

# ENVIRONMENTAL LAW

## UNIT - I

### ENVIRONMENT IN GENERAL

#### 1. ENVIRONMENT AND ITS BIOGRAPHICAL ASPECTS - RELATIONS WITH OTHER DISCIPLINES

(IMPORTANT)

##### SYNOPSIS:

- A. Introduction**
- B. Explanation**
- C. Need for quality protection of Environment**
- D. Sub systems of Environment**
- E. Conclusion**

#### A. INTRODUCTION:

Environment is - living and non living things, which surround us. It consists of plants and animals and non living objects like water, air, light, soil, temperature, etc.

Sec. 2(A) of the Environment (Protection) Act 1986 defines 'Environment'. It includes water, air and land and the interrelationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organisms and property.

#### B. EXPLANATION:

'Environment' means and includes all factors, which directly or indirectly have bearing upon the natural surroundings of human being. It is the sum total of all conditions and influences that affect the development and life of all organisms.

It is also defined as 'Man's total environmental system' which includes not only the biosphere but also his interactions with his natural and man made surroundings'.

Environment is also 'the entire range of external influences acting on an organism, both the physical and biological i.e., other organism, forces of nature surrounding an individual'.

#### C. NEED FOR QUALITY PROTECTION OF ENVIRONMENT:

Quality environment is necessary for all organisms to lead a quality life and also sustain their life and existence qualitatively. Even a child in mother's womb needs a quality environment (i.e.,) quality air, quality food and hygienic water. It is not only the duty of State to protect the environment but it is increasingly felt that it is an international and global issue.

The inter-connected oceans, the blowing winds, the soil connections, etc., have great effects between one country and another. Environment is responsible for our genetic composition, our existence, and the existence of animals and plants.

It is therefore important that the environment is preserved and protected from degradation and to enable us to maintain the ecological balance. Natural resources are the basis of all our activities whether it is agriculture, industry, science or technology, etc. The protection of natural resources and their conservation both qualitatively and quantitatively is very much essential.

#### **D. SUB SYSTEMS OF ENVIRONMENT:**

Since protection of environment is very essential, it is necessary to understand the environment and its constituents clearly.

The environment and its sub systems can be studied under the following three approaches:

##### **1. First approach:**

- i. Abiotic or Physical Components
- ii. Biotic Components
- iii. Energy Components

##### **2. Second approach:**

- i. Eco system
- ii. Ecology
- iii. Biosphere
- iv. Preservation of biosphere
- v. Ozone layer

##### **3. Third approach:**

- i. Urban Environment
- ii. Surface Environment
- iii. Aquatic Environment

##### **4. Fourth approach: (Relations with other disciplines)**

- i. Eco system
- ii. Ecology
- iii. Economics
- iv. Sociology
- v. Chemistry and Physics

##### **1. FIRST APPROACH:**

###### **i. Abiotic or Physical Components:**

Abiotic components include solid, liquid and gas and they are represented by Lithosphere, Hydrosphere and the Atmosphere.

Lithosphere is the soil surface of earth. It includes all the soil strata. Land pollution affects these areas.

Hydrosphere means the water surface of the earth. It includes river, ponds, canals, sea and any aquatic area. Here water pollution affects the area.

Atmosphere is the air surface surrounding the earth. It goes upto outer space where there is no air. It also includes Ozone layer. Environmental pollution affects this area.

## ii. Biotic Components:

Biotic environment includes plant components, animal components and micro-organic components.

## iii. Energy Components:

Energy component includes solar energy and geothermal energy.

## 2. SECOND APPROACH:

### i. Eco System:

The interdependence of living parts namely man, animals and plants and non living parts namely water, air, soil, heat, light, radiation, etc., make an eco system. It is a combination of biotic community with physical environment.

Biotic community means an assembly (group) of animal and plant thesis inhabiting in a common area and which affect one another by their existence and growth. The combination of Eco systems under similar climates and which share similar character and arrangement of vegetation is known as 'biomes'.

For e.g., deserts, forests, etc., No Eco system remains constant and it is continuously undergoing changes. Any small change in one part of the Eco system affects the entire system. Though the eco system tries to maintain its stability by depending on its diversity, still a drastic change in the eco system affects the environment.

For e.g., a tropical forest is able to withstand small changes but a drastic change in the system not only

affects them but also the entire environment surrounding it.

### ***Doon Valley Case:***

The Doon Valley is a distinct and unique ecosystem in the foothills of the Himalayas. It is ecologically sensitive ecosystem. There has been continuous deterioration of this fragile ecosystem.

The resident population and migrants overexploited the forest, mineral and land resources of this area to meet their short term needs. This has affected the equilibrium between environmental and societal systems of the doon valley area.

The Government has been evaluating the developmental proposals for the present and the long term scenarios. The long term scenario for the year 2021 A.D. aims at enhancing the quality of life levels in this area and at the same time, minimizing the ecological loading and preventing the environmental degradation.

### ii. Ecology:

Ecology is the study of eco systems. By this study, we analyze the constitution of eco system and their interaction within them and it's functioning as a whole.

In other words, it is a science of the study of organisms in relation to their environment. It is also the scientific study of the close relationship between the living organisms and their living, and non-living surroundings.

It is a branch of Biology dealing with the relations of living organisms to their surroundings, their habitats, mode of life, etc.

### **iii. Biosphere:**

It is the part of the earth's surface and atmosphere where living things are inhabited.

