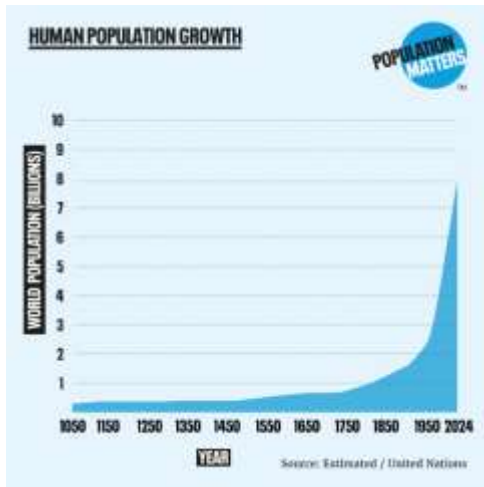


Managing Population Growth to Prevent Social & Ecological Crises



History of the Issue

The global population has experienced unprecedented growth, more than tripling since 1950 from 2.5 billion to over 8 billion in 2023. The United Nations projects this number will reach approximately 10 billion by the mid-2080s before potentially stabilizing.¹ This "population explosion" is historically unique as it took until the 1800s for the human population to reach 1 billion. The rapid growth in human population has been a product of improved sanitation and medical care, better nutrition, and longer lifespans. While population growth rates

have slowed since the 1970s, the momentum of today's young population ensures continued growth for decades. This growth is unevenly distributed, with most future increases expected in developing regions, particularly sub-Saharan Africa, where some populations are projected to double by the 2050s.²

Concerns around overpopulation or rapid population growth are not new. Texts of ancient philosophers, such as Plato, include exhortations that the government should place strict limits on the number of births; more recently, the Malthusian economic theory believed that population growth would outstrip increases in food supply and result in economic crises and mass starvation.³ While resources and economic output have been able to meet population growth over the previous two centuries, rapid population growth does present challenges for countries and regions; locally it can strain environmental resources and lead to the degradation of ecosystems. Economically, too quick of population increases can strain resources and often outpace job creation, leading to systemic unemployment which can cause societal friction and polarize society and politics.

However, growth will not be spread evenly across the planet, with some regions and countries forecasted to see a decline in their overall population—raising a whole different set of issues. European nations such as Italy, Spain, and Hungary; and East Asian nations such as Japan,

¹ "UN projects world population to peak within this century." *United Nations*. <https://www.un.org/en/UN-projects-world-population-to-peak-within-this-century>.

² *Ibid*.

³ "Worries About Overpopulation Are as Old as Civilization." *Medium*. <https://medium.com/lessons-from-history/worries-about-overpopulation-are-as-old-as-civilization-9f009fb785e4>; "Malthusian Theory of Population Explained." *Intelligent Economist*. <https://www.intelligenteconomist.com/malthusian-theory/>.

South Korea, and China, are all grappling with populations that are shrinking due to declining birth rates as well as, in some cases, cultural, legal, and political barriers that can make it challenging for people from other nations to immigrate to these countries. Japan, for example, is projected to see its population decline from 123 million in 2010 to less than 70 million by 2100, if current trends continue.⁴ Depopulation presents countries and regions with a different set of issues, undermining retirement systems, producing fewer dynamic economies, and often contributing to a societal malaise.

Social & Ecological Impact

The rapid increase in humans can place immense pressure on the Earth's finite resources. While nations have avoided the worst outcomes posited by Malthusians in the 1800s, on a micro-level rapid population increases can have lasting negative impacts.

