UNIT 1 : CONCEPT OF ENVIRONMENTAL STUDIES

UNIT STRUCTURE

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1.1 LEARNING OBJECTIVES

After going through this unit, you will be able to -

- define environmental study
- understand the nature and scope of environmental study
- know the significance and rules of conservation of environment
- find out the steps for preservation of environment.

1.2 INTRODUCTION

In recent times, environmental studies have gained importance all over the world. It is essential that everybody should know about the basic issues and concepts included in environmental studies. Since all living beings e.g. plants and animals, and the surrounding non-living objects, are parts of the environment, so environmental studies include all of them. It is therefore necessary for everyone to know about the environment, its significance for our survival and the need for preservation of the environment.

Constant increase in population and also increase in human activities alongwith the rapid industrialisation and the use of machines and transport have their impact on nature, which has caused rapid changes in the environment leading to environmental pollutions. For all these reasons preservation of environment is essential. Creation of public consiousness/ awareness has become the call of the hour.

1.3 NATURE AND SCOPE OF ENVIRONMENTAL STUDIES

Records show that people were conscious about environment in the past. We can find traces of conservation of environment in Indian culture during the Vedic age. According to different religious practices and customs, animals and plants were worshipped. The creation of different animals and plants in different environment was known to people long time ago. Scientific studies were carried out on the mutual impact of living beings and environment and a new study was started in the year 1869 for the first time, which came to be known as environmental studies.

Because of the pioneering efforts of some people the concept of conservation of environment was gradually gaining importance.

A healthy environment presuppous the the existence of the following elements:

- Pure air
- Plenty of clean water
- Adequate/ Plenty of place for growth and development
- Abiotic salt and strength needed for the growth and development of the body.

In reality all human beings and animals are dependent on plants. Again plants are dependent on various micro organisms, insects, birds for their living. Therefore, environment is made up of

- all living beings and non-living objects that are components of environment
- All kinds of living beings are essential to sustain environment.

- All living beings are interdependant. Because of these reasons, the concern for conservation of environment is growing all over the world.

For the first time Charles Darwin in his book *Origin of Species* in 1859 scientifically established the relationship between living beings and their habitats. In fact, Ralph Emerson, before Darwin, in 1840 warned that business-activity would destroy environment. Rachel Carson, an American lady wrote in an article about the use of insecticide/pesticide and also wrote a book *Silent Spring* which became a pioneering work in modern environmental revolution. India was also not lagging behind. Infact noted ***Ornithologist*** Salim Ali's *Book of Indian Birds* and his autobiography *Fall of a Sparrow* are regarded as the path-breakers in the study of environment. Sundarlal Bahuguna who is associated with *Chipku Agitation* and Medha Patkar who stood for the Narmada Bachao agitation have championed the cause of the protection of environment. It can be mentioned here that M.C. Mehta fought for the protection and preservation of the Taj Mahal. Voices have been raised for cleaning the water of the Ganga and also for the inclusion of environmental studies in the curriculum of schools and colleges. Besides, cases are also lodged in the courts of justice for the protection of environment for the public interest.



Ornithologist : One who studies birds

The scope of environmental studies is very vast. Since several areas and numerous elements have been covered in this subject, its scope has been gradually increasing.

The following are the contents of the couse on environmental studies:

- **Natural Resources :** their preservation and conservation and their management.
- Eco-system and Bio-diversity.
- Environmental pollution and control
- Social problems connected with environment and development
- Population and environment

The treasures which are given by nature for our use are called the natural resources. Nature endows us with all the required materials which fulfil our essential needs and which are necessary for us to enjoy a happy life. But the supply of these natural treasures is very much limited. On the

other hand, population explosion and our constant desire to live a luxurious life have led us to use these naturals resourse indiscriminately. As a result, many natural resources gifted by nature have gradually become scarce. So, how to conserve and manage these resources in a balanced manner is the subject of discussion in environmental studies.

