

GROWTH ORIENTED DEVELOPMENT STRATEGIES IN INDIA AND ITS IMPACT ON ENVIRONMENT: A CRITICAL ANALYSIS

Taibor Rahaman Khan
Assistant Professor
Department of History
F. A. Ahmed College, Garoimari

Kanchan Choudhury
Assistant Professor
Department of Education
F. A. Ahmed College, Garoimari

ABSTRACT:

India is one of the rapid growing economies of the world through expansion of agriculture, rapid urbanization and industrialization which compels planners to overlook the importance of maintaining a natural balance with needs of continuous growing population of India. The targeted GDP growth rate of Indian 11th and 12th planning was 9% and achievement was almost same as 8% for rapid expansion of agriculture, industrialization and uncontrolled growth of urbanization which is threatening on natural environment. These growth oriented economic development strategies have resulted environmental degradation in India with deleting natural resources, degraded land, soil erosion, disappearing forests, endangered species, dangerous toxins, global warming etc. Therefore, it should be a reasonable compromise between developmental activities and conservation of the environment. India has been adopting some course of action since Rio-declaration to improve environmental degradation, to reduce the loss of biodiversity and emission of greenhouse gases and to go ahead towards sustainable development.

The present paper is an attempt to study the recent growth oriented development strategies of India and its impacts on environmental degradation. The paper concludes with some policy reflections and emphasizes the potential importance of natural resources for survival of future generation.

Key words: Development, Population, Environment, Degradation.

1. Introduction:

The Global human population, 7.5 billion at present, will cross the 11.2 billion mark by 2100. At the same time population growth was increased rapidly in India. According to population census-2011, Indian population increased from 36.1crores in 1951 to 102.70 cores in 2011. India accounts for 15% of world's population but has only 2.4% of the world's land area. The density of population was 117 persons in 1951 per square kilometer, further it has gone up to 368 in 2011 and it always shows an increasing trend over the census years. Demand for both agricultural products and industrial products have increased for the rapid growth of population for their standard of living. To feed the growing population, India has adopted several developmental strategies in agricultural and industrial sector for their rapid development.

India is one of the fastest growing economies of the world and will continue its widespread and rapid urbanization and industrialization often compels planners to overlook the importance of maintaining a natural balance in environment. The uncontrolled economic development have resulted ecological imbalance with unfortunate environment such as deleting natural resources, degraded land, disappearing forests, endangered species, dangerous toxins, global warming, air pollution, water pollution from sewage, and an inability to handle solid waste which brings serious environmental hazards in India.

Therefore, it should be a reasonable compromise between developmental activities and conservation of the environment. This paper made attempts to explain various environmental strategies in India, likes green revaluation in agricultural sector, rapid industrialization and urbanization which further created environmental degradation in India.

2. Importance of the study:

The relationship between population growth, resource depletion and environmental degradation has been a matter of debate for present decades. The argument has been between those who viewed that high population growth is the main cause in increasing pressure on the environment and those who place more blame on economic development, non-sustainable agricultural and industrial practices, and excessive and wasteful consumption. At present of economic expansion and population growth have degraded its land, air and water. The present paper examines the relationship of man to the environment and with growing population, poverty and urbanization. So this study would be beneficial for future research workers and policy makers.

3. Objectives of the study:

- To study the recent Growth oriented economic development strategies of India.
- To examine the effect of development strategies on environmental degradation in India.

4. Methodology of Study:

The descriptive research methodology has been used for the study of the paper. The proposed paper would be completely depended on secondary data. To evaluate the overall economic development strategies related to environmental degradation in India, secondary data has been collected from various published sources like Population census data from census commissioner from year to year, Government and Semi-government publications, websites of various agencies, books, journals, newspapers etc. The collected information would be processed and analyzed for the meaningful completion of the study.

5. Presentation and findings of the study:

To know the environmental degradation in India, we are to study present excessive population growth scenario of India, present economic growth strategies to feed the excess population and urbanization which impact on environmental degradation in India. The effects of economic development strategies on environment, can be analyzed by the following heads

5.1 Development strategies of India:

According to population census-2011, Indian population increased from 36.1crores in 1951 to102.70 cores in 2011. India accounts for 15% of world's population but has only 2.4% of the world's land area.

