UNIT 1: MEANING OF ENVIRONMENTAL EDUCATION

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1.1 LEARNING OBJECTIVES

After going through this unit you will be able to-

- discuss the meaning and nature of environmental education
- explain the characteristics, aims and objectives of environmental education
- identify the guiding principles of environmental education
- explain the scope of environmental education

1.2 INTRODUCTION

With the advancement of science and technology mankind has progressed well. But this has drastically changed man's relationship with environment since the prehistoric time to the present day advanced period. The industrial and scientific revolutions have led to rapid changes in our environment. Continuous exploitation of nature has put mankind in a crucial state of environmental crisis. But, the fact is that, the welfare and existence of human race depend upon proper interaction between man and his

environment. Therefore, it has become necessary to develop new environmental ethics among all the people which can ensure a more harmonious and sustainable relationship between mankind and natural resources. This cannot be achieved unless humanity adopts a new way of life. The role of education in rebuilding human behaviour and attitude is very important. Therefore, we are evolving an educational system that will give due emphasis on environmental understanding, environmental awareness, environmental planning and management.

Environmental education is that branch of academic discipline which can act as a powerful instrument to educate people to maintain ecological balance with proper awareness, knowledge, skills, attitudes and commitment to improve the quality of environment. This unit deals with the meaning and nature of environmental education, its definition and characteristics, its aims and objectives and also the scope of environmental education.

1.3 MEANING AND NATURE OF ENVIRONMENTAL EDUCATION

The term 'Environmental Education' consists of two words. One is 'environment' and the other is 'education'. Let us first discuss the meaning of the word 'environment'. The dictionary meaning of the word 'environment' is surrounding or condition under which a person, animal or a plant lives or operates. It is the aggregate of all external conditions that affect our life. Environment as a whole consists of two basic elements- physical or natural environment and man- made or cultural environment. The physical environment consists of both biotic and abiotic elements. Plants and animals are examples of biotic environment, whereas land water, air, climate phenomena etc are examples of the abiotic environment. Eco-system comprises the physical environment and all the organisms which live on this earth. In a particular territory, a large number of plant and animal species grow together and develop a chain of interaction and interdependence. Any change in any of the species, disturb the life of other species which is called disturbance in ecological balance.

Man is a unique and dominant species that has been interfering with the environment in various ways, such as, clearing forests, breaking grasslands, digging, drilling, mining minerals etc. Although, in the beginning, the environment of early men consisted of only physical aspects of the planet earth, with the advancement of society men extended their environment through social, economic and political functions. Of late, humans' have exploited some of the valuable natural resources like mineral oil, natural gas, coal etc. Man's interference with environment has often led to extinction of certain animal species, disturbing the ecological balance in nature. The term environment includes all those external forces that have influenced the conditions which affect life, nature, behaviour and growth, development and maturity of living organisms. It consists of the sum total of the stimulation that an individual receives from conception to death. Thus, environment is an inseparable whole and is constituted by the interacting systems of physical, biological, and cultural elements which are inter-related to each other.

Education is an independent field of study or discipline which is concerned with the process of development, i.e., teaching-learning, training and instruction. It aims at the physical, social, emotional, and intellectual development of the child. The chief concern of all educationists is with the environment of men. But humans cannot exist or live in isolation from the other forms of life and also from plant life. So, the educationists should be concerned with the environment of all types of biological population. Environmental education is that branch of education which provides sufficient knowledge and understanding about the problems of environment. It contributes towards solving them, and also develops attitude and values conducive to environmental protection and understanding of interdependence of nature and people.

Environmental education aims at generating widespread awareness of environmental problems. It not only educates the world population about the natural environment and its problems, but also aims at developing knowledge, attitude and skills necessary to protect the natural balance in environment. For this, men must learn to distinguish between renewable

and exhaustible resources and their relevance for the continuity of the human civilization.