Environmental Degradation

As natural systems are pushed beyond their regenerative capacity, ecosystems lose resilience and their ability to provide essential services such as pollination, water purification, and climate regulation. According to the Millennium Ecosystem Assessment, about 60% of ecosystem are degraded or used unsustainably, largely due to land-use change, including urbanization or clear cutting forests to make space for farms, and resource extraction.⁵ For example, in Bangladesh, rapid population growth and land scarcity have driven deforestation and wetland conversion, with hundreds of thousands of hectares of forest lost and significant biodiversity decline. These environmental impacts of rapid population growth have a significant economic cost, costing the country economic losses worth nearly 17% of its Gross Domestic Product (GDP).⁶ Even beyond the territorial boundaries of countries, increased demand from an ever-larger population has reduced fish stocks globally and increased the amount of plastic and waste in the country's oceans.⁷

Resource Scarcity and Conflict

Scarcity of essential resources can intensify existing social and political tensions, particularly in regions already facing governance challenges. Environmental stress combined with population pressure can increase the likelihood of conflict, especially over water and land.⁸ A clear example is Ethiopia, where rapid population growth has contributed to deforestation, land degradation, and competition over agricultural land, exacerbating local conflicts and environmental stress.⁹

⁴ "A rapidly aging world – and the awaiting demographic implosion." *Harvard*. <https://rajawali.hks.harvard.edu/articles/a-rapidly-aging-world-and-the-awaiting-demographic-implosion/>.

⁵ "Ecosystems AND HUMAN WELL-BEING." *Millenium Assessment*. <https://www.millenniumassessment.org/documents/document.356.aspx.pdf>.

⁶ "Environment in distress as pollution keeps choking country." *The Business Standard*. <https://www.tbsnews.net/bangladesh/environment/environment-distress-pollution-keeps-choking-country-869146?>

⁷ "Overfishing: Depleting Our Oceans at an Alarming Rate." *Ecoblvd*. <https://tinyurl.com/57a3rx77>.

⁸ "Population, Climate, and Conflict: New Data Point to Greater Challenges Ahead." *CSIS*. <https://tinyurl.com/4z8ejyrt>.

⁹ "Deforestation in Ethiopia: Causes, Impacts and Remedy." *IJEDR*. <https://tinyurl.com/vcyw2rn4>.

The Lake Chad Basin near Chad, Nigeria, and Niger has also seen population increases fuel environmental stress, which has driven conflicts around the lake's resources.¹⁰

Climate Change

Population growth amplifies total emissions by increasing consumption and energy demand, especially in rapidly industrializing regions. The Intergovernmental Panel on Climate Change notes that while per capita emissions vary widely, population size remains a key driver of overall greenhouse gas output.¹¹ While economic growth has increasingly become less dependent on greenhouse gas emissions, the sheer increase in population in the past 50-years means there are immensely more homes to heat, more cars being driven, and more mouths to feed with greenhouse gas emission-intensive agriculture. In China rapid population growth combined with industrial expansion has made it the world's largest emitter of greenhouse gases, largely due to continued reliance on coal-based energy systems. This is a phenomenon playing out in many industrializing nations around the globe who view carbon-intensive industries and electrical sources as the cheapest and easiest way to develop their nations and give their people a better life. These countries view attempts by already developed nations to stifle their industrialization as deeply unfair given that these developed countries industrialized in much the same way and contributed greatly to the climate crisis.¹² To reduce the impact of population growth on the climate, the international community must help to decouple industrialization from greenhouse gas intensive industries and electricity sources.

Development Barriers

Rapid population growth strains government capacity to deliver healthcare, education, and infrastructure, particularly in low-income countries. The World Bank highlights that high fertility rates can dilute investments in human capital, making it harder to achieve sustainable economic growth.¹³ In Nigeria, for example, rapid population increase has placed significant pressure on public services and infrastructure, limiting progress in education and poverty reduction and reinforcing cycles of underdevelopment.¹⁴

The Debate: Population vs. Consumption

A central debate in international policy is whether the "crisis" is driven by the number of people or the patterns of consumption. Many scholars now argue that this is a false dichotomy, as both population size and consumption levels interact to shape total environmental impact.

¹⁰ "Peace in an extreme climate: How climate-related security risks affect prospects for stability in Lake Chad." *PLOS Climate*. <https://journals.plos.org/climate/article?id=10.1371/journal.pclm.0000314#references>.

¹¹ "Chapter 2: Emissions trends and drivers." *IPCC*. <https://www.ipcc.ch/report/ar6/wg3/chapter/chapter-2/>.

¹² "Can developing countries leapfrog fossil fuels?" *DW*. <https://www.dw.com/en/at-a-crossroads-fossil-fuel-powered-investments-or-renewables-profit/a-75243684>.

