

The Impact of Human Activity on our Environment

Saroj Kumar Singh

*Associate Professor, Department of Rural Economics
B. N. Mandal University, Madhepura, Bihar (S.N.S.R.K.S. College, Saharsa)
E-mail: drsaroj999@gmail.com*

Abstract: *No living being can survive without its environment. All living organisms influence its environment and in turn get influenced by it. However, man being the most intelligent creature interacts with the environment more vigorously than other organisms. Environmental crisis refers to a catastrophic situation in which the normal pattern of life or ecosystem has been disrupted which needs timely interventions to save and preserve environment. It may be due to manmade causes, accident, or negligence and result in substantial damage to or deflection of environment. Environmental crisis causes natural disaster and seriously affects life, economy, and agriculture and food security. Hence, it is one of the greatest concerns of the world community. The cost of environmental crisis is too heavy to bear.*

1. INTRODUCTION

In the initial, when human population was small and man was basically a hunter gatherer with limited requirements, his interference with natural cycles and harmony was negligible. However, with development of agricultural activities followed by industrial revolution, there were tremendous changes in the population size of human beings along with rise in quality and standards of living.

Due to technological development and rapid economic growth, our civilization has reached its zenith, but at the same time it has led to serious environmental degradation. Development has changed the attitude of human beings towards nature, which has further aggravated the problems. Industrialization has been the hallmark of human progress. However, with industries have come hosts of toxic gases that are being released into the atmosphere. The industries release gallons of liquid waste into the seas and rivers.

Some of the effluents percolate down to the reach the ground water and pollute it to the extent that human beings for drinking or cooking cannot use it. Besides adding to air pollution, the innumerable vehicles running on the roads add to noise pollution that has led to increase in stress, anxiety and problems related to hearing.

Pollution of water has led to the decrease in a number of large number aquatic life forms. Migratory birds are known to change their course due to pollution or change in weather.

Respiratory diseases in human beings are another price that we are paying for polluting the environment.

Expanding population, industrialization, and need of land for development of expanding cities has led man to cut down forests selfishly. Not only are the forests home to a large number of animals, trees are also an important component of the water cycle. The roots of plants hold the soil together and prevent soil erosion.

Consumerism has increased enormously with growing human population and growing needs in the modern era of development, which has raised our standard of living.

2. THE IMPACT OF ENVIRONMENT ON SOCIETY IN INDIA

Environment can roughly define as “the sum total of all conditions and influences that affect the life and development of organisms. Life originated and flourishes on earth because of the environment. Every organism influences its environment and in turn is influenced by it. We are an integral part of the environment.

Among all living organisms man influences environment the most and can modify the environment to some extent as per his needs. A change in environment affects us. Man has been influencing the environment since the beginning of human civilization through his activities.

Rapid population growth, industrialization, faster modes of transport, urbanization, and increasing human activities has contributed to the pollution of environment. Environmental pollution has several impacts on society. Environmental pollution causes serious problems like global warming, depletion of ozone layer, extinction of biodiversity etc. Large-scale degradation of the environment not only causes pollution but also may jeopardize the very existence of human society.

There is no end to human needs. Desire to develop is one of the basic need of human beings. To satisfy his increasing needs and to develop man has been exploiting nature vigorously

which led to serious environmental degradation and pollution. This may have the following impact on society.

1. Environmental pollution resulted in increase of temperature of atmosphere, which resulted in global warming.
2. Air pollution resulted in depletion of ozone layer, which causes multiple health hazards.
3. It may lead to acid rain and smog.
4. It spreads different kinds of diseases in society.
5. It affects the fertility of soil and resulted in food shortage.
6. Environmental pollution is a formidable threat to the quality of life and put a check on development process.
7. It fosters environmental awareness among different sections of society.
8. It leads to climate change, which affects production and life style.
9. It disturbs terrestrial ecosystems.
10. It led to frequent occurrence of environmental disaster and there by brings changes in society.
11. It puts renewed emphasis on non-conventional energy sources.
12. It creates need for proper planning and efficient environmental management.
13. Economic development is replaced by sustainable development.
14. It creates need for conservation or protection of environment for a healthy living.
15. It creates need for compensating afforestation on the patita or non-forest lands.

