

Global Demographic Trends: Insights from the Latest UN Projections

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Happy World Population Day 2024!

"To Leave No One Behind, Count Everyone"



UN World Population Prospects (WPP)



- Data on population levels and trends, many other demographic indicators
- Estimates going back to 1950
- Projections going forward to 2100
- Calculated by demographers at the UN Population Division every 2-3 years (each new dataset is called a “revision”)
- Last revision was on July 11, 2022
- 2024 revision here: <https://population.un.org/wpp/>

Data from 2024 World Population Prospects



Projected world population milestones



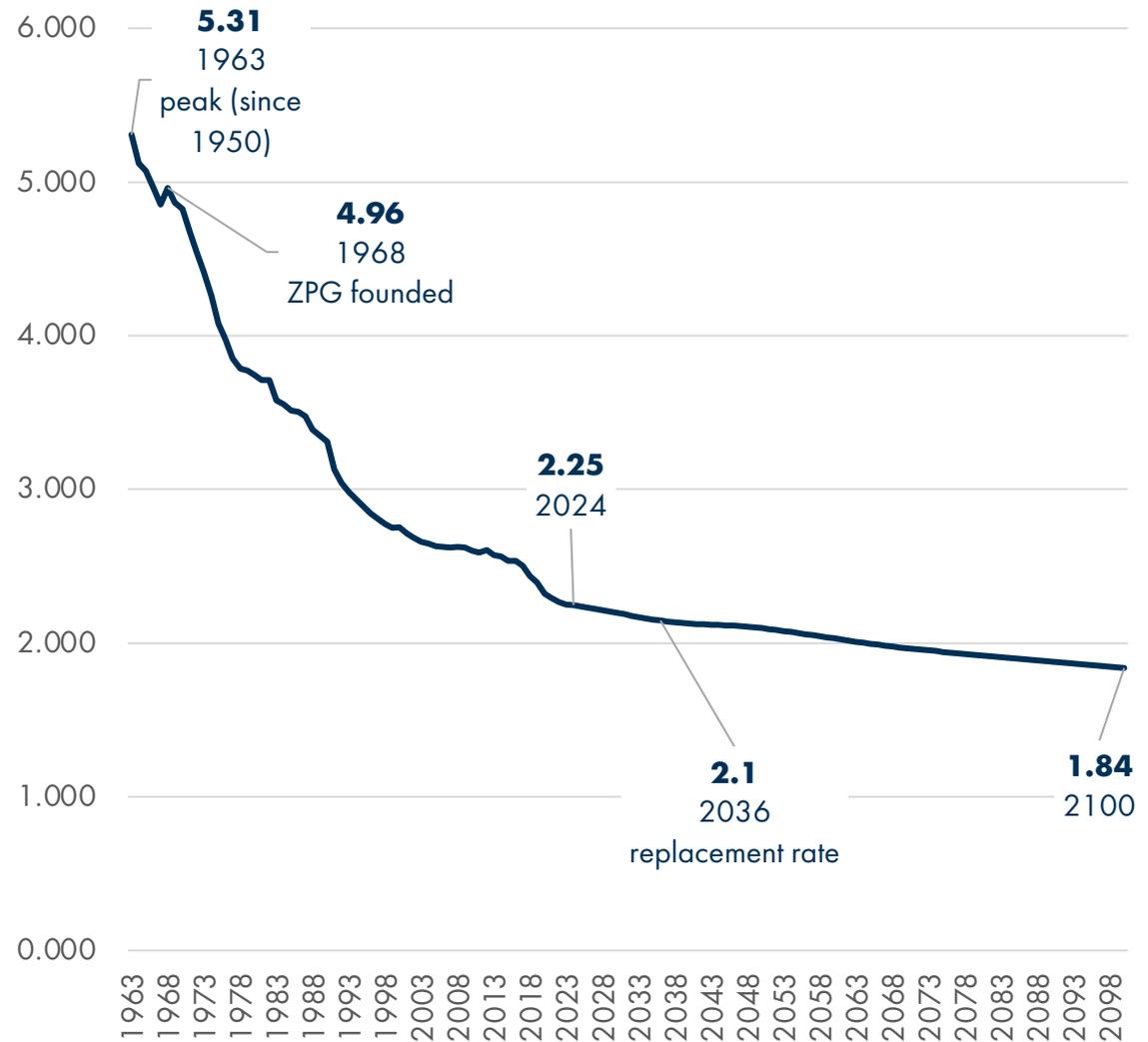
- 9 billion in 2037 (same as 2022 revision)
- 10 billion in 2061 (three years later than in the 2022 revision)
- 10.3 billion peak in 2084 (10.4 billion peak in 2086 in 2022 revision)
- 10.2 billion in 2100 (gradual decline after peak in 2084)

