UNIT 2 : PERSPECTIVES OF ENVIRONMENTAL EDUCATION

UNIT STRUCTURE

2.1 Learning Objectives

2.2 Introduction

2.3 Perspectives of Environmental Education

2.3.1 Ecological Perspective of Man and Environment

2.2.2 Ecology of Man and Environment Relationship

2.4 Psychological Perspective of Man and Environment

2.4.1 How Environment Influences Us Psychologically?

2.5 Let Us Sum Up

2.6 Further Reading

2.7 Answers to Check Your Progress

2.8 Possible Questions

2.1 LEARNING OBJECTIVES

After going through this unit, the learners will be able to -

- describe the different perspectives of man-environment relationship
- identify the causes of their physical and mental ill health
- explain their actions in terms of their ecological and psychological relation with environment
- discuss the knowledge of the perspective for the need of sustainable use of the resources.

2.2 INTRODUCTION

In the previous unit you have learnt what is meant by environmental education. In this unit, we will discuss on perspectives of environmental education. Now a question may come to your mind on what are the different perspectives in environmental education. As an individual we may have different ways to looking at things. As such the overall environment can be seen from different perspectives on the basis of how it is related to us? If

you notice, human beings are not only physically connected to environment that means we are not only dependent for our food, air or water but also psychologically dependent on it. In this unit, an attempt has been made to highlight on the ecological and psychological perspectives on the relationship of man and his environment.

2.3 PERSPECTIVES OF ENVIRONMENTAL EDUCATION

Environmental education is a holistic, life long process which helps people to understand environmental issues and take appropriate actions to solve the environmental problems. It increases public awareness regarding the environmental functions and the required human behaviour for preserving and conserving the environment. The perspective of environmental education defines the ways in which it should be framed to highlight the various aspects on how we are dependent on the environment. The understanding of different perspectives of environmental education helps to develop the curriculum, teaching methods accordingly. In this unit, the emphasis is laid on the two perspectives that is ecological perspective and psychological perspective. If we observe our surroundings it can be found that human acts as a destructive force degrading the otherwise healthy ecosystem. Thus, the goal of the environmental education should be to teach people to be a less destructive force by developing a sense of responsibility in them. The ecological perspective views humans as a part of the larger social and ecological systems. Whie through their collective actions, have the potential to help rebuild the processes that are integral to the functionin of a healthy system. In the following sub sections we will discuss how man and environment is related ecologically.

2.3.1 Ecological Perspective of Man and Environment

Ecology is a science which deals with various principles that govern the relationship and interdependence between organisms and their environment. Ecological approach of study includes man-

environment relationship which is based on the mutual interaction between organisms and physical environment and between organisms in an ecosystem. The relationship of man and environment is two dimensional which influences and modifies each other. Ecological perspective is a concept of community psychology in which a community is viewed in terms of the interrelations among people, roles, organisations, local events, resources and problems. It accounts reciprocal interactions of individuals and their environment. The learning system is composed of individuals which interact with each other in their environment which again interacts with nature. Ecological perspective of relationship of man and environment includes dynamic process of growth, decline and reorganisation, nested systems and feedbacks. It suggests educational practices that helps the learners to view themselves as a part of the ecological system and contribute to the resource management practices and policies. Ecological perspective of man and environment is an approach for controlling and regulating the behaviour for the purpose of a desirable change among the students. Ecological perspective not only includes the interrelation between man and his environment but also includes many facets of human life. It is not confined to biological sciences from which it has evolved but also has reached the social sciences and is now viewed as a state of mind.

Dimension of Ecological Perspective*:*

- Ecological perspective helps us to understand the relationship between living organism and environment.
- It provides us an opportunity to understand the interdependence between organisms and environmental components.
- It helps to find approaches to regulate and control the behaviour of students for the welfare of the environment.
- It provides comprehensive awareness on the reciprocal relationship of the whole environment.

- It provides mathematical model to relate and predict the effects of environmental components.
- It shows ways to conserve and preserve the natural resources

Kinds of Ecology

There are various branches of ecology which helps us to gain different perspectives to understand environment and design practices and methods for the dissemination of knowledge.

- Habitat ecology provides understanding on different habitats on earth and their effects on the organism
- Community ecology is the study of the local distribution of animals in various habitats
- Population ecology is the growth, structure and the regulation of pollution (of organism)
- Human ecology studies the relationship between man and environment and the effects on each other
- Applied ecology studies the needs of human and the application of the ecological concepts
- Production ecology deals with the production of different eco-systems
- Geographic ecology studies the geographical distribution of plants and animals
- Another related branch of environmental ecology is sociology which deals with the ethology and ecology of mankind
- Ethology interprets the animal behaviour in natural surroundings
- System ecology analyses the structure and function of the ecosystem.

