

7 FUTURE SCOPE

Continuing Growths of the World Population at a Slowing Pace

The world's population continues to grow, reaching 7.8 billion by mid-2020, rising from 7 billion in 2010, 6 billion in 1998, and 5 billion in 1986. The average annual growth rate was around 1.1% in 2015–2020, which steadily decreased after it peaked at 2.3% in the late 1960s. Among 201 countries and areas, 73 countries had a smaller growth rate in 2010–2020 compared with the previous decade; and out of these 73 countries, more than 60 are developing countries. The slowing pace of the population growth is closely related to declines in fertility. Globally, the total fertility rate was 2.4 births per woman of reproductive age in 2020, decreasing from 2.7 in 2000, 3.7 in 1980, and 5.0 in 1950. In high-income and upper-middle-income countries, the total fertility rate has been below replacement level (2.1 births per woman) for a few decades, which is the level required to ensure the replacement of generations in low-mortality countries. In a few of these countries, total fertility rates have even fallen to extremely low levels, 1.5 births per woman, and even below 1.5 in some countries, for the past several decades.

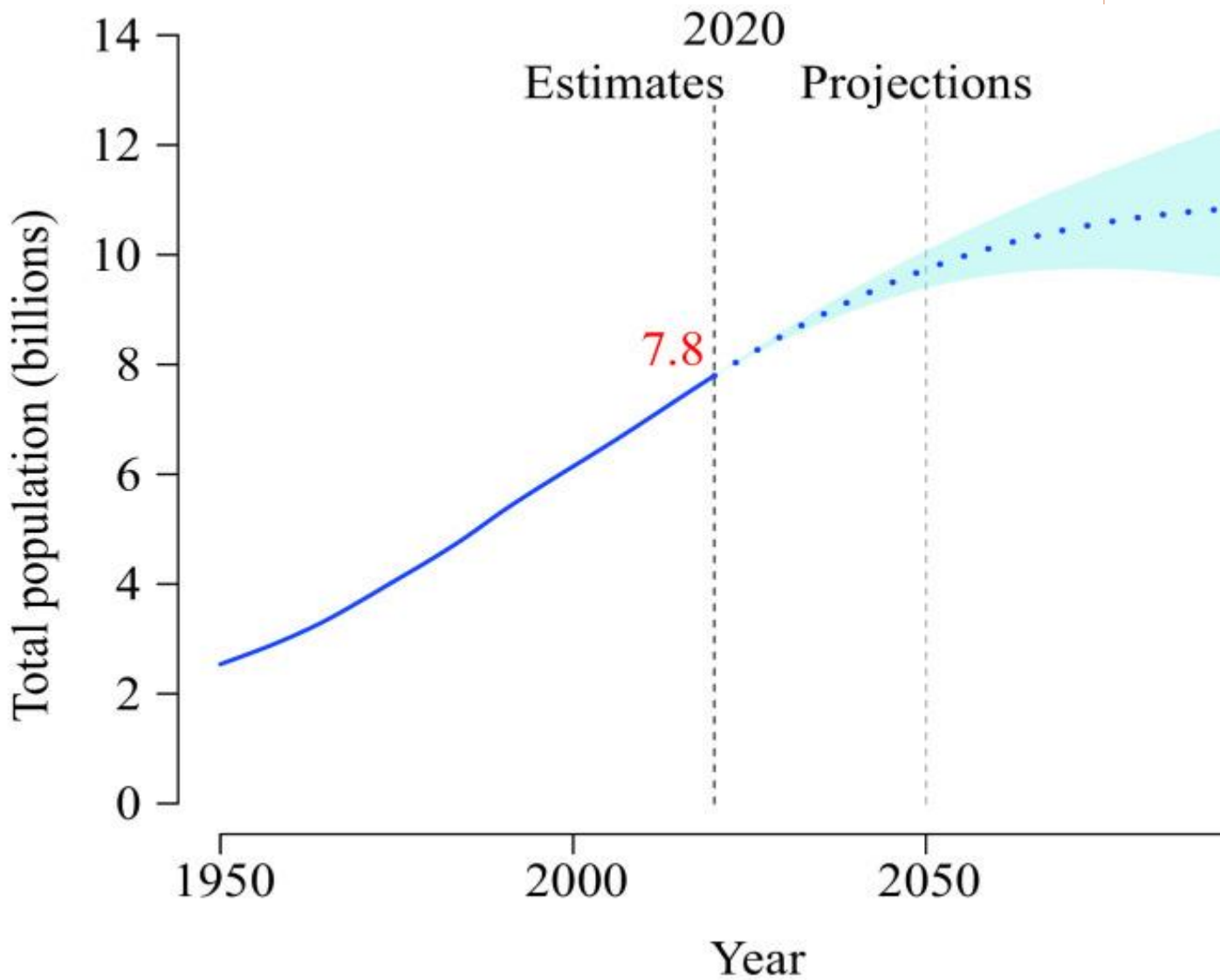
There is a myriad of reasons for the slowing pace of population growth that can be attributed to declining fertility in the context of a demographic transition mainly caused by modernization. In the process of modernization, improved food security, nutrition, and public health, advances in medical technology and socioeconomic development, coupled with improved safe and effective family planning methods and services have largely improved child survival, which has enabled couples to have a desired number of children without having too many births. Improved education, enhanced women's empowerment, increased financial security in old age, and personal aspirations for more opportunities regarding self-career development and a better life have all