Demand for both agricultural products and industrial products have increased for the rapid growth of population for their standard of living. The annual targeted GDP growth rate was 5.6 in eighth plans but successfully achieved 6.8 in India. The targeted growth rate was 8 but achieved 7.6 in tenth plans. Further targeted and achieved growth rate was almost 8 in twelfth five years plan in India. Thus, average targeted annual GDP growth rate was 7.42 and achieved 7.2 during five years plan in India are shown in table-I and figure-I.

Table-I (Annual GPP growth rate of India during Plan Period)

Growth rate in percentage	Eighth Plan (1992-1997)	Ninth Plan (1997-2002)	Tenth Plan (2002-2007)	Eleventh Plan (2007-2012)	Twelfth Plan (2012-2017)
Targeted	5.6	6.5	8	9	8
Achieved	6.8	5.6	7.6	8	8

Figure-I

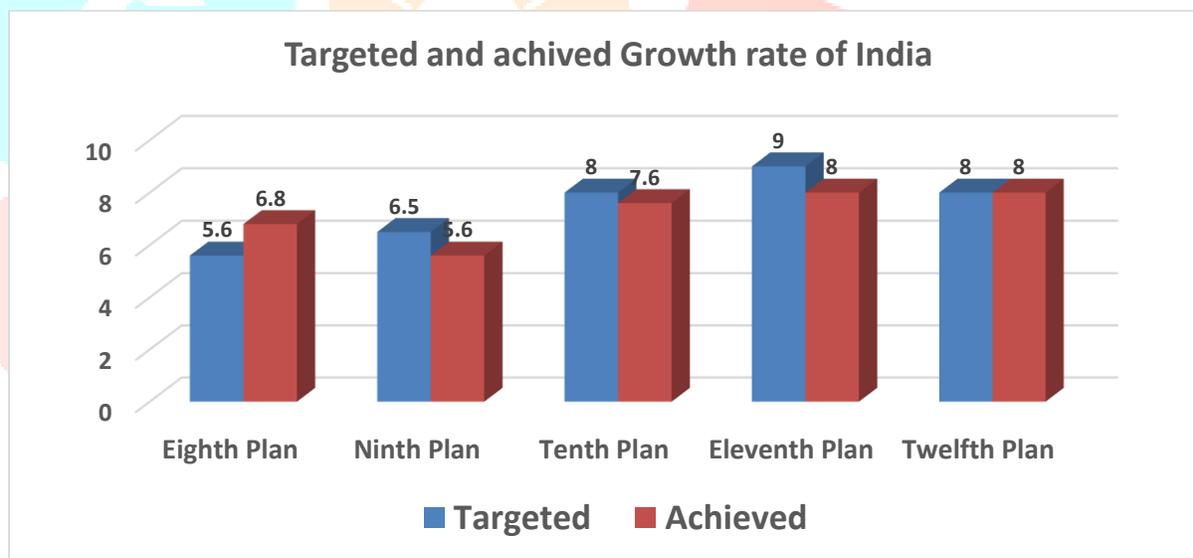
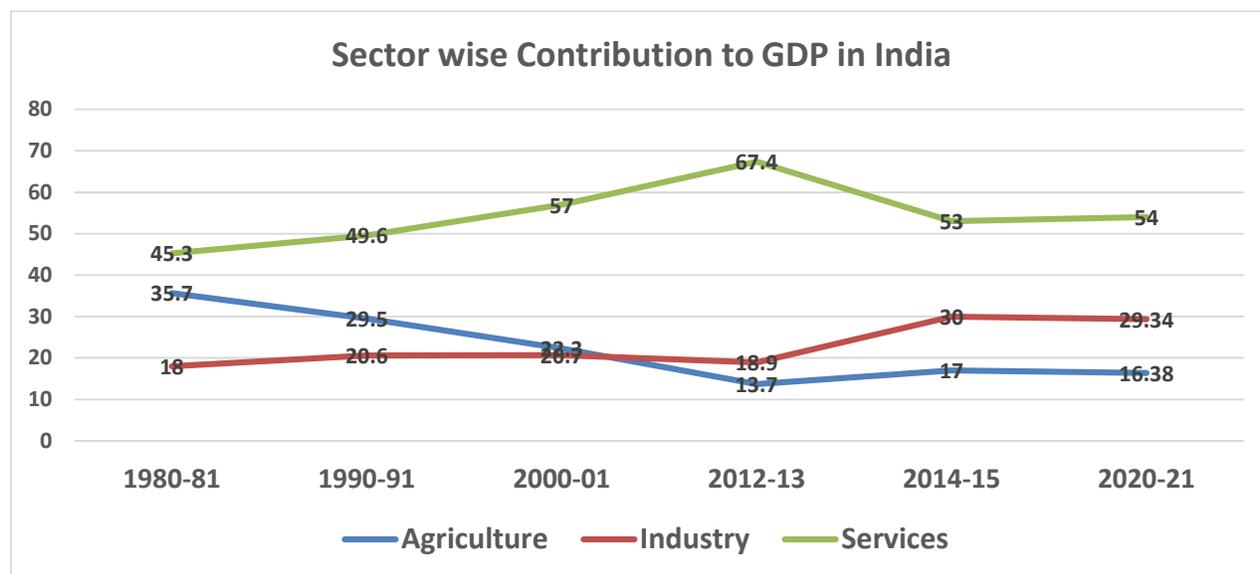


