



St. Charles College of Education, Madurai - 625006  
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BD2EE: Environmental Education - Unit I

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# Concept and Meaning of Environment

- Environment is derived from the French word 'Environner' which means to encircle or surround.
- Everything that surrounds and affects living organisms is environment.
- Environment has been defined as the aggregate of all external conditions and influences affecting the life and development of an organism.
- It includes physical, biological and social surroundings.
- It influences growth, survival and development of all living beings.
- It is dynamic and constantly changing.

# Definitions of Environment

- The term environment has been defined in various aspects by eminent personalities.
- Environment is anything immediately surrounding an object and exerting a direct influence on it (P. Gisbert).
- Environment is the field of effective stimulation and interaction for any unit of living matter (T. D. Elliot).
- Environment is an external force which influences us (E. J. Ross).
- These definitions highlight the importance of interaction and influence.
- They show environment as both physical and functional concept.

# Importance of Environment

- The environment is of utmost importance for several key reasons that affect both living organisms and the planet as a whole.
- It plays an important role in the healthy living of human beings.
- It provides air, food, water and other needs to humans.
- It regulates life-supporting processes.
- It ensures survival of all living organisms.
- It maintains ecological balance.

# Importance of Environment (Continued)

- It is a source of natural beauty and it is necessary for physical and mental health too.
- It supports biodiversity and ecosystems.
- It regulates climate and atmospheric conditions.
- It provides renewable and non-renewable resources.
- It maintains stability of the planet.
- It ensures sustainability for future generations.

# Environmental Education

- Environmental education is a process that allows individuals to explore environmental issues, engage in problem solving, and take action to improve the environment.
- Environmental Education (EE) is a process in which individuals gain awareness of their environment and acquire knowledge, skills, values, experiences, and also the determination.
- It enables individuals to act individually and collectively.
- It helps solve present and future environmental problems.

# Components of Environmental Education

- Awareness and sensitivity to the environment and environmental challenges.
- Knowledge and understanding of the environment and environmental challenges.
- Attitudes of concern for the environment and motivation to improve or maintain environmental quality.
- Skills to identify and help to resolve environmental challenges.
- Participation in activities that lead to the resolution of environmental challenges.

# Components of Environment

- An ecosystem typically has two major components:
- Abiotic or Non-living Components.
- Biotic or Living components.
- Both components are interdependent.
- They interact continuously in ecosystems.
- They maintain ecological balance and sustainability.

# Abiotic or Non-living Components

- These are non living components of an ecosystem.
- It comprise three sorts of components.
- Climate conditions and Physical factors.
- Examples: Air, water, soil, temperature, light.
- Inorganic substances: Water, nitrogen etc.
- Organic substances: proteins, carbohydrates etc.

# Biotic or Living Components

- Autotrophic components include producers or energy transducers.
- They convert solar energy into chemical energy.
- They use water, carbon dioxide and inorganic substances.
- Heterotrophic organisms are consumers.
- They utilize and decompose organic materials.
- They maintain nutrient cycles and energy flow.

# Types of Environment

- There are mainly three types of environment:
- Physical environment (Abiotic / natural environment).
- Biotic environment (Biological/Organic environment).
- Includes producers, consumers and decomposers.
- Social or cultural environment.
- All types influence human life and development.

# Environmental Awareness

- Environmental awareness refers to the understanding and appreciation of the environment, its issues, and the actions needed to protect it.
- Environmental awareness is having an understanding of the environment, the impacts of human behaviors on it, and the importance of its protection.
- It helps in conservation of natural resources.
- It promotes responsible behaviour.

# Environmental Awareness (Continued)

- People are becoming increasingly conscious of environmental issues.
- There is awareness of protecting air, water, soil and plant life.
- Environmental issues are important for survival.
- Lack of solutions can affect future generations.
- Awareness helps in sustainable development.

# Ways to Promote Environmental Awareness

- Implement an energy-saving plan.
- Educate children about environmental issues.
- Make sustainability a core value.
- Encourage sustainable transportation.
- Promote recycling.
- Start environmental awareness campaigns.

# Environmental Attitude

- Environmental attitudes are described as the collection of beliefs and behavioural intentions a person holds regarding environmentally-related activities or issues.
- It influences behaviour towards environment.
- It determines actions for conservation.
- Positive attitude leads to protection.

# Factors Affecting Environmental Attitude

- Mass communication.
- Personal contacts.
- Schooling.
- Personal experience.
- Culture.
- Personality and attitude change.

# Development of Environmental Attitude

- Personality of teacher.
- Proper teaching methods.
- Satisfaction of pupil's curiosity.
- Use of environmental literature.
- Awareness among students.
- Nature visits and exhibitions.

# Ecological Intelligence

- Ecological intelligence is a specific mental ability of an individual to understand the interconnectedness between human beings and their environment.
- It helps to understand human activities and their impacts on environment.
- It enables individuals to realise strategies to protect the environment.
- It promotes responsible decision-making.
- It supports sustainable interaction with nature.
- It encourages environmental protection behaviour.