Population growth and change — trending in the right direction



- World annual rate of growth: 0.86%
 - peaked in 1963 at 2.28%
- World population growing by about 70 million a year
 - peaked in 1990 at 94 million a year

World total fertility rate/TFR (live births per woman)



Vast regional differences

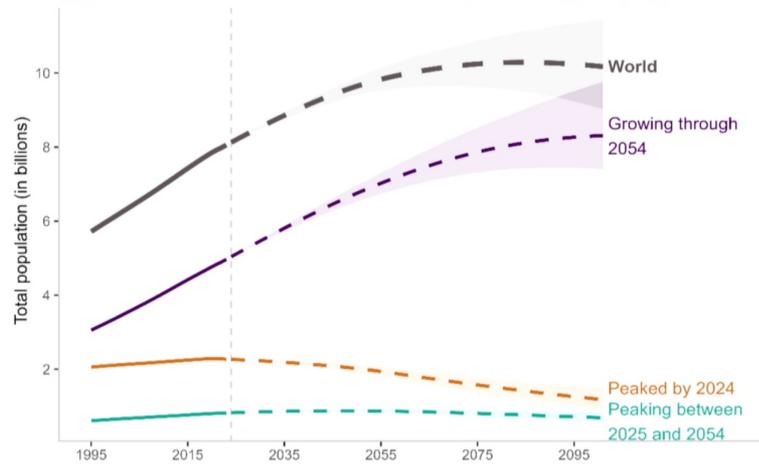


- 63 countries' populations have already peaked
- 48 more are projected to peak within 30 years
- 126 aren't projected to peak until at least second half of century
 - these countries will determine timing and level of world population peak

Population projections by groups based on timing of population peak



Total population, estimates, 1995-2023, and projections (medium scenario), 2024-2100, global and for all countries by timing of population peak



