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WORLD POPULATION TO 2300



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EXECUTIVE SUMMARY

Long-range population projections are reported to 2300, covering twice as long a period as ever covered in previous United Nations projections. These projections are not done by major area and for selected large countries (China and India), as was the previous practice, but for all countries of the world, providing greater detail.

In these projections, world population peaks at 9.22 billion in 2075. Population therefore grows slightly beyond the level of 8.92 billion projected for 2050 in the *2002 Revision*, on which these projections are based. However, after reaching its maximum, world population declines slightly and then resumes increasing, slowly, to reach a level of 8.97 billion by 2300, not much different from the projected 2050 figure.

This pattern of rise, decline, and rise again results from assumptions about future trends in vital rates: that, country by country, fertility will fall below replacement level—though in some cases not for decades—and eventually return to replacement; and that, country by country, life expectancy will eventually follow a path of uninterrupted but slowing increase. With alternative assumptions about fertility, long-range trends could be quite different. With long-range total fertility 0.3 children above replacement, projected world population in 2300 is four times as large as the main projection; with total fertility 0.2 children below replacement, world population in 2300 is one-quarter of the main projection.

Regions and countries will follow similar demographic paths in the long run, given similar assumptions for different countries about long-range vital rate trends. However, because initial assumptions differ, and because this gives rise to slight variations in trends, countries and regions will not be exactly alike, even by 2300. In fact, what are today considered more developed and less developed regions will still be demographically distinguishable, with regard, for instance, to life expectancies and proportions at advanced ages. In addition, regions and countries will go through critical stages of growth—zero growth,

subreplacement fertility, a return to positive growth—at different points in the future, giving rise to a global demographic map with areas that shrink and stretch at different times in the next three centuries.

Europe and Africa will be particularly out of phase. Europe will hit its low point in growth in 2050, Africa not till 80 years later, after all other major areas. From 2000 to 2100, Europe's share of world population is cut in half, 12.0 to 5.9 per cent, while Africa's almost doubles, from 13.1 to 24.9 per cent. While shares of world population for major areas will rise and fall over the following two centuries, the distribution by 2300 will resemble that in 2100.

Smaller regions within continents exhibit divergent patterns. For instance:

- Three African regions—Eastern Africa, Middle Africa, and Western Africa—will grow unusually fast in comparison to every other region through 2100, even though total fertility will be close to replacement by 2050.
 - Southern Africa is seeing a decline in life expectancy to a lower level than anywhere else, but life expectancy will rebound, rise quite rapidly, and overtake other African regions.
 - Asian regions will grow fastest to the west, slowest to the east, but in every case with growth rates, at least up to 2100, below Eastern, Middle and Western Africa. By 2100, Asia, instead of being four-and-a half times as populous as Africa, will be only 2.2 times as populous.
 - Latin America and the Caribbean is the most homogenous major area, with most of its regions following relatively parallel fertility and life expectancy paths.
 - Northern America is unusual as the only region that will not experience negative growth, mainly due to projected migration up to 2050. (No migration is incorporated in projections beyond that date.)
 - Europe, like Asia, will experience higher growth to the west, lower growth to the east. East-

ern Europe stands out with low life expectancy, and even in the long run does not catch up with other regions.

Growth patterns depend on assumptions about vital rates. Total fertility is assumed to decline, at a varying pace dictated by country circumstances, to a below-replacement level of 1.85 children per woman. Countries already at this level or below, and other countries when they reach it, eventually return to replacement over a period of a century and stay at replacement indefinitely. All countries are projected to have reached replacement fertility by 2175, but past fertility trends continue to affect population trends for another 50 years.

Life expectancy is assumed to rise continuously, with no upper limit, though at a slowing pace dictated by recent country trends. By 2100, life expectancy is expected to vary across countries from 66 to 97 years, and by 2300 from 87 to 106 years. Rising life expectancy will produce small but continuing population growth by the end of the projections ranging from 0.03 to 0.07 per cent annually.

Growth patterns affect the balance between population and land. Density, in people per square kilometer of land, will continue to be especially variable in Oceania, where by 2100 it will range from 504 persons per sq. km. in Micronesia to 3.6 persons per sq. km. in Australia/New Zealand. Some large countries in South-central Asia will also be unusually dense by 2100, with India having 491 persons per sq. km., Pakistan 530 per-

sons per sq. km., and Bangladesh 1,997 persons per sq. km.

These populations pressing on the land will be old by current standards. Where the world median age in 2000 is 26 years, by 2100 it will be 44 years, and by 2300, 48 years. Before they reach the point where those over 40 are half the population, countries go through a period labelled here the demographic window, when the proportion of children and youth under 15 years falls below 30 per cent and the proportion of people 65 years and older is still below 15 per cent. For a 30-40 year period, the proportion of the population in between, of working age, is particularly prominent in the population. Europe entered the demographic window before 1950 and is now leaving it and entering a third age when older people are particularly prominent in the age distribution. Much of Africa will not enter the demographic window until 2045 or later.

Beyond the demographic window, population ageing becomes a predominant demographic feature. Between 2100 and 2300, the proportion of world population 65 years and older will increase by one-third (from 24 to 32 per cent); the proportion 80 years and older will double (from 8.5 to 17 per cent); and the proportion 100 years and older will increase nine times (from 0.2 to 1.8 per cent). Assuming that the retirement age worldwide in 2000 is 65 years, people retire on average only two weeks short of their life expectancy. Assuming that retirement age stays unchanged, by 2300 people will retire 31 years short of their life expectancy.