The history and economics of India’s population growth

Published On: 03-05-2023

Why in News: Recently, it was announced that India overtook China as the world’s most populous country. According to the estimates of the United Nations, in April 2023, India’s population reached 1,425,775,850 people.

India’s population over the ages

Let’s first look at how India’s population grew over the centuries.

The following information is sourced from the 2018 book A Population History of India written by Tim Dyson, Emeritus Professor of Population Studies at the London School of Economics and Political Science.

While reading these numbers, note that “India” refers to different geographies over the millennia and, of course, the accuracy of data becomes more and more a matter of debate as one goes back in time.

Table 1 provides some of the key population milestones for India.

Table 1: India's population over the ages

Period	Population estimate	
9,500 years ago	2,00,000	
7,500 years ago	5,00,000	
4,000 years ago	4 to 6 million	Indus
320 to 220 BCE	15 to 30 million	M
640	58 million	Aroun
1595	125 million	
1871	255 million	
1947	343 million	At the
2023	1426 million	India be

Source: A Population History of India by Tim Dyson (OUP, 2018)

The earliest estimates date back to around 9,500 years ago.

If the first modern people arrived in the subcontinent sometime between 60,000 and 80,000 years ago, then following the end of the last glacial period — say around 9,500 to 7,000 years before the present — they probably numbered in the several hundred thousand

Around 4,000 years ago, most of the population (estimates vary between 4 to 6 million) was living in and around the Indus basin. "This was perhaps the largest concentration of human beings anywhere in the world at the time

By the time the Mauryan empire flourished, most of the population had shifted to the Ganges basin. Regardless of the exact population, "from this time forth the Ganges basin would always contain one of the world's largest concentrations of people."

The next data estimate has been arrived at by using Hsuan Tsang's observations.

Data estimates continue to be quite uncertain for almost a thousand years and the next milestone, as it were, uses data from Ain-i-Akbari in 1595

Since 1871, however, data has become more and more precise, thanks to formal census and UN projections.

Does population growth help economic development or hinder it?

Kofi Annan, former UN Secretary-General, once said: "The idea that population growth guarantees a better lifefinancially or otherwise is a myth that only those who sell nappies, prams and the like have any right to

believe.”

Many may identify with Annan’s view while many others may disagree. In fact, the question — whether population growth is good or bad for economic development — has flummoxed researchers over the decades.

During the 1950s and 60s, the general view of economists was that high birth rates and rapid population growth in poor countries would divert scarce capital away from savings and investment, thereby placing a drag on economic development. They hypothesized that larger families have fewer aggregate resources and fewer resources per child.

Larger families therefore spread their resources more thinly to support more children. This leaves less for saving and investing in growth-enhancing activities. It also reduces spending on enhancing the economic potential of each child (e.g. through education and health expenditures

However, between the 1970s and 1990s, this pessimism abated as several studies “failed to detect a robust relationship between national population growth rates and per capita income growth”.

The global view reverted in the 1990s when researchers again found a clear “negative association between population growth and economic performance”.

The world was also introduced to the concept of “demographic dividend,” which essentially refers to a period in an economy’s trajectory when there is a bulge in the working-age population (roughly speaking, population between 15 and 65 years).

This happens when fertility rates decline significantly over a period of time. With a lower proportion of children depending on the working population, there opens a window of opportunity during which such a country can potentially raise its level of savings and investment.

Effect of Global population on Development

Table 1 ***Growth rates of world population, GDP and G 2014***

	1870-1913	1913-1950	1950-1973	1
Population	0.79	0.93	1.91	
GDP	2.10	1.81	4.78	
GDP per capita	1.30	0.88	2.87	

By looking at the data for population growth and GDP (and GDP per capita) growth between 1870 and 2014, the effect of population on development in explained here

The period between 1950 and 1973 is quite significant. It saw the fastest growth of population as well as GDP and GDP per capita which is essentially rapid economic growth was mitigating the potential negative impact of rapid

population growth during this period.