It is a fact that a man cannot live and prosper by being constantly at war with nature. On the other hand, he must learns to live in peace and harmony with nature. It is possible only when he learns the laws of nature, its secrets and mysteries. Environmental education is nothing but educating a man how to interact with the surrounding world so as to improve his or her own world. It enables one to maintain his or her life. This in turn helps in the preservation of the human race. It scrutinizes men towards the diminishing natural resources, environmental pollution, and the problem of population explosion.

It is clear from the above discussion that environmental education is a process of providing learning experiences to obtain knowledge, understanding, skills and awareness with desirable attitudinal changes about man's relationship with his natural and man-made surroundings. Thus, environmental education is a new area of study which has evolved under the discipline of education to meet the challenges of environmental crisis. Thus, environmental education should be seen as a continuous life-long process, beginning at the pre-school stage level and continuing through all formal and non-formal stages. It should also be treated as an inter-disciplinary discipline that would help in teaching environmental education from a holistic and balanced perspective. In a broader sense, environmental education means education for the environment, about the environment and through the environment.

1.3.1 Definition of Environmental Education

The term 'Environmental Education' has been discussed in various national and international seminars and has been defined in different ways. Some of the definitions have been provided here to understand its nature and concept.

The International Union for the Conservation for Nature and Natural Resources Commission of Education in the International Working Meeting on Environmental Education in the School

Curriculum held under the auspices of UNESCO in Paris in 1970 remarked.

"Environmental Education is the process of recognizing values and clarifying concepts in order to develop skills and attitudes necessary to understand and appreciate the inter-relatedness among man, his culture and his biophysical surroundings. It also entails practice in decision making and self-formulation of a code of behaviour about problems and issues concerning environmental quality."

The Finnish National Commission in a seminar held in 1974 stated:

"Environmental Education is a way of implementing the goals of environmental protection. Environmental education is not a separate branch of science or subject of study. It should be carried out according to the principle of lifelong integral education."

The Report of a Conference of African Educators held at Nairobi in 1968 stated:

"To create an awareness and an understanding of the evolving social and physical environment as a whole, its natural, manmade, cultural, spiritual resource, together with the rational use and conservation of the resource for development."

Mishra (1993) opines that, "Environmental education appears to be a process that equips human beings with awareness, knowledge, skill, attitude and commitment to improve the environment."

According to R.A. Sharma (1996):"Environmental Education refers to the awareness of physical and cultural environment and perceive its relevance for real life situation. The problems and issues are to be identified. The imbalance of environment are to be improved in view of sustainable development."

All the definitions mentioned above would remain incomplete, unless the definition formulated in the Tbilisi Conference held at Georgia in the USSR in October, 1977 under the auspices of the

UNESCO and UNEP (United Nations Environment Programme) is not taken into account. The Tbilisi conference resolved that Environment education involves:

a) **Awareness:** to help social groups and individuals so as to get an awareness of and sensitivity to the total environment and its allied problems.
b) **Knowledge:** to help social groups and individuals so as to gain a variety of experiences in and get a basic understanding of the environment and its associated problems.
c) **Attitude:** to help social groups and individuals achieve a set of values and feelings of concern for the environment and the motivation for actively participating in environmental improvement and protection.
d) **Skill:** to help social groups and individuals so as to acquire skills for identifying and solving environmental problems.
e) **Evaluation ability:** to help individuals and social groups so as to evaluate economic, social, aesthetic and educational factors.
f) **Participation:** to give social groups and individuals an opportunity so as to be actively involved at all levels in working towards the resolutions of environmental problems.

1.3.2 Characteristics of Environmental Education

By analysing the above definitions we can derive the following characteristics of environmental education:

- Environmental education is a medium and a process of education that covers man's relationship with his natural and manmade surroundings.
- It refers to the knowledge and understanding of physical, biological and cultural environment and its relevance to real life situations.
- Environmental education also discusses the effects of population explosion, industrialization, pollution etc. on environment.
- Environmental education identifies the imbalances of environment and tries to improve it in view of sustainable development.

