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73 EN

Growth, age and spatial distribution

Reconciling demographic change with sustainable development

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Since the adoption of the Programme of Action of the International Conference on Population and Development in 1994, most countries have experienced rapid demographic changes. Nowadays, there is a great diversity of demographic situations across countries and geographic regions, presenting various opportunities and challenges with regard to sustainable development. Early progress has been made towards the achievement of the Sustainable Development Goals since their adoption in 2015. Nevertheless, population is still growing rapidly in most of the countries facing the greatest challenges with regard to ending poverty and hunger and ensuring health, education and equality for all.

In this context, sustained and reinforced efforts will be needed to ensure that all countries meet the internationally agreed Goals and targets by 2030. The World Demographic Trends Report* provides an overview of demographic trends for the world, its geographic regions and selected countries, and for various development and income groups. It focuses on major demographic changes during recent during the time frame for decades, as well as

A recent assessment by the UN shows a world's population numbered 7.6 billion in 2017 and is projected to grow to around 8.6 billion in 2030, especially in Africa and Asia.

The world's population is likely to continue at a slower pace after 2050 when is expected to number around 9.8 billion and stabilize at a level of roughly 11 billion people by the end of the century.

In the short run, however, it is expected that the world will continue to see rapid changes in population size and population distribution by age, with important consequences for sustainable development.

** Source: Report of the UN Secretary General on 'World demographic trends', (Commission on Population and Development, 51st session, 9–13 April 2018). Available at: http://bit.ly/2CsgNYl.*

projected changes implementing the 2030 Agenda for Sustainable Development and beyond. Some of the topics covered by the report include population size and change, mortality, changing population age structures, etc.

While the world's population continues to grow, there is a considerable variety of demographic trends across countries and geographic regions, and across development and income groups. The main demographic trends are determined by a declining level of fertility at the global level and by increasing levels of life expectancy at birth in almost all countries, which are causing a gradual ageing of populations worldwide, albeit in varying degrees. Some countries are still in an early phase of the demographic transition, with high proportions of children and youth, while in other countries the number of persons at older ages is growing faster than in the younger age groups. The transformation of the age structure of human populations has major implications for sustainable development.

Population size and change

The world's population reached an estimated 7.6 billion in 2017 and is expected to grow to slightly more than 11 billion in 2100. Currently, the global population is growing at 1.2% yearly, adding approximately 83 million people annually. The global growth rate is expected to decline to about 0.5% by 2050, driven by a continuing decline in levels of fertility.

While the population of high-income countries (as categorized by the World Bank in 2016) is projected to grow only slightly, rising from 1.2 billion in 2017 to 1.3 billion in 2050, the population of middle-income countries will grow by almost a quarter, from 5.7 billion to 7.1 billion, and low-income countries will see their combined population double, from 0.7 billion to 1.4 billion. The population of the group of least developed countries will rise from 1 billion to 1.9 billion. Thus, population growth is projected to be largest, and most rapid, in countries facing the greatest challenges in ending poverty and hunger and ensuring health, education and equality for all.

The populations of geographic regions are projected to take divergent paths. The population of Africa, the fastest growing geographic region, is projected to double between 2017 and 2050, increasing by 1.3 billion people. The projected growth in Asia will add 0.8 billion to a population of 4.5 billion by 2050. The population of Latin America and the Caribbean, Northern America and Oceania together are expected to grow by 0.2 billion between 2017 and 2050, while the population of Europe is projected to decline slightly, by 26 million people. The proportion of the global population living in Africa is expected to increase from 17% in 2017 to 26% in 2050. The proportion in Asia is projected to decline from 60% to 54% over the same interval, while the share of global population living in all other geographic regions combined will fall from 24% to 20%.

Mortality

In the second half of the twentieth century, the decline of mortality that started in the nineteenth century in Europe and other developed countries accelerated and spread globally. Between 1970–1975 and 2010–2015, global life expectancy at birth rose by 12.7 years, from 58.1 years to 70.8 years, for both sexes combined, and is projected to increase further to 76.9 years in 2045–2050. By the end of the century, global life expectancy at birth is likely to exceed 82 years. In 2010–2015 the life expectancy of women was 73.1 years and that of men was 4.6 years lower at 68.5 years. The difference in life expectancy at birth between Africa and Northern America, the geographic regions with the lowest and highest life expectancy, respectively, decreased from 25 years in 1970–1975 to 19 years in 2010–2015 and is expected to decline to 13 years in 2045–2050.