¹³ "Publication: Determinants and Consequences of High Fertility: A Synopsis of the Evidence." *World Bank*. <https://openknowledge.worldbank.org/entities/publication/c8ffabc1-8d9d-5aa7-b989-d154a6af85cc>.

¹⁴ "Economic consequences of rapid population growth in Nigeria." *IJHS*. https://www.researchgate.net/publication/362229050_economic_consequences_of_rapid_population_growth_in_Nigeria.

International consensus, such as the 1994 Cairo Programme of Action, has shifted away from coercive "population control" toward rights-based empowerment.¹⁵

Consumption Focus

Critics argue that environmental degradation is disproportionately driven by high levels of consumption in wealthier nations and among affluent populations. Research from the Oxfam International finds that the richest 10% of people, largely concentrated in developed nations, are responsible for nearly half of global emissions, while the poorest 50% contribute only a small fraction.¹⁶ For example, in the United States, per capita carbon emissions remain among the highest globally, reflecting energy-intensive lifestyles, transportation systems, and consumption patterns. From this perspective, addressing overconsumption—through policy tools such as carbon pricing, sustainable production, and lifestyle changes—is seen as more urgent than focusing solely on population growth.

Population Focus

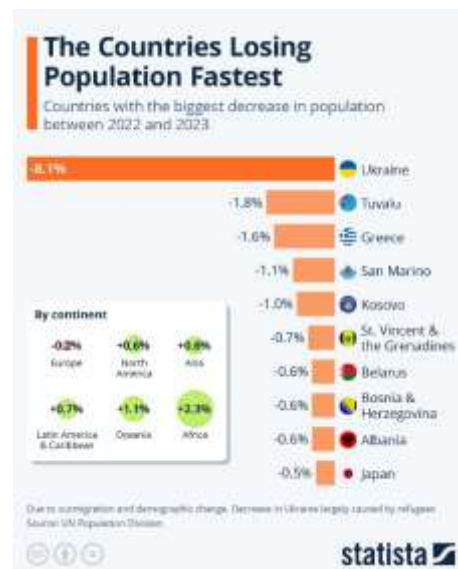
Proponents of population management argue that regardless of consumption levels, the sheer volume of people can strain resources and slow development progress. Proponents of this theory point to economic struggles in many rapidly growing African nations as well as struggles faced by rapidly growing Latin American nations in the second half of the 1900s. For proponents of this view, when population growth outstrips available resources, it matters little how much more efficiently resources are used.

The Flip Side: The Risks of Population Decline

While much of the global south manages rapid growth, more than half of the world's countries now have fertility rates below the replacement level of 2.1 children per woman. For these nations, the crisis is not "too many people," but rather a "demographic winter" characterized by shrinking workforces and aging populations.

Economic Stagnation

A declining population reduces both the labor force and the consumer base, dampening economic growth and increasing the risk of long-term "secular stagnation." In Japan, decades of low fertility and an aging population have contributed to persistently low GDP growth and weak domestic demand, despite aggressive monetary



¹⁵ "Population and Development Program of Action Adopted in Cairo 1994." *United Nations*. <https://tinyurl.com/54b9y3pv>.

¹⁶ "World's richest 10% produce half of carbon emissions while poorest 3.5 billion account for just a tenth." *Oxfam*. <https://tinyurl.com/2pzc4fpm>.

policy.¹⁷ Similarly, Germany faces structural labor shortages in key industries, which constrain productivity and economic expansion as its workforce ages.¹⁸

Demographic decline can create a self-reinforcing cycle of low growth and reduced investment.

