

# Effects of population growth on economic development in developing countries

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**Abstract:** The main aim of this work is to find the effects of rapid population growth on economic development in India. Economic development involves rise in the level of production in an economy along with the advancement of technology, improvement in living standards and so on. This is very important because India is second most populated country in the world. Population growth is closely tied to economic development. On the one hand, labour shortages will slow the rate of economic growth in industrialized countries, but on the other hand, a high birth-rate in a developing country may stress limited renewable resources. Economic development is measured by upward movement in real income. High population growth is not good for economic development as its result are like reduce employment, reduce rate of capital formation, require high investment, food problem, Agriculture problem, adverse effect on GDP, poverty and many more. Sometimes population growth has inverse effects on societies include economic benefits such as expansion of tax based, innovation and increased consumer spending at local businesses. Population growth. This paper presents the negative and positive effects of population growth on economic development in developing countries. This study is based on secondary data and its help to know basic adverse effects of high population in underdeveloped country like India.

**Keywords:** Population, Growth, Economic Development, Underdeveloped Countries

## Introduction:-

Based on the history of all the developed countries, we can find that the human capital is a major component of growth. This can be basically said from the fact that resources required for economic growth are driven by the availability of human capital. Other positive effects of population growth are economies of scale, the possibility of increasing market for the goods produced in the country, and the new attitudes, ideologies, creativity they bring compared to the older population. But population growth may also have adverse effect on a nation's growth. There are generally three different types of views on how population effects the economic development of a nation. One, opposing the positive impact on economic development. Two, supporting the negative effect of economic development. Three, they believe that there is no relation between economic development and population growth. Effect of Population Growth Rate on Economic development is one of the most debatable topic on earth. There are a lot of theories which show that rise in population has negative effect on both economic growth and development of a country. By improving health empowering women, population growth comes down. Even one economist said that population growth is the primary source of environmental damage. And in other side real problem is not population, but what the population is doing .

## Objectives:-

- To define the impact of population growth is deteriorating on economic development by hampering economic growth and considers as a problem
- To know positive and negative effect on economy of population
- To define the important of HRD
- To indicate insignificants of high rate of population

## Definition of Population growth and Economic development:-

**Economic development:-**Economic development is the process by which a nation improves the economic, political, and social well-being of its people. The term has been used frequently by economists, politicians, and o economic development is typically associated with improvements in a variety of areas or indicators (such as literacy rates, life expectancy, and poverty rates), that may be causes of economic development rather than consequences of specific economic development programs there in the 20th and 21st centuries. (Wikipedia)

Economic development is a policy intervention endeavour with aims of improving the economic and social wellbeing of people, economic growth is a phenomenon of market productivity and rise in GDP. Consequently,

as economist Amartya sen points out, "economic growth is one aspect of the process of economic development".

**Population growth:-**An increase in the number of people that reside in a country, state, county, or city. To determine whether there has been population growth, the following formula is used: (birth rate + immigration) - (death rate + emigration). Businesses and governmental bodies use this information to make determinations about investing in certain communities or region

(: <http://www.businessdictionary.com/definition/population-growth.html> )

Economic demography explores the relationship between population and economy in a broad sense; how a population is influenced by economic development and in what ways do population changes affect the economy.

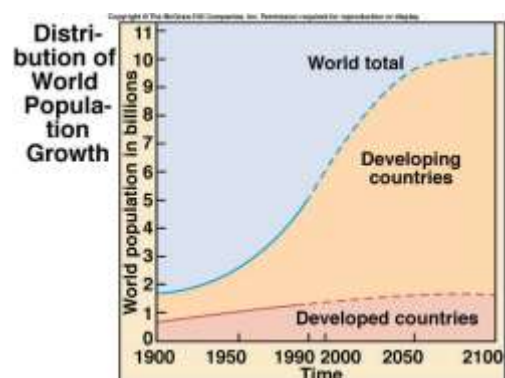
### Basic Scenario of population of India:

- The current population of **India** is **1,348,702,444** as on February, 2018, based on the latest United Nations estimates.
- India population is equivalent to **17.74%** of the total world population.
- India ranks number **2** in the list of countries (and dependencies) by population.
- The population density in India is 455 per Km<sup>2</sup> (1,180 people per mi<sup>2</sup>).
- The total **land** area is 2,973,190 Km<sup>2</sup> (1,147,955 sq. miles)
- **33.2 %** of the population is **urban** (449,945,237 people in 2018)
- The **median age** in India is **27.0 years**

YEAR	POPULATION
1955	409269055
2020	1383197753 (approx)
2050	1658978162 (approx)

India will become 1<sup>st</sup> populated country from 2025

Draft of Distribution of world population growth, in which easily show that higher population are belonging from developing country like India, china etc.



### Positive effects of population growth on economic development

Sometimes population growth has positive effects on societies. These include economic benefits such as expansion of tax bases and increased consumer spending at local businesses, as well as innovations by cultures seeking to keep up with growing populations.

### Increased Innovation:-

Population growth opponents often have decried the burden on resources. For instance, high-yield crops were developed to increase food production largely in response to growing populations. Scenarios where technological innovations generate net negative impacts may be associated with a limited technological stock as well as a limited human population at equilibrium and the potential for collapse. By innovation we can increase the production which is helpful for sufficient population.

Population growth → require higher production → encourage innovation in technology

**Help for extension of the market:-**

Growing population means a growing market for most goods and services and we know that division of labour is limited by the extent of the market. A potentially expanding market may stimulate entrepreneurs to invest more and more in capital goods and machinery. Business activity will be spurred as a consequence. And more income and employment will be created in the process. Moreover, it will provide an outlet for the products of efficient, large scale, mass- production industries. The net effect may be favourable to the country

Growing population → increase number of labour → extension of market

**Labour as an important tool for higher productivity:-**

Population provide large number of labour. Labours are necessary tools and implements, was always and still is the greatest productive asset of nations. A growing population leads to an increase in total output. The sheer arithmetical increase in population creates work as well as incentives for production that impacts upon output and productivity quite favourably. an increasing population means an increase in the number of working population who can function as active participants in the process of economic growth and development.

High no. of working population → increase high productivity

**Beneficial for developed county:-**

Population growth has been a favourable factor in stimulating growth in many a country. Even in the USA, in the 1930s, was apprehended that a slowing down of the rate population growth would lead to long run secular) stagnation. For a developed country high rate of birth rate help to innovation and increase in production even in technology too.

**Helpful for sustainable development:-**

Such as population size and growth rates, distribution patterns, migration and urbanization trends - have a direct impact on many other areas of development, particularly human resource development. Increasingly, countries are focusing on the development of human capital, including the provision of adequate infrastructure, housing, health and education facilities, potable water and food, job creation and the management of key natural resources, among others. Policy makers must be able to balance population growth and distribution factors, for example, with available resources if development strategies are to become reality. Population is one of the fundamental building blocks of sustainable development, along with resource management and environmental care-taking, the development of adequate social services, and the building up of viable industrial and agricultural infrastructures. All of these factors interact with and influence the others. Ultimately, population factors interact with consumption patterns and the level of technological development to influence a society's total impact on resources and the environment .they are among the most important investments any country can make, bearing directly on many areas of development, as mentioned previously. Those Third World countries with the fastest economic growth rates - for example, Thailand, Malaysia, Singapore, China, Indonesia, Costa Rica and Tunisia - have all established effective reproductive health and family planning programme.

Population growth → require infrastucter facilities → need adequate social services →

Result Sustainable development in developed country

**Positive effect on communication and transportation :-**

Rapid population growth rate could cause a positive effect on communication and transportation. Transportation plays an important role in economic development. A good transportation system can help reduce transportation cost and travel time. Along with high population growth rate, the increase in population density is inevitable. A dense population is likely to pressure the government to develop more in transportation system such as railroad, highways and road.

population → government have to develop facilities → economic development

**Help to increase per capital income;-**

Increasing population means an increase in demand for goods and services. If there are proper plans in place to convert the increasing population into a formally employed population, that would bring about positive changes to the economy in terms of increasing per capita income, thus economic growth. And it would likely to covert in economic development.