Table-II (Sector wise Contribution to GDP in percentage of India)

Sector	1980-81	1990-91	2000-01	2012-13	2014-15	2020-21
Agriculture	35.7	29.5	22.3	13.7	17	16.38
Industry	18	20.6	20.7	18.9	30	29.34
Services	45.3	49.6	57	67.4	53	54

Figure-II



Source: Planning commission data from eighth plan to twelfth plan of India.

A lot of strategies have taken by Indian government during planning period for economic development of the country, where it has provided much priority on industrial sector and service sector. So, sector wise share of contribution have changed towards agricultural sector to industrial and service sector during plan period of India shown in table-II and figure-II.

The share of agriculture & allied in GDP was 35.7 percent, while share of industry and service sector were 18 and 45.3 per cent in 1980-81. As the process of industrialization and economic growth under the Five Years Plans with manufacturing and service sectors growing rapidly and agricultural sector limping along, as a result the share of agriculture & allied in GDP declined to 22.3 per cent, but share of industry and service sector increased to 20.7 and 57 per cent in 2000-01. Further India's share of agriculture & allied in GDP declined to 16.38 percent while share of industry and service sector increased to 29.34 and 54 percent in 2020-21.

5.2 Environmental challenges:

Population growth and economic development are contributing many serious environmental problems in India. These include pressure on land, soil degradation, forests, habitat destruction and loss of biodiversity, changing consumption pattern, rising demand for energy, air pollution, global warming and climate change and water scarcity and water pollution. Some major environmental problem which has created for rapid growth of population can be explained by following heads.

5.2.1 Trends in poverty and its environmental effects in India

The high growth rate of population has created number of unproductive consumer in India which create food problem and massive poverty for India. The absolute number of poor was 260 million in 1999-2000 in India. Poverty is said to be both cause and effect of environment degradation. Poorer people, who cannot meet their subsistence needs through purchase, are forced to use common property resources such as forests for food and fuel, pastures for fodder, and ponds and rivers for water. It also contributes to environmental degradation

through over exploitation of natural resources like land, air and water. The deterioration of natural resources and unsafe living conditions affects the environment and health of the poor people.

5.2.2 Land and soil degradation:

The high growth rate of population has provided excessive pressure on agricultural land in India. Today every million hectares of land supports 7.27 million people. In India 43 percent of the land is under cultivation, one of the highest in the world. Direct impacts of agricultural development on the environment arise from farming activities, which contribute to soil erosion, land salivation and loss of nutrients. Shifting cultivation has also been an important cause of land degradation. Out of the total geographical area of 328.7 million hectares, 175 million hectares are considered to be land-degraded area.

