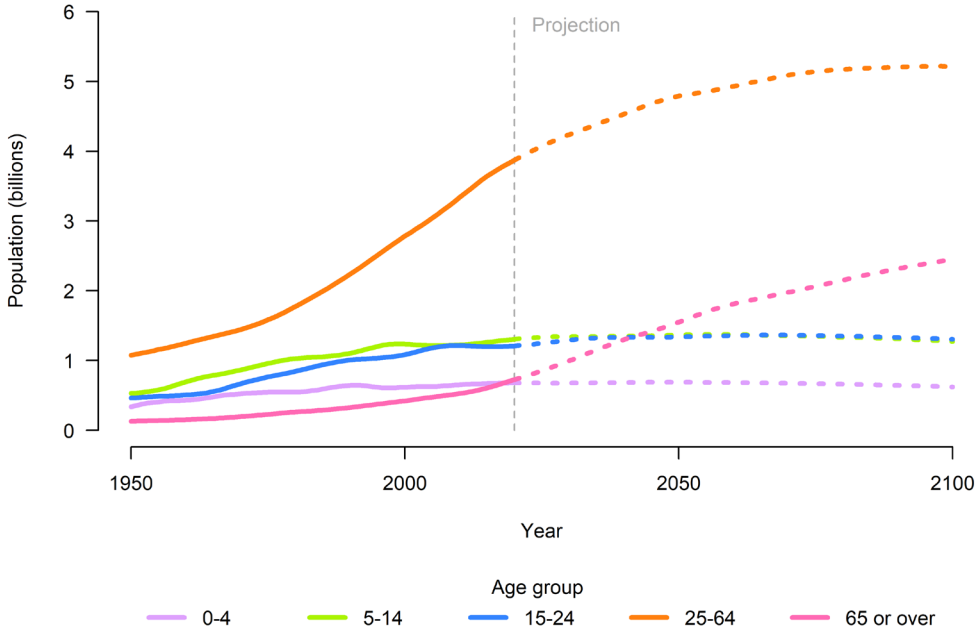
An increasing proportion of population in the working ages is presenting an opportunity for a demographic dividend in some parts of the world



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.
* excluding Australia and New Zealand

Figure 12. Estimated and projected global population by broad age group, 1950-2100, according to the medium-variant projection

Persons aged 65 years or over make up the fastest-growing age group



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.
* excluding Australia and New Zealand

in the proportion of persons aged 65 or over between 2019 and 2050. At the global level in 2019, approximately nine per cent of people are aged 65 or over (table 2). The proportion of older persons in the world is projected to reach nearly 12 per cent in 2030, 16 per cent in 2050 and it could reach nearly 23 per cent by 2100. Europe and Northern America have the most aged population in 2019, with 18 per cent aged 65 or over, followed by Australia/New Zealand (16 per cent). Both regions are continuing to age further. Projections indicate that by 2050 one in every four persons in Europe and Northern America could be aged 65 years or over.

Populations in other regions are also projected to age significantly over the next several decades. For Latin America and the Caribbean, the share of the population aged 65 years or over could increase from 9 per cent in 2019 to 19 per cent in 2050. Similarly, the proportion aged 65 or over in Eastern and South-Eastern Asia is expected to increase from 11 per cent in 2019 to 24 per cent in 2050. Sub-Saharan Africa, which has the youngest age distribution of the eight SDG regions, is also projected to experience population ageing over the coming decades, but to a much lesser extent, with the percentage of the population aged 65 or over rising from three per cent in 2019 to around five per cent in 2050.

The number of people above age 80 years is growing even faster than the number above age 65. In 1990 there were just 54 million people aged 80 or over in the world, a number that nearly tripled to 143 million in 2019. Globally, the number of persons aged 80 or over is projected to nearly triple again to 426 million in 2050 and to increase further to 881 million in 2100. In 2019, 38 per cent of all persons aged 80 or over reside in Europe and Northern America, a share that is expected to decline to 26 per cent in 2050 and to 17 per cent in 2100 as the older populations of other regions continue to increase in size.

Population ageing will have a profound effect on the potential support ratio, defined here as the number

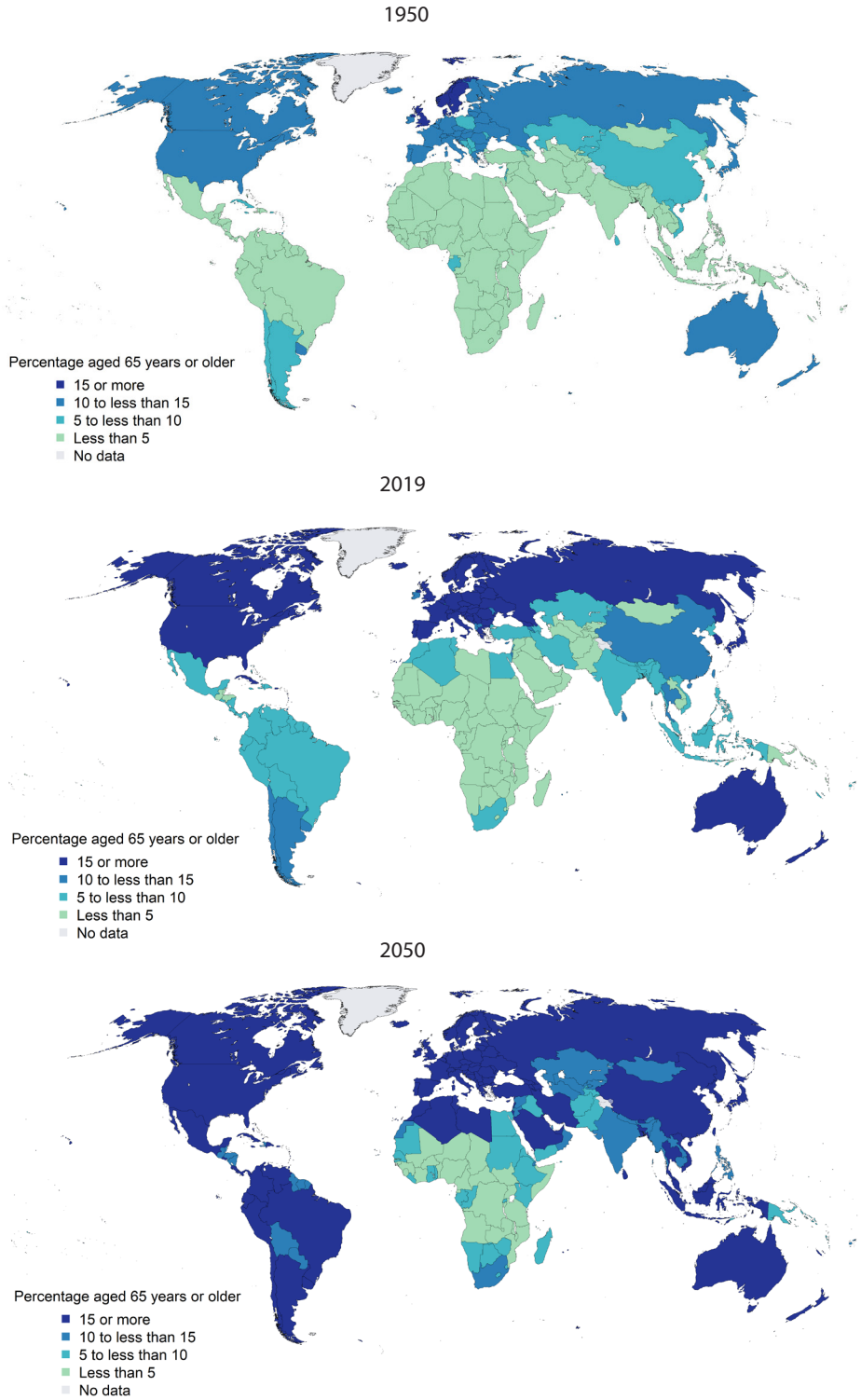
Table 2. Percentage of population aged 65 years or over for the world, SDG regions and selected groups of countries, 2019, 2030, 2050 and 2100, according to the medium-variant projection

Region	2019	2030	2050	2100
World	**9.1**	**11.7**	**15.9**	**22.6**
Sub-Saharan Africa	3.0	3.3	4.8	13.0
Northern Africa and Western Asia	5.7	7.6	12.7	22.4
Central and Southern Asia	6.0	8.0	13.1	25.7
Eastern and South-Eastern Asia	11.2	15.8	23.7	30.4
Latin America and the Caribbean	8.7	12.0	19.0	31.3
Australia/New Zealand	15.9	19.5	22.9	28.6
Oceania*	4.2	5.3	7.7	15.4
Europe and Northern America	18.0	22.1	26.1	29.3
Least developed countries	3.6	4.2	6.4	15.3
Land-locked Developing Countries (LLDC)	3.7	4.5	6.4	16.8
Small Island Developing States (SIDS)	8.7	11.9	16.1	23.7

Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019.*
* excluding Australia and New Zealand

Figure 13. Percentage of population aged 65 years or over in 1990, 2019 and 2050, according to the medium-variant projection

Virtually all countries and areas are experiencing population ageing



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.