3. CRISIS AND RESPONSES

Life originated and exists on earth because of environment. Because environment provides all necessary conditions of existence. No living being can survive without its environment. All living organisms influence its environment and in turn get influenced by it. But man being the most intelligent creature interacts with the environment more vigorously than other organisms.

With the rapid growth of population demand for materials increases rapidly. Industrialization and urbanization further worsens the situation. It forces man to exploit nature mercilessly. He devastated forests by cutting trees, killed animals, pollutes the air, water, and soil, and upset the ecological balance. All this resulted in pollution of environment and environmental crisis.

Environmental crisis refers to a catastrophic situation in which the normal pattern of life or ecosystem has been disrupted which needs timely interventions to save and preserve environment. It may be due to manmade causes, accident, or negligence and result in substantial damage to or deflection of environment. Environmental crisis causes natural disaster and seriously affects life, economy, and agriculture and food security. Hence, it is one of the greatest concerns of the world community. The cost of environmental crisis is too heavy to bear.

The threat to environment arises from different sources such as:

- 1) The need to meet the increasing energy requirements
- 2) The impact of industrialization
- 3) The effect of expanding urbanization
- 4) The challenge of managing the huge quantities of solid waste.
- 5) To meet the increasing requirements of huge population.

Some of the environmental crisis of the present day is global warming, green house effect, climate change, acid rain, ozone depletion etc.

4. GLOBAL WARMING

Global warming is one of the much talked about environmental crises of the recent years causing concern all over the world. Continuous increase in the emission of Co, from different sources into the atmosphere affects the heat balance of the earth. Continuous increase in the concentration of green house gases in the atmosphere trap more heat and prevent the heat from the earth's surface to radiate back to the outer space.

This increases temperature of atmosphere. This increase in the global mean temperature is known as global warming. Global warming is an effect of continuous increase in the concentration of green house gases. The increase of Co, concentration in the troposphere led to the increase of temperature. This phenomenon of increasing temperature of earth's atmosphere along with the increase in the concentration of CO₂ is called as global warming.

5. GREEN HOUSE EFFECT

Green house effect is another environmental crisis facing our world. Chlorofluoro carbons (Co₂) carbon dioxide, Methane (CH₄) and Nitrous oxide (N₂O) are called as green house gases. The increased concentration of green house gases in the atmosphere has brought changes in the environment. The amount of heat trapped in the atmosphere depends on the concentration of green house gases and the length of time they remain in the atmosphere.

The lower level of atmosphere traps heat by a natural process due to the presence of green house gases or radiatively active gases. This is called green house effect. The increasing concentration of green house gases in the atmosphere would trap more and longer wave radiations or heat, which resulted in enhanced green house effect. This increased green house effect increases the global temperature and resulted in global warming. The increasing concentration of green house gases is now a global concern.

6. CLIMATE CHANGE

Climate refers to the average weather condition of an area. It ordinarily refers to the changes in climate. It includes seasonal variations, atmospheric conditions, and weather extremes averaged over a long period. It is a truism that any small changes in climatic condition may affect agricultural production, pattern of rainfall, wind flow, and migration of animal. Increased human activities along with rapid population growth are mainly responsible for changes in climate. Increasing concentration of green house gases and global warming upset the delicate balance between various components of environment and upset the hydrological cycle, which resulted in climate change in different regions of the world?

7. ACID RAIN

Acid rain as the name implies does the earth through rain receive the acidic water. Lightning produce oxides of nitrogen naturally. Nitrogen oxides are a group of primary pollutants, which are produced by automobile during combustion of petroleum. Oxides of nitrogen and sulphur and also produced during combustion of coal in industry.

These two gases are called acid forming gases. These gases are ultimately converted into nitric acid and sulfuric acid in the atmosphere and cause acid rain. When these two acids come down to earth along with rain it is called as acid rain. There are two types of acid rain such as wet deposition and dry deposition.