In 2010–2015 the high-income countries reached, on average, a life expectancy at birth of 80.4 years. Thirty-two countries and areas had a life expectancy of more than 80 years, the majority of them in Europe. The highest life expectancy for a national population was recorded for Japan (83.3 years). Nevertheless, 25 countries, including some of the world's poorest countries, have still not reached a life expectancy of 60 years. Life expectancy at birth for the group of least developed countries was 62.9 years on average in 2010–2015.

The increase in life expectancy at birth commonly starts with reductions in the risk of death occurring among young children. High infant and child mortality is largely a result of a high incidence and fatality of communicable diseases at younger ages. Progress in reducing infant and child mortality from these diseases consequently depends largely on improvements in living conditions, sanitation, nutrition, and health technologies, such as vaccines, that contribute to preventing common mortality from infections and malnutrition. The under-five mortality rate — the probability of dying between birth and a child's fifth birthday — declined worldwide from 91 deaths per 1,000 live births in 1990–1995 to 48 in 2010–2015. Over the same period, under-5 mortality in Asia declined

from 84 to 38 per 1,000 live births, and in Latin America from 49 to 24 per 1,000. The largest absolute reduction in under-5 mortality was recorded in Africa, where the rate declined from 167 to 87 deaths per 1,000 live births.

Target 2 of SDG 3 calls for a level of under-5 mortality in 2030 of no more than 25 per 1,000 live births. Latin America and the Caribbean already reached this target, on average, in 2010–2015. According to the most recent mortality projections from the UN, both Asia and Oceania will also meet the target by 2030. Europe and Northern America have already achieved the target and are expected to reach under-5 mortality levels of less than 5 per 1,000 by 2030. Some countries, however, seem unlikely to meet the target if current trends continue. Globally, there are 59 countries, including 43 in Africa, 9 in Asia, 4 in Latin America and the Caribbean and 3 in Oceania, where the achievement of target 2 of SDG 3 is unlikely given current trends, suggesting the need for significant additional resources and efforts to obtain the desired result.

Once life expectancy at birth has reached high levels, further increases depend on reducing mortality at older ages, as measured by increased life expectancy at age 60. Globally, the average person turning age 60 could expect to live an additional 20.2 years in 2010–2015. This indicator is projected to rise to 22.9 years in 2045–2050. Between 1970 and 2015, the contribution of reduced mortality at ages 60 and above to the increase in life expectancy at birth was about 0.6 years per decade, while the contribution from reduced mortality below age 5 was about 1.7 years. Between 2015 and 2050, it is expected that the contribution to the rise in global life expectancy from each of these two age groups will be around 0.5 years per decade. In regions where mortality at younger ages is quite low already, such as Europe and Northern America, the future contribution of reduced mortality below age 15 will be negligible compared with the impact of the anticipated reductions in mortality above that age.

Changing population age structures

Population ageing is a global demographic trend with major consequences. It is a long-term process characterized by a rising proportion of population at older ages and a shrinking proportion at younger ages. The pace of population ageing is determined mainly by the timing and pace of the decline in fertility. The reduction of mortality at older ages also contributes to population ageing. In addition, international migration can affect the age structure of countries of origin or destination, depending on the number of migrants and their average age compared with the population size and age distribution of the countries involved.

Population ageing can be illustrated by tracking trends in the number of persons or the proportion of the total population in different age groups. In 2017, about 61% of the world's population was between the ages of 15 and 59, while about 26% were under 15 years of age and 13% were aged 60 years or over. According to population projections by the UN, the number of children will remain stable at around 2 billion between 2017 and 2050; the number of persons aged 60 years or over will reach about 2 billion by 2050, doubling from 1 billion in 2017. The population aged between 15 and 59 years of age is expected to increase from 4.6 billion in 2017 to 5.6 billion in 2050. Thus, the group of people aged 15 to 59 years is expected to grow at a slower rate than the group of people aged 60 years or over; as a result, the share of this middle age group in the global population is projected to decline by 4 percentage points, falling from 61% to 57% between 2017 and 2050. A large part of the increased share of those aged 60 and above is attributable to the increased share of those aged 80 and above, which is expected to increase from 1.8 to 4.3% of the world's total population. This age group is growing faster than any younger age group.

