POPULATION GROWTH - A BOON OR BANE: AN ECONOMIC OUTLOOK

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31	Work Force Participation in India **Dr.A.Kumudha**	157
32	Rural Entrepreneurship in India: Challenge and Problems **Dr.A.Ahilandeswari**	161
33	Growth Performance of Population in India **Dr.M.Deepan**	168
34	Impact of India's Population Growth on Economic Development **Dr.R.Gopalasundar**	172
35	Rapid Population Racing Urbanisation- An Overview **Dr.M.Mehar Banu**	176
36	Impact of Population Explosion on Economic Growth **Dr.S.Ivy Jeno & Ms.G.Suraji**	183
37	Youth Population in India **Dr.A.Jothirajan & Dr.A.Pandiammal**	188
38	Impact of Population Growth on Economic Development in India **Dr.K.Aameena Beevi**	192
39	A Study on Youth Labour Force in India **Dr.Mrs.P.Mahalakshmi**	197
40	Impact of India's Population Growth on Economic Development **Dr.K.Selvalakshmi**	203
41	A Study on Population as a Human Resources **Dr.C.Uma Maheswari & Dr.M.Lakshmi Mekala**	208
42	An Insight of Population Growth in India **Dr.K.Jeyanthi**	216
43	Impact of Population Growth Leads to Effects on Indian Economy **Dr.S.Kathikeyan & Dr.M.Satheesh Pandian**	221
44	A Study on Impact of India's Population Growth on Economic Development **Dr.C.Guna Sundari**	228
45	An Analysis of Determinants of Female Labour Force Participation in Usilampatti Taluk of Madurai District **S.Hemanath & Dr.A.Marimuthu**	233
46	Population and Its Effects on Industrial Sector in India **N.Dhasneem Banu**	239

IMPACT OF POPULATION GROWTH LEADS TO EFFECTS ON INDIAN ECONOMY

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Abstract

Population growth provides the labour required for employment to produce the required goods and services. If labor supply is constrained to grow, then an increase in labor force will inadvertently increase output and growth. Impact of population growth leads to effect on Indian economy for the reason to involvement every citizen responsibility. The relationship between population growth and economic development has been a topic under debate for a long time. Different economists have brought up their views as to the definitions of population growth, economic development, the relationship between them and how they impact or affect the varying economies (i.e. less developed economies, developed economies and transition economies). The popular Malthus theory postulates that as population increased in a geometric mode, food supply only increased in an arithmetic mode. Malthus' postulation of population growth of a country was growing at a geometric rate and can be repressed with a decline in food supply. The food supply he said, will grow at an arithmetic rate as diminishing returns are likely to affect agricultural land produce over time and an increase in population also resulting in competition over the use of land with the opportunity cost of either agricultural use or other needs such as housing, hospitals etc.

Keywords: *Economic Development, Development Planning, Macroeconomic Factors, Family Size, Family Characteristics, Family and Household, Population Growth, Population Dynamics, Population, Caste, Social Class, Socioeconomic Status, Income, Occupational Status, Employment Status, Developing Countries, Economic Factors, Sociocultural Factors, Demographic Factors, Socioeconomic Factors.*

Introduction

The impact of economic development on population growth has been considered and it will be proper to also consider the impact of population growth on economic development as a part of this study. The negative impact of a fast growing population on economic development especially with regards to Less Developed Countries will come to bare when not properly managed. These negativities are commonly being referred to as the Cost of Population Growth. An increasing population has the tendency of slowing down the per capita income growth in Less Developed Countries leading to income distribution inequalities. It also stifles savings and capital investment thereby limiting the growth rate of the nation's Gross National Product National. Therefore, assuming increasing per capita income (or output) is used as an indicator of measuring the improvement in the average standard of living, it then implies an economy with a stagnant total income and a rising population is likely to have its average standard of living worsen over the specified time frame under consideration. Population growth provides the labour required for employment to produce the required goods and services. If labor supply is constrained to grow, then an increase in labor force will inadvertently increase

output and growth. Impact of population growth leads to effect on Indian economy for the reason to involvement every citizen responsibility. The relationship between population growth and economic development has been a topic under debate for a long time. Different economists have brought up their views as to the definitions of population growth, economic development, the relationship between them and how they impact or affect the varying economies (i.e. less developed economies, developed economies and transition economies). The popular Malthus theory postulates that as population increased in a geometric mode, food supply only increased in an arithmetic mode. Malthus' postulation of population growth of a country was growing at a geometric rate and can be repressed with a decline in food supply. The food supply he said, will grow at an arithmetic rate as diminishing returns are likely to affect agricultural land produce over time and an increase in population also resulting in competition over the use of land with the opportunity cost of either agricultural use or other needs such as housing, hospitals etc. The relationship between population growth and economic development can be measured by looking at the impact of population growth on economic development and vice-versa.