Population increase → Demand increase → employment increase → per capital income increase

### Population Growth as a Sign of Social Health:-

Although not a direct effect of population growth, growing societies often signify healthy societies. For instance, population growth often signals lower mortality rates through advances in medicine and science. Health benefits of family planning have become obvious. Women who use family planning and maternal and child health care services tend to be healthier and give birth to healthier children than those who do not.

High population → advances of medicine and science → lower mortality rate

### Negative effects of population growth for economic development:-

Population growth could just as easily have been the effect of economic insecurity and poor health care. However, rapid population growth may defeat efforts to combat poverty and hunger and to improve services, as increasing numbers of people put serious pressures on the economy and society of poor nations.

Population growth → increase poverty & hunger → pressure on society

### Problem of unemployment:-

A fast growth in population means a large number of persons coming to the labour market for whom it may not be possible to provide employment. In fact, in underdeveloped countries, the number of job seekers is expanding so fast that despite all efforts towards planned development, it has not been possible to provide employment to all. Unemployment, underemployment and disguised employment are common features in these countries. The rapidly rising population makes it almost impossible for economically backward countries to solve their problem of unemployment. Its most common problem for under developed country

rising population → increase the number of unemployed workers

### Rapid Population Growth creates Food Problem:-

Increased population means more mouths to feed which, in turn, creates pressure upon available stock of food. This is the reason, the under-developed countries with rapid growing population are generally faced with a problem of food shortage. Despite all their efforts for raising agricultural production, they are not able to feed their growing population. Food scarcity effects economic development in two respects. Firstly, inadequate supply of food leads to undernourishment of the people which lowers their productivity. It further reduces the production capacity of the workers, Secondly; the deficiency of food compels to import food grains which places an unnecessarily strain on their foreign exchange resources.

Increase population → productivity becoming lower → insufficient food/creates problem

### Low rate of wages-Number of landless workers are largely increase:-

In less developed countries the majority of population lives in, where agriculture is their mainstay. The growth of population is relatively very high in rural areas and it has disturbed the land man ratio. Further it has increased the problem of disguised unemployment and reduced per capita farm product in such economies, as the number of landless workers has largely increased followed by low rate of their wages.

High number of labour → in rural area → increase unemployment → labour become landless

### Less developed country decline social Infrastructure:-

A welfare state like India is pledged to meet social needs of the people adequately and for this, the government has to spend a lot on providing basic facilities like education, housing and medical aid. But rapid increase in population make burden all the more heavy.

For welfare → burden on infrastructure facilities

**Pressure on Natural Resources:-**

India was an agricultural nation for majority of the years in the past. The cultivable land and almost all other things depend on irrigation. Supply of both cultivable land and the water for agriculture became stagnant in India. But the population growth remained to be consistently high. So this increased the pressure on other factors too.

Population growth → limited natural resources → pressure on it

**Higher Rate of Population requires more Investment:**

In economically backward countries, investment requirements are beyond its investing capacity. A rapidly growing population increases the requirements of demographic investment which at the same time reduces the capacity of the people to save. This creates a serious imbalance between investment requirements and the availability of investible funds. Therefore, the volume of such investment is determined by the rate of population growth in an economy. Some economists have estimated that for maintaining the present level of per capita income, 2 per cent to 5 per cent of national income must be invested if population grows at 1 per cent per annum. These countries. These factors are mainly responsible for stagnation in such economies.

Inc. population → require demographic investment → needs of high NI

**Adverse effect on Environment:-**

Rapid population growth leads to the environmental change. Rapid population growth has swelled the ranks of unemployed men and women at an alarming rate. Due to this, a large number of people are being pushed in ecologically sensitive areas such as hill sides and tropical forests. It leads to the cutting of forests for cultivation leading to several environmental changes. Besides all this, the increasing population growth leads to the migration of large number to urban areas with industrialization. This results in polluted air, water, noise and population in big cities and towns. Human overpopulation is among the most environmental issues, silently aggravating the forces behind global warming environmental pollution, habitat loss, the sixth mass extinction, intensive farming practices and the consumption of finite natural resources