Plants and other living beings on this earth have undergone various changes and stages of evolution before reaching the present stage. Nature has created an intimate relationship between plants and living beings. In short, this is known as eco-system. Earthly elements play a significant role in creating living beings and plants.

From the combination of biotic and abiotic elements various species are created in the eco-system. Diversity of plants, living beings, organisms and all other diverse species present in the eco system taken together are called bio-diversity. Bio-diversity and Eco-system are another area of discussion in this unit. The presence in the air, soil or water of a substance with harmful effects is called pollution. Changes in environmental conditions affect natural life. Sometimes even the identity of living species is endangered.Pollution is due to some natural and man made causes. Environmental studies study the problem of pollution, how it is caused, what are its effects and how it can be controlled.

Human beings through their intelligence have utilized natural resources. As opposed to other living beings, human beings have been trying to exploit natural resources through science and technology and due to this exploitation, nature has been affected. These man made problems are also discussed in Environmental studies. Population explosion is another grave problem. Rapid advancement of science and technology has significantly reduced the human mortality rates, while human birth rate has also increased in some countries, including India. The continuous rise in population has resulted in large scale utilization of the natural resources leading to a pressure in the environment which is undergoing rapid changes. Population explosion and its effect on nature is another matter of discussion.

- **Definition of Environmental Studies:** Environmental study is the methodical and scientific study of the environment and how socio-

economic and other factors affect it. The elements coustituting the environment are divided into two – living beings and non living matter. This relationship between living beings and non living matter and the impact of the change of these two elements over other elements are a basic concern of Environmental studies.

- **Objective of Environmental Studies:** The main objective of environmental studies is to discuss what environment is and what is the relationship between the different elements of the environment.

  Environmental studies discuss the relationship among various living and non-living things, as well as the relationship among the various species. Its influence on human beings, the interdependence between man and other species and how human activities influence them are some of the issues to be discussed within the scope of Environmental Studies.

1.4 MULTIDISCIPLINARY PERSPECTIVES OF ENVIRONMENTAL STUDIES

This is now clear from the definition of environmental studies that this is a unique brand of study. There is a need to understand the problems of environment and their solution and for this a general conception of science, commerce, arts, technology, law, medical science, computer etc. is essential.

Environmental study is called a multidisciplinary subject. In order to protect the world from destruction, the relationship among the different elements is necessary. Besides, it is also essential to know as to how to protect the envioronment. Environmental studies include all such subjects. That is why environmental studies can be called a multi disciplinary subject.



CHECK YOUR PROGRESS

Q 1. Do you think 'Environmental Studies' is a subject matter of science only?

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Q 2. What kind of impact is made by the increase in population on environment.?

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ACTIVITY – 1.1

1) Observe the elements of envioroment that influence your day to day activities?

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2) Prepare a list of the ways by which you can control pollution?

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1.5 RULES AND REGULATIONS OF ENVIRONMENTAL STUDIES AND PUBLIC AWARENESS

Problems arising out of the several conflicting processes among the environmental elements and human beings alongwith the instructions of environmental conservation are included in an environmental study. Infact, the environmental problems are caused by human activities. All the elements gifted by nature are considered essential for human survival. But when natural resources are hapazadly used by man environmental problems are created. The humancentric thoughts consider nature's gifts as man's exclusive domain. On the otherhand, another school of thought, which is nature centric, considers nature as mother and lays emphasis on the conservation of nature. This kind of thought is beneficial to nature as well as to other living beings and this in a way helps to create a positive natural environment.