Economic Development

Economic development can be understood to mean the process by which the quality of life of the citizenry or population is improved. This can be attained by increasing the standards of living of the people – especially by increasing the consumption level of food, healthcare, education etc; institute political, social and economic sectors that advance the values for human dignity thereby boosting the peoples' sense of worth and raising the opportunities enjoyed by the people by way of increasing the variety of goods and services available to them. Economic development can equally mean a more improved state of the economy transiting from a lower level of activity to one characterized by improved advancements and technologic activity. Economic development as a transformation of a major agrarian-based economy to one that utilizes more machinery in the form of tools and equipment, possessing a mix of labor and where amenities such as improved healthcare and sanitation, transportation, law and order, communication etc exist to help reduce the death rate.

Population Growth

Population growth can be defined as a numerical increase in people who occupy a certain area measured within a period of time. Population increases when people are either born in a country or immigrate to a different country from their country of birth. The population equally decreases as people die out or emigrate out of their country of birth. According to the World Development Indicator (ed. September 2009), total population is defined as 'based on the de facto definition of population, which counts all residents regardless of legal status or citizenship-except for refugees not permanently settled in the country of asylum, who are generally considered part of the population of their country of origin'.

Theories of Population Growth

There are theories that show forth the characteristics of population growth and means by which such population sizes can be controlled – the Malthusian Theory and the Theory of Demographic Transition.

Malthusian Theory

Malthusian theory is based on two assumptions – that food is a necessity if man will have to exist and that procreation will remain in almost the same state. Malthus' (1993) theory proposes that if the population is left

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unimpeded for any reason it will lead to a rise in geometric proportion with subsistence left or constrained to increase in arithmetic proportion. Malthus further explains that an increase in population within a limited land resource is likely to lead to a set-in of diminishing returns. The theory proposes two possible ways to control the increase in population growth – either a means to curb the population growth by way of 'positive' methods such as famines, pestilence, wars etc or the 'preventive' method which uses sexual abstinence, delayed marriages etc.

Contribution of Population Growth in Indian Economic Development

Population Growth and Rate of Saving and Investment

Economic growth requires increasing supplies of capital goods. A higher rate of economic growth can be achieved by accelerating the rate of capital formation. Increasing supplies in capital goods becomes possible only with higher rate of investment. And a higher rate of investment, in turn, is possible if the rate of savings is high. Now, increase in population by adding to the number of people whose requirements of "feeding and clothing" have to be met tends to raise consumption and, therefore, lowers both saving and investment. Their famous work explained that saving rate was reduced by population growth because of increase in burden of dependency. They argued that with high fertility rate among the younger persons and declining mortality (death) rate among the old-age people in the growing population, the proportion of non-working age groups which depend on the working or earning members of their families increases. Since all must consume, in the absence of increase to productivity, saving per person must fall. Thus rapid growth of population by causing lower rate of savings and investment tends to hold down the rate of capital formation and therefore the rate of economic growth in developing countries like India. Under conditions like those in India population growth therefore actually impedes economic development rather than facilitates it.

Investible Resources and Rising per Capita Income

While, on the one hand, rapid growth in population reduces investible resources for accelerating capital formation, it raises the requirements for investment to achieve a given target increase in per capita income. Suppose population of country A is increasing at 1.5 percent per annum and that of country B at 2.5 percent per annum. Given that capital-output ratio is 4: 1, then country A would have to invest 6 percent of its current income to maintain its per capita income, while country B would have to invest 10 percent of its current income even to maintain its per capita output. This can be shown by using Harrod-Domar growth formula, namely, $g = I/v$ where g is growth rate in national income, I is rate of investment as a ratio of national income and v is capital-output ratio.

The formula can be restated as under – $I = v.g$

For country A with 1.5 percent annual growth rate of population, its national income must grow (g) at the rate of 1.5 percent to keep per capita constant.

For this investment as percent of national income required to keep per capita constant is given by- $I = 4 \times 1.5 = 6$ percent

And for country B whose population is growing at the rate of 2.5 percent per annum, its national income must also grow at the rate of 2.5% to maintain its per capita income.

For this, investment required will be- $I = 4 \times 2.5 = 10$ percent

Thus, when the population is increasing at a rapid rate, comparatively larger investment is needed to maintain the current level of income. Thus, given the scarcity of investible resources, adequate resources are not left to raise per capita income significantly.

Lower Growth of Per Capita Income

Like a thief in the night, population growth robs us of most of the gains in national income made from higher investment. Rapid population growth nullifies our investment efforts to raise the living standards of our people. In other words, a high rate of increase in population swallows up a large part of the increase in national income so that per capita income or living standards of the people does not rise much. This is precisely what has happened during the planning era in India. Since rate of growth in national income is given by the rate of investment multiplied by the output-capital ratio, $I\alpha$ will signify the rate of growth of national income. Now, it will be seen that rate of population growth r appears as a negative factor and will, therefore lower the rate of growth of per capita income g. It therefore follows that if rate of growth of per capita income g and the rate of rise in living standards with a given rate of investment is to be raised, the rate of growth of population should be lowered.