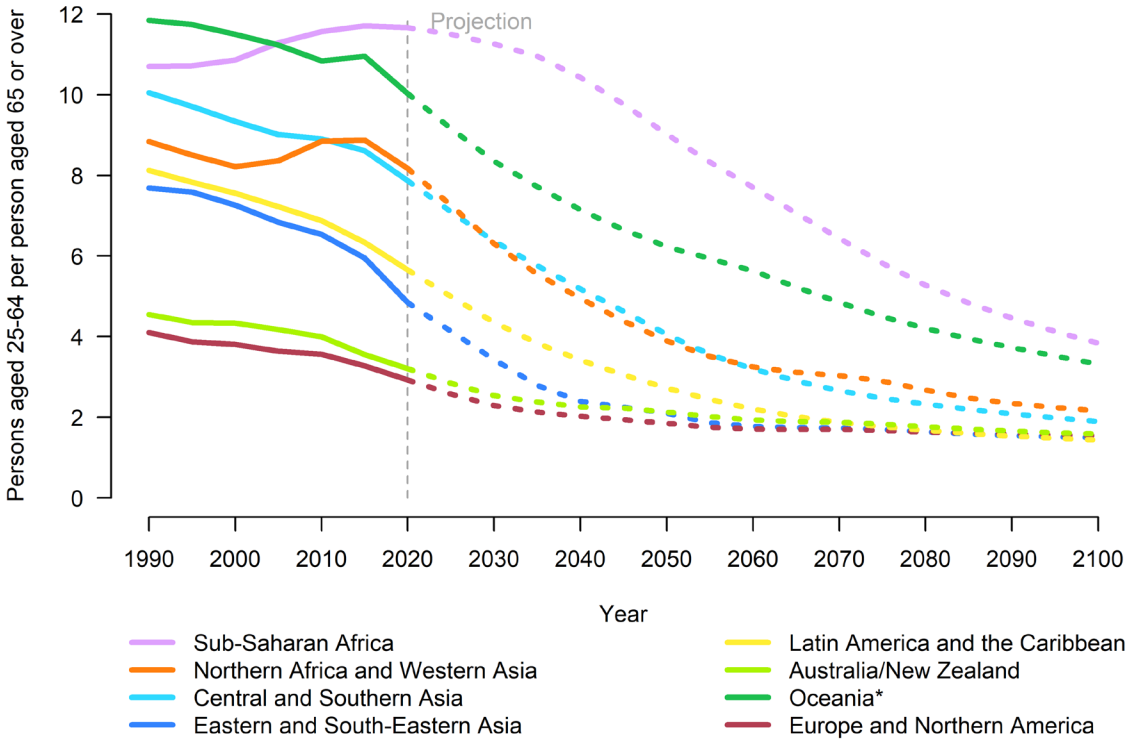
The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. 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. Final boundary between the Republic of Sudan the Republic of South Sudan has not yet been determined. A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

of people of working age (25 to 64 years) per person aged 65 years or over. In 2019, sub-Saharan Africa has 11.7 persons aged 25 to 64 for each person aged 65 or over. This ratio is 10.2 for Oceania*, 8.3 for Northern Africa and Western Asia, 8.0 for Central and Southern Asia, 5.8 for Latin America and the Caribbean, 5.0 for Eastern and South-Eastern Asia, 3.3 for Australia and New Zealand, and 3.0 for Europe and Northern America. At 1.8, Japan in 2019 has the lowest potential support ratio of all countries or areas with at least 90,000 inhabitants. An additional 29 other countries or areas, mostly in Europe and the Caribbean, have potential support ratios below three.

By 2050, 48 countries, mostly in Europe, Northern America, Eastern Asia or South-Eastern Asia, are expected to have potential support ratios below two. These low values underscore the potential impact of population ageing on the labour market and economic performance as well as the fiscal pressures that many countries are likely to face in the coming decades in relation to public systems of health care, pensions and social protection schemes for older persons.

Figure 14. Estimated and projected potential support ratio by SDG region, 1990-2100, according to the medium-variant projection

Population ageing leads to a decline in the potential support ratio, which describes the number of working-age persons relative to the number of older persons in the population



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.
* excluding Australia and New Zealand

Box 2. Data sources and methods

With each successive revision of the *World Population Prospects*, the Population Division of the United Nations estimates historical demographic trends for the period from 1950 to the present and projects future population trends out to 2100. The estimates are based on all available sources of data on population size and levels of fertility, mortality and international migration for 235 distinct countries or areas comprising the total population of the world.

A description of the empirical data that inform the latest set of estimates is available on the *World Population Prospects* web page (https://population.un.org/wpp/) under 'Data sources.' In total, the 2019 revision is based on information from:

- 1,690 population and housing censuses for 235 countries or areas, including 236 censuses conducted since 2010;
- vital registration of births and deaths from 163 countries or areas;
- 2,700 surveys, including demographic and health surveys, conducted in 235 countries or areas, among which 540 were administered in 2010 or later;
- official statistics reported to the Demographic Yearbook of the United Nations;
- population registers and other administrative sources on international migration statistics.

In addition to the national data sources described above, the 2019 revision has considered international estimates from the following sources:

- refugee statistics from the Office of the United Nations High Commissioner for Refugees (UNHCR);
- estimated time series of adult HIV prevalence and coverage of antiretroviral treatment from the Joint United Nations Programme on HIV/AIDS (UNAIDS);
- estimated time series of infant and under-five mortality from the United Nations Inter-agency Group for Child Mortality Estimation (UN-IGME);
- estimates of international migration flows and stocks of foreign-born persons from the United Nations;
- various other series of international estimates produced by international and regional organizations, and academic research institutions†.

These data sources served to reconstruct population changes in each country or area from 1950 until the present. In doing so, the Population Division used the cohort-component method (United Nations, 1956) to ensure internal consistency by age and sex and over time, and between the three demographic components of change (fertility, mortality and migration) and the enumerated population. The cohort-component method was also used to project population trends until 2100 using a variety of demographic assumptions concerning the components of population change.

In the 2019 revision, the figures from 1950 through the period from mid-2015 to mid-2020 are treated as estimates, and thus the projections for each country or area begin on 1 July 2020 and extend until 2100. In projecting future levels of fertility and mortality, probabilistic methods were used to reflect the uncertainty of the projections based on the historical variability of changes in each variable. The method takes into account the past experience of each country, while also reflecting uncertainty about future changes based on the past experience of other countries under similar conditions.

The medium-variant projection highlighted in this report corresponds to the median of several thousand distinct trajectories of each demographic component derived using the probabilistic model of the variability in changes over time. Prediction intervals reflect the spread in the distribution of outcomes across the projected trajectories and thus provide an assessment of the uncertainty inherent in the medium-variant projection. In addition, a number of projection variants were produced to convey the sensitivity of the medium-variant projection to changes in the underlying assumptions, and to explore the implications of alternative future scenarios of population change.

† Including the Human Mortality Database and Human Life Table Database (UC Berkeley, MPIDR and INED), the Human Fertility Database and Human Fertility Collection (MPIDR and VID), the Latin American Mortality Database–LAMBdA (University of Wisconsin-Madison), the International Data Base (U.S. Census Bureau), the Global Burden of Disease project (IHME, University of Washington) and the Developing Countries Mortality Database–DCMD (Zhejiang University).

Youth migration advocates in Marrakech, Morocco, December 2018, UN Photo/Mark Garten

Demographic drivers of population change: fertility, mortality and international migration

9. Global population trends are driven largely by trends in fertility – especially in the average number of live births per woman over a lifetime – which has fallen markedly over recent decades in many countries.

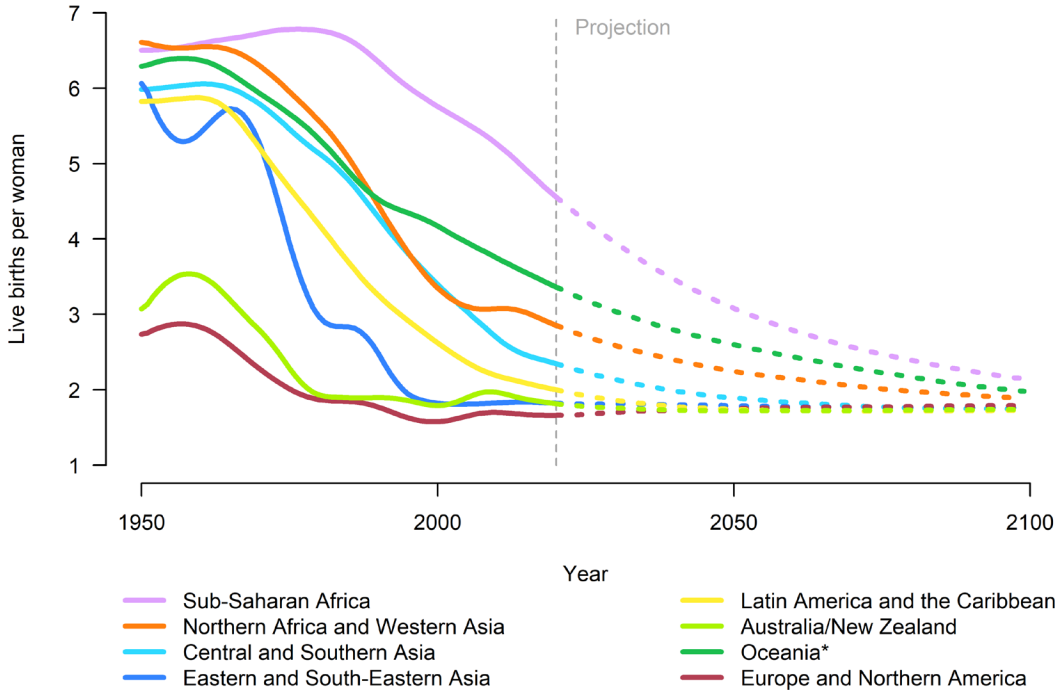
Over the past several decades, virtually all regions have experienced fertility decline (figure 15). In sub-Saharan Africa, where the average level of fertility is the highest of the eight SDG regions, total fertility has fallen from 6.3 births per woman in 1990 to 4.6 in 2019. Over the same period, fertility levels also fell in Northern Africa and Western Asia (from 4.4 to 2.9), Central and Southern Asia (4.3 to 2.4), Eastern and South-Eastern Asia (2.5 to 1.8), Latin America and the Caribbean (3.3 to 2.0), and Oceania* (4.5 to 3.4).