- It explains the co-existence of both living and non-living organisms and their contribution to the nature for its sustenance.
- Environmental education develops skills, attitudes, feeling and values needed to preserve and maintain environment.
- It utilizes educational approaches methods and techniques of teaching to identify the real causes of environmental problems and gives importance on recognizing the interrelatedness of man with his cultural and biological surroundings.
- Environmental education involves both theoretical and practical aspects of environment to improve the imbalances and prevent the deterioration or pollutions.
- It appears to be an educational process that generates in learners positive value towards eco-equilibrium of a pollution free environment.



CHECK YOUR PROGRESS

Q 1: Fill in the blanks :

i) Environmental education is a ..... branch of study.

ii) Environment is ..... under which a person, animal or a plant lives.

iii) Environmental education educates the world population to protect the nature in ..... environment.

iv) Environmental education should be_____ discipline making possible to teach it from a holistic perspective.

Q 2: What is meant by Environmental Education?

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Q 3: Give three characteristics of environmental education.

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1.4 AIMS AND OBJECTIVES OF ENVIRONMENTAL EDUCATION

Now that you are familiar with the nature, concept and characteristics of environmental education, you must have realized that environmental education is an educational intervention to meet the challenges of environmental crisis. As such it has certain aims and objectives which are mentioned below:

- To help the students in acquiring knowledge and experience of the environment and the problems associated with it.
- To assist students to understand and appreciate the laws of nature and their implications for human beings.
- To develop appreciation and insights into the inter-relationships and interdependence between man and environment.
- To encourage the students to observe nature, appreciate its beauty, understand its laws, and adjust with it in order to live in harmony with nature.
- To generate in learners positive value towards eco-equilibrium of pollution free environment.
- To help students in acquiring the skills for identifying and solving environmental problems.
- To develop attitude, values and concern for the environment and motivate the students towards active participation in protection and improvement of environment.
- To provide opportunity for active participation in prevention and solution of environmental problems.
- To develop thinking among students about man's destiny, the future of mankind and the duty of every generation to leave this planet as a befitting place for mankind to live infinitely.
- To enjoy life and prosper peacefully by respecting the laws of nature.

1.5 GUIDING PRINCIPLES OF ENVIRONMENTAL EDUCATION

According to Tbilisi Conference USSR (1977) the guiding principles of environmental education are:

- The environment has to be considered in its totality natural as well as built, technological and social, economic, political, moral, cultural, historical and aesthetic.
- Environmental education should be a continuous life process which begins at the pre-school level and continues through all formal and non formal stages.
- Environmental education should be interdisciplinary in its approach. The specific contents of each discipline should play a specific role in making possible a holistic and balanced perspective.
- Environmental education should emphasize active participation in preventing and solving environmental problems.
- Environmental education should examine major environmental issues from local, national, regional and international point of view so that learners get insights into environmental conditions in other geographical areas.
- Environmental education should focus on current and potential environmental situations, while taking into consideration the historical perspective.
- Environmental education should explicitly consider environmental aspects in the planning for development and growth.
- Environmental education should emphasize the complexity of environmental problems and thereby the need to develop critical thinking and problem solving skills.
- Environmental education should be able to promote the value and necessity of local, national and international co-operation in the prevention and solution of environmental problems.
- Environmental education should use diverse learning environment and a broad array of educational approaches with due stress on practical activities and first hand experience.

- Environmental education should help learners to find out the symptoms and the real causes of environmental problems.
- Environmental education should be able to develop environmental sensitivity, knowledge, problem solving, and values clarification at every grade laying special emphasis on environmental sensitivity to the learner's own community.

1.6 SCOPE OF ENVIRONMENTAL EDUCATION

The literal meaning of the term 'scope' is the range of matters or subjects to be studied. It implies field of activity, operation and application. Scope of environmental education means the breadth and comprehensiveness of learning experiences to be provided to the individual through the process of education.

