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⁸ THE EFFECTS OF INCREASING POPULATION ON ENVIRONMENTAL DEGRADATION

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Abstract:

The phenomenal increase in the population during the last fifty years has created tremendous pressure on natural resources like land, air and water. Rapid population growth continues to be a matter of concern for the country as it has manifold effects. Population impacts on the environment primarily through the use of natural resources and production of wastes and is associated with environmental stresses like biodiversity, air and water pollution and increased pressure on arable land. If human beings want to exist on earth, there is now high time to give top priority to control pollution of all types for a healthy living.

INTRODUCTION:

India is the second most populous country in the world after China. The phenomenal increase in the population during the last fifty years has led to rapid industrialization and high rate of urbanization which have created tremendous pressure on natural resources like land, air and water. There is over exploitation of these natural resources.

Rapid and unplanned expansion of cities has widened the gap between demand and supply of infrastructure services such as energy, housing, transport, communication, education, water supply and recreational activities thus depleted the precious scarce environmental resource base of the cities. The result is the growing trend in air and water quality, generation of wastes and the proliferation of slums and undesirable land use changes, all of which contribute to urban poverty.

OBJECTIVES:

The Present paper mainly focuses on the following objectives

- 1) To study ecological imbalance due to population expansion.
- 2) To study effects of population on environment.
- 3) To study the remedial measures for tackling the problem of environmental degradation.

RESEARCH METHODOLOGY & DATE BASE:

The information for the present paper is obtained through secondary source. The secondary data is collected from various reference books, magazines related to environment and population.

RESULT & DISCUSSION:

The Size and Volume of India's Population:

India supports 16.87 percent of the world's population on its meagre 2.4 percent world surface area of 135.79 million square kilometres. At the time of independence country's population was 342 million. The country's population size had grown from 361 million in 1951 to around 846 million in 1991 and 1027 million in 2001. The population of India almost tripled during the period of 1951- 2001. The total population in India was

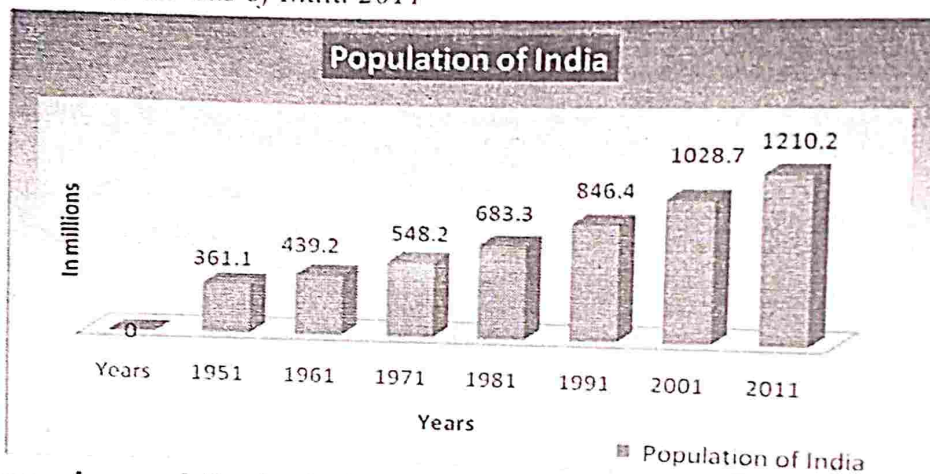
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1238.9 million in 2014 from 359.0 million in 1950, changing 245 percent during the last 50 years. Following table shows the growth of population of India since 1951 to 2011.

Table No. 1 Population of India (In millions)

Sr. No.	Years	Population of India
1	1951	361.1
2	1961	439.2
3	1971	548.2
4	1981	683.3
5	1991	846.4
6	2001	1028.7
7	2011	1210.2

Source: Census of India 2011



Population Expansion and Ecological Imbalance:

With the increasing population, more and more people have to live on the same piece of land and this will lead to an ecological imbalance. In the olden days, a large number of people died of diseases caused by germs. With the advancement of Science, vaccines were developed to prevent diseases like smallpox, cholera, diphtheria, typhoid, tuberculosis etc. Hence most of the people now survive deadly diseases and live long. This has resulted in over population. With more people we need additional houses, more food, fuel and other commodities. But we cannot create additional land. We need to produce more on the available land itself.