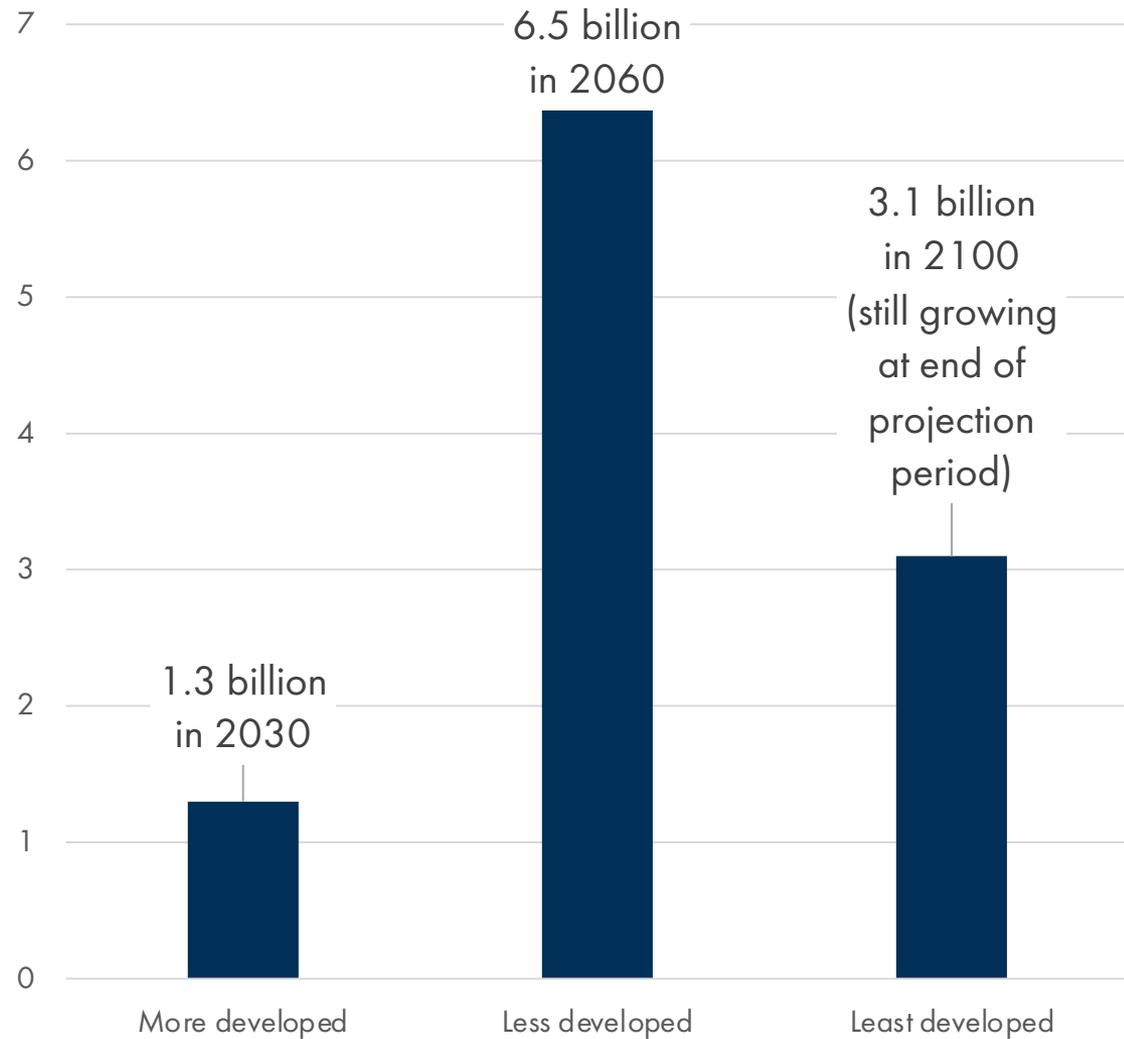
Largest countries for each group

Countries with the largest populations by group

Peaked by 2025 (No=63)	Peaking 2025-2054 (No=48)	Growing through 2054 (No=126)
China	Argentina	Bangladesh
Germany	Brazil	D.R. Congo
Italy	Denmark	Egypt
Japan	Indonesia	Ethiopia
Republic of Korea	Iran (Islamic Rep.)	France
Russian Federation	Myanmar	India
Spain	Netherlands	Nigeria
Thailand	Türkiye	Pakistan
...	...	Syrian Arab Rep.
		United Kingdom
		U.R. Tanzania
		United States of America
		...



Projected regional population peaks



Least developed countries category



- Established by UN General Assembly in 1971
- Countries that have low levels of income and face severe structural impediments to sustainable development
- Benefit from exclusive international support measures in trade, development cooperation, and participation in international organizations and processes

LDC criteria



- 1. Income:** must have average per capita income below \$1,018
- 2. Human Assets:** must have a low score on Human Assets Index, which measures health and education outcomes
- 3. Economic and Environmental Vulnerability:** must score high on Economic and Environmental Vulnerability Index, which measures factors like remoteness, dependence on agriculture, and vulnerability to natural disasters

Current LDCs



1. Afghanistan
2. Angola
3. Bangladesh
4. Benin
5. Burkina Faso
6. Burundi
7. Cambodia
8. Central African Republic
9. Chad
10. Comoros
11. Democratic Rep. of the Congo
12. Djibouti
13. Eritrea
14. Ethiopia
15. Gambia
16. Guinea
17. Guinea-Bissau
18. Haiti
19. Kiribati
20. Lao People's Dem. Republic
21. Lesotho
22. Liberia
23. Madagascar
24. Malawi
25. Mali
26. Mauritania
27. Mozambique
28. Myanmar
29. Nepal
30. Niger
31. Rwanda
32. Sao Tome and Principe
33. Senegal
34. Sierra Leone
35. Solomon Islands
36. Somalia
37. South Sudan
38. Sudan
39. Timor-Leste
40. Togo
41. Tuvalu
42. Uganda
43. United Republic of Tanzania
44. Yemen
45. Zambia