5.2.3 Forest resources:

The total area under forests was 675.54 thousand square kilometers in 2001, which was 21 percent of the total geographical area, as against the National Forest Policy 1988. Even within this recorded area, only 416.81 thousand square kilometers, or only 12.68 percent of country's total land area, comprises dense forest with a crown density of more than 40 percent, thus reflecting a qualitative decline of forests in the country. The per capita availability of forest land declined from 0.124 hectares per capita from 1960-61 to 0.071 hectares in 1998. For the increasing habitation of growing population, a large scale of grazing forest land have occupied by the people for shelter and cultivation.

5.2.4 Habitat destruction and loss of biodiversity:

India is one of the 12 mega-biodiversity countries of the world. From about 70 percent of the total geographical area surveyed so far 46,000 plant species and 81,000 animal species representing about 7 percent of the world's flora and 6.5 percent of the world's fauna have been described. Population growth leads to expanding human settlements and increasing demand for food, fuel and building materials. Biodiversity the world over is in danger because the habitats are threatened due to modernization of agriculture and rapid industrialization have created reservoir, mining, forest clearing, lying of communication and transport networks etc.

5.2.5 Population Growth and Air pollution:

In 2020, the population of India will be about 1.3 billion, and there will be about 44 motor vehicles for every 1000 people, making a total of 57 million vehicles (Energy Information Administration, 2001). An increase in vehicular pollution is associated with a number of environmental problems like air pollution and global warming. In most urban areas of India, air pollution has worsened due to traffic jamming, drainage and garbage accumulation. In addition to emission of greenhouse gases due to rapid industrialization, the burning of fossil fuels, burning of traditional fuel adds a large amount of carbon-di-oxide into atmosphere and increases air pollution and global warming have led to several ecological problems.

5.2.6 Water scarcity and water pollution

The water pollution in India comes from three main sources: domestic sewage, industrial effluents and run off from activities such as modern agricultural and industrialization activities. Major industrial sources of pollution in India sewages of refineries, paper mills, leather tanneries, metal plating and other chemical industries has created water pollution. Most part of the applied pesticides and fertilizers may adversely affect the functioning of non-target microbes and other forms of life inhabiting the soil. Pesticide residues in food items ingested daily along with food can build up high levels in the body fat. The long term effects of these residues in the human body include carcinogenicity, reduced life span and fertility, increased cholesterol, high infant mortality and varied metabolic and genetic disorders.

6. Suggestions:

Important strategic concerns for sustainable development are as follows:

- Reduction of the unsustainable and unequal use of resources and control of our population growth are essential for the survival of our nation and indeed of human kind everywhere.
- More emphasis should be laid on compulsory environmental education at the school level in order to make people aware of the environment protection.
- Changing industrial systems into those that do not use or release toxic chemicals that affect the health of workers and people living in the vicinity of industries can improve health and environment.
- Using alternatives such as Integrated Pest Management and non-toxic bio-pesticides in agricultural activities can improve health condition of food consumers.
- Using conventional energy from thermal power that pollutes air to cleaner and safer sources such as solar, wind and ocean power, which do not affect human health.
- Waste materials of industries and solid wastes such as plastics, bottles, polythene etc should be disposed and regenerated to other use as raw materials.
- Imposing green growth policy that is environment-friendly and sensitive to the need to conserve natural resources and minimize pollution.
- Environmental sensitivity in our country can only grow through a major wide spread of public awareness campaign.

7. Conclusion:

To conclude, it would be noted that population explosion is a social disease. There is an urgent need to control population and poverty, conserve and protect natural resources and the environment for healthy human beings. Proper education and adaptation family planning measures are right approaches to control rapid growth rate of population. Economic growth and changing consumption patterns have led to a rising demand for energy and increasing transport activities which have created Air, water and noise pollution together with water scarcity dominate the environmental issues in India. A lot of scientific policies are being implemented by government of India as well as state governments to reduce environmental hazards as part of sustainable development strategies. But those strategies could not provide fruitful result for their miss implication. Since,

the environmental protection has become an essential part of government's policy therefore it should be implemented strictly and people of the nation act as a safeguard to protect our environment.

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