We know that environmental education is a field of study under the discipline of education. But the concept of environmental awareness or the study of environment as an academic discipline is a new phenomenon which had its roots in the developed western world. At present, we are facing grave environmental problems because of human activities on ecology, ecosystem and the whole environment. Therefore, we are evolving an educational system giving due emphasis on different aspects of the environment this has made environmental education an independent entity.

The broad areas included under the scope of environmental education are- environmental understanding, environmental awareness, environmental planning and environmental management. As an academic discipline, it includes the following content areas within its scope (Shrivastava, 2004, p. 108-109).

- **Concept of Environmental Education:** This area includes concept of environment and its components, concept of education, meaning of environmental education and its relationship with other subjects and environmental education as a discipline.
- **Concept of Ecology and Environmental Pollution:** Ecology is the study which deals with the relationships of life forms with each other and with their surroundings. Pollution refers to the

contamination of the environment-air, water and land with harmful wastes resulted from human activities. Environmental pollution has badly affected the whole biosphere and has become a major world-wide threat. This area includes concept of ecology and ecosystem, quality of environment, pollution and degradation, environmental pollution- air, water, land and noise, human ecology and environmentalism, interdependency in environment- food chains and food web flow of energy and biochemical cycles.

- **Concept of Educational and Psychological Environment:** Education aims at the physical, social, emotional and intellectual development of the child in which environment has a significant role. In effective educative process, teacher must know his student and the environment. This is one of the very important areas in the scope of environmental education which includes concept of educational environment, growth and development, psychological environment and mental health, population explosion and environment.
- **Concept of Environmental Management:** Environmental management is the process to improve the relationship between man and environment so that the quality of both the environment and human society may be improved. This improvement of relationships between man and environment may be achieved through check on destruction activities of man, conservation, protection, regulation and regeneration of nature. This is a very broad area come under the scope of environmental education. It includes meaning and nature of environmental management, teacher education and environmental education, role of media in environmental education, social forestry and environmental education, problems and remedies of environmental education and evaluation of environmental education.

While discussing the scope of environmental education, we must keep in mind that the core content of environmental education is highly interdisciplinary in nature. But the difference lies at the level of purpose and objectives. The purpose and objectives of other subjects are to

provide awareness of environment and environmental studies. But environmental education has to develop cognitive, affective and psychomotor abilities and efficiencies. In short, the scope of environmental education includes the body of knowledge and experiences about the environment to be provided to the individual through the process of education.



CHECK YOUR PROGRESS

Q 4: State four major objectives of environmental education.

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Q 5: List the guiding principles of environmental education.

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Q 6: What are the broad areas included in the scope of environmental education?

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1.7 LET US SUM UP

- The first section of this unit has dealt with the meaning and nature of environmental education.
- The dictionary meaning of environment is the surrounding or condition under which a plant or animal lives or operates.
- Environment as a whole consists of two basic elements- physical or natural, and man-made or cultural.
- Environmental education is that education which provides sufficient knowledge and understanding about the problems of environment.

It aims at generating widespread awareness of environmental problems.

- Environmental education is nothing but teaching a man how to interact with the surrounding world so as to improve his or her own world. Thus, it is a medium and a process of education that covers man's relationship with his natural and man-made surroundings.
- Environmental education discusses the effects of population explosion, industrialization, pollution etc. on environment and identifies the imbalances of environment and tries to improve it in view of sustainable development. It involves both theoretical and practical aspects of environment to improve the imbalances and prevent deterioration and pollution. The guiding principles of environmental education are:
  - Environment in its totality
  - As a life long process
  - As an interdisciplinary approach
  - Focus on complexity of environmental problems
  - Emphasize active participation in preventing and solving environmental problems
  - Develop environmental sensitivity, knowledge etc
- The scope of environmental education includes concept of environmental education, concept of ecology and environment, concept of educational and psychological environment, and concept of environmental management.



1.8 FURTHER READING

1) Akhatar, P. and others (2008) : Environment and Population Education, Assam Book Depot., Guwahati.
2) Barua, J. (2009) : Paribesh AruJanasankhya Siksha, Chandra Prakash, Guwahati