Ecosystem

Another important part of the ecological perspective is Ecosystem. The ecosystem is a unit of organisms connected to one another and to their environment within a given space and time unit. It is composed of three basic components- biotic, abiotic and energy components. Ecosystem has its own productivity which is the process

of building organic matter based on the availability and amount of energy passing through ecosystem. There are basically two kinds of ecosystems:

- Natural ecosystems operated by themselves under natural conditions without any interference by man
- Artificial ecosystems which are managed by man

An ecosystem constitutes various kinds of population such as different types of plants, animals, and microbes all of which are interact with each other. Human beings are an integral part of that ecosystem which interacts and modifies different components of nature according to its convenience.



CHECK YOUR PROGRESS

Q 1: Write one dimension of ecological perspective.

.....

Q 2: Define the term human ecology?

.....

Q 3: What is meant by artificial ecosystem?

.....

2.3.2 Ecology of Man and Environment Relationship

Human beings are not just the products of environment alone, man has become the creator and transformer which dominates the ecology. Human being is in the highest level of the food chain. It not only consumes food but also produces the same. The relationship of man with the environment is different from plants and animals. Humans depend on nature for its survival and on the other hand, human being through his knowledge, scientific and technological advancements continues to transform the environment according to his needs.

The environmental change is occurring due to natural forces and the man made forces. Most of the environmental change has

taken place because of the exploitation of the natural resources by human beings. The main stressors such as- air, water, noise pollution etc. has changed the environment. The unlimited population growth has also degraded the natural environment.

Human beings are changing the environment through their activities, yet, we are too concerned with the environment and our surroundings as our survival depends on the survival of the natural environment.

The climate and humans are two major forces for the environmental change which directly influences the processes operative in environmental system. Availability of resources decides the pattern of human activities. And the most significant aspect of environment in influencing human activities are the natural resources. The economic viability also depends on what type of resources are available in the surroundings of human beings. Nowadays, international relations are also based on the available resources of a country and how it uses them.

Change in the agricultural system is also an area of study regarding the ecological perspective of the relationship between man and environment. The change in the agricultural system from traditional method to modern technological methods has increased the production and decreased the dependency on the environment. However, the use of chemicals in fertilisers has deteriorated the quality of the soil. On the other hand, consumption of those food products also has adverse effects on human health.

The rapid industrialisation also produces wastes of huge quantities which are affecting the air, water adversely and carbon dioxide released from the industries has affected the climate.

Deforestation is one of the results of human activity. The forests play an important role in maintaining the ecological balance. Deforestation of forests changes surface, air, temperature, moisture content and rainfall which also shapes and changes the lifestyles of human beings.

Recreational and tourism industry is growing day-by-day which has accelerated the loss of soil and continues to disturb the animal world.

The growth and increase in the population have disturbed the ecological balance of the environment. The over population has created the demands for more food, space and has resulted in man destroying the natural environment. The frequent incidents of man-animal conflict which occurs in Guwahati is also an example of the destruction of natural habitats of animals for the needs of man.

The pressure of human density in terms of population growth is increasing in the urban areas from the rural areas. The development of facilities such as health, education job opportunities has attracted the people to urban areas, which in turn has pressurised the transportation, water supply, electricity supply, sewage system etc. These pressures have led to physical and mental illness among people.

Though nature has blessed us with abundance, man should restrict themselves from destroying nature. The exhaustion of reserves is in large part due to the use of raw materials. Of course, there are other causes; land, for example, is also required for housing and infrastructure. However, the use of raw materials largely determines the rate of consumption of natural resources. The extraction and use of natural resources are responsible for environmental problems all over the world, and the social and economic impacts of their use cannot be justified always. We now take a closer look at these three aspects with regard to the use of natural resource.



CHECK YOUR PROGRESS

Q 4: Write the meaning of ecological perspective.

.....

Q 5: How does deforestation change human life styles?

.....

2.4 PSYCHOLOGICAL PERSPECTIVE OF MAN AND ENVIRONMENT

There is a transaction between environment and human beings. Environment affects human behaviour and human behaviour affects the environment, the two interact. Environment nourishes us, but it also holds the power to destroy us. From time immemorial, human beings are the victims of floods, earthquakes and other natural calamities. Though man has landed on the moon, we are not able to control the effects of the environment on human beings. Rather, we have created environmental hazards or in other words man-made hazards. And this has threatened us physically as well as mentally. Air pollution, water pollution, noise pollution and crowding have adverse effects on our mental health which again are man-made. The development of technology has also posed serious threats on us. Bhopal methyl isocyanate (MIC) 1984 is one of the major man-made disasters that continues to have intense and long-term adverse effects on the lives of the people. In the Bhopal disaster, more than 8,000 people died and over 2,00,000 were physically affected. Today, thousands of gas victims are still suffering from mental and physical health problems.

