



# Impact Of Population Growth On Environment

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## 1.1 Introduction:

Population growth refers to the change in the number of individuals living in a particular region over a given period. This change can result from a disparity between birth rates and death rates, immigration and emigration. When the number of births exceeds the number of death, or when more people move into a region than those leaving it, positive population growth occurs. Population growth is fast becoming one of the most pressing issues of the 21<sup>st</sup> century, making managing and understanding the implications of rapid population growth imperative. Numerous factors influence this growth, ranging from economic developments, healthcare advancements, migration patterns and government policies. The rapid increase of human population is putting an incredible strain on our environment. While developed countries continue to pollute the environment and deplete its resources, developing countries are under increasing pressure to compete economically and their industrial advancements are damaging as well. The demands that this growth places on our global environment are threatening the future of sustainable life on earth. One of the largest environmental effects of human population growth is the problem of global warming. Some scientists fear that global warming will lead to rising sea levels and extreme weather condition in the future. The impact that this population explosion has on the environment has been just as striking as seen by change in greenhouse gas emissions, rate of soil erosion and the extinction of species. Nature reserves currently comprise about 10% of land area globally, but most are small, disconnected from other reserves, and subject to tremendous human pressures. Population size is clearly an important factor in measuring environmental impact.

## 1.2 Objective of the study :-

The objectives of the study:-

1. To find out the implication or impacts of population growth on the environment and to understand the impacts of population growth and address the potential challenges and harness opportunities for sustainable development.
2. Recognizing the issues the policy makers and governments take what type of strategies and create frameworks for a balanced coexistence between humans and their environment is the another objective of the study.

Methodology - The methodology of the study is mainly descriptive in nature and based on secondary data. The datas are collected from books, articles, research papers and websites.

## Analysis-

### 1.3 Impact of population growth on the physical environment -

Physical environment means non-living environment or the land, air, water, soil and minerals. The utilization overuse and misuse of physical resource increased daily due to the growth of human population. More cultivate land has been made available by clearing forests, and by reclaiming wet lands, ponds and green fields. Advanced agriculture requires utilization of more water, more fertilizers and more pesticides. Application of fertilizers and pesticides makes the soil infertile. More population means more space to construct houses and availability of more means of transport, more consumption of fossil fuel, more air, land and water pollution. Thus growth of population leads to pollution air, land and water. Different types of pollutions are causing a number of problems in physical environment that are further affecting the biological environment seriously.

### 1.4 Resource Depletion-

As the population continues to grow, the demand for various resources like water, energy and raw material increases exponentially, leading to potential scarcity issues. Fresh water is a prime example of a resource under strain. As population increases there's not just a demand for more fuel, but also pressing need for energy to elevate living standards and foster economic growth. Regrettably, this often leans on the utilization of fossil fuels, which are detrimental to the environment due to their emission of greenhouse gases.

### 1.5 Environment Degradation -

Rapid population growth contributes to higher waste production, including sewage pollution, and carbon emissions. This can result in air and water pollution, deforestation, and foster depletion of natural habitats leading to biodiversity loss. One of the factors responsible for environment degradation is population growth due to the destructive activities man has extracted more and more minerals from the earth. Animals have been hunted and due to deforestation animals lost their shelter. So many animals become extinct from the earth. Many plants have disappeared and there has been loss of biodiversity.

These have resulted ecological imbalance. Man has established new housing colonies. National highways and hydropower projects have been built and forests have been wiped out. These destructive activities not only reduce biodiversity but also responsible for global warming. Environment degradation not only harm for health but also reduces economic productivity. Dirty water, inadequate sanitation, air pollution and land degradation cause serious diseases on an enormous scale in developing countries like India. These in turn, reduce the productivity levels in the country. To take specific instances water pollution has led to declining fisheries, in rivers, ponds and canal in both urban and rural areas. Soil and hazardous wastes have polluted ground water resources which can not be used for agricultural and industrial production. Soil degradation leads to soil erosion, drought etc, have led to siltation of reservoirs and blocking of river and canal transport channels. Due to rising population growth and the subsequent surge in global food demand, intensive agricultural practices, including the use of pesticides and synthetic fertilizers, have become prevalent. Unfortunately these practices can result in soil degradation.

## **1.6 Air and Water Pollution -**

Rapid urbanization and industrialization, especially in emerging economies, can lead to significant environmental pollution. For example, cities like Delhi and Beijing have faced hazardous air quality levels due to a combination of vehicular emissions, industrial discharges and other pollutants. Similarly, rivers like the Ganga in India has faced pollution due to industrial effluents affecting both human and aquatic life. Rapid population growth contributes to higher waste pollution and carbon emissions, which responsible for air and water pollution.

## **1.7 Economic Strain -**

Over population can put a strain on economic resources, especially in regions that are not prepared for the influx. This can lead to increased unemployment, poverty, and demands on services like education, health care and housing.

## **1.8 Extinction of Species :-**

Today human activities are causing a massive extinction of species. More than 1.1 billion people live in areas that conservationists consider the richest in non-human species and the most threatened by human activities. While these areas comprise about 12 percent of the planet's land surface, they held nearly 20 percent of its human population. The population in these biodiversity hotspots is growing at a collective rate of 1.8 percent annually, compared to the world's population's annual growth rate of 1.3 percent. Modern agricultural practices strip the Earth of its thin layer of topsoil through water and wind erosion destroying this precious micro ecosystem that takes centuries to form and supports all life on land. Many species are of immense value to humans as sources of food, medicines, fuel and building materials. Between 10,000 and 20,000 plant species are used in medicines worldwide.

## **1.9 Social challenges and Health concerns:-**

Dense population, especially in urban areas can lead to social unrest, increased crime rates and challenges in ensuring equitable opportunities for all.

Overcrowded areas especially those without adequate sanitation and with stretched health facilities become hotspots for the spread of diseases.

## **1.10 Remedial Measures for control population growth :-**

While controlling the world's population presents ethical and practical challenges, focusing on education, healthcare and women's empowerment can create conditions conducive to slower growth.

### **1.11 Education and Awareness :-**

One of the most effective ways to control population growth is through education. Educating women in particular, has been linked to lower fertility rates as women who receive education tend to have fewer children.

### **1.12 Access to family planning :-**

Proving easy access to contraception and family planning services can help couples make informed choices about the number of children they wish to have.

### **1.13 Gender Equality:-**

Empowering women, ensuring their rights and giving them control over their reproductive choices can help stabilize population growth.

### **1.14 Conclusion:-**

The Earth's environment is finite and can be destroyed if we do not start population control. Measure need to be taken now to control the current situation which includes increase of deforestation and decrease of farm land, more air and water pollution, the deteriorating ozone-layer and the greenhouse effect. Addressing these impacts requires global cooperation, sustainable practices and the integration of environmental considerations into developmental policies. Implementing sustainable practices can alleviate many of the pressures brought about by a growing population. The policymakers and governments should take strategies and create frameworks for a balanced coexistence between humans and environment. From the various effects of human beings on environmental degradation, discussed above, it appears that if human beings want to exist on earth this is best time to give top priority to protect natural resources and environment. Environment pollution not only leads to deteriorating environmental conditions but also have adverse effects on the sustainable development and health of people. There is an urgent need to control population and poverty, conserve and protect natural resources and the environment for healthy human beings.

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