



The Impact of Population Growth on Development Economics: A Case Study of India

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Abstract:

India has the world's second-highest population. According to population forecasts, India will overtake China as the most populated nation in the world in little over a decade. In 2017, its population growth rate of 1.13 percent placed it 112th globally. In 2020, the typical Indian will be 29 years old. Expanding the human population is both the means and the objective of economic progress. When their numbers are just right, they're an advantage, but if they're too big, they become a burden. India's population has become too large and is now a burden on the country. Consequently, India's rising population is a major barrier to effective economic planning and growth. Researchers discovered a strong link between India's population and GDP. The researcher has compiled the population and SGDP of each state to see whether the two are correlated. There is no link between India's yearly population increase and the country's inflation rate, according to the study. India's rising cost of living can't be traced back to the country's burgeoning population. Some other variables may have an impact on inflation. In reality, as the population of India rises, so does the country's gross domestic product (GDP), as we can see from the data. However, India's GDP has increased rapidly over the last two decades despite the country's burgeoning population. India has the world's third-largest GDP (PPP) at \$10.40 trillion, but its population growth has left it ranked just 116th in per capita income and 130th in HDI. The rapid growth of the human population has a negative impact on living conditions everywhere. Increased land pressure and environmental degradation, as well as



higher rates of unemployment, lower incomes per person, and difficulty forming capital all stem from a population that is too large for the available resources.

Key Words: Over-population, GDP, per capita income, HDI, Economic development.

Introduction

India's population accounts for 17.99% of the global total, which might be interpreted to suggest that one in every six persons on the planet lives in India. In the not-too-distant future, India will likely have a larger population than China, making it the most populous nation in Asia. According to population forecasts, India will overtake China as the most populated nation in the world in little over a decade. In 2017, its population growth rate of 1.13 percent placed it 112th globally. Roughly half of India's population is younger than 25; another 65 percent is younger than 35. By 2020, the typical Indian will be 29 years old, with a dependence ratio of little more than 0.4. Human beings have a dual role in economic growth. When their numbers are just right, they're an advantage, but if they're too big, they become a burden. India's population has become too large and is now a burden on the country. Consequently, India's rising population is a major barrier to effective economic planning and growth. In India, population growth serves as both a means and an aim in terms of the country's economic progress. If its strength is appropriate, it's an asset; if it's too strong, it's a problem. India's population has become too large and is now a burden on the country. So issue of overpopulation in India has shown to be a huge hurdle in the achievement of economic planning and development. India now accounts for 17% of the world's total population. All these people are spread out throughout 3.28 million square kilometers of our landmass, which is a rather unequal distribution.

If you believe the results of the 2001 Census, Uttar Pradesh, with its 166 million residents, is the most populous state in India. In contrast, states like Lakshadweep and Sikkim have very low populations, with only 60,000 inhabitants in Lakshadweep and 0.5 million in Sikkim. In addition, the five largest states of India—Uttar Pradesh, Maharashtra, Bihar, West Bengal, and Andhra Pradesh—are home to about half of the country's total population. However, despite Rajasthan's vastness, its population accounts for just 5.5% of India's total. However, India's GDP has increased rapidly over the last two decades despite the country's burgeoning population. India has the world's third-largest GDP (PPP) at \$10.40 trillion, but its population growth has left it ranked just 116th in per capita income and 130th in HDI. The rapid growth of the human population has a negative impact on living conditions everywhere. Increased land



pressure and environmental degradation, as well as higher rates of unemployment, lower incomes per person, and difficulty forming capital all stem from a population that is too large for the available resources. Population growth or decline has a significant impact on India's government and economy. Although it has a growing population and a wealth of natural resources, India is still classified as a developing nation. India is not yet able to effectively use its natural resources to ensure the well-being of its expanding people. Due to shortages in basic necessities such as food, water, clothes, and shelter, as well as subpar access to healthcare and medical treatment, India is home to a large population living in poverty. Many rural areas in India now do not have access to modern conveniences such as power, sufficient food, or enough health and educational services.

