

# Procedure International Journal of Science and Technology

(International Open Access, Peer-reviewed & Refereed Journal)

(Multidisciplinary, Monthly, Multilanguage)

ISSN : 2584-2617 (Online)

Volume- 1, Issue- 2, February 2024

Website- [www.pijst.com](http://www.pijst.com)

## Environmental Management in India: A Study

**Dr. Pradeep Kumar Tripathi**

*Ph.D (Environmental Science), CMJ University, Meghalaya.*

### Abstract-

Human response to the environment has caused changes in different parts of the Earth. This change is both happy and sad. Happy changes symbolize development, and sad ones give rise to natural and social disasters on earth. The population in India is increasing at a rapid pace, and will cross 140 crore by the end of 2023 AD. Population growth has become so rapid in some parts of India that it has become a threat to the environment there. Scientific and technological development has also made the life of people in certain areas so complex that calling it development has become questionable. Various types of problems have arisen in the state due to natural and social pollution. Natural resources are being exploited so mercilessly that there is no way to conserve them. The fear of destruction and non-availability of forests, vegetation, water, soil and air due to misuse in many parts has become a worldwide crisis not only in India. For its protection, action is being taken on war footing in all countries. As the economy gains the capacity to grow rapidly, it will face the finiteness of natural resources and the need to exploit them in a sustainable manner. Sustainability has traditionally been seen as limiting the damage caused by economic activities to the environment and preventing this damage as much as possible. In addition to these traditional environmental concerns, we will need to manage our water resources in a manner that enables limited water resources to meet the increasing demands of rapid development and to this end also manage limited land resources. There is a need to pay attention to the challenge posed by the need to do so.

**Key-words:** Environment, Disasters, challenge, animals, environmental crisis.

## Introduction-

Environment means the environment around us. Environment means the entire physical and biological system in which living beings live and grow and develop their natural tendencies. All the natural elements around us that influence life, collectively form the environment. Since the environment includes all the physical and biological conditions, hence the environment is the sum of all the physical and biological conditions that influence the actions and reactions of living organisms.

Environment refers to the environment that surrounds the biosphere from all sides. Under this, the physical, chemical and all elements of the atmosphere, lithosphere and hydrosphere are included. The two elements of nature, heredity and environment, influence living beings and their activities the most, therefore, to understand the environment, it becomes necessary to understand the atmosphere, lithosphere, hydrosphere and biosphere. The interaction between an organism or its biotic and abiotic environment represents not only the environment or microenvironment but also the activities of the organisms. Both organic and inorganic elements are found in the environment. Biological elements include trees, plants, animals, birds, creatures and humans, whereas non-biological elements include air, water, land, soil, forests etc. Both organic and inorganic elements remain active together.

They survive by being dependent on each other. Under the environment, all living beings share an equal share with humans in the same geographical environment, but in this, humans play their paramount and important role. Systematic study of the environment is called Environmental Science. The flora and fauna are parts of a coordinated community. Initially the word ecology was used for environmental knowledge, which was first used in the context of environmental knowledge by the German biologist Ernst Haeckel in 1869.

India is a nature loving country. The cultural tradition here has been inspired by the liveliness of nature. That is why nature has been accepted as mother. The entire lifestyle here is full of nature's arrangements. This is the reason why the framers of the Constitution of modern India, in the context of their rich heritage, considered it necessary to give guidelines to maintain environmental awareness and control behavior. Due to tradition being prevalent here, a common man is aware that the quality of the environment is the basis of health and happy life. That is why efforts to keep our behavior natural have been going on for thousands of years. "Taru Devo Bhava" is a belief which has been rooted in forestry due to its practical nature. But modern social science, being aware that trees are primary producers, has created an environmental crisis through forest destruction. India's rain-fed agriculture is becoming increasingly affected by climate change.

Forest destruction is said to be the biggest reason for natural disasters like floods, drought and land erosion. Similarly, the rivers here are affected by pollution, whose adverse effects on health are becoming visible. Ground water has also been polluted in some areas. In some areas of West Bengal, Bihar and Uttar Pradesh, increasing levels of arsenic and fluoride in underground water has led to increasing disability due to curvature of body bones. Metro cities are suffering from various types of diseases because air pollution, noise pollution and water pollution are becoming a crisis there. Some river valley schemes are becoming the center of controversy.