It affects lives of plants and animals, damages stone statues and buildings. It reduces productivity of crops, forests, and grasslands. It causes skin and respiratory diseases in man. Due to acid rain leaves of plants turns yellow and brown

8. OZONE DEPLETION

Ozone layer exists in the stratosphere between 20 to 26 km above the sea level. Ozone layer acts as a shield and protect the earth's organism from the harmful effects of ultraviolet radiations of the sun. Low concentrations of ozone are also found in troposphere. The concentration of ozone is at about 10 mg/kg of air in the stratosphere. But its concentration changes

in the stratosphere with the change in season. It is measured by Dobson Speedometer.

Depletion of ozone layer begins due to air pollution. But it is mainly caused by chlorofluorocarbons, nitrogen oxide and hydrocarbons. Depletion of ozone layer has led to the formation of a big hole in the layer, which was first detected in 1985 over Antarctica and later on above Arctic in 1990. Because of this the ultraviolet radiation can reach the earth directly and cause multiple health hazards and affects the food chain

9. RESPONSES

In the federal set-up of India, the responsibility to formulate the government's response to environmental crisis lies on both central and state governments. Both central and state governments at various levels have responded by taking timely and appropriate measures for the prevention and mitigation of environmental crisis.

Long-term measures have been taken up. Increasing environmental crisis called for a nationwide response mechanism where in different roles and functions are assigned to different institutions at central, state and the district level. A number of NGOs are already working to create environmental awareness among people.

Besides some environmental movements have also been organised in different parts of the country by different individuals against projects causing depletion of environment. There is several NGO's working on environmental issues throughout the globe. Some of them are world wild life Fund, Green pace etc. Similarly a large number of organizations working round the globe like UNO and its sister organizations for environmental crisis.

The dimensions of response at the level of central govt are determined as per the existing policy. A new ministry named as ministry of environment is working both at the central and state level. Since 1986 the Forest and environment department Govt, of Odisha designed the formation of district environment society in all the districts under the chair of the collector. It works towards the creation of environmental awareness, plantations and for the creation of environmental clubs. Different policies are also framed from time to time for the protection and preservation of environment.

Recently community as an institution is emerging as an effective player in the entire mechanism of environmental management. Awareness and training of the community is considered as very useful for the protection and preservation of environment. A number of movements have been launched in different parts of the country for the protection, preservation, and solution of environmental problems. Some such

movements are Chipko movement (1972-74), Narmada Bachao Andolan by Medha Patkar, Apiko movement. Besides several environmental movements have been organised by Sunderlal Bahuguna, Gouri Devi, Amrita Bai, Baba Amte, Chamun Devi, Bachni Devi, Meneka Gandhi, Banka Behauri Das and many others.

Some environmental movements have also been organised in Odisha. The movements of Gandhamardan Yuba Parishad were unique as it compelled the government to close down the bauxite-mining project on Gandhamardan hills. Banka Behari Das has also led many environmental movements in Odisha. The Odisha environment society led by Prasanna Kumar Das has also launched some movements.

A new initiative introduced in the budget for 2010-11 is the imposition of a cess of 5 percent on coal to create a separate fund to promote green energy. This can be used to meet the cost of environment protection and is justified by the principle that the "polluter must pay". Another environmental supportive measure is the imposition of a cess on electricity for

agricultural use to be imposed in areas where the groundwater has sunk too low.

REFERENCE

- [1] Briand, L. C., Daly, J., and Wüst, J., "A unified framework for coupling measurement in object oriented systems", *IEEE Transactions on Software Engineering*, 25, 1, January 1999, pp. 91-121.
- [2] Maletic, J. I., Collard, M. L., and Marcus, A., "Source Code Files as Structured Documents", in *Proceedings 10th IEEE International Workshop on Program Comprehension (IWPC'02)*, Paris, France, June 27-29 2002, pp. 289-292.
- [3] Marcus, A., Semantic Driven Program Analysis, Kent State University, Kent, OH, USA, *Doctoral Thesis*, 2003.
- [4] Marcus, A. and Maletic, J. I., "Recovering Documentation-to-Source-Code Traceability Links using Latent Semantic Indexing", in *Proceedings 25th IEEE/ACM International Conference on Software Engineering (ICSE'03)*, Portland, OR, May 3-10 2003, pp. 125-137.
- [5] Salton, G., *Automatic Text Processing: The Transformation, Analysis and Retrieval of Information by Computer*, Addison-Wesley, 1989.