A very contentious issue all around the world is the impact of a growing population on economic growth. Numerous studies and hypotheses have shown the detrimental effects of population expansion on a nation's GDP and standard of living. Malthus's "Essay on the Principle of Population" sparked all these discussions when he introduced his idea. He investigated the phenomenon of declining returns and concluded that rapid population expansion was to blame in the vast majority of nations. This is how his hypothesis works, according to him:

It's likely that there won't be enough food for the growing population if:

- the population grows exponentially;
- food production doesn't grow exponentially; and the opposite is true.
- The population is dwindling as a result of a negative occurrence (famine, catastrophe, etc.).

Thus, food production and population level off as a result.

There are three main schools of thought about the impact of population growth on a country's economy. One is that they are against the effect being a boon to economic growth. Two, agreeing with the argument that economic growth has a detrimental impact. Third, they think that economic growth and population expansion are unrelated. The key theory that demonstrates the detrimental effect is the Malthusian Population Trap. Some alternative theories highlight the significance of human capital to a country's economic growth, and all of them point in a good direction. Population increase may serve as a source of human capital, which is essential for economic success. In this perspective, a country's true strength and influence lie in its expanding population. They also argue that a larger population means a larger labor force, which is beneficial for fostering diversity in the workplace and, ultimately, for a nation's rising productivity. Of course, the converse is also possible. If we don't manage



this population boom well, the results might be catastrophic. This is by far the most pressing issue confronting the world's poorest nations today. Defendants from both sides of the debate make their case for and against the relationship between rising population and a flourishing economy. The theoretical underpinnings and empirical confirmation of each perspective are equally strong.

Relationship between population growth and economic development

To start, we'll take a look at how a rising population might affect a nation's prosperity. Rapid population expansion will, on the one hand, lead to some economic progress. Because of the need to meet the demands of such a sizable consumer base, a huge population will also have considerable influence on the economy. There will be a concentration of future industrialists in this sector, and they will use cutting-edge techniques to squeeze maximum productivity out of the planet's limited resources. This is how a country's population boom might boost its economy. Japan is often used as an example of a nation with a large population that has yet improved its level of life via economic growth. But when we take a look at nations like India, it becomes abundantly evident that their rapidly expanding population is a major obstacle to their country's progress in terms of economic growth. Consistent population growth seems to be a constraint on the economy. The impact of economic growth on population expansion may also be taken into account. The birth and mortality rates will be quite high in a nation that has not yet achieved enough economic growth. Several factors, including women's increased likelihood of entering into marriage at a younger age, the shift toward a more traditional gender role at home (with fewer women in paid employment) as a result of cultural norms and values, and the hope that offspring will one day provide financial support for their families, all contribute to high birth rates. However, because of less nutritious diets, unsanitary living conditions, and a lack of access to modern medical care, the mortality rate will also rise. More nutritious food will be eaten, and sophisticated medical treatment will increase life expectancy, as a nation enters an age of strong economic growth. The mortality rate will drastically decrease as a result of medical progress, more food availability, and improved sanitary facilities brought about by economic growth. While the economy has made many luxuries available, the birth rate will stay high as a consequence. All of these factors working together will hasten population increase and make an already difficult situation even more difficult to handle. However, the birthrate often tends to fall as a nation develops a more strong economy. That's because when societies develop economically, individuals begin to see the benefits of fewer



families and become more interested in family planning. The cost of living and general pricing levels tend to rise in tandem with an expanding economy. When this occurs, parents see their offspring less as a blessing and more as an added responsibility. It is notable that this time period is characterized by tiny families and low mortality rates.

Review of literature

(Menike, 2018) studied “A Literature Review on Population Growth and Economic Development” have discovered, and Since the global population exceeded the two-billion mark, the question of the relationship between population expansion and economic progress has been the subject of considerable discussion. The connection between those two criteria has been the subject of heated discussion in all nations, from the least developed to the most developed to those in transition. Numerous hypotheses exist, the first of which holds that an expanding population boosts the economy. According to the second idea, rising populations dampen economic development. This indicates that the influence of population expansion on economic development, and vice versa, may be used as a proxy for the link between the two. Therefore, this paper's primary goal is to undertake a thorough literature study to ascertain the connection between population expansion and economic growth. According to the research, most nations see their rapidly expanding populations not as a threat to their economic growth but as a source of opportunity.

