

Population and Environment: A Study on Indian Perspective



Geography

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ABSTRACT

The relationship between population and environment are diverse and diversifying, as even more complex population-environment situations evolve. Undoubtedly population growth has transformed humanity's impact upon the environment, and the continuing rapidly of growth is likely to have innumerable unforeseen effects. The most striking issues of current concern in population-environment relationships are the growth of mega-cities, the processes of deforestation and desertification, the occurrence of disasters, and the growing contrasts in human in human consumption patterns. A necessary reduction in these contrasts by raising the quality of life will ironically increase global environmental pressures, suggesting that rapid population growth is undesirable. The pressures on the environment intensify every day as the population grows.

Introduction

Environment is the source of life on earth and it not only directs but also determines the existence, growth and development of mankind and all its activities. The environment is an integrated system in which all its elements act and react in such a way that a balance is always maintained. Man is a user of the environment for his developmental activities and always disrupts this natural system and creates a background for environmental degradation. As society developed, man's impact on environment grew in scope and strength.

Aims and Objectives

All the countries are developing at different rates and from differing historical levels of achievement. Such development with a view to meeting the socio-economic needs implies that man must use nature in the process of development. If these changes are not properly adjusted to pressure the harmony of nature and the ecological balance, man faces twin risks: increasing cost of development and imbalances which have severe repercussion on his living conditions. Thus an attempt has been made to explain the impact of population change on environment and vice-versa.

An effective protection and improvement of the environment requires a planned as well as rational utilization of natural resources. Therefore, geographical studies of environment and ecology are necessary not only for the knowledge and utilization of resources but also for their planning and conservation or in other words for the sustainable development. The progress of mankind has to be examined in the context of ecological preservation. Therefore it is necessary to study the relevant concepts for better understanding of the changing pattern of man-environment relationship.

Observation

There was complete coordination and co-existence between man and environment but with the rapid growth of population this balance has not only been disturbed but has become a threat to the ecosystem and is now responsible for the degradation of the environment. The current rate of population growth in India is 1.58%. The amount of resources that could have been available to one person a few years ago now need to be shared between two people, which is not sufficient for either of them.

India's population has very rapidly grown since the demographic watershed of 1921, when medical treatment, sanitary improvement, etc., started reducing mortality drastically and led to concomitant population explosion. In 1921, there were about 319 million Indians, who rose to 682 million in 1981 and 1.21 billion (1,210 million) in 2001. The impact of such a growing population on the environment is also a cause of great concern to all of us and all efforts should be taken for the harmonious relationship between population and environment.

The growth of population in India has created several environmental problems, some of which are:

- (i) Overall reduction in agricultural land,
- (ii) Lower productivity,
- (iii) Deforestation,
- (iv) Soil erosion, landslides, and expansion of wasteland,
- (v) Problem of drinking water,
- (vi) Malnutrition,
- (vii) Gradual change in climatic conditions,
- (viii) Increasing frequency of floods and droughts,
- (ix) Increasing level of pollution, and
- (x) Adverse effects on human health and quality of life.

India's total population stands at 1.21 billion, which is 17.7 per cent more than the last decade, and population growth of females was higher than that of males. India's total population as on March 1, 2011 is 1,210,726,932 or 1.21 billion - an increase of 181.96 million persons in absolute number of population during 2001-11. There was an increase of 90.97 million males and increase of 90.99 million females.

In 1981, the percentage of urban population was 23.3 per cent, while in 2011 census 31.16 per cent population was urban residing in cities and towns. The overall quality of urban environment has deteriorated over the years and now has reached a point where immediate attention is needed not only by the government but people also. The situation in metropolises like Mumbai, Kolkata, Delhi, Madras, Bangalore, Hyderabad, Ahmedabad, Kanpur, etc., is becoming worse year by year, where even minimum shelter for a large section of population is not available.

Result and Discussions

India's population grew by 17.7 per cent during 2001-11, against 21.5 per cent in the previous decade. Among the major states, highest growth in population has been recorded in Bihar (25.4 per cent) while 14 states and Union Territories have recorded population growth above 20 per cent. Altogether, 833.5 million persons live in rural areas as per Census 2011, which was more than two-third of the total population, while 377.1 million persons live in urban areas. Highest proportion of urban population is in NCT Delhi (97.5 per cent). Top five states in share of urban population are Goa (62.2 per cent), Mizoram (52.1 per cent), Tamil Nadu (48.4 per cent), Kerala (47.7 per cent) and Maharashtra (45.2 per cent).