Due to which a public movement has started. The biggest problem of the ecosystem is in some areas of the Himalayas, where due to deforestation the land has become bare and is suffering from intense erosion. 'Chipko Movement' is the result of this situation. Due to these environmental difficulties, lakhs of deaths are occurring every year in a populous country like India and strengthening the economy has become a difficult task due to immense economic losses. A large population of India is a victim of poverty, illiteracy, disease, malnutrition and neglect. Obviously, the role of the large destitute population has become prominent in making the environmental problems here worse. Yet India's environmental difficulties are limited to a few areas.

Environmental issues affecting our health are one of the most important reasons to raise awareness of the need for better environmental management. The changes that have occurred in the environment due to human activities in almost every sphere of life have affected our health. It is not correct to believe that economic growth is the only indicator of human progress. We do hope that urbanization and industrialization will bring prosperity. But the harmful thing is that it is causing diseases related to overcrowding and dirty water. Due to this, waterborne diseases like infectious diarrhea and airborne diseases like tuberculosis are increasing. Heavy traffic in cities is increasing chronic diseases like asthma. Pesticides used to increase food production during the Green Revolution have affected farm workers and all of us who use the produce. Modern medicine has raised hopes of solving many health-related problems, especially the treatment of infectious diseases due to antibiotics. But bacteria have also developed resistance and in this process they often change their behavior, which makes the discovery of new medicines necessary. Many medications have been found to have serious side effects. Sometimes the cure is as harmful as the disease itself.

The environment is mainly made up of three types of elements – biotic elements, abiotic elements and meteorological elements. All living things are included under biological element, like animals, birds, plants etc. Abiotic elements include those inanimate natural objects, which live with humans and affect them. There are basically three categories under this – atmosphere, hydrosphere and lithosphere. The meteorological element includes those conditions which are not visible to us or if we see them, their original source is outside our environment. Generally, these are those elements which create the climate of a particular place, such as sunlight, rainfall, humidity, temperature, wind speed etc. Interaction between biological and non-biological components and the environment: Nature and humans are directly related to every element of the environment by the same rules, whether it is space or land, vegetation or animals. In this way, importance is given to the study of the adjustment of individual and living beings to their environment. Therefore, environment is the sum of all those internal and forced conditions and influences which affect the life and development of the living world. The word 'ecology' has been used for environment, which also means the entire ecology or environment (total set of surrounding). In fact, environment is the total sum of those external conditions around within which an organism or community resides or any object is present.

The environment is mainly made up of three types of elements – biotic elements,

abiotic elements and meteorological elements. All living things are included under biological element, like animals, birds, plants etc. Abiotic elements include those inanimate natural objects, which live with humans and affect them. There are basically three categories under this – atmosphere, hydrosphere and lithosphere. The meteorological element includes those conditions which are not visible to us or if we see them, their original source is outside our environment. Generally, these are those elements which create the climate of a particular place, such as sunlight, rainfall, humidity, temperature, wind speed etc.

Nature and humans are directly connected to every element of the environment by the same rules, be it space, land, vegetation or animals. In this way, importance is given to the study of adjustment of the individual and the interactions of the living world with their environment. Therefore, environment is the sum of all those internal and forced conditions and influences which affect the life and development of the living world. The word 'ecology' has been used for environment, which also means the entire ecology or environment (total set of surrounding). In fact, environment is the total sum of those external conditions around within which an organism or community resides or any object is present.

**Desertification-** The general meaning of desertification is the conversion of fertile and non-fertile land into desert land. According to Mann, former director of the Central Arid Region Research Institute (CAZRI), 'Desertification means the collective effect of all those processes due to which a fundamental change occurs in a particular ecosystem and due to which the desert area gets transformed into a desert. Seems like It is the result of the action-reaction of climate and biological elements. This process starts even before the formation of desert and desert is its result. This process makes the desert conditions denser and more complex, as a result the desert expands in the border areas.