Population Growth and Marketed Surplus of Food-grains

Another way in which growth in population is impeding economic development is its effect on marketed surplus of food-grains. The marketed surplus of food-grains is a prerequisite for expansion in non-agricultural employment and output. When a country grows and accelerates its pace of industrialization, it requires food-grains to feed the workers who are employed in industries. If enough surpluses of food-grains are not forthcoming this acts as an important constraint on the industrial development. This prevents the living standards of the people to rise rapidly. Now, marketed surplus of food-grains is the difference between the output of food-grains by the agricultural population and their consumption of them. Thus-

Marketed surplus of food-grains = $(O - C_f)$.

Where, O stands for output of food-grains, and C_f for consumption of food-grains by the farmers themselves. As about 50% of the population is engaged in agriculture, the most of the increase in population also takes place there. This increase in population in the agriculture raises the consumption of food-grains, i.e., C_f in the above equation and therefore reduces the marketable surplus, if output remains the same. Even if output is rising, the extra consumption by the increase in population tends to lower the growth in marketed surplus for food-grains. We thus see that the growth in population has an adverse effect on the marketed surplus of food-grains and this act as a drag on the growth of output and employment in industries and to ensure food security to the people.

In India, in several years, increase in agricultural output has not been enough and further that the rapid growth in population tends to reduce the growth of marketable surplus and leads to rise in food prices. Rise in food prices relative to prices of industrial goods causes unfavourable terms of trade for industrial sector. This has an adverse effect on industrial development in the country. Besides, over time food inflation gets generalised and causes the problem of general inflation in the country which forces Reserve Bank of India to adopt tight monetary policy (that is, raises its lending rates of interest. The high interest rate discourages private investment and lowers rate of economic growth).

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Demographic Changes in India and Population Dividend

India is passing through a phase of unprecedented demographic changes. These demographic changes are likely to contribute to a substantially increased labour force in the country. The census projection report shows that the proportion of working age population between 15 and 59 years is likely to increase from approximately 58 percent in 2001 to more than 64 percent by 2021. In absolute numbers there will be approximately 63.5 million new entrants to the working age group between 2011 and 2016.

Further, it is important to note that the bulk of this increase is likely to take place in the relatively younger age group of20-35 years. Such a trend would make India one of the youngest nations in the world. In 2020 average Indian will be only 29 years old. The comparable figures for China and US are 37 and for West Europe 45 and for Japan 48 years. This higher proportion of young labour force in India has a great production potential and has therefore been called demographic dividend'. This demographic dividend provides India large productive opportunities for rapid economic growth.

There is nothing inevitable about demographic dividend. Demographic dividend will flow if we are able to find jobs for the growing labour force. According to National Sample Survey conducted between June 2011 and June 2012, the unemployment rate among youth (15-29 years) which made up a fourth (285 million) of the 1210 million total population rose by a percentage point in those two years while national rate of unemployment remained constant.

Population Control Policy

Over-populated developing countries are currently facing the problem of population explosion. The population growth is swallowing up a large part of the gains in national income brought about by planned economic development. If we want that future generations should have at least as much good prospects of living as the present generation we must control population growth.

India's population which is presently about 1250 million is increasing at a rate of about 1.6 percent per annum. If current trends continue, India may overtake China in 2045 to become the most populous country in the world. At present about 50 percent of India's population is below 20 years of age. Hence, a large number of our present population will live to see by the middle of the 21st century the disastrous consequences such as acute poverty conditions, widespread unemployment a high degree of socio-economic tensions if current growth in population is not checked. Stressing the importance of controlling population, growth in India is characterised by economic growth, the existence of mass poverty and unemployment. Prof. PR. Brahmananda writes, "A stationary economy with an open ended population expansion angle will be the greatest permanent disaster for the country. All hopes of improvement in living standard even at the meagre levels of vast masses will have been forever dashed to pieces". He further adds, "Such an atmosphere cannot be conducive for economic progress. The prospect of more bread being ruled out, the flow of freedom may not flutter for long."

Conclusion

The impact of population growth on economic development is different in the varying economies. When in developed countries, population growth helped to increase the Gross National Product, in developing countries the reverse is the case. It has thus been suggested that due to the cost of rapid population growth (as most countries who experience population explosion have high birth rates and low death rates), especially in the case of most Less Developed Countries, that policies be put in place to control the population growth in question.

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References

1. www.economicsdiscussion.net/economic-development/india-economic-development/.
2. Scientific American: Malthus's Predicted 1798 Food Shortages
3. Your Article Library: Benefits of An Increasing Population
4. https://study.com/.../factors-that-affect-economic-development-population-conflict-geog... Apr 11, 2015
5. https://wordpress.clarku.edu/.../how-does-population-growth-affects-the-environment-su... April 7, 2017

Web Sources

1. https://www.ukessays.com/essays/economics/relationship-between-population-growth-and-economic-development-economics-essay.php
2. http://www.economicsdiscussion.net/economic-development/india-economic-development/how-population-growth-retards-economic-development-india-economics/30058

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