In Australia/New Zealand and in Europe and Northern America the levels of fertility in 1990 were already below an average of two live births per woman over a lifetime and they remain so today, with 1.8 live births per woman, on average, in Australia/New Zealand in 2019 and 1.7 in Europe and Northern America.

Globally, the level of fertility is expected to fall from an average of 2.5 live births per woman in 2019 to 2.2 in 2050 and to 1.9 in 2100, according to the medium-variant projection. However, in Europe and Northern America, total fertility is projected to increase slightly by the end of the century from 1.7 in 2019 to 1.8 in 2100. The largest reductions in the average total fertility are projected to occur in sub-Saharan Africa where the medium-variant

Figure 15. Estimated and projected total fertility by SDG region, 1950-2100, according to the medium-variant projection

The average number of children born to women over a lifetime has fallen markedly in many regions over the past several decades



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.
* excluding Australia and New Zealand

projection assumes that fertility will fall from around 4.6 live births per woman in 2019 to 3.1 in 2050 and further to 2.1 in 2100.

In most regions, the total number of births projected according to the medium variant over the 30-year period from 2020 to 2050 is similar to or less than the number estimated for the 30 years from 1990 to 2020 (figure 16). Sub-Saharan Africa is a notable exception among the eight SDG regions: despite falling fertility levels, the number of births in the region will continue to increase. The nearly 1.4 billion babies projected to be born in sub-Saharan Africa between 2020 and 2050 is more than 50 per cent greater than the number of babies born between 1990 and 2020. Northern Africa and Western Asia is also projected to have more births in the coming 30 years than over the past 30, although the magnitude of the increase (13 per cent) is much smaller than for sub-Saharan Africa according to the medium variant.

As a group, the 47 least developed countries, many of which are located in sub-Saharan Africa, are projected to see 1.1 billion births from 2020 to 2050, which marks a 38 per cent increase over the 813 million babies born in LDCs during the period from 1990 to 2020. The substantial increase in the number of births projected for the least developed countries underscores the challenges of providing adequate health care and nutrition to growing numbers of infants and their mothers, as well as access to high quality education for growing numbers of children.

Whereas in 1990 more than a third of the world's population lived in countries where fertility was above four births per woman, in 2019 only 12 per cent of the world's population lives in such high-fertility contexts (figure 18).

Of the 36 countries or areas with fertility levels above four births per woman in 2019, 33 are found in sub-Saharan Africa. The most populous

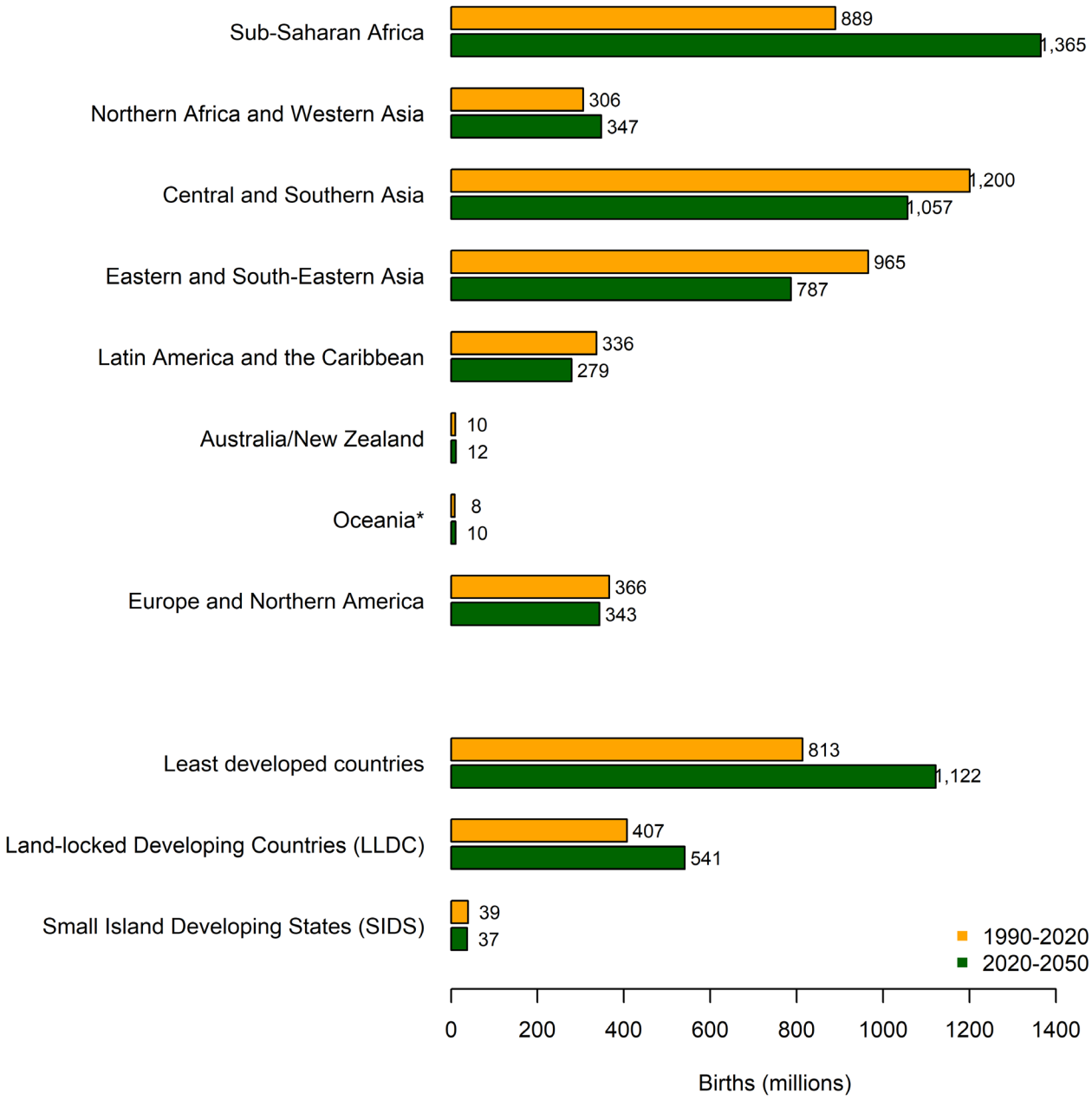
Table 3. Total fertility for the world, SDG regions and selected groups of countries, 1990, 2019, 2050 and 2100, according to the medium-variant projection

	Average number of live births per woman			
Region	1990	2019	2050	2100
World	**3.2**	**2.5**	**2.2**	**1.9**
Sub-Saharan Africa	6.3	4.6	3.1	2.1
Northern Africa and Western Asia	4.4	2.9	2.2	1.9
Central and Southern Asia	4.3	2.4	1.9	1.7
Eastern and South-Eastern Asia	2.5	1.8	1.8	1.8
Latin America and the Caribbean	3.3	2.0	1.7	1.7
Australia/New Zealand	1.9	1.8	1.7	1.7
Oceania*	4.5	3.4	2.6	2.0
Europe and Northern America	1.8	1.7	1.7	1.8
Least developed countries	6.0	3.9	2.8	2.1
Land-locked Developing Countries	5.7	3.9	2.7	2.0
Small Island Developing States	3.2	2.4	2.1	1.8

Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.
* excluding Australia and New Zealand