There is a close relationship between the environment and psychological processes of human beings. The environmental factors have a significant effect on both mental and behavioural activities of human beings. Mental activities denote how we perceive, judge, believe, interpret and our attitudes and the behavioural activities refer to how we respond to the environment. The social, economic, psychological, mental and physical well-being of a human being is also greatly affected by occurrence of different environmental hazards such as cyclones, floods, draughts, tsunami, etc. Also as mentioned earlier, our response to environment depends on our mental cognition, such as- how we see or attend to our surrounding or environment? It is a part of our lives or we just think that we are simply surrounded by our environment. The way we give attention influences our relationship with the environment. Our perception of the environment and the information restored in our brain helps to recognise, conduct and plan

our activities. Human beings tend to look for the environment which is familiar to them and can engage themselves with the surroundings. The environment in which we live shapes our mental aspects and cognition. If we live in an unhealthy environment it will lead to poor physical and mental health. If we live in a proper and healthy environment it will lead to a healthy life both physically and mentally.



CHECK YOUR PROGRESS

Q 6: Write the meaning of psychological perspective.

.....

Q 7: Write one dimension of the psychological perspective.

.....

2.4.1 How Environment Influences Us Psychologically?

The important area of psychological perspective of man and his environment is the role of perception, as every human being perceives the environment in their unique ways which in turn decides our reaction to various environmental situations. It directs our behaviour. Gestalt psychologists hold the view that a person lives simultaneously in different environments. It is the environment where rational behaviour begins and decisions are taken. As stated earlier, how a person perceives the environment shapes his responses towards it. The responses may be positive or negative.

The relationship of human beings with nature is very complex. Our environment changes almost every day and the living organisms have to adjust with that environment. And how well we adjust decides the quality of our life. A well-adjusted individual will be happier and healthier than the individuals who cannot adjust well. Environment embraces many points of view including how humans perceive and experience the environment in the psychological sense, how they modify and use it to serve human needs, and finally how humans accommodate their behaviour in a constantly changing ecosystem.

The quality of environment is also critical to human health, wealth and happiness. Some environments are conducive to restoring mental fatigue while some are not. The wealth of a person also depends on his environment.

Man is not just a mere product of the environment but is also a goal-directed being who acts upon his environment and who in turn is influenced by it. We are using the natural resources to fulfill our need which in turn is influencing us. On one hand, it has made our life comfortable, on the other it has affected us in a negative way. Due to destruction of nature we are facing problems like global warming, water scarcity which also increases our stress levels and we are more prone to other diseases. Human beings are not only affecting the earth on which they live but also other living organisms who share the earth with them.

Environment comprises various types of forces which influences, conditions life, our growth, development and maturity. Along with the natural environment, we have man made environments which affect our physical and mental health. The environmental stressors such as air pollution, water pollution, noise pollution has adversely affected our standards of living. They may also create problems especially due to failure of preferences, prolonged uncertainty, lack of predictability and stimulus overload. There are numerous behavioural and cognitive outcomes which include physical illness, diminished altruism, helplessness and fatigue.

The immediate living environment of the individual also directs our human life psychologically. Planning, the design of office and living space, the conservation of natural resources and the building of institutions are made to ‘share’, ‘serve’, ‘think’ and ‘feel’ for others around the individual. These are the ‘stimulations’ for a healthy life which a person receives till his death. People tend to seek out places where they feel competent and confident, places where they can make sense of the environment while also being

engaged with it. Preserving, restoring and creating a preferred environment are thought to increase sense of well-being and behavioural effectiveness in humans.

Another important aspect of man-environment relationships that can be studied under psychological perspective is the sense of place or place identity. Sense of place is a symbolic representation of the memories, feelings, values and experiences related to the physical setting. Place-identity provides the cognitive cluster that indicates the normative behaviour in that particular situation. For example, we behave differently in a formal setting than an informal setting. Gustafson (2000) suggested that place-identity is a cognitive structure which contributes to global self-categorisation and social-identity processes which is very important for the psychological well-being for each and every individual considering their living environment.

The basic human need that is shelter is satisfied by housing which provides security and protection against climatic conditions and unwanted intrusion. Housing environment also plays an important factor in the psychological wellbeing of a person. The housing environment can also be considered in terms of a wide range of architectural, economic, social and cultural factors which directly shapes the personality of an individual. For example, in a house where a child is properly taken care of, she/he gets the opportunity to play, share his/her feelings and interact with others will be more mature than a child who does not get anything from it.

The rapid growth of urbanisation which is known as 'engines