The Dependency Crisis

As populations age, the ratio of working-age individuals-to-retirees declines, placing increasing strain on pension systems and public finances. In many countries, pension or social security plans require working-age individuals to pay into the plan, which allows retired individuals to receive money. Pension or social security plans are vital for reducing poverty among the elderly. In the United States, the worker-to-beneficiary ratio is projected to fall significantly by 2040, raising concerns about the long-term sustainability of Social Security—if there are not enough workers paying into these programs, then these programs will not have enough money to payout benefits to retirees.¹⁹ This dynamic is not unique to the United States, with South Korea, as one of the world’s most rapidly aging countries, struggling with balancing its eldercare expenses against investment in young people. Countries facing population declines would need to either raise taxes so that the fewer workers are paying more into the programs or cut benefits—both of which can be politically unpopular or seek to increase the workforce by increasing births, increasing immigration, or delaying retirement. Without reform or an increase in population growth, these demographic shifts risk increasing tax burdens and intergenerational inequality.

Another variation of this issue is heightened in countries who are not yet developed. Several Asian nations, such as China, Thailand, and the Philippines are starting to age and see birthrates decrease below replacement level before they become wealthy.²⁰ This leaves these countries with many of the same issues described for Japan, Europe, and South Korea, but without the financial resources and existing systems in place to mitigate these challenges.

Innovation and Productivity Loss

Younger populations tend to be more entrepreneurial and adaptable, driving technological progress and economic dynamism. In Japan, an aging workforce has raised concerns about declining innovation capacity, particularly in startup formation and risk-taking sectors.²¹ A “graying” society may therefore struggle to maintain the creative momentum needed to address complex global challenges.

Managing the Transition

¹⁷ “More than 1 in 10 people in Japan are aged 80 or over. Here's how its ageing population is reshaping the country.” *World Economic Forum*. <https://www.weforum.org/stories/2023/09/elderly-oldest-population-world-japan/>.

¹⁸ “Germany’s Labor Shortages: Key Sectors Struggle as Workforce Ages.” *Altdam Global*. <https://altdam.eu/?p=1147>.

¹⁹ “Coping with the Demographic Challenge: Fewer Children and Living Longer.” *Social Security Administration*. <https://www.ssa.gov/policy/docs/ssb/v66n4/v66n4p37.html>.

²⁰ “Large parts of Asia are getting old before they get rich.” *The Economist*. <https://www.economist.com/leaders/2023/10/12/large-parts-of-asia-are-getting-old-before-they-get-rich>.

²¹ “The Impact of Aging and AI on Japan’s Labor Market: Challenges and Opportunities.” *IMF*. <https://www.imf.org/en/publications/wp/issues/2025/09/19/the-impact-of-aging-and-ai-on-japan-s-labor-market-challenges-and-opportunities-570528>.

Countries such as Japan, Hungary, Poland, China, and South Korea have introduced financial incentives, subsidized childcare, and extended parental leave to encourage higher birth rates. However, evidence suggests these measures have had limited success in reversing long-term fertility decline, as social norms and economic pressures continue to discourage larger families.²²

Similarly, to fill vacancies left by an aging workforce, some countries have turned to immigration. Germany has used immigration to offset labor shortages and stabilize its workforce; particularly following increased migration flows in the 2010s. Similarly, Canada adopted a points-based immigration system to sustain population growth while filling roles in critical economic sectors. While effective economically, such policies can generate political debate around integration and national identity.

More recently, some countries have turned to Artificial Intelligence (AI) and industrial automation as tools that can help better manage aging workforces. These countries hope that AI can make workers more efficient and increase productivity to make-up for fewer workers while also helping drive new innovations. Japan, for example, has become a global leader in robotics and automation, deploying technology in sectors ranging from manufacturing to elder care.

Questions to Consider

- How can the United Nations balance the need for population stabilization with the fundamental human right to reproductive autonomy?
- What role should developed nations play in reducing their ecological footprint to offset the resource needs of growing populations in the Global South?
- How can member states more effectively integrate population dynamics into their national climate adaptation strategies?
- What mechanisms can be used to prevent resource-driven conflicts in regions experiencing rapid demographic shifts?
- How can international organizations support "shrinking" nations in maintaining their social safety nets without placing an unfair burden on a diminishing youth population?
- Is it possible to achieve "sustainable degrowth," where a country's population shrinks without triggering an economic collapse?

²² "Baby Boom Goes Bust: No Matter The Incentive, Governments Fail To Boost Birth Rates." *World Crunch*. <https://worldcrunch.com/culture-society/boosting-birth-rates-government-incentives/>.