



23

ENVIRONMENTAL AWARENESS

Environment includes all living and non-living objects. We live in the environment and use the environmental resources like air, land and water to meet our needs. Development also means meeting the needs of the people. While meeting the ever-growing needs, we put pressure on the environment. When the pressure exceeds the carrying capacity of the environment to repair or replace itself, it creates a serious problem of environmental degradation. If we use any environmental resource such as ground water beyond its limit of replacement, we may lose it forever. Therefore, there is a need to create 'awareness' about Environmental protection. While efforts are being made at the national and international level to protect our environment, it is also the responsibility of every citizen to use our environmental resources with care and protect them from degradation. In this lesson we will discuss the meaning and causes of environmental degradation and the importance of environmental conservation.



Objectives

After studying this lesson, the learner will be able to

- explain the concept of environmental degradation ;
- identify various factors causing environmental degradation ;
- recognize the growing awareness about Environmental degradation ;
- explain the concept of sustainable development ;
- recognize the national and international commitment to the protection of Environment.

23.1 Environmental Degradation

Environment constitutes a very important part of our life. To understand life without studying the impact of environment is simply impossible. The need to protect environment can be ignored only at our peril. We use environmental resources in our day to day life. These resources are renewable and non-renewable. We have to be more cautious in consuming non-renewable resources like coal and petroleum, which are prone to depletion. All human activities have an impact on environment. But in the last two centuries or so, the human influence on environment has increased manifold due to the rapid population.



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growth and the fast development in science and technology. These two are the major factors in reducing the quality of environment and causing its degradation.

The environmental degradation poses a great danger to man's own survival. It should be realized, sooner than later, that conservation and improvement of the environment are vital for the survival, and well being of mankind. Natural resources of land, air and water have to be used wisely as a trust to ensure a healthy environment for the present and future generations.

23.1.1 Environmental Problem

Some of the notable problem of environment can be identified as under: -

a. Land Air And Water : pollution of land and water has affected plants, animals and human beings. The quality of soil is deteriorating resulting in the loss of agricultural land. The loss is estimated to be about five to seven million hectares of land each year. Soil erosion, as a result of wind and/or water, costs the world dearly. The recurring floods have their own peculiar casualties like deforestation, silt in the river bed, inadequate and improper drainage, loss of men and property. The vast oceans, after being turned in to dumping grounds for all nuclear wastes, have poisoned and polluted the whole natural environment.

b. Population Growth : population growth means more people to eat and breathe, and putting an excessive pressure on land and forest, and ultimately disturbing the ecological balance.

Our growing population is putting pressure on land, leading to poor quality of productivity, deforestation (the loss of forest land so necessary for ecological balance and extinction of wild life leading to imbalance in the ecological order, loss of wild life heritage and ultimately dwindling of several species. The growing population is not only a problem for the natural environment; it is a problem for any other aspect of environment, say, for example social, economic, political etc.

c. Urbanization : Urbanization is no less a source of pollution, and therefore, a threat to the environment. Urbanization means maddening race of people from villages to the cities. The net result of urbanization is dirt, disease and disasters. In a state of growing urbanization, environmental problem like sanitation, ill-health, housing, water-supply and electricity keep expanding. On the other, the environmental degradation is caused in the rural life due to indiscriminate collection of firewood, overgrazing and depletion of other natural resources.

d. Industrialization : Industrialization coupled with the development of the means of transport and communication has not only polluted the environment, but also has led to the shrinking of the natural resources. Both ways, the loss is really heavy. Increasing level of heat fluxes, carbon dioxide and particulate, radioactive nuclear wastes and the like create environment hazards. On the other hand, the consumption of conventional source of energy leads to the loss of natural resource. We are building a world without caring for future generations.



Intext Questions 23.1

Identify The True and False statement

1. Coal is a renewable resource.

2. The fast development in science and technology is a major factor contributing to the environmental degradation.
3. The growing population in India does not contribute to the environmental degradation.
4. Trees are a good example of non-renewable resource.

**Notes**

23.2 Awareness about Environmental Protection

In the past two decades, environment has attracted the attention of decision makers, scientists and even laymen in many parts of the world. They are becoming increasingly conscious of issues such as famines, droughts, floods, scarcity of fuel, firewood and fodder, pollution of air and water, problems of hazardous chemicals and radiation, depletion of natural resources, extinction of wildlife and dangers to flora and fauna. People are now aware of the need to protect the natural environmental resources of air, water, soil and plant life that constitute the natural capital on which man depends.

The environmental issues are important because the absence of their solutions is more horrible. Unless environmental issues are not solved or not taken care of the coming generations may find earth worth not living. The need of the planet and the needs of the person have become one.

There is no denying the fact that environment has to be protected and conserved so to make future life possible. Indeed, man's needs are increasing and accordingly the environment is also being altered, indeed, nature's capacity is too accommodating and too regenerative yet there is a limit to nature's capacity, especially when pressure of exploding population and technology keep mounting. What is required is the sustenance, conservation and improvement of the changing and fragile environment.