The correlation between population and environment is one of the most pressing issues of contemporary times and a subject of discussion. The ways in which human beings have changed and are changing the face of the earth and the human role in the natural processes and systems have drawn the attention not only of natural scientists but also of social scientists as well as of planners and policy makers.

The interaction between population and environment is very complex and dynamic. Human societies' impacts on the environment are a function of three major, interconnected elements: population size, affluence or consumption, and technology. Man is completely dependent on the environment for his existence. The dynamics of environmental destruction have assumed a global dimension in recent decades and aptly called for deft and immediate handling in this fragile environment. Some of the damages that have taken place already are irreversible and time consuming as well. There is hardly any measure by which we can control natural erosion but some procedures can be adopted to check the constant flow of migrants, man made erosion, which greatly affects the climate and hydrological balance.

The environment – natural, economic and cultural – acts and reacts in a composite manner and determines the growth and spatial pattern of the population. On the other hand, human activities create chain reaction in the ecosystem. The entire aspect of planning the environment has a social dimension just because man is at the core of the problem. It is essentially man's influence that has upset the natural balance, and it is in the adaptation of his interaction with the environment that we must seek for ways to restore it. Nature has been increasingly damaged, restorative capabilities have progressively weakened, and human environment is deteriorating day by day to the point of affecting not only the quality of life but even the very existence of life.

The natural imbalances and ecological crises that arise in the present world is due to two reasons – (i) demographic threat, due to mounting population pressure, and (ii) technological threat, due to man's acquisition of higher technological skill and knowledge. That is why man is invading in the remote serene highlands and destroying its beauty and grandeur. The environmental problems are varied and interlinked and owe their origin to ignorance and lack of integrated approach to socio-economic development based on various considerations of the environment.

Societies' environmental impacts take two major forms. First, we consume resources such as land, food, water, soils, and services from healthy ecosystems, such as water filtration through wetlands. Over-consumption uses up or severely depletes supplies of non-renewable resources, such as fossil fuels, and depletes renewable resources such as fisheries and forests if we use them up faster than they can replenish themselves. Second, we emit wastes as a product of our consumption activities, including air and water pollutants, toxic materials, greenhouse gases, and excess nutrients. Some wastes, such as untreated sewage and many pollutants, threaten human health. Others

disrupt natural ecosystem functions: for example, excess nitrogen in water supplies causes algal blooms that deplete oxygen and kill fish.

To sum up, it is a fact that the causes of environmental degradation can never be totally controlled but can be checked to a great extent. It is, therefore, necessary to pay attention to the problems of environmental degradation and to strike a balance between conservation of nature and population growth. It is only through the people's own initiative and understanding that the fragile ecosystem can be saved from a distance.

Conclusion

One of the major causes of environmental degradation and ecological imbalance in India could be attributed to rapid growth of population, which is adversely affecting the natural resources and environment. The growing population and the environmental deterioration face the challenge of sustained development without environmental damage. Various causes assigned to environmental degradation such as rapid rate of deforestation because of industrial and urban expansion and extension of agricultural land; agricultural development and ever increasing use of chemical fertilizers, pesticides, insecticides and herbicides to increase agricultural production, industrial development; urban expansion; modern technologies; scientific advancement; economic poverty and lack of environmental perception; economic affluence and materialistic outlook; excessive exploitation of natural resources and several types of developmental projects and programmes are, in fact, related to population growth in one way or the other.

Rapid population growth continues to be a matter of concern for the country as it has manifold effects, most important being land degradation and soil erosion, deforestation and declining per capita land, forest and water resources. The study reveals that rapid population growth has led to the over exploitation of natural resources. Thus the utmost important step to be taken to tackle the problems of environmental degradation and ecological imbalance is to check the population growth. However, a population growth can be an asset only for it has the requisite skills as well as attitudes to add value to the technical and economic environment. The environment protection should not be a responsibility of government alone but local people and leaders should be encouraged to make dedicated efforts to eradicate the environmental problems. There is need of immediate steps through policy implications to halt environmental damage and to conserve environment for healthy society and sustainable environment which is most important our survival.

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