Initially this process is limited which is the initial stage of desertification. In this stage, due to general lack of attention to this problem, the depression gradually increases. When desertification occurs due to natural reasons, it is called physical desertification, whereas when it occurs due to technology, it is called human or technology-induced desertification. Generally both the factors remain active in one area. In summary, desertification means the gradual intensification of desert conditions. This is a process that hinders biological productivity, leading to a decline in the plant biome. The animal carrying capacity and production capacity of that region reduces and as a result the process of development starts slowing down. This idea is accepted by the scientific branch of the United Nations which explains not only the nature of desertification but also its effects.

**Green Revolution and its Impact on Environment-** When the traditional form of Indian agriculture became incapable of providing food grains and other commodities to the country's population, the need was felt to upgrade it and make it efficient so that it could not only provide food to the continuously increasing population but also to the economy. Can provide support. For this purpose, right from the beginning, after independence in the country, attention was given to programs like upgrading agriculture, giving it a new direction, expanding irrigation facilities etc. in the five year plans. In this direction, the Indian government invited some American scientists in 1959 to give suggestions for agricultural reform. In his report, he not only highlighted the seriousness of the food grain problem, but

also presented many suggestions for Indian agricultural reform and its modernisation. The main one in this was 'Intensive Agricultural Area Programme'. Apart from this, expansion of irrigation, soil conservation, use of improved seeds, use of fertilizers and pesticides, support prices of grains for farmers, technological experiments, development of cooperatives, development and expansion of marketing facilities, Planned rural development etc. Keeping these in view, the Government of India implemented Intensive District Agricultural Program and started a scheme to not only encourage farmers for modernization of agriculture but also introduced them to various technologies and modern experiments. This included expansion of irrigation facilities, use of fertilizers and pesticides, use of appropriate improved seeds and mechanization. Its result also soon started coming in the form of more production and agricultural expansion, this was called 'Green Revolution' in India.

The basic objective of the Green Revolution has been to grow more and more crops on less land through intensive agriculture. This is the reason why the fertility of the land is continuously decreasing. Due to lack of proper use of fertilizers, soil fertility is decreasing. In areas of intensive agriculture, there is a shortage of elements like iron, manganese, zinc, copper, boron, molybdenum. 47 percent of the total agricultural land of the country is deficient in zinc, 5 percent is deficient in manganese and 11 percent is deficient in iron. Their shortage is more in those states where intensive agriculture is done through irrigation. The organic content of the soil is also decreasing. It is clear from the above description that as a result of Green Revolution in India, some ecological problems have arisen and regional imbalance has also increased. But this does not mean that these experiments should be abandoned, rather adequate attention should be paid to them, so that their adverse effects can be eliminated.

**Environmental Management-** There are many burning environmental problems in India and environmental crisis is increasing day by day and everyone accepts this fact that now the time has come when we not only have to protect the environment but also make it more quality because This is not just a question of our present but the future of the country and society is connected with it and playing with the future will make it dark. Today's government and planners have accepted this fact and they are conscious about environmental management. Environmental management refers to all those efforts that are made to protect the environment or to improve it. Whether those reforms are done by making environmental laws or are related to awakening environmental consciousness or are related to environmental management. Proper use and conservation of resources is also a part of environmental planning. Through environmental management, we can make systematic efforts in a planned manner and evaluate them properly.

There are many burning environmental problems in India and environmental crisis is increasing day by day and everyone accepts this fact that now the time has come when we not only have to protect the environment but also make it more quality because This is not just a question of our present but the future of the country and society is connected with it and playing with the future will make it dark. Today's government and planners have accepted this fact and they are conscious about environmental management. Environmental management refers to all those efforts that are made to protect the environment or to improve it.

Whether those reforms are done by making environmental laws or are related to awakening environmental consciousness or are related to environmental management. Proper use and conservation of resources is also a part of environmental planning. Through environmental management, we can make systematic efforts in a planned manner and evaluate them properly. Environmental management and planning has been considered a specialized field in India. Similarly, this area is being given adequate attention in the past plans. In addition to the above mentioned efforts and schemes for environmental planning in India, many action schemes and programs are being run by the Central and State Governments. The aim of all this is to protect the environment from degradation, to make it more clean and quality, which can make not only the present but also the future pleasant. The government is making efforts to protect the country's ecosystem and keep it balanced. But this work is not possible through government machinery alone. For this, participation of the general public is necessary.