(Preston & Donaldson,) studied “Effect of Population Growth on Economic Development in India” have discovered, and Finding how India's fast-growing population has affected the country's progress towards economic prosperity is the primary objective of this study. This is crucial since India is now the world's second-most populous nation and, according to a number of estimates, its population growth rate will soon exceed that of China. The government may benefit from considering the impact of population increase on future policy if the correlation between these factors is studied. The five key sections of this study are as follows. As a first step, we provide a brief overview of the literature on the subject. Part 2 provides a list of key factors to illustrate the relationship between population expansion and economic progress. In the third installment, we'll examine the development of industrialized nations and the relationship between these factors. In section 4, we examine the connection between these factors in the Indian context and attempt to forecast the likely values of the variables in question over the next two decades. In section 5, we provide some policy recommendations in an effort



to speed up economic growth based on forecast data and examples from industrialized nations. The last section of this paper includes the summary and some final thoughts.

(Bahadur, 2019) studied “ Impact of Over-population on Economic Growth and Development in India” discovered that India is the world's largest populous democracy. According to population forecasts, India will overtake China as the most populated nation in the world in little over a decade. In 2017, its population growth rate of 1.13 percent placed it 112th globally. In 2020, the typical Indian will be 29 years old. Expanding the human population is both the means and the objective of economic progress. When their numbers are just right, they're an advantage, but if they're too big, they become a burden. India's population has become too large and is now a burden on the country. Consequently, India's rising population is a major barrier to effective economic planning and growth. Researchers discovered a strong link between India's population and GDP. The researcher has compiled the population and SGDP of each state to see whether the two are correlated. There is no link between India's yearly population increase and the country's inflation rate, according to the study. India's rising cost of living can't be traced back to the country's burgeoning population. Some other variables may have an impact on inflation. In reality, as the population of India rises, so does the country's gross domestic product (GDP), as we can see from the data. However, India's GDP has increased rapidly over the last two decades despite the country's burgeoning population. India has the world's third-largest GDP (PPP) at \$10.40 trillion, but its population growth has left it ranked just 116th in per capita income and 130th in HDI. The rapid growth of the human population has a negative impact on living conditions everywhere. Increased land pressure and environmental degradation, as well as higher rates of unemployment, lower incomes per person, and difficulty forming capital all stem from a population that is too large for the available resources.

(AGARWAL, 2019) studied “Impact of India’s Population Growth on Economic Development” have discovered, and Workforce resources include the general population. Greater population means more potential workers. You can't make something with only your labor. A country's labor force may be a productive asset provided that it is combined with other industrial resources in enough quantities. A big work force may slow economic development if other resources are in short supply. The pace of population increase is very high in certain emerging nations. This paper's goal is to draw attention to the negative effects rapid population



growth has on a nation's economy and to provide solutions to slow the increase of the population in order to avoid stifling the economy.

Conclusion

Historically, economists and demographers have looked at the correlation between rising populations and expanding economies with both cautious optimism and cautious pessimism. Positive thinkers, on the other hand, had a more open stance toward population growth, holding the view that it wasn't essential to impose artificial limits on a nation's human population. But the pessimists argue that a slower rate of population increase is necessary for a nation to attain a healthy level of development. From what has been said above, it is apparent that most nations have come to see their rapidly expanding populations as a boon to their economic growth, despite initial concerns to the contrary.

References

1. AGARWAL, S. (2019). Impact of India's Population Growth on Economic Development. *Paripex - Indian Journal Of Research*, 3(5), 1–2. <https://doi.org/10.15373/22501991/may2014/91>
 2. Bahadur, R. (2019). Impact of Over-Population on Economic Growth and Development in India. *International Journal of Research and Analytical Reviews*, 6(1), 48–57.
 3. Menike, H. R. A. (2018). A Literature Review on Population Growth and Economic Development. *International Journal of Humanities, Social Sciences and Education*, 5(5), 67–74. <https://doi.org/10.20431/2349-0381.0505009>
- Preston, S. H., & Donaldson, P. . Population Growth and Economic Development * A discussion of eight major relationships that link demographic patterns and economic processes. *Asia-Pacific Population Journal*, 1(2), 3.