High population → leads to migration in urban areas with industrialization

**Growing Population lowers Standard of Living:-**

The standard of living is determined by their per capita income. The factors affecting per capita income in relation to population growth equally apply to the standard of living. The increase in population leads to an increased demand for food products, clothes, houses etc., but their supply cannot be increased due to the lack of cooperate factors like raw materials, skilled labour and capital etc. The cost and prices rise which raise the cost of living of the masses. This brings the standard of living low. Poverty breeds large number of children which increases poverty further and vicious circle of poverty. Thus, the consequence of population growth is to lower the standard of living.

population → demand increase → poverty increase → lower standard of living

**Decrease in capital per worker:-**

population growth is capital dilution. In Asian Developing countries, the total population is going up dramatically. For example, according to United Nations Population Division, in 1965, India had the total population around 497 thousands while in 2010, the total population of India is approximately 1,214 million (increased 1.44%). Assume that the amount of capital in a country is constant, an increase in population will lead to a decrease in capital per worker (since adding more workers can lower the amount of capital at each worker's disposal). The large size of population also reduces per capita availability of capital in less developed countries. This is true in respect of underdeveloped countries where capital is scarce and its supply is inelastic. A rapidly growing population leads to a progressive decline in the availability of capital per worker. This further leads to lower productivity and diminishing returns.

Population high → labour increase → per capital worker decrease

**Higher population in non productive age group:-**

we will discuss the impact of the age-structure in output per capita of a country. The demography divides population into three categories, which are: young age population (0-14 ages), working age population (15 - 64 ages) and old age population (over 65 ages). Amongst these three categorizes, young age and old age population can negatively affect on the output per capita for two reasons. population in the ages of below 14 and over 65 belong to the group in which most people are not or stop working. In case they have no ability to work and they become unemployed. Proportion of population participating in productive works will be reduced, which leads to a decline in the total output per capital.

population → inc. in no. of non productive age group → declines total output

**Increase Poverty and Inequality:-**

Poverty and income inequality are the direct as well as indirect result of high population growth. growth of population is largely responsible for the perpetuation of vicious circle of poverty in underdeveloped countries. On account of rapid growth of population people are required to spend a major part of their income on bringing up their children. Thus savings and rate of capital formation remain low, reduction in per capita income, raise in general price level leading to sharp rise in cost of living. No improvement in agricultural and industrial technology, shortage of essential commodities, low standard of living, mass unemployment etc. As a result the entire economy of an underdeveloped country is surrounded by the vicious circle of poverty. Thus rapid population growth is one of the important problems of India which increase the ratio of poor people. Poor are becoming more poor and richer are becoming more richer. So its easily encourage inequality in income, too.

Population growth → lower employment opportunity → decline income → result poverty

**Negative effect in rural area :-**

In less developed countries the majority of population lives in, where agriculture is their mainstay. The growth of population is relatively very high in rural areas and it has disturbed the land man ratio. Further it has increased the problem of disguised unemployment and reduced per capita farm product in such economies, as the number of landless workers has largely increased followed by low rate of their wages. The low farm productivity has reduced the propensity to save and invest. As a result these economies suffer largely for want of improved farm techniques and ultimately become the victim of the vicious circle of poverty. Thus farming and the process of overall development.

Higher population in rural area → low farm productivity → reduce saving & investment

**Conclusion:-**

In short, this paper researches the impact of population growth in economic growth, specifically GDP per capita, of Asian Developing countries. By doing the multiple regression tests, we can conclude positive effects of population like increase in labour Market: Increasing population ensures increase in the labour force. Lack of growth in the labour force will make a country static, retarded and gets to equilibrium at less than full employment level of the economy. Large Market: Investors would like to invest in a country with a large population. As the population continues to grow so will be the growth in demand for food, shelter, clothing etc. and on other side there are so many negative effect of population like Low Per capita income if production level does not increase, Increase in imports, which will result to balance of payments deficit, shortage of food, Difficulty in educating the children ,Under utilization of Labour in developing country.

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