In considering these trends, two key observations must be made. First, accelerated population growth in the post-war boom years was stimulated largely by the diffusion of medical knowledge, technologies, and public health initiatives that dramatically reduced death rates from infectious and parasitic diseases. This coincided with a period of rapid economic growth. However, importantly, sustained improvements in mortality did not depend on sustained economic growth

Second, in a surging world economy (i.e. between 1950 and 1973) poorer countries benefitted from a positive investment environment and burgeoning employment opportunities…After 1973, mortality continued to decline in most countries despite stagnating output. This meant that, in the aggregate, there was less output produced (e.g. income) per person. Sluggish global growth also meant that the pie of investment and employment opportunities shrank, rendering larger families a greater economic liability at both the household and the macroeconomic level

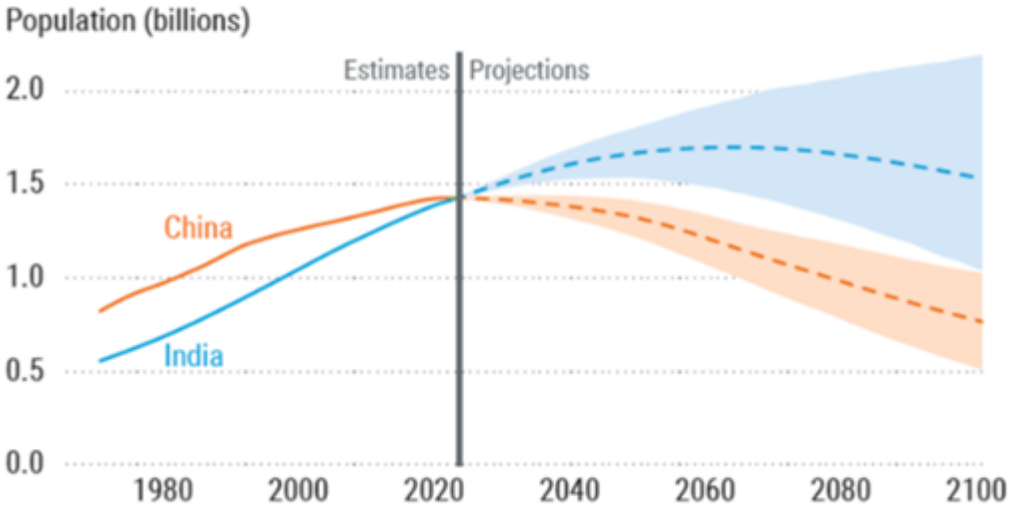
Second, in a surging world economy (i.e. between 1950 and 1973) poorer countries benefitted from a positive investment environment and burgeoning employment opportunities…After 1973, mortality continued to decline in most countries despite stagnating output. This meant that, in the aggregate, there was less output produced (e.g. income) per person. Sluggish global growth also meant that the pie of investment and employment opportunities shrank, rendering larger families a greater economic liability at both the household and the macroeconomic level

India's population and its effect

Figure 1

Trends in total population for China and India, estimates for 1970-2022 and projections for 2023-2100

(with 95 per cent prediction intervals)



Data source: United Nations, *World Population Prospects 2022*, https://population.un.org/wpp/.

Figure 4

Population size by age and sex in China and India, estimates for 1970 and projections for 2023 and 2050

Data source: United Nations, *World Population Prospects 2022*, https://population.un.org/wpp/.

According to the UN's projection, unlike China whose population has already peaked, India's population will continue to rise until 2064

But the crucial thing is that India's fertility rate (the number of children per woman) is already below the replacement rate of 2.1.

To be sure, the replacement rate is the rate of fertility at which the population stabilises (because it replicates itself). In case you are wondering why it is 2.1 and not 2, the additional 0.1 children per woman is to account for infant mortality.

Given the fact that India is already the most populous country and still expected to see a rise in total population for the next 40 years despite being below the replacement rate of fertility, the main concern now is not family planning.

To be sure, India must not allow the fertility rate to go up but the bigger challenge now is to figure out how tobest use India's demographic dividend — the bulge highlighted in green in the Chart 2 below — to ensure that India becomes rich before it becomes old.

Many experts argue that China, which has been experiencing the bulge in the working-age population (relative to the old and young population), might fail to become a rich country before it starts ageing

This is noteworthy for Indians and Indian policymakers because China has grown quite remarkably over the past four decades.

Not every country has managed to escape what is often called the "middle-income trap". For instance, while South Korea and Israel did transition to becoming a rich country, Argentina and South Africa have failed to transition.

That, in turn, requires a whole host of domestic reforms especially since global growth is expected to remain muted in the coming years.

Top of the list is ramping up on primary health and primary education. No country has become rich without first investing in these two areas. India, on the other hand, has a long history of neglecting both these areas.

Conclusion

India has the most number of poor people in the world, one of the highest proportion of wasted and stunted children, alarming levels of unemployment, especially among the youth, and one of the lowest levels of participation in the workforce by women. Unless India finds policy solutions to address these gaps, having a higher proportion of population in the working-age group will, far from helping matters, likely cause social unrest.