23.3 The Concept of Sustainable Development

The world commission on environment and development (the Brundtland commission) submitted its report entitled "Our common future" in 1987. This report highlighted and popularised the concept of 'sustainable development'. Sustainable development has been defined on meeting the needs of the present generation without compromising the need of future generations. All developmental activities involve some amount of environmental degradation. What is required is to take into account the damage to environment as a result of development, and strike a balance between development and environmental protection. The aim should be to achieve sustainable levels of people's welfare and development. The primary concern is how many people can ultimately be supported by environment and at what level of quality of life.

The mainstream greens scholars like Carr, Brown, Dala, Schumacher. Does not make sense and others, all lay stress on "sustainability" of environment together with development. The emphasis of the mainstream green' are not on pollution, but on (1) energy and its resource may be renewed, and be kept renewing, (2) the waste be changed into raw-material, raw-material into waste, waste into raw- material: recycling of waste into raw-material; (3) gross national product and its growth targets need not be sought, but what should be sought is the satisfaction of real human needs'. The greens say that growth means cancer, a cancer that threatens to spread worldwide, and destroy all life. They

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accept industry if it is on small scale and is for purpose of self-sufficiency. They advocate extensive decentralization.

The concept of sustainable development is more about environment and less about development; more about stability and less about change; more about restricting one's wants and less about the continuing material development more about the non-exploitative attitude towards environment and less about harnessing it; more about small communities and less about the larger ones. It is not a concept of development with environment, but is environment without growth.

Indeed, ecological degradation should stop. But why should the pace of development stop? A disciplined uses of environmental benefits go a long way for all round development. Scholars and activists assert that environmental degradation can be controlled and reversed only by ensuring that the parties causing the damage should be made accountable for their action and that they should participate in improving environmental conditions. What is needed is a set of norms, which bring the demands of development and the compulsion of environment closer to each other.

23.4 National and International Efforts

In India, the environmental awareness gained importance since 1970s after the UN sponsored conference on environment in Stockholm (1972). Indian government took many environment friendly activities. Ministry of environment and forest was established and laws were enacted on environment protection in 1986.

The objective of India's National Environment policy, here, are worth stating.

- 1) Conserve and develop safe, healthy, productive, and aesthetically satisfying environment ;
- 2) Upgrade, develop and manage rural and urban settlement to enhance the quality of life ;
- 3) Plan development on sound ecological principles with environmental impact assessment and incorporating appropriate environmental safeguards ;
- 4) Promote environmental safety-technologies, recycling of resources and utilization of wastes ;
- 5) Conserve the biotic diversity in the country by creating nature reserves and sanctuaries for specific habitats such as mountains, rain forests, pastures, deserts, wet lands, lakes, beaches, mangroves, estuaries, lagoons and island ;
- 6) Safeguard the environment within the national maritime Exclusive Economic Zone ;
- 7) Evolve environmental norms and establish effective mechanism for monitoring surveillance and collection and dissemination of information ;
- 8) Preserve science landscapes, as well as historic and cultural monuments and their environs ;
- 9) Promote environmental education at all level and create public awareness ;
- 10) Encourage research in environmental science and technological and social investigation to conserve and improve the environment and



- 11) Develop adequate manpower within the country, of ecologists, environmental scientists, planners and managers of the highest quality and recognize their work as an important component of national development.

23.5 National and International Commitment to The Protection of Environment

The growing awareness about environmental protection has resulted in new measures across the world. The late Prime minister Mrs. Indira Gandhi was the only Head of Government, attending the 1972 Stockholm conference, which was called the “U.N. Conference on Human environment”. The Rio Conference 20 years later was called the “U.N. Conference on Environment and Development”. It was Mrs. Gandhi who first pointed out that poverty was the greatest polluter and unless it was eliminated through national and international efforts it was futile to talk about protecting the planet from environmental disaster. UNDP, the World Bank and other institutions of the U.N. system are now advocating the elimination of poverty as the central task in sustainable development. Indeed environmental and development policies are seen as complementing each other. The conflict between the requirement of long-term environmental interests and the immediate compulsions of development is certainly to be resolved. But any world order cannot be sustainable if three-fourths of its population continues to live in poverty. Environmental rights and developmental rights together constitute the democratic and human rights of all the people of the world.