reshaped young couples' views and behaviors about postponements of marriage and childbearing, and the numbers and timing of childbirths (2-3). All of these forces have led to reductions in fertility, and eventually triggered a demographic transition. By 2020, all countries and areas either have completed their demographic transition or are in the middle of the transition.

However, even if fertility levels declined rapidly, the world population would likely continue to grow because of the momentum of population growth — a force that drives future population growth resulting from the existing age structure. Globally, more than two-thirds of the projected increase of 1.9 billion in population from 2020 to 2050 could be attributable to population momentum. In other words, population momentum is projected to produce 1.3 billion more people between 2020 and 2050, or 17% of the total in 2020. The contributions of above-replacement level fertility and declining mortality to the projected increase in 2020–2050 are 317 million (16% of the total increase) and 295 million (15%), respectively. The increases attributable to above-replacement level fertility and mortality are roughly equal to 4% each of the total in 2020.

Although the growing trend in the world population is expected to continue throughout this century at a slowing pace, there is uncertainty about future trends, and the uncertainty gets wider with time. For example, the world population is projected to reach 9.7 billion by 2050 and 10.9 billion by 2100, but their 95% projection intervals could be between 9.4 and 10.1 billion for 2050 and between 9.4 and 12.7 billion for 2100 ([Figure 1](#)).





[Figure 1](#)

Growth of the world population, 1950–2100.

Note: The solid blue line is an estimate, whereas the dotted blue line is a projection under the medium variant and the shadow is the 95% projection intervals. Source: Drawn from the World Population Prospects 2019 ([1](#)).

Large Variations in Growth Patterns Across Regions and Countries

There are substantial variations in the future trends of populations across regions and countries. Overall, most countries and areas in the world are projected to continue growing in 2020–2050. However, in the second half of the century, more than half of the countries and areas are projected to witness a decline. Among eight SDG regions, sub-Saharan Africa is expected to account for most of the increase in the world's population throughout the century, and its global share of the population is projected to increase steadily. By contrast, the global shares of the population by other SDG regions are projected to decrease over time. Globally, there are 54 countries which have an annual growth rate twice as fast as the world average rate in 2020–2050, and 41 of these countries, or slightly more than three-fourths, are located in sub-Saharan Africa. Indeed, more than a half of the global additional 2.0 billion people projected increase between 2020 and 2050 are from countries in sub-Saharan Africa (regardless of scenarios), and such a proportion is projected to be about 90% in 2050–2100. Overall, about 23–38 million more people annually from sub-Saharan countries are projected to be added to the world's total population. As a result, the current total population of sub-Saharan African countries, which was 1.1 billion in 2020 (or similar to the Europe and Northern America combined), is projected to climb to 3.8 billion by 2100 with a 95% projection interval between 3.0 and 4.8 billion. By contrast, the total population of Europe and Northern America combined will maintain its current level by 2100 ([Figure 2](#)).