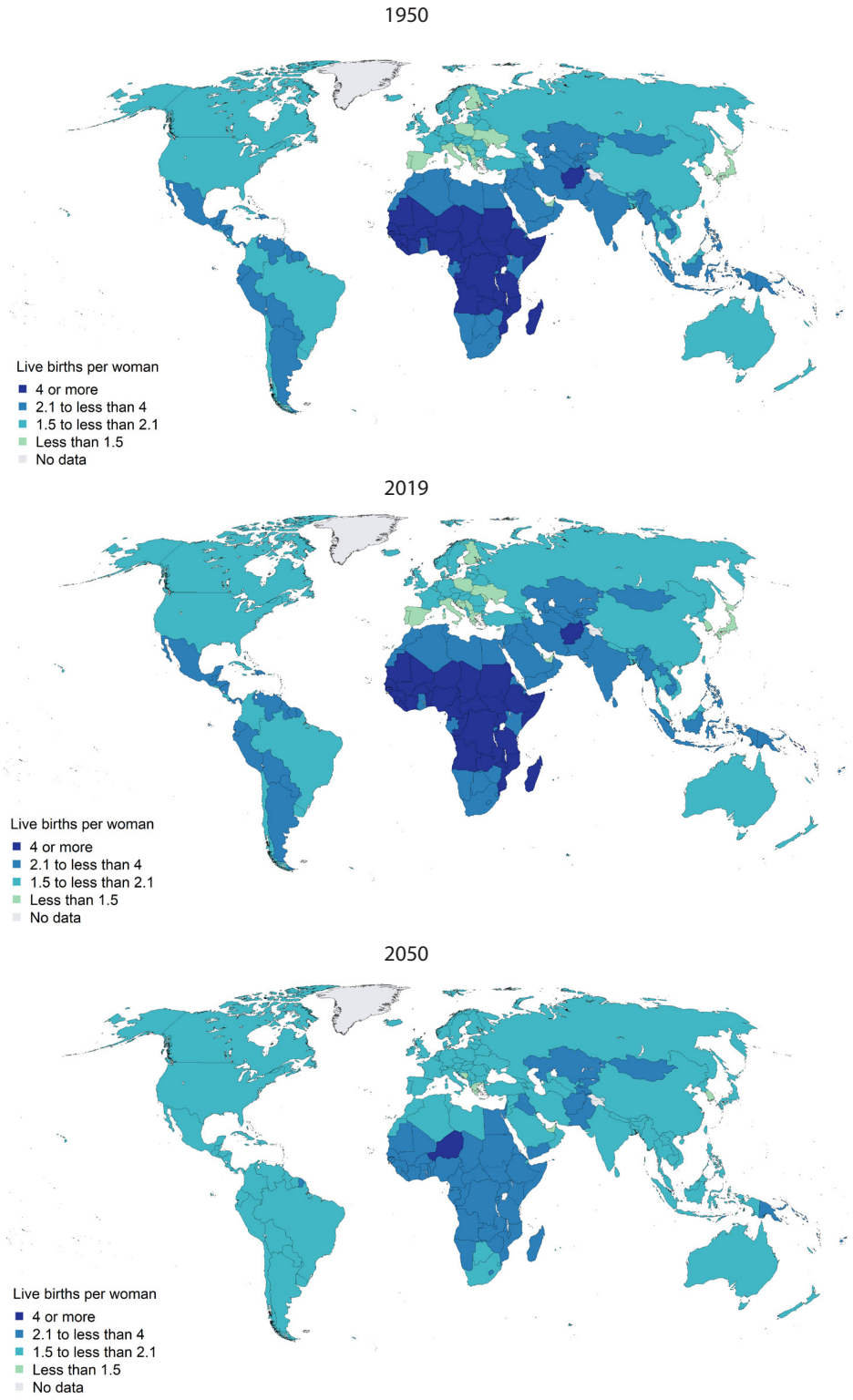
Figure 16. Number of births by SDG region and selected groups of countries, 1990-2020 and 2020-2050, according to the medium-variant projection

For populations with relatively high levels of fertility, projections point to substantial increases in the number of births



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.
* excluding Australia and New Zealand

Figure 17. Total fertility (live births per woman) in 1990, 2019 and 2050 according to the medium-variant projection



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.

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countries with fertility equal to or greater than four live births per woman, on average, in 2019, ranked according to population size, are Nigeria, Ethiopia, the Democratic Republic of Congo, the United Republic of Tanzania, Uganda and Sudan. In 2050, it is expected that Niger will be the only country in the world experiencing a fertility level greater than four births per woman over a lifetime.

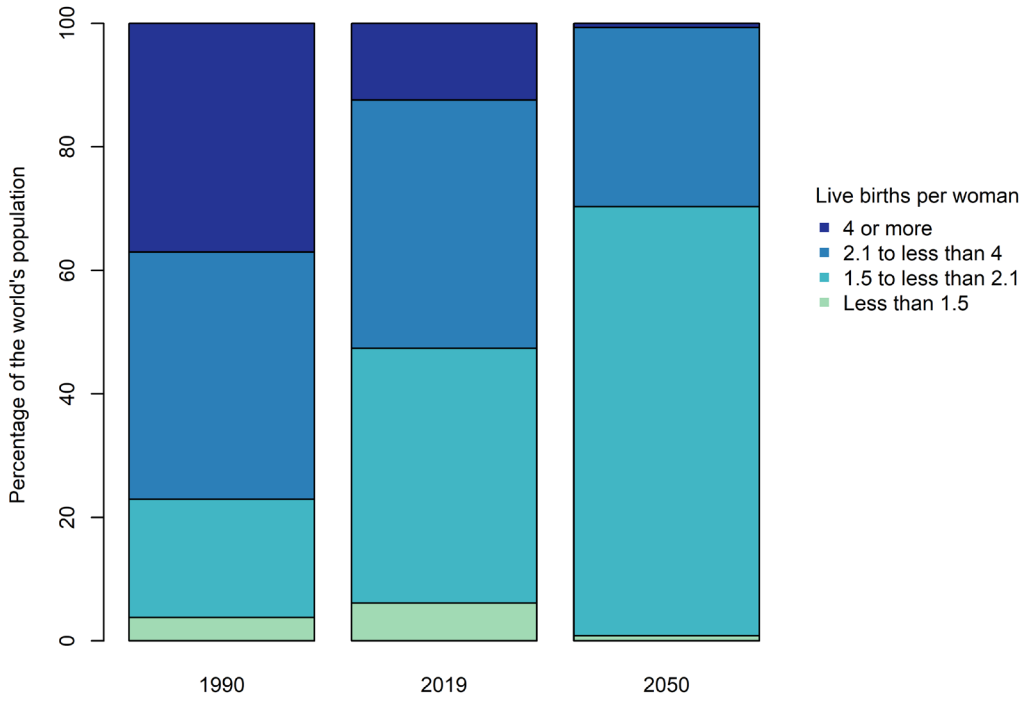
In 2019, around 40 per cent of the world's population lives in intermediate-fertility countries, where women have on average between 2.1 and four births over a lifetime. Average lifetime fertility of 2.1 live births per woman is roughly the level required for populations with low mortality to have a growth rate of zero in the long run. Intermediate-fertility countries are found in many regions, with the largest being India, Indonesia, Pakistan, Mexico, the Philippines and Egypt. In 2050, it is expected that slightly less than 30 per cent of the world's population will live in countries with fertility in this range.

In 2019, close to half of people globally live in a country or area where fertility is below 2.1 live births per woman compared to less than a quarter in 1990. Low-fertility countries now include all of Europe and Northern America and Australia and New Zealand, plus 4 countries or areas of Central and Southern Asia, 12 in Eastern and South-Eastern Asia, 20 in Latin America and the Caribbean, 10 in Northern Africa and Western Asia, 2 in Oceania* and 1 in sub-Saharan Africa. The most populous low-fertility countries are China, the United States of America, Brazil, Bangladesh, the Russian Federation, Japan and Viet Nam. In 2050, it is expected that 70 per cent of the world's population will live in countries where women give birth to fewer than 2.1 children on average over a lifetime.

Between 1990 and 2019 the number of countries or areas with very low levels of fertility, below 1.5 births per woman on average, increased from 8 to 25. In 2019, six per cent of the world's population lives in such low-fertility contexts. While several additional

Figure 18. Distribution of the world's population by level of total fertility, 1990, 2019 and 2050, according to the medium-variant projection

Close to half of people globally live in a country or area where the average lifetime fertility is below 2.1 live births per woman



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.

countries will likely see fertility fall below 1.5 in the coming years, it is expected that over the long term low-fertility countries will experience a slight increase in fertility levels and that very low fertility contexts will be less prevalent by 2050 (see box 1).

10. Some countries continue to experience high levels of adolescent fertility (births to mothers aged 15-19 years).

Levels of adolescent childbearing, which can have adverse health and social consequences both for the young mothers and for the children they bear, have fallen in most countries. Among the eight SDG regions in 2015-2020, the adolescent birth rate, that is, the number of births per 1,000 women aged 15 to 19, was highest in sub-Saharan Africa, at 104 per 1,000 women, followed by Latin America and the Caribbean at 63 per 1,000. The ratio of adolescent to total fertility was highest in Latin America and the Caribbean, where the birth rate at ages 15 to 19 years contributed 15 per cent of total fertility.

From 2015 to 2020, an estimated 62 million babies will be born to mothers aged 15 to 19 years worldwide, 46 per cent of them in sub-Saharan Africa, 18 per cent in Central and Southern Asia, and 14 per cent in Latin America and the Caribbean.