Population ageing started at different times and is proceeding at varying speeds across countries and geographic regions. Trends in the number of children under 15 years of age compared with the number of people aged 60 years or over depict the different stages of the ageing process by region. Europe and Northern America have the oldest populations; in these regions, children below 15 years of age are already outnumbered by people aged 60 years or over. The ageing process is more advanced in Europe compared with Northern America, where the number of persons aged 60 years or over surpassed the number of children only recently. Asia, Latin America and the Caribbean and Oceania are projected to follow a similar path over the next few decades, with the older population expected to outnumber the population of children by 2040. In Africa, in contrast, the population of children is expected to grow rapidly and to remain much larger than the population that is aged 60 and above between now and 2050.

When fertility falls and the number of births declines, the first result is a rise in the proportion of the population that is of working age. Later, the share of the working-age population may decline as population ageing comes to dominate population trends. In the interim, however, the expansion in the share of the working-age population provides an opportunity for rapid economic growth on a per

capita basis and may thus yield a 'demographic dividend' during a window that typically lasts for a few decades. Realizing the dividend requires the availability of productive jobs for the growing number of persons of working age.

In that situation, an increasing proportion of the working-age population can contribute to rapid economic growth and sustainable development. During this period, policies to support sustained and inclusive economic growth and to promote decent work for all, in keeping with the 2030 Agenda for Sustainable Development, can potentially free up resources for investment and increase the productivity of labour, boosting per capita incomes. In this context, investments in health, education and employment opportunities for young people are crucial inputs for human development and economic growth.

Conclusions

The world's population reached 7.6 billion in 2017. Global population growth, currently at a rate of 1.2% yearly, is expected to slow in the coming decades. At the end of the century, when the global population may number around 11 billion, its rate of growth is expected to be close to zero. The number of persons added per year, currently more than 80 million, will decline slowly in future years: it is expected that in 2030 the annual increase in global population will be a little more than 70 million, and in 2050 just over 50 million. Most of the growth in future decades will take place in the 47 least developed countries, of which 33 are located in sub Saharan Africa, where the challenges of ending poverty and hunger and ensuring access to health care, education and equal opportunity for all are the greatest.

Countries are facing diverse situations over the coming decades regarding population growth rates, changing age structures and shifts in the spatial distribution of population (including between rural and urban areas) and in the size and direction of international migration flows affecting their populations. Reconciling the different contexts of demographic change with the priorities for human development and sustainability, as established in the 2030 Agenda for Sustainable Development, is a shared global responsibility. National strategies will need to take population dynamics into account in order to make sound decisions on the policies and resources required to achieve the SDGs.

The rise in life expectancy at birth in recent decades is expected to continue until the end of the century. By 2045–2050, global life expectancy could be almost seven years higher than it is today; countries with relatively high levels of mortality at present, including many African countries and least developed countries, are expected to experience above-average gains in life expectancy over this period. The rise of life expectancy at birth will depend on reducing child and maternal mortality in these countries at an unprecedented pace, while also addressing the remaining burden of major communicable diseases like AIDS, tuberculosis and malaria, and reducing premature mortality from non-communicable diseases.

It is important for policymakers to be aware of, and react to, the transformation of the population age distribution that occurs over the course of the demographic transition. An initial rise in the share of the population that is of working age creates a window of opportunity for rapid economic growth and sustainnable development. Many countries have the possibility of reaping a 'demographic dividend' in the coming decades. Policies to support a healthy and educated population, provide decent jobs and create conditions conducive to investment and growth will enable countries to benefit from a high or rising proportion of the working-age population.

The availability of high quality, accessible, timely and reliable demographic data, disaggregated according to key characteristics of individuals, is essential for planning and implementing policies and programmes in follow-up to the Programme of Action of the International Conference on Population and Development and the 2030 Agenda for Sustainable Development. The capacity to collect, disseminate and analyse relevant data and statistics at the global, regional, national and subnational levels can facilitate evidence-based policymaking and support the monitoring of progress towards achieving the SDGs. Traditional data sources require strengthening while the world also needs to learn to exploit alternative sources of information, including 'big data', which can in no way replace the traditional sources of information about demographic change and global population trends.