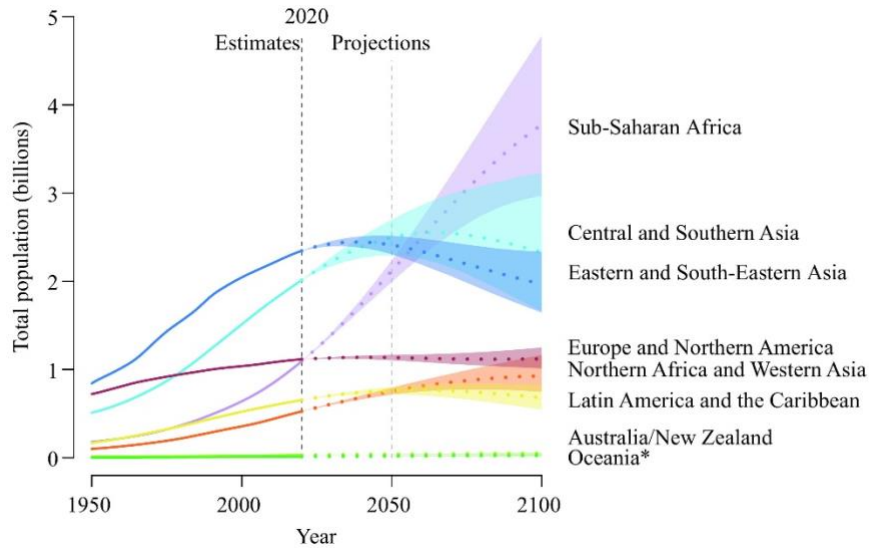


Figure 2

Population growth by Sustainable Development Goals region, 1950–2100.

*: excluding Australia and New Zealand. Note: The solid color lines are estimates, whereas the dotted color lines are projections under the medium variant and the color shadows are the 95% projection intervals. Source: Drawn from the World Population Prospects 2019 (1).

Although a fast-growing population in some developing countries provides a large young population base, which could be a favorable factor for economic growth when this young population enters the labor force, these countries are facing challenges associated with a large young population, such as low access to education among children (especially among girls), relatively high levels of infant, child, and maternal mortality, and relatively high unmet needs in family planning services. High fertility has also caused young couples to have unwanted pregnancies and births that otherwise could relieve them of childbearing and childrearing obligations for other opportunities of human development

Another major feature of the world's future population growth is that the majority of the projected increase in the world's total population is

attributed to a very few populous (or fast growing) countries. For example, under the medium variant of WPP 2019, nine countries (India, United States, Indonesia, Pakistan, Nigeria, Ethiopia, Egypt, Democratic Republic of the Congo, and the United Republic of Tanzania) are projected to account for more than half of the increase in global population between 2020 and 2050. Except for the United States, all are developing countries and are low-income or low-middle-income countries. Low education among children, high fertility levels, high maternal mortality, and high unmet needs in family planning services in many of these countries are major obstacles for achieving SDGs

China, the most populated country in the contemporary world, had a total population of 1.43 billion in 2020 and was a major contributor to the world's population growth over the past several decades. Under the medium variant of WPP 2019, China is projected to have some loss in its total population, with 1.40 billion by 2050, after peaking at 1.46 billion around 2030. Japan has seen the largest losses in population size since the beginning of this century; however, China is projected to eclipse this and will become the largest country with a decreasing population (of 30 million by 2050). By 2100, China is projected to have a loss of more than a quarter of its current size. For India, the world's second most populous country in the contemporary world, it is projected to continue to grow and will overtake China as the largest population in 2025–2030, reaching 1.64 billion by 2050. However, India is projected to witness population decline after reaching its peak around 1.65 billion in 2055–2060 due to falling fertility. By 2100, India is projected to reach 1.45 billion and to have the second largest loss in population in 2050–2100 after China, followed by Brazil and Bangladesh, ranking the third and fourth largest losses in population, respectively.