On the basis of these two contradictory schools of thoughts, – human centric and nature centric – some guidelines/principles are adopted

to maintain sustainable environment, They are –

- Nature has given us all the necessary requirements for living. Therefore, it is our duty to love and care nature.
- We should consider each day a sacred day because on each day nature changes and this change of nature brings to us the advent of a new season.
- Considering man to be superior to other beings, man has no right to push other beings towards destruction.
- We should always be grateful to plants and other living beings because they provide us the necessary food for the sustainability of our life .
- Man should control the rapid rise in population because it causes an incrasing burden for nature.
- We should not waste the rare resources for destructive purpous like creating deadly weapons.
- Instead of exploiting nature for use in our self interest, we should try to protect the loss and damage caused to nature by excessive human interference.
- It is nothing but a futile attempt to escape from the complaint that we are not guilty for the deeds of destroying natural resources.
- Our future generation should not suffer because of our exploitation of nature and that we should be conscious of this fact.
- Limited resources of nature should be enjoyed equally by all and they should be used in a limited or economical way.
- **Public Awareness:** Conservation of environment is related to public co-operation and if public cooperation is missing then nither any government nor any public organization can be successful in environmental development. Public co-operation is dependent on public awareness. It is not possible to solve environmental problems without public co-operation and their knowledge relating to environment. For instance, in the present context, the use of polythene and lack of knowledge as to how these polythenes create pollution and what are its impacts on society are some of the issues which demand general public altention. Only legal actions cannot solve these problems.

Instead of doing things that harm nature, man should feel the necessity to protect and conserve nature and to spread knowledge through environmental studies to solve the environmental problems.

Therefore, awareness for the protection of environment should be the main motto here of Environmental Studies.



CHECK YOUR PROGRESS

Q 3. Why should we protect the bio diversity in nature? Give reasons.

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Q 4. Do you think public awareness is necessary for the protection of environment? How can this awareness be created?

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ACTIVITY –1.2

1) Prepare a list of plants, animals and insects that you can find near your home and mention why they are necessary for us?

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2) Share with your friends your concern for the protection of environment and discuss the ways to create public awareness about environmental protection.

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1.6 LET US SUM UP

- People have been conscious about environment since time immemorial.
- Scientific studies have been carried out on the impact of the living beings on environment and this kind of study was started in the year 1869. Earnest Hackal for the first time scientifically explained environmental studies.
- The importance of environmental studies cannot be denied and this subject is essential for law, medicine, science, commerce etc.
- The influence of environment can be seen in all aspects of our life and work and therefore it is essential to have some knowledge about this subject. Our education is incomplete without this knowledge.
- More pollution will create more danger to the lives of the living beings. Therefore it is necessary for all living beings to conserve environment in order to sustain.
- It is not the sole duty of the government to protect environment. In order to protect nature, all human beings should come together and act towards it. Therefore, it is important to create awareness among the general public for a clean and healthy environment by protecting its resources.



1.7 FURTHER READING

1) Asthana, D. K. & Meera A. (2012). *A Textbook of Environmental Studies*. New Delhi: S. Chand and Company Ltd.
2) Bharucha, E. (2004). *A Textbook of Environmental Studies.* New Delhi: UGC.
3) Kaushik, A. & Kaushik, C. P.(2006). *Perspectives in Environmental Studies.* India: New Age Publications (Academic).



1.8 ANSWERS TO CHECK YOUR PROGESS

Ans to Q No 1: Cannot think

Ans to Q No 2: Due to the rise in population, nature is exploited to meet the demands of the growing population and on account of the pressure of such exploitation the environment is polluted.

Ans to Q No 3: Nature has given us all the necessary requirements and therefore it is our duty to love and nurture nature.

Ans to Q No 4: Yes



1.9 POSSIBLE QUESTIONS

VERY SHORT ANSWER QUESTIONS

Q 1. What do you mean by Environmental studies?

Q 2. How can pollution be controlled through environmental studies?

SHORT ANSWER QUESTIONS

Q 1. Explain the importance of rules and principles of Environmental studies.

Q 2. Explain the importance of Environmental studies in the present context?

LONG ANSWER QUESTIONS

Q 1. Environmental studies being a multidisciplinary subject, mention the other subjects which have relation with it. Explain.

Q 2. What is the role of Environmental studies in the conservation of bio-diversity?

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