## Ecological Intelligence (Continued)

- Ecological intelligence can be referred to the manifestation of behavioural attributes in making decisions that are ecologically safe.
- It operates at personal, local and global levels.
- It helps individuals understand consequences of actions.
- It promotes environmentally friendly choices.
- It encourages sustainable development practices.
- It develops responsibility towards environment.

# Ecological Intelligence (Daniel Goleman)

- Ecological intelligence refers to human's collective ability to understand the human impact on ecosystem and to act in ways that improve them (Daniel Goleman, 2009).
- It emphasizes collective responsibility.
- It promotes awareness of environmental consequences.
- It supports sustainable consumption.
- It encourages global environmental protection.
- It helps in improving ecosystems.

# Dimensions of Ecological Intelligence

- Natural resources.
- Environmental pollutions.
- Environmental problems.
- Environmental movements.
- Environmental conferences.
- Curriculum on environmental education.
- Use of science and technology for environmental protection.
- Environmental ethics.

# Ecological Sensitivity

- Environmental sensitivity describes the ability of an individual to perceive and process information about their environment.
- Positive responses of human beings towards the protection of environment are considered as ecological sensitivity.
- It helps individuals adapt to environmental conditions.
- It is a basic trait found in many organisms.
- It supports environmental awareness.
- It varies among individuals.

## Ecological Sensitivity (Continued)

- An individual's level of Environmental Sensitivity is the result of a complex interplay between genes and environmental influences.
- It develops over time.
- It is influenced by biological and environmental factors.
- Tools for assessment include:
  - The Highly Sensitive Person Scale (HSP).
  - Highly Sensitive Child (HSC) scale.
- It helps measure environmental responsiveness.

# Dimensions of Ecological Sensitivity

- Environmental empathy.
- Pollution mitigation.
- Eco-friendly practice.
- Sensitiveness to health issues.
- Waste management.
- Conservation.
- These dimensions promote sustainable behaviour.
- They encourage responsibility towards environment.

# Focal Aspects of Environmental Education

- Environmental education is a process of providing learning experiences to obtain knowledge, understanding, skills and awareness.
- It brings desirable attitudinal changes.
- It focuses on man's relationship with natural and man-made surroundings.
- It includes population, pollution, resource allocation and technology.
- It supports planning and development.
- It promotes holistic understanding.

## Focal Aspects (Continued)

- Environmental education must utilize diverse learning environments.
- It emphasizes practical activities.
- It provides first-hand experiences.
- It helps learners discover environmental problems.
- It identifies real causes of issues.
- It promotes experiential learning.
- It enhances problem-solving ability.

# Focal Aspects (Further)

- Environmental education develops, modifies and improves attitudes and values.
- It should be a continuous life-long process.
- It should be interdisciplinary in nature.
- It integrates different subjects.
- It promotes comprehensive understanding.
- It encourages environmental responsibility.

# Objectives of Environmental Education

- To develop an awareness of environment and sensitivity to the total environment and its related problems.
- To acquire knowledge and variety of experiences on environment.
- To develop a basic understanding of structure, processes and problems.
- To understand interdependence of environmental components.
- To develop problem-solving ability.

## Objectives (Continued)

- To help in acquiring skills for identifying and solving environmental problems.
- To develop attitudes, values and concern for environment.
- To encourage participation in environmental protection.
- To promote motivation for improvement.
- To build responsible behaviour.

# Objectives (Further)

- To provide opportunities for active participation.
- To encourage practical involvement.
- To develop evaluation ability of environmental programmes.
- To consider ecological, economic, social and cultural factors.
- To promote sustainable solutions.

# Goals of Environmental Education

- To foster clear awareness of environment.
- To provide opportunities to acquire knowledge, values, attitudes and skills.
- To develop commitment towards environmental protection.
- To create new patterns of behaviour.
- To encourage behavioural change.
- To promote empowerment and action.

# Need for Environmental Education

- Environmental pollution and stress affect every nation.
- It helps address global environmental issues.
- It supports preservation of biodiversity and ecosystems.
- It creates awareness about environment.
- It motivates creation of healthy environment.
- It promotes wise use of natural resources.

## Need (Continued)

- Environmental education equips learners with skills and technical expertise.
- It provides values essential for environmental protection.
- It develops deeper awareness and understanding.
- It supports conservation practices.
- It emphasizes reduce, reuse and recycle.
- It promotes sustainable resource use.

# Need (Further)

- It promotes management of wastes such as nuclear, biomedical, electronic and industrial.
- It assists in evaluating environmental utility.
- It compares environment with urbanization and industrialization.
- It informs students about ecosystems and vegetation.
- It supports environmental sustainability.

# Importance of Environmental Education

- It is essential for self-fulfillment and social development.
- It helps understand food chains and ecological balance.
- It promotes appreciation of environment.
- It supports material culture.
- It enables enjoyment of nature and society.
- It builds environmental responsibility.

# Scope of Environmental Education

- Awareness.
- Real life situations.
- Conservation.
- Sustainable development.
- Environmental pollution and control.
- Biological aspects.
- Physical aspects.
- Socio-cultural aspects.
- Community engagement.