For this i.e. for environmental awareness, many programs are being run today. Apart from the above mentioned environmental planning works, the important works being done are as follows – (a) A comprehensive program of soil conservation has been carried out across the country. Under this scheme, tree plantation program is also going on in the ravines of Chambal. (b) Under the Waste-Land Development Programme, there is an ambitious plan to make about 50 lakh hectares of land in the country cultivable by planting trees. In this, three specific areas have been identified, they are - (i) the desert of Rajasthan, (ii) the marshes and saline lands of Kutch etc. near the coast and (iii) the Himachal region. (c) Before construction of any dam in the country, it is necessary to obtain permission from the Environment Ministry. (d) Environmental laws are being broadened. And those who disobey its rules are punished and fined. (e) Before starting industries, it is necessary to ensure that they have taken all the measures which are necessary to prevent pollution. Before setting up large industries, the government ensures that their establishment causes minimal harm to the environment. (f) The administration is running a comprehensive campaign to prevent all types of pollution. Under this, work is being done on a large scale to create public awareness through wide publicity related to this through media.

**Conclusion:** To maintain the quality of human life, there are two approaches to environmental planning - (i) conservational and (ii) technical. In the conservation approach, it is argued to protect various components of the environment from the ill effects of human activities. Not only the government, many non-government voluntary organizations are also making efforts towards environmental protection. Supporters of conservation approach are against any kind of tampering with nature by humans and emphasize on keeping the environment intact. Supporters of Possibilist ideology believe that the resources of the Earth are limitless. He is of the opinion that human beings with their knowledge and technical Creates resources through development. Problems arising from ecological imbalance can be solved with the help of technology. For example, the availability of clean water can be increased by recycling water. It is possible to compensate for the loss of forest resources by manufacturing artificial substances. Agricultural productivity can be increased by the use of hybrid seeds, fertilizers, pesticides etc. Fertilizer and energy

can be obtained from sewage. Energy shortage can be overcome by nuclear energy. Not only this, ecology can be improved through technology. Revival of destruction is also possible. After the World Environment Conference held in 1972, worldwide awareness towards environmental protection arose. UNEP intensified this consciousness. Scholars from different sectors together developed the new concept of 'sustainable development'.

The Ministry of Environment and Forests is the principal agency of the Government of India that oversees the implementation of environment, forest policies and programmes. This Ministry is responsible for all aspects of policies relating to the conservation of the country's natural resources, including lakes and rivers; Taking care of their biodiversity, forests and wild animals. The work of the ministry is to ensure that the environment is protected as well as the welfare of wild animals. While implementing these policies and programmes, the Ministry follows the principle of all-round development. Keeping pace with global efforts, India has taken up the responsibility of preserving the environment by making its presence felt. India has expressed its willingness to be a part of addressing climate change at national and international forums.

#### References-

1. D. Choudhury, Environmental Management in India, Oxford University Press, New Delhi, 2015.
2. M. Rangarajan, Environmental Management in India: A Critical Overview, Pearson Education India, Noida, 2007.
3. Frank W. Geels, René Kemp, Geoff Dudley, Environmental Management in Practice: Vol. 1 India, Edward Elgar Publishing, Cheltenham, 2015
4. G.B. Singh and B.R. Sharma, Fifty Years of Natural Resource Management Research, Indian Council of Agriculture Research, New Delhi, 2015.
5. Sanjay K. Sharma, Malti Goel, Environmental Management: Principles and Practice in Developing Countries, CRC Press, 2008.
6. Dhruva Narayana, V.V., Soil and Water Conservation Research in India. Indian Council of Agriculture Research, New Delhi, 2013.
7. S. Rengasamy, Environmental Management in India: Cases and Perspectives, Springer, Germany, 2009
8. S. C. Kaushik, Environmental Management: Theory and Practice, Atlantic Publishers & Distributors, New Delhi, 2008.
9. Deswal, S. and Deswal, A., A Basic Course in Environmental Studies. Dhanpat Rai & Co Ltd., Delhi, 2005.