Biosphere contains the surface area of earth, the oceans, the outer and upper surface of land areas, fresh waters and the living things inhabited in these areas. To enable living and continuance of life, water, air and sunlight are available.

Thus, Biosphere includes Lithosphere (soil surface), Hydrosphere (water) and Atmosphere (air). All the three spheres exist in specific proportion so as to sustain the life activity of human being and other living organisms. It is essential that for the survival of human being, the preservation of Biosphere is necessary.

This can be done by keeping alive the biotic provinces and safeguarding the genetic diversity for continuing the evolution process, conducting ecological and environmental researches continuously and by providing facilities for education and training in restoration of natural conditions.

### **iv. Preservation of biosphere:**

For the survival of human species the preservation of biosphere is essential. This can be done by setting aside sufficient representative of biotic provinces and by extending sufficient protection to them. This may be designated as Biosphere Reserves.

'Unescos' man and Biosphere (MAB) Programme has also conceived of this with the following objectives:

- a. To save the present and future human use, the diversity and integrity of biotic communities of plants and animals within natural ecosystems and to safeguard the genetic diversity or species on which their continuing evolution depends.
- b. To provide areas for ecological and environmental research including, particularly, baseline studies, both within and adjacent to those reserves, such research to be consistent with objective above.
- c. To Provide facilities for education and training. The Biosphere Reserve should comprise not only completely natural ecosystems but also semi-natural established land use practices.

Among such reserves, area that have outstanding potential for restoration to natural conditions should also be included. Biosphere Reserves are not meant to substitute established national parks, and sanctuaries but may often coincide partly with our national parks and sanctuaries.

### **v. Ozone Layer:**

Ozone is an allotropy of oxygen. It is written by the chemical formula  $O_3$ . Ozone is present in Troposphere and Stratosphere. The Ozone's chemical properties are that it is an oxidising agent and present in the air after rains. Its usefulness is that it protects the Biosphere from excess Ultra Violet Radiation and powerful sunrays.

If such protection is not there, the Ultra Violet Radiations will affect the entire biological, chemical and physical structure of earth and all the living organisms will be destroyed. It is therefore necessary that reduction of environmental pollution protect the Ozone Layer.

The increased environmental pollution by nuclear wastages, industrial wastes, chemical smokes, etc., could affect the Ozone Layer and therefore the Ozone area will be decreased and it is called '**Ozone Depletion**'.

In fact, the awareness to protect Ozone layer arose only in 1980 and the same was stressed in several conventions like "**Convention for the Protection of the Ozone layer**", "**Montreal Protocol on substance that deplete the Ozone layer**".

The importance of protecting the Ozone Layer is by avoiding the use of nuclear weapons, nuclear wastages, use of carbon monoxides, nitrogen oxides, hydrogen oxides, fluoro carbons, etc.,

### **3. THIRD APPROACH:**

- i. **Urban Environment** includes the study of industries, buildings, roads and their effect on environment.
- ii. **Surface Environment** includes the study of land surface, hill, deserts, volcanoes, valleys, etc.
- iii. **Aquatic Environment** includes the study of rivers, lakes, ponds, falls, sea, ocean, etc.

The preservation of Eco system, Ecology, Scientific values, Biological values, Aesthetic values etc., will help us to preserve and protect environmental qualities.

### **4. FOURTH APPROACH: (RELATIONS WITH OTHER DISCIPLINES)**

Environmental is closely related to the following disciplines of study and they are:

- i. **Eco system:** *(Please Refer Page No.5)*
- ii. **Ecology:** *(Please Refer Page No. 6, Also refer Chapter No. 19D - Global warming, Page No. 228 & 19E - Protection of ozone layer, Page No. 223)*
- iii. **Economics:** *(Please Refer Chapter No. 3, Page No. 35)*
- iv. **Sociology:** *(Please Refer Chapter No. 3, Page No. 34)*
- v. **Chemistry and Physics:** *(Please refer Chapter No. 45 - Noise pollution - Page No. 377)*

### **E. CONCLUSION:**

Fulfillment of basic needs, improvement of living standards, better protected eco systems, correct resources of usages, conservation of forests, proper policies and management, protection of wild life, love and care for 'fauna (animals) and flora (plants)', minimum destruction of living and non living resources, etc., will lead to the inter gradation of environment and development.

**UNIVERSITY QUESTIONS FOR REVIEW:**

1. *Define Environment. Explain what constitutes Environment.*
2. *Explain Environment. What do you mean quality Environment? Also explain the sub systems of Environment.*
3. *What are the sub systems of Environment? Explain the three approaches in this regard.*
4. *Write short notes on: (a) Eco system (b) Ozone Layer (c) Biosphere (d) Ecology*



## 2. HISTORICAL EVOLUTION OF ENVIRONMENT PROTECTION

**SYNOPSIS:**

- A. Introduction**
- B. Ancient Law relating to Environmental pollution**
- C. Environmental Law during British period**
- D. Environmental Law after Indian Independence**
- E. Heritage Conservation Laws**
- F. International Conferences and Conventions**
- G. Centre for environment education**
- H. The National Environmental Engineering Research Institute (Neeri)**
- I. Conclusion**

**A. INTRODUCTION:**

The historical evolution of environmental protection can be traced from the ancient period. During Moghul rule in India, though environmental protection was adhered, more special law was enacted to control environmental pollution.

During British period environmental pollution control provisions were incorporated in the Indian Penal Code and the Indian Easements Act. Only after independence, the Environmental law gained importance and many laws relating to the environment protection were passed by the Indian Parliament.