Sub-Saharan Africa – the major world region outlier



- 1.2 billion in 2024 to 3.4 billion (and still growing) in 2100
 - 2.7 times larger in 2100 than now
- Population growth rate in 2024 is 2.46%
 - Sub-Saharan Africa is growing faster now than the world population was growing at its peak in 1963!
- Total fertility rate (TFR)
 - 4.3 in 2024
 - Eliminating births to girls under 18 in SSA would result in a population in 2054 that is 3.8% smaller than it would be with continued teen births (smaller by 85 million in 2054 and by 292 million in 2100).
- Infant mortality rate: 46.6
 - compared to 3.8 in more developed regions
- Under-5 mortality rate: 67.6
 - compared to 4.6 in more developed regions

2100 population projections, previous WPP revisions



- 2010: 10.1 and still growing
- 2012: 10.9 and still growing
- 2015: 11.2 and still growing
- 2017: 11.2 and still growing
- 2019: 10.9 and still growing
- 2022: 10.36, down from peak of 10.43 in 2086
- 2024: 10.2, down from peak of 10.3 in 2084

Interesting key messages



- 80% likelihood that the world's population will peak within the current century, compared to only 30% probability a decade ago.
- Earlier and lower peak is attributed to lower-than-expected levels of fertility in recent years in some of the world's largest countries, particularly China.
- More than half of all countries and areas have fertility below 2.1 live births per woman.
- Population has already peaked in 63 countries and areas, representing 28% of the world's population.
- Trajectories in the 9 fastest growing countries, including Democratic Republic of Congo, Niger, and Somalia, will influence the size and timing of the population peak at the global level.
- The momentum of past growth that is embedded in the youthful age structure of today's global population is projected to contribute 79% of the total increase through 2054, or around 1.4 billion people.

How do the UN projections compare to other models?



- Two other widely cited population projections: Wittgenstein Centre and Institute For Health Metrics and Evaluation (IHME)

How do the UN projections compare to other models?



IHME

- Wittgenstein: Assumes strong relationship between educational attainment and fertility, mortality and migration. Like IPCC, uses “Shared Socioeconomic Pathway” (SSP) scenarios. Projections have been revised upwards 2x in recent years. Most recent revision (Feb 2024) projects a peak of 10.1 billion in 2080, followed by a slow decline to 9.9 billion in 2100

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- IHME: Uses completed cohort fertility at age 50 (CCF50) rather than TFR. Models fertility as a function of educational attainment and contraceptive need met. Paper published in 2020 projects a peak of 9.7 billion as early as 2064, followed by a decline to 8.8 billion in 2100.

How do the UN projections compare to other models?



Global population could peak below 9 billion in 2050s

📅 27 March 2023

- A third set of projections by the [Earth4All](#) initiative made a media splash last year (but is hard to take seriously).
- Model birth rates as a function of GDP per person, and assume that economic development will lead to rapid fertility decline. Their business-as-usual scenario projects a peak of just 8.8 billion in 2050, and a decline to 7.3 billion by 2100.
- The report fails to recognize that in the regions with the highest fertility rates, GDP per capita has been stagnating, and that lowering fertility rates is often a necessary precursor to accelerated economic development.

Who's right and
what does it all
mean?



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NEWS FEATURE | 21 September 2021

How far will global population rise? Researchers can't agree

The United Nations forecasts that nearly 11 billion people will be living on Earth at the end of the century, but other demographic research groups project that population will peak earlier and at a much lower level.

By [David Adam](#)

“All models are wrong but some are useful.”

– George Box (1978)

Who's right and what does it all mean?



- **What we do know:**

- Rapid population growth in low-income countries threatens natural resources and peace and security.
- The fastest growing countries are some of the most climate-vulnerable — a recipe for disaster.
- “All of our environmental problems become easier to solve with fewer people, and harder — and ultimately impossible — to solve with ever more people.”

– Sir David Attenborough

- Almost half of women in low- and middle-income countries have no decision-making power regarding their health, contraceptive use, and sex lives (UNFPA, 2020).
- We can achieve an earlier, lower peak population by increasing investment in empowering solutions.

Questions?



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