





Environmental Science

Definition, Scope and Importance

Environment: **Water, Air, Earth, Animals,** Vegetation and Humans all combined together to form the environment. The proportion of each of this element is done in such a way so as to form uniformity on earth.

Environment word is formed from a French word called 'Environ' which means complete surroundings.

Definitions-

The environment literally means the surrounding of external conditions which influences the development or growth of people, animal or plants; their living or working conditions etc. Some important definitions of the environment are-

- 1. Ross-Environment could be termed as an external force which affects or influences us.
- 2. Douglas and Holland-'The term environment is used to describe, all the external forces, influences and conditions, which affect the life, nature, behaviour and the growth, development and maturity of living organisms.'

Kinds of Environments:

Generally, the environment could be of three types which affect the personality of humans:

- **1.** Natural or Physical-It basically refers to geographical climate and weather or physical conditions wherein and individual lives. The human races are greatly influenced by climatic conditions. It constitutes the sky, air, water, vegetation, elements under the earth's surface and organisms.
- The people belonging to Europian countries are of white colour while those of African is of black complexion.
- The physical environment also affects an individual's physique.
- The working efficiency of a human also depends on climatic conditions.
- **2.** Social-An individual's social, economic and political condition comes under his social environment. It constitutes of groups, communities, society, committees and all other kinds of institutions formed by human relationships.
- **3.** Cultural or Psychological-Psychological environment helps us to understand an individual's personality. All the rituals, customs, morals, legal and behavioural epitomes of society comes under this category.

ENVIRONMENTAL STRUCTURE:

The environment includes both living and non-living organisms. So, its structure is both physical and biological.

1. Physical Environment

It is classified into three-

- (i) Solid which represents the Lithosphere (earth)
- (ii) The liquid which represents the Hydrosphere (water component).
- (iii) Gas or the Atmosphere.

They could be further subdivided into smaller units as plateaus, coastal, mountains, glaciers etc.

2. Biological Environment

It consists of-

- (i) Flora (animals)
- (ii) Fauna (plants)

Thus, all the organisms in this biotic environment work together to form their social groups and organization at various levels. This process gives rise to the economic environment.

Scope of Environmental Studies

The initialization of thinking towards the environment has occurred due to the occurrence of some major incidents. Today, when environmental hazards have put humans into serious troubles than only the areas of learning of environmental education is increasing. Its scopes are summarized as follows:

• Preservation and Protection of Natural resources and their problems it includes water, soil, forests, minerals, electricity and transportation.



- The study creates awareness among the people to know about various renewable and nonrenewable resources of the region.
- It also provides necessary information about the richness of biodiversity and the dangers to the species of plants, animals, and microorganisms in the environment.
- It studies about varieties of flora and fauna and their protection.
- The study helps us to understand the causes and consequences due to natural disasters (flood, earthquake, landslide, cyclones etc.,) and pollutions and measures to minimize the effects such as radioactive pollution, noise pollution, soil, water and social pollution.
- Human-Environment relationship.
- Social Issues are related to Environment.
- Policies and Laws related to Environmental Issues.
- Environmental Preservation, Protection, and Improvement.

Hence, it is important now to protect our environment by utilizing the available resources and building a sustainable future for our coming generation.

Concept of Environmental Studies:

Environment consists of the sum of all the physical and biological factors that directly influence the survival, growth, development, and reproduction of organisms.

On the basis of components environment can be divided into two parts:

Physical environment – It includes lithosphere, earth and its different physical features, hydrosphere, water components, and the atmosphere.

Biological environment – It includes flora, fauna and various micro-organisms.

According to Douglas and Holland, "Environment is aggregate of all the external force, influences and the condition which affect the life, nature, behavior, the growth, development, and maturity of a living organism".

Scope of environmental studies:

Environmental studies is an integrative subject because it covers all the features of physical as well as the biological environment. Its relation with so many subjects and realms make its scope wide. It can be applied in the following realms:

1. Natural Resource Sustentation and Environmental management:

- EVS helps in managing wildlife, forest, natural resources.
- EVS also provides the solution to various problems like pollution and decrease of natural resources.
- An environmental scientist is working for ecological balance, conservation of biodiversity, as well as protection and regulation of natural resources.

2. Scope of EVS in the industry:

Due to industrialization, our environment has been affected badly. So, in order to protect our environment for further degradation, there is a need to adopt an environmentally friendly process and technology. In this innovational field of technology, biotechnology has shown good promise. Biotechnology is helpful in other avenues of environmental science.

- **3. Scope in Research and development:** Various research projects and work are accepted in the field of environmental studies. Researchers are being done to control pollution to counter global warming, reduction of greenhouse gases and adoption of endless energy source.
- **4. Scope in Human health and sanitation:** For healthy and disease-free life, pure and hygienic environment is must so sanitation is necessary. So, the study of human health and sanitation is an important feature of environmental studies.
- **5. Scope of EVS in Social development:** NGO's and media are making effort in unfurling different awareness issues like pollution, conservation, and awareness which results in making the masses aware of different aspects of the environment.

Objectives of EVS teaching at primary level:

- To allow children to understand the importance of developing good habits and hygiene.
- Develops the skill of children to perform the task in an orderly manner.
- To make them understand simple graphs, maps, flowcharts, and statistical tables.
- To develop the interest of children in the study of nature and surroundings
- To develop creative, observational and innovative qualities in a child.