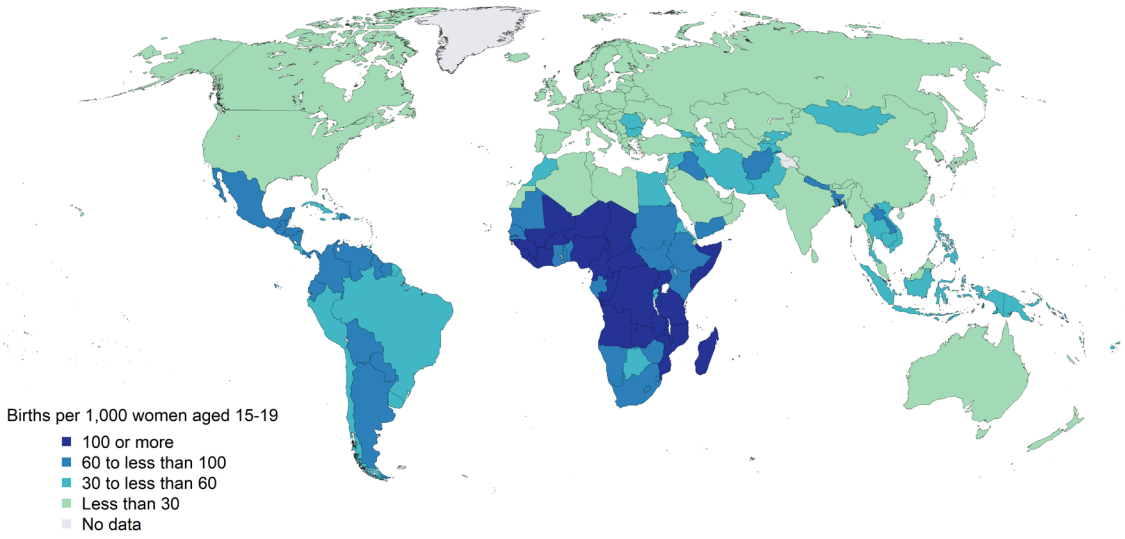
11. Life expectancy at birth for the world reached 72.6 years in 2019, having added more than 8 years since 1990.

All regions shared in the rise of life expectancy over this period, but the greatest gains were in sub-Saharan Africa, where improvements in survival have added nearly 12 years to the average length of life since 1990, reaching 61.1 years in 2019. In Central and Southern Asia, the life expectancy at birth increased by more than 11 years between 1990 and 2019, when it reached 69.9 years.

Improvements in survival are expected to continue in all regions such that in 2050 the average length of life is projected to have increased to 77.1 years globally. Of the eight SDG regions, life expectancy

Figure 19. Adolescent birth rate (live births per 1,000 women aged 15-19 years), 2015-2020

Some countries, including several in sub-Saharan Africa and Latin America, continue to experience high levels of adolescent fertility



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.

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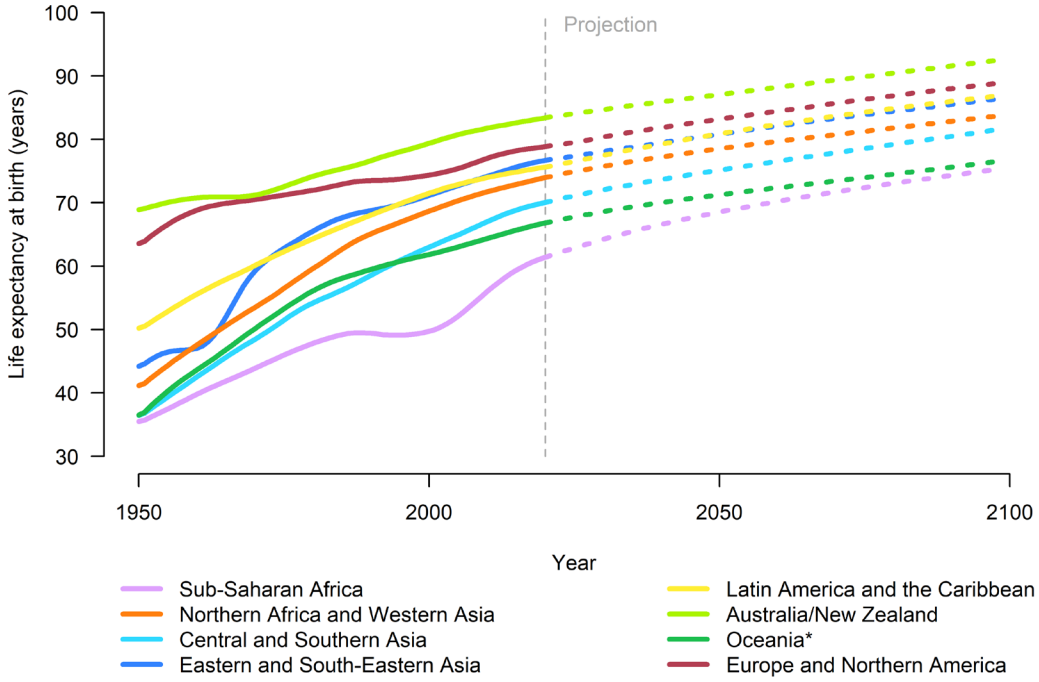
Figure 20. Estimated and projected life expectancy at birth for both sexes by SDG region, 1950-2100, according to the medium-variant projection

Considerable progress has been made towards closing the longevity differential between countries, but wide gaps remain



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.
* excluding Australia and New Zealand

Table 4. Life expectancy at birth by sex for the world, SDG regions, and selected groups of countries, 1990, 2019, and 2050, according to the medium-variant projection

	Life expectancy at birth (years)								
	1990			2019			2050		
Region	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes
World	**61.9**	**66.5**	**64.2**	**70.2**	**75.0**	**72.6**	**74.8**	**79.4**	**77.1**
Sub-Saharan Africa	47.7	51.1	49.4	59.3	62.9	61.1	66.3	70.8	68.5
Northern Africa and Western Asia	62.8	67.6	65.1	71.6	76.0	73.8	76.6	80.6	78.5
Central and Southern Asia	57.9	59.2	58.6	68.5	71.3	69.9	73.3	77.1	75.2
Eastern and South-Eastern Asia	66.7	71.0	68.8	74.0	79.2	76.5	78.8	82.9	80.8
Latin America and the Caribbean	65.0	71.3	68.1	72.3	78.7	75.5	78.5	83.2	80.9
Australia/New Zealand	73.6	79.7	76.7	81.3	85.2	83.2	85.4	88.7	87.1
Oceania*	58.0	61.1	59.5	65.1	68.2	66.6	69.3	73.4	71.3
Europe and Northern America	69.6	77.3	73.5	75.7	81.7	78.7	80.9	85.5	83.2
Least developed countries	49.8	52.5	51.1	63.3	67.0	65.2	69.5	74.2	71.8
Land-locked Developing Countries	50.0	54.2	52.1	63.5	67.9	65.8	69.7	74.7	72.2
Small Island Developing States	63.4	67.8	65.5	70.1	74.8	72.4	74.7	79.4	77.0

Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.
* excluding Australia and New Zealand

at birth is highest in Australia/New Zealand, at 83.2 years in 2019, and it is expected to increase further to 87.1 in 2050. With a projected gain of 7.4 years between 2019 and 2050, when it could reach 68.5 years, sub-Saharan Africa has the largest expected improvement to the life expectancy at birth among the eight SDG regions. Across all countries and regions, projected gains in life expectancy are contingent on continued progress in the prevention and treatment of diseases that cause mortality, including HIV/AIDS and other infectious and non-communicable diseases, as well as the absence of catastrophic events, such as war or major epidemics of fatal diseases.

12. While considerable progress has been made in reducing mortality and closing the longevity differential between countries, the gaps remain wide.

Life expectancy at birth in the least developed countries as a group lags 7.4 years behind the global average, due largely to persistently high child and maternal mortality rates, as well as the consequences of conflict and the continuing impact of HIV-related mortality in some countries.

Disparities in the average length of life between the world's longest-lived countries and shortest-lived countries amount to 30 years. With life expectancy at birth above 84 years in 2019, Japan and the Hong Kong and Macao special administrative regions of China are the world's longest-lived countries or areas. The world's shortest-lived countries are the Central African Republic, Chad, Lesotho, Nigeria and Sierra Leone, each with life expectancy at birth below 55 years in 2019.

A large portion of the longevity gaps between the shortest- and longest-lived populations is attributable to disparities in the under-five mortality rate, which represents the probability of dying between birth and age 5. Progress in reducing under-five mortality has been substantial and far-reaching in recent years, yet gaps remain. Globally, the under-five mortality rate fell from 93 deaths per 1,000 live births in 1990 to 38 in 2019. Still, a child born in sub-Saharan Africa in 2019 is 20 times as likely to die before his or her fifth birthday as a child born in Australia/New Zealand (figure 21).

Although the HIV/AIDS epidemic continues to be a major public health concern, HIV-related mortality among adults appears to have reached a peak over the past decade in most countries that have been highly affected by the epidemic, thanks mostly to the increasing availability of antiretroviral treatments. Nevertheless, in countries where HIV prevalence has been high, the impact of the epidemic in terms of morbidity, mortality and slower population growth continues to be evident. Thus, in Southern Africa[6], the sub-region with the highest prevalence of the disease, life expectancy at birth fell from 62.9 years in 1990 to 52.6 years in 2004 and has since recovered to just above the 1990 level, having reached 63.8 years in 2019. This represents a loss of two decades of potential improvements in survival rates for Southern Africa.

Throughout most of the world, survival at older ages is improving. The life expectancy at age 65 reflects the average number of additional years of life a 65-year-old person would live if subjected to the age-specific mortality risks of a given period throughout the remainder of his or her life. Globally, in 1990-1995, 65-year-old women could expect to live an additional 16 years and 65-year-old men an additional 13 years (figure 22). In 2015-2020, the expectation of life at age 65 has increased to 18 years for women and 16 years for men and it is projected to increase further, reaching 20 years for women and 18 years for men in 2045-2050. Between 1990-1995 and the present period, the largest absolute gains in survival past age 65 were observed for men and women in Australia/New Zealand, with an addition of 4.4 years and 3.3 years, respectively, to the life expectancy at age 65, followed by males in Europe and Northern America (3.3 years), women in Eastern and South-Eastern Asia (3.2 years), and women in Latin America and the Caribbean (2.9 years).