Agro-chemicals help to grow more food but they can pollute the air, water and soil, when used in large quantities. Even with these efforts and risk of health hazards, we may not be able to produce sufficient food to feed everyone, because our population is still increasing. This increasing population is putting a strain on the environment, infrastructure and the country's natural resources. Industrial pollution, soil erosion, deforestation, rapid industrialization, urbanization, and land degradation are all worsening problems.

With India's Population at 1.2 billion people and counting plus internal economic migration to urban areas from the countryside, the country's cities are bursting at the congestion, pollution and a lack of basic services are the reality for millions but ecological balance is necessary for our survival.

The Effects of Increasing Population on Environment:

Rapid population growth continues to be a matter of concern for the country as it has manifold effects. Population impacts on the environment primarily through the use of natural resources and production of wastes and is associated with environmental stresses like biodiversity, air and water pollution and increased pressure on arable land. Increased population and increased per capita commercial energy use would worsen the national as well as global atmospheric pollution. India is the world's sixth largest and second fastest growing producer of greenhouse gases. Delhi, Mumbai and Chennai are three of the world's ten most populated cities. Two-third of city dwellers lack sewerage, one-third lack potable water. India grows equivalent of another New York City every year in its urban population. In 15 years, more than half of Indians will be urban dwellers; 1/3 will be slum dwellers and squatters.

The effects of overpopulation on environment can be cited as:

1) Global Climate Change:

The Earth Surface is warming due to greenhouse gas emissions, largely from burning fossil fuels. If the global temperature rises as projected, sea levels would rise by several meters, causing widespread flooding. Global warming also cause droughts and disrupt agriculture.

2) Threat to Bio-Diversity:

Human activities are pushing many thousands of plants and animal species into extinction.

3) Deforestation:

Nearly half of the world's original forest cover has been lost. Each year millions of hectors of forests are cut, bulldozed or burned.

4) Coastlines and Oceans:

Half of all coastal ecosystems are pressured by high population densities and urban development. Ocean fisheries are being overexploited and fish catches are down.

5) Public Health:

Unclean water along with poor sanitation kills over 12 million people each year. Air pollution already a serious problem in cities, is becoming worse as urban population grow and the number of motor vehicles rises. Heavy metals and other contaminants also cause health problems.

6) Food Supply:

Population pressures have degraded cultivable land. Population has been growing faster than food supplies resulted into scarcity of food.

7) Fresh water:

The demand of fresh water is soaring due to population pressure and per-capita use of fresh water rises. By 2025, when world population is projected to be 8 billion, nearly 48 countries containing 3 billion people will face freshwater shortages.

Remedial Measures for Environmental Protection:

There is a need to control population growth in the country-

- i) Special efforts should be made for educating the general mass and local leaders about the adverse Effects of large population through specially designed IEC (Information, Education and Communication) activities.

- ii) In order to increase green cover and to preserve the existing forests, afforestation and social forestry programmes should be implemented at the local level.
- iii) Measures to control air pollution should be intensified throughout the country.
- iv) Wastewater treatment plants be established in accordance with the need of time and its usage should be encouraged.
- v) The landfills are to be properly managed to prevent groundwater contamination.
- vi) Proper measures should be taken to facilitate the slums with water and sanitation facilities.
- vii) More emphasis should be laid on compulsory environmental education at the school level in order to make people aware of the environmental protection.

The environment protection should not be a responsibility of government alone but mass and local leaders should be encouraged to make dedicated efforts to eradicate the environmental problems. What is necessary is to reorganize ourselves so what we daily find ourselves doing compromises neither our social nor our environmental

Conclusions:

Rapid population growth has led to the overexploitation of natural resources. This increasing population is putting a strain on the environment, infrastructure and the country's natural resources. Industrial pollution, soil erosion, deforestation, rapid industrialization, urbanization, and land degradation are all worsening problems. The country's cities are bursting at the congestion, pollution and a lack of basic services are the reality for millions but ecological balance is necessary for our survival.

If human beings want to exist on earth, there is now high time to give top priority to control pollution of all types for a healthy living. It can be said that even after completing twelve five year plans, India is unable to achieve the desirable standards of health for its population as consequences of environment degradation.

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