The Montreal convention and the conventions on climate change; bio-diversity and forest adopted at Rio are important landmarks in the world movement for sustainable development and environmental protection. India has accepted these conventions and is taking systematic measures to implement them. An environmental action programme funded by U.N.D.P. is under implementation. There are 31 schemes for industrial pollution control approved by the World Bank, involving of US. \$ 105 million. On the anvil are common effluent plants for small industries located in a cluster, the big plants being looked after individually. Seventeen grossly polluting industries have been identified for environment control within a time schedule. For certain categories of industries, prior environment clearance is compulsory before they can be set up. In regard to transport pollution apart from conservation measures, pollution free engines are being designed, some of which have already been introduced for two-wheelers, three-wheelers and some of the popular cars. A National Forestry Plan is in progress. Environmental Brigades, Afforestation Brigades and Ecological task Force have been organized by Non-government organizations (NGOs.) India's wild life conservation projects have met with remarkable success. India has a protected network of 75 national parks and 421 wild life sanctuaries. The Tiger project has been a great success. India also has an elaborate laws relating to the prevention of pollution of water, soil and air and a system of environmental audit of most industrial projects. While this is voluntary for most countries, India has a mandatory rule in this regard. India is also engaged in serious and systematic efforts to develop alternative and renewable sources of energy like solar, wind and wave energy which are environment friendly. Emphasis is laid on solar energy on which some significant technological progress has been made. India is taking all these measures partially with international assistance.

23.6 Some Measures taken by Indian Government to Check Environmental Pollution

- 1) **Environmental Courts:** Special courts are being set up to ensure speedy justice of the poor against factories that pollute the Environment.
- 2) **Environment Friendly Products :** The government is setting stringent standards for all products in the market. Those, which meet these standards of production and performance will be given the label of excellence like the ISI mark.
- 3) **Unleashing Of Petrol :** Refineries are being persuaded to make their petrol lead free. Indian petrol has the highest lead content, which creates major pollution through automobiles.
- 4) **Ban On Harmful Pesticides:** Eight chemical pesticides, of which DDT, BHC, Aldrin and Malathion are the main culprits have been isolated. There are now plans to replace them with safe biopesticides.
- 5) **National Waste Management Council:** The main task is to convert 40 million tones of flyash, that lie as a mountain near thermal power plants into bricks, city garbage into energy and sewage into fertilizer.
- 6) **Public Liability Insurance:** This makes it mandatory for all companies to take out a public liability insurance to be paid in 48 hours.
- 7) **Pollution By Motor Vehicles :** Anti-pollution measures against motor vehicles are being strictly enforced. Vehicles not adhering to the standards prescribed are fined heavily and may even be asked to be off the road.
- 8) **Hotel Near Sea Shore:** Action has been taken against a large number of hotels which encroach beaches in flagrant violation of laws.
- 9) **National River Action Plan:** The proposal is to set up a National river authority which will plan policy for water use and waste management at the national level.
- 10) **Solar Energy Commission:** Since the energy sector is the major polluter, the idea is to create decentralized energy at the village level, instead of multiplying the mainstream producer.
- 11) **No Smoking In Public Places:** A ban is proposed on smoking in public places. The Delhi government has taken a lead in this direction.



Intext Questions 23.2

1. Identify two most important international conferences on Environment.
 - i) _____
 - ii) _____



2. Give the name of the world commission which popularized the concept of sustainable development
 - i) _____
3. Identify any three objective of India's National Environment Policy.
 - i) _____
 - ii) _____
 - iii) _____
4. Identify any three measures taken by the Government of India to check Environmental Pollution.
 - i) _____
 - ii) _____
 - iii) _____

**What You Have Learnt**

- Environment is the surrounding we live in.
- Unplanned human activities cause environmental degradation.
- Sustainable development is a concept, which says that development should be environment oriented, i.e., it should be such that it does not harm natural order.
- Different types of pollution such as carbon dioxide, carbon monoxide, pesticides, sewage, smoke, noise cause environmental degradation.
- Awareness is now growing to conserve the nature. To conserve or to perish has become the slogan of the hour.
- The United Nations, through its agencies is making all efforts to conserve the environment, so that future generations do not face consequences of what the present generation is doing.
- The India Government has also introduced laws and has taken measures which go on to promote environmental awareness and also helps in preserving the nature.

**Terminal Exercises**

1. Describe the meaning of environment and environmental degradation.
2. Discuss any two environmental problems.
3. What is sustainable development? Explain.

4. Outline the various efforts made by the Indian Government towards creating a better natural Environment.



Answers to Intext Questions

23.1

- I. False
- II. True
- III. False
- IV. False

Let us ponder over adolescence issues



How do we know if someone is a drug addict?

Following are the symptoms of a drug addict:

- Loss of interest in daily routine;
- Loss of appetite/weight;
- Reddening and puffiness of eyes, unclear vision;
- Slurring of speech;
- Fresh/numerous injection sites on body and blood stains on clothes;
- Presence of needles, syringes and strange packets at home;
- Nausea, vomiting and body pain;
- Drowsiness or sleeplessness, lethargy and passivity;
- Acute anxiety, depression, profuse sweating;
- Changing mood, temper, tantrums;
- Depersonalization and emotional detachment; and
- Impaired memory and concentration.