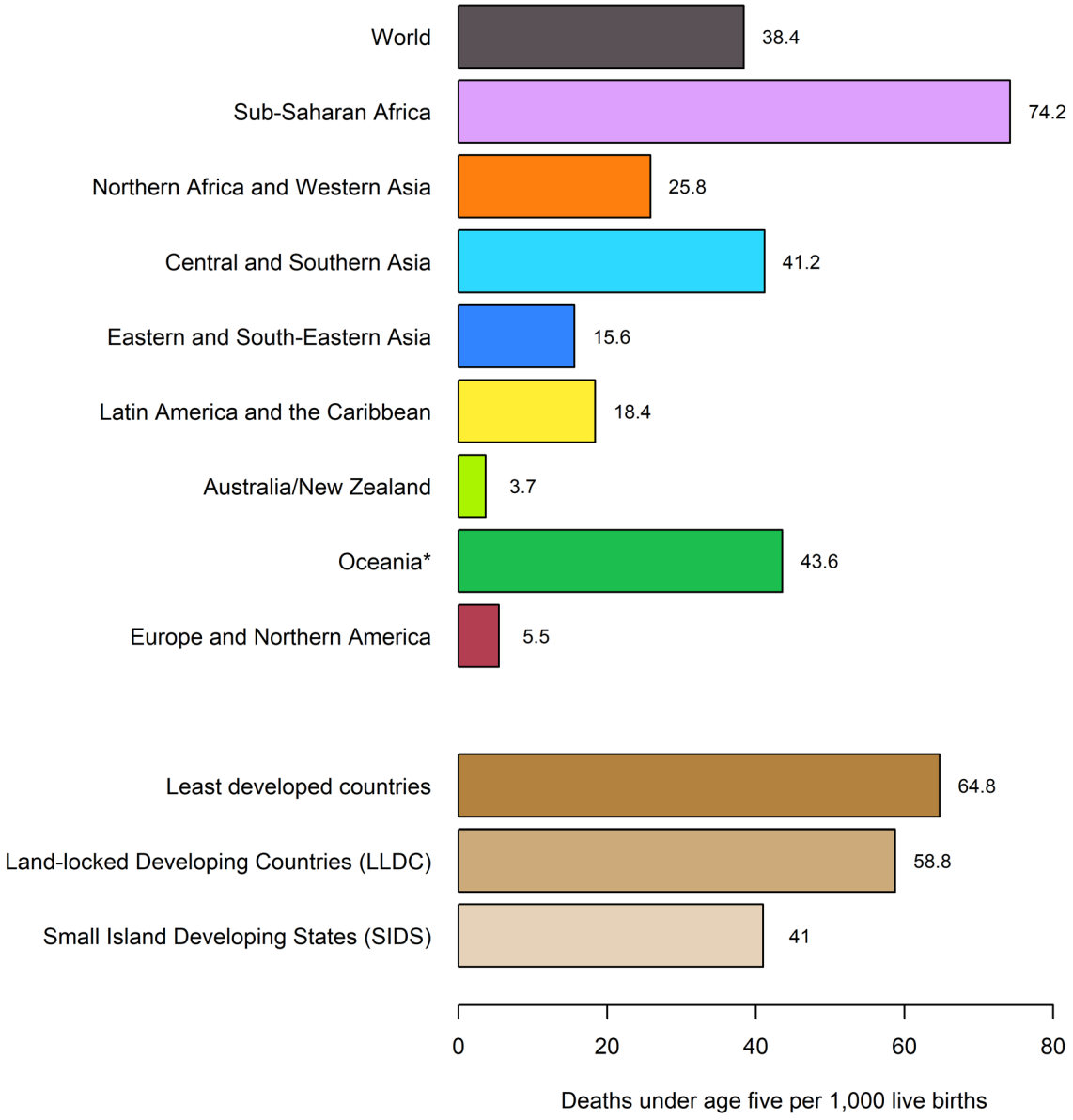
Several developed countries have faced challenges to improving survival over recent decades. In some countries of Eastern Europe, the life expectancy at birth actually declined during the late 1980s and 1990s. Progress in survival resumed in these countries during the 2000s, but the lasting effects of those setbacks remain evident in wide disparities across countries of Europe, with life expectancy at

6. Includes Botswana, Eswatini, Lesotho, Namibia and South Africa.

birth in 2019 ranging from 72 years in the Republic of Moldova and Ukraine, to near 84 years in Italy, Spain and Switzerland. More recently, since around 2015, there is emerging evidence of slowing or stalled progress in life expectancy in some populations of Europe and Northern America. In Canada, the United Kingdom and the United States, for example, recent vital statistics point to life expectancy in 2015-2020 that is lower than was previously projected based on the historical trajectory of improvement in survival in each country.

Figure 21. Under-five mortality rate for the world, SDG regions and selected group of countries, 2019

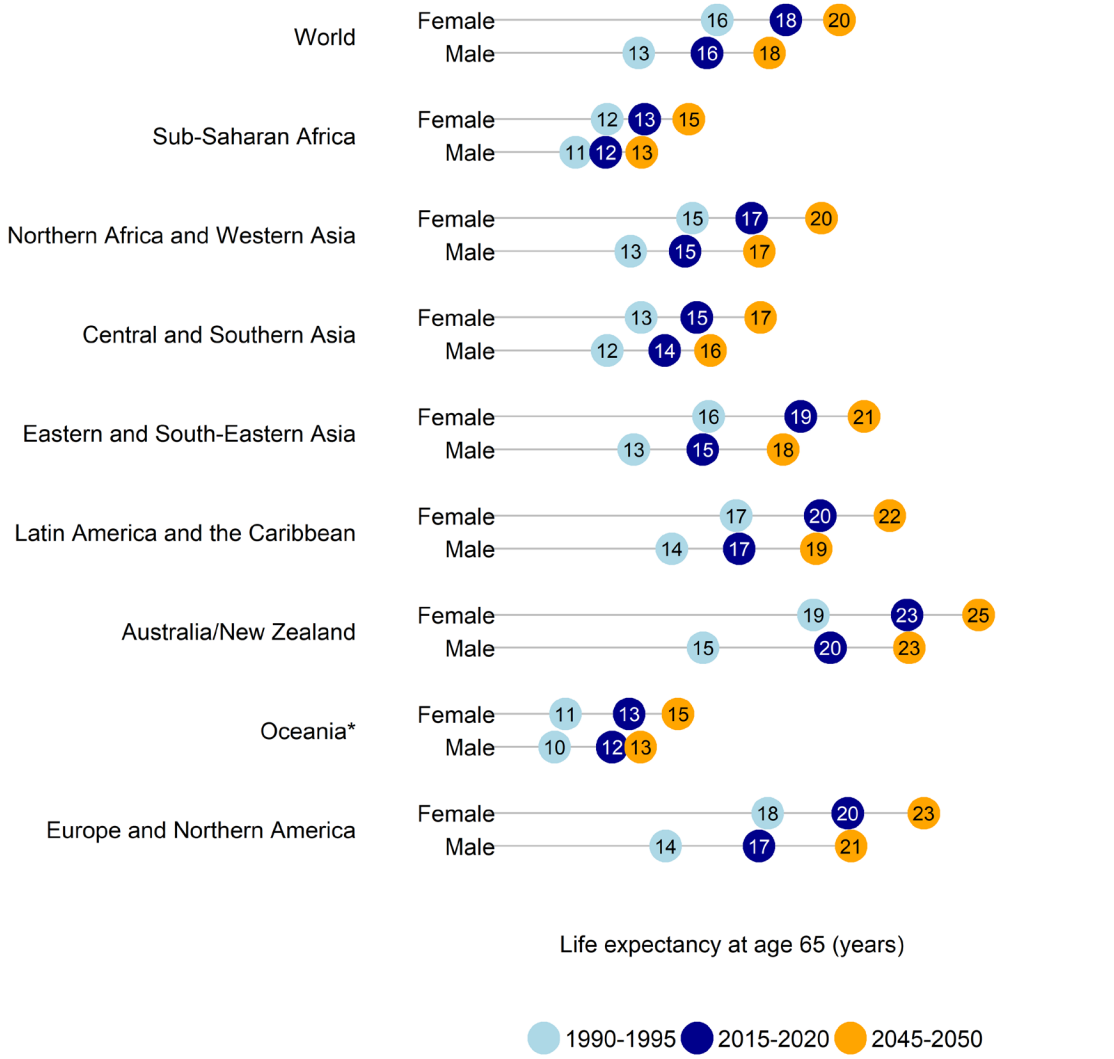
A child born in sub-Saharan Africa is 20 times as likely to die before his or her fifth birthday as a child born in Australia/New Zealand



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019.*
* excluding Australia and New Zealand

Figure 22. Estimated and projected life expectancy at age 65 years for SDG regions, 1990-1995, 2015-2020, 2045-2050, according to the medium-variant projection

Survival after age 65 has increased for both men and women in each of the eight SDG regions



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.
* excluding Australia and New Zealand

13. In some parts of the world, international migration has become a major component of population change.

Among the eight SDG regions, three are net receivers of international migrants (figure 23)[7]. These include Europe and Northern America, where the estimated number of immigrants to the region exceeded the number of emigrants by 25.9 million during the decade 2010-2020, Northern Africa and Western Asia (2.2 million), and Australia and New Zealand (1.9 million). The remaining five regions have been net senders of international migrants during 2010-2020. The estimated number of emigrants exceeded the number of immigrants the most in Central and Southern Asia, where net international migration for the region is minus 15.1 million in 2010-2020, followed by Latin America and the Caribbean (-5.4 million), Eastern and South-Eastern Asia (-5.2 million), sub-Saharan Africa (-4.1 million) and Oceania, excluding Australia and New Zealand (-208,000).

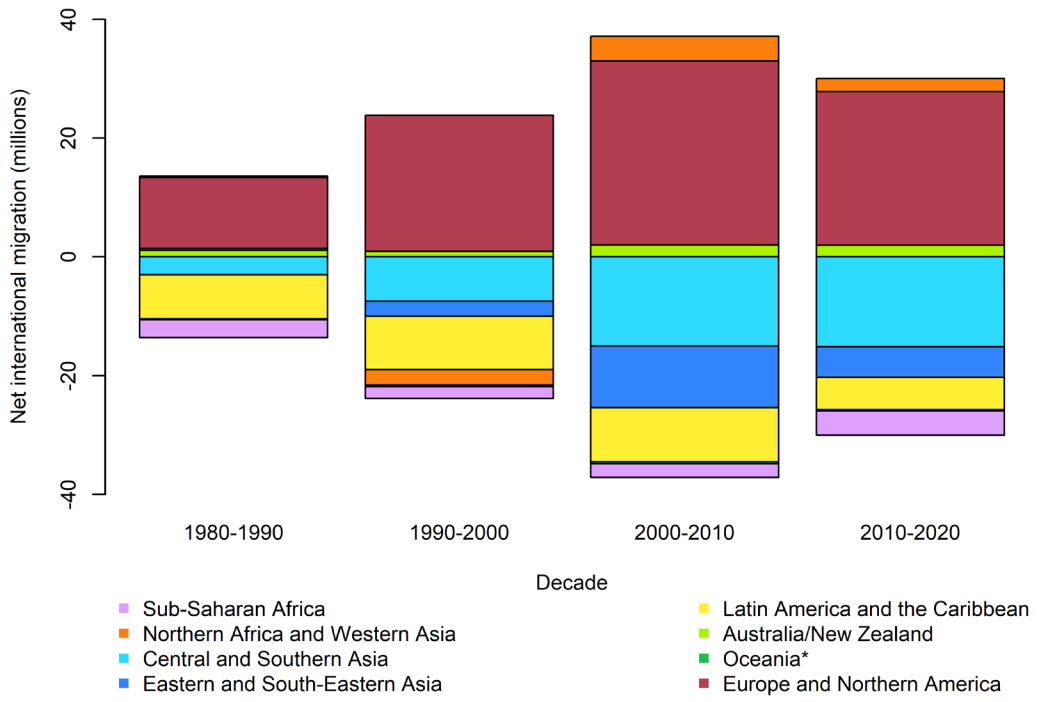
7. Net migration includes movements of international migrants, including refugees. It reflects the number of immigrants less the number of emigrants over a period and thus does not capture the total volume of migration flows. Most international migration occurs between countries that are close to each other in geographic proximity. Levels and trends of net migration across regions thus vastly underrepresent the total volume of international migration in the world. For estimated numbers of international migrants at the global, regional and national levels, see: United Nations (2017b).

For most regions, the absolute population gains or losses due to international migration were smaller in 2010-2020 than in the previous decade 2000-2010. Net migration to Europe and Northern America was 16 per cent less in 2010-2020 compared to 2000-2010. For Northern Africa and Western Asia, net emigration in 2010-2020 was 48 per cent less than in 2000-2010. Similarly, in Latin America and the Caribbean, the net loss of population due to international migration was 40 per cent less in 2010-2020 compared to 2000-2010 and in Eastern and South-Eastern Asia, it fell by half from one decade to the next. Of the eight regions, only sub-Saharan Africa experienced a substantial increase in the net population change due to international migration: the net loss of 4.1 million in 2010-2020 was 76 per cent greater than the net loss of 2.3 million over 2000-2010.

Between 2010 and 2020, 36 countries or areas experienced a total net inflow of more than 200,000 migrants; in 14 of those countries net inflow exceeded 1 million people over the past decade. All 14 were among the high-income or upper-middle income countries classified in 2018 by the World Bank (figure 24). For several of the top receivers, including Jordan, Lebanon and Turkey, the large inflows of international migrants have been dominated by refugee movements, in particular from Syria.

It is estimated that ten countries are experiencing a net outflow of more than 1 million migrants between 2010 and 2020. For many of these, losses of population due to migration are dominated by temporary labour movements, such as for Bangladesh (net outflow of -4.2 million during 2010-2020), Nepal (-1.8 million) and the Philippines (-1.2 million). In others, including Syria (-7.5 million), Venezuela (-3.7 million), and Myanmar (-1.3 million), insecurity, crisis and conflict have driven the net outflow of migrants over the decade.

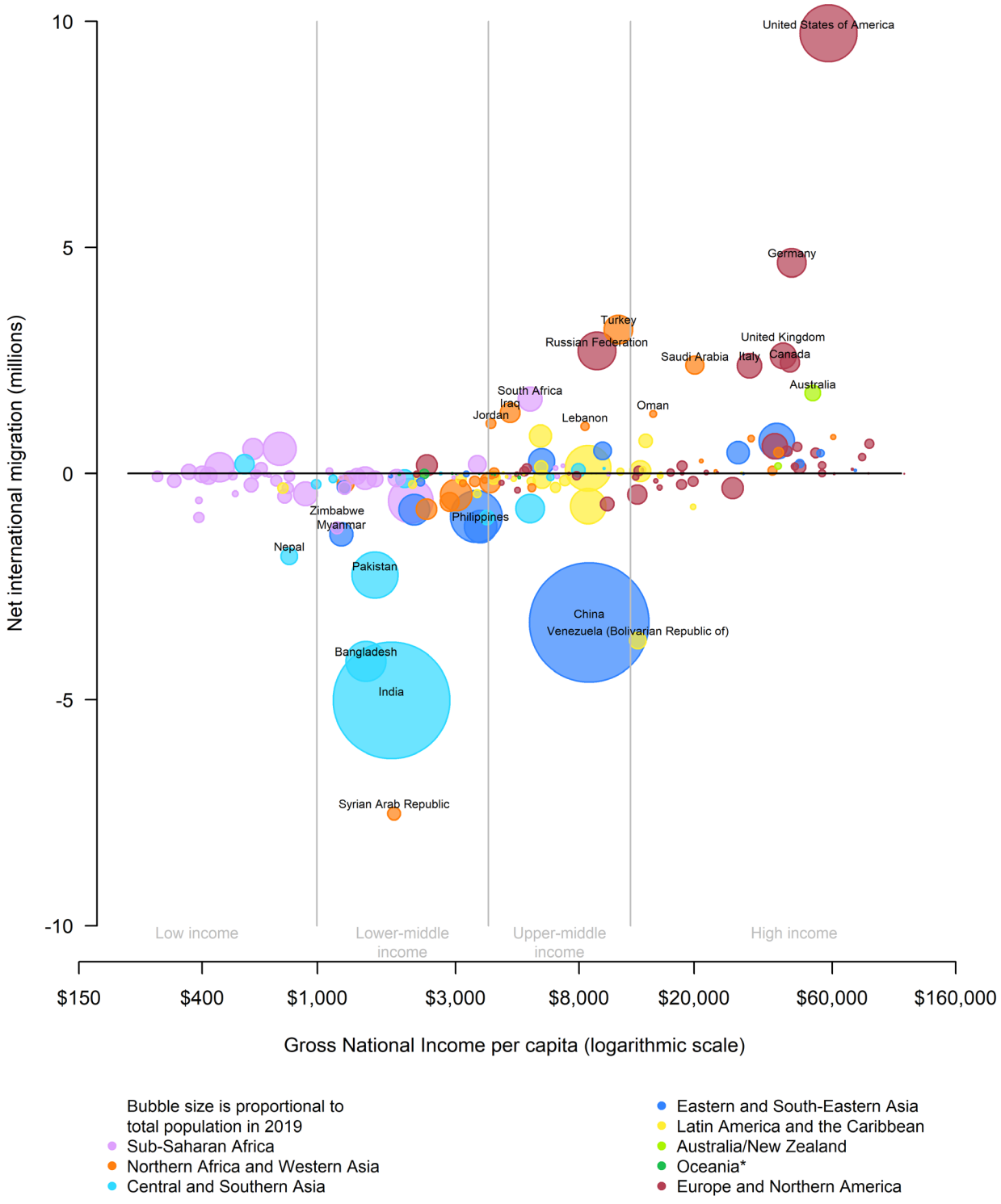
Figure 23. Net international migration by SDG region, 1980-1990, 1990-2000, 2000-2010, and 2010-2020



Data source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*.
* excluding Australia and New Zealand

Figure 24. Net international migration during 2010-2020 and per capita annual gross national income

The countries with the largest net numbers of immigrants are high-income or upper-middle-income countries



Data sources: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*. GNI is from World Bank (2018). *World Development Indicators. GNI per capita, Atlas method.*

* excluding Australia and New Zealand

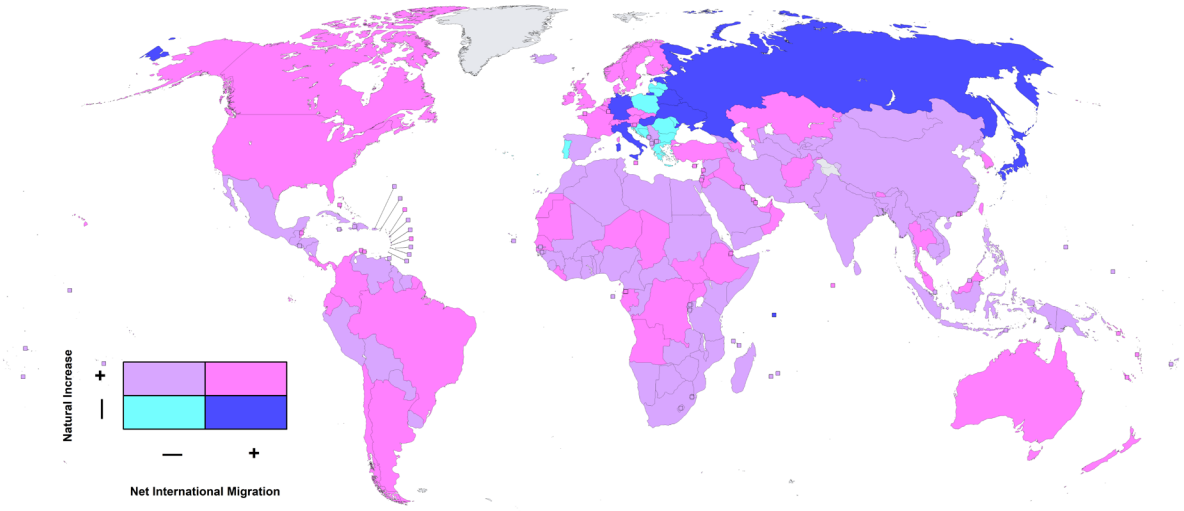
Note: Labelled countries are those where the net gains or losses due to international migration exceeded 1 million in 2010-2020.

14. International migration can attenuate decreasing population size in countries where the number of deaths exceeds the number of births.

Over the decade 2010-2020, nine countries experienced positive net migration (the number of immigrants exceeding the number of emigrants) that countered negative natural increase (the number of deaths exceeding the number of births): Belarus, Estonia, Germany, Hungary, Italy, Japan, the Russian Federation, Serbia and Ukraine (figure 25). In four of the nine countries (Belarus, Germany, Italy and the Russian Federation), the volume of net immigration was sufficient to offset the negative natural increase and maintain positive population growth over the decade. In the remaining five countries, positive net migration slowed the rate of population decrease, but the population estimated for 2020 is still smaller than in 2010.

Conversely, negative net migration can exacerbate decreasing population size caused by negative natural increase. During 2010-2020, ten countries, all in Europe, experienced both negative natural increase and negative net migration. These include Bosnia and Herzegovina, Bulgaria, Croatia, Greece, Poland, Portugal, Latvia, Lithuania, the Republic of Moldova and Romania. Consequently, all ten countries experienced a decrease in population size over the decade, ranging from minus 1 per cent in the Republic of Moldova to minus 13 per cent in Lithuania.

Figure 25. Direction of net international migration (immigrants-emigrants) and natural increase (births-deaths), 2010-2020



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SUSTAINABLE DEVELOPMENT GOALS
1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS
SUSTAINABLE DEVELOPMENT GOALS

Population dynamics and the Sustainable Development Goals

15. Societies can adapt to demographic realities by anticipating future trends and incorporating that information into Government policies and planning.

Inclusive economic growth is needed to support a growing global population, which could increase by 835 million people between 2019 and 2030, the target date for the achievement of the 17 Sustainable Development Goals. Many of the fastest growing populations reside in the world's poorest countries, where population growth is putting pressure on already strained resources and challenging policies that aim to achieve the SDGs and ensure that no one is left behind.

In sub-Saharan Africa, the region that is expected to account for more than half of the world's population growth over the coming decades, the number of babies projected to be born between 2020 and 2050 (nearly 1.4 billion) exceeds the number born between 1990 and 2020 by more than 50 per cent. A rapidly increasing number of births poses particularly significant challenges for countries striving to expand services for mothers and newborns (SDGs 1, 3 and 5).

A growing number of infants foreshadows growing numbers of school-aged children and adolescents and youth in the future. In the 47 least developed countries, the number of adolescents and youth aged 15 to 24 years is projected to grow from 207 million in 2019 to 336 million in 2050. Leveraging the opportunity presented by the demographic dividend depends critically on investing in the health and education (SDGs 3 and 4) of the young people who will soon join the labour force, and on ensuring their successful integration into the labour market, with full and productive employment and decent work for all (SDG 8).

Many of the countries with the highest levels of maternal mortality and the greatest unmet need for family planning continue to experience growth in the number of women of reproductive age. Programmes to expand access to contraceptives must keep pace with population growth just to maintain current levels of coverage. In all countries and areas, achieving gender equality and the empowerment of women requires eliminating all forms of violence and discrimination against women (SDG 5), promoting female education (SDG 4), and ensuring that women have access to safe and effective means of family planning (SDG 3), as well as equal access to the labour market (SDG 8), social security and the political process (SDGs 8, 5 and 16).

Persons aged 65 or over make up the world's fastest-growing age group. Virtually all countries are anticipating an increase in the percentage of older persons in their populations. Countries need to plan for population ageing and ensure the well-being of older persons by protecting their human rights and economic security and by ensuring access to age-appropriate health care services, lifelong learning opportunities, and formal and informal support networks (SDGs 1, 3, 4, 5, 8, 10 and 16).

Urban areas are expected to absorb virtually all of the future growth of the world's population (United Nations, 2018). Rapid urban growth presents an important opportunity, but it also poses challenges to the implementation of an ambitious urban development agenda that seeks to make cities and human settlements inclusive, safe, resilient and sustainable (SDG 11).

International migration can be a transformative force, lifting millions of people out of poverty and contributing to sustainable development in both countries of origin and countries of destination. Facilitating safe, orderly and regular migration, while reducing incentives for irregular migration, is the best possible way to harness the full development potential of migration (SDGs 8, 10 and 16). Addressing the adverse drivers of migration, such as poverty, insecurity and lack of decent work,

can help to make the option of remaining in one's country viable for all people.

While the relationships between population size, consumption, technology and the environment are far from simple, demographic trends highlight the importance of integrating population dynamics into development planning (SDGs 6, 7, 9, 12, 13, 14 and 15).

Box 3. Strengthening the demographic evidence base for sustainable development

Demographic data are essential for development planning and for assessing progress towards the achievement of development goals. Reliable and timely data are needed on the size, growth, distribution and characteristics of populations, and on births, deaths and migration.

It is critical to strengthen national capacities to collect, use and disseminate demographic data gathered through vital statistics systems and other administrative registers, as well as population censuses and nationally-representative surveys.

In many countries, systems of civil registration and vital statistics urgently require strengthening to improve the availability, timeliness and reliability of such data. Civil registration system provide the preferred data for computing statistics on levels of fertility and mortality in a population, and for tracking changes in population size and its distribution by age and sex. Universal registration of births and deaths also helps to ensure access to legal identity for all persons, as called for by the SDGs.

Well-maintained, centralized population registers are the most reliable source of information for deriving population estimates. In particular, they provide invaluable information on migration, including both arrivals and departures of international migrants.

Information gathered through a population census is critical for national planning purposes. For this reason, the United Nations recommends that national governments commit to taking a census at least once per decade (United Nations, 2017a). A census involves the complete enumeration of the population while recording the basic characteristics of individuals and households. Advances in information and communication technologies are being leveraged to improve efficiency in the collection, processing and dissemination of census data.

Household surveys provide essential information for assessing progress toward the SDGs, including data disaggregated by key characteristics of individuals. Integrating survey programmes within national statistical systems helps to promote synergies with other data sources. The United Nations provides international guidelines for the collection, documentation and dissemination of such data.

Demographic statistics are typically disaggregated by sex and age, and sometimes by income, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts. Open-data policies facilitate the dissemination of individual-level data from censuses, surveys and other sources, but also require adequate safeguards to ensure confidentiality and protect privacy. Geographically referenced data provide users with maximum flexibility to specify sub-national units of analysis.

The evidence base for sustainable development can be improved by ensuring that every birth and death is counted and registered, and by encouraging participation in the 2020 round of population censuses.

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The 2019 revision of the *World Population Prospects* is the twenty-sixth edition of the official United Nations population estimates and projections. It presents population estimates from 1950 to the present for 235 countries or areas, underpinned by analyses of historical demographic trends. This latest assessment considers the results of 1,690 national population censuses conducted between 1950 and 2018, as well as information from vital registration systems and from 2,700 nationally representative sample surveys. The 2019 revision also presents population projections to the year 2100 that reflect a range of plausible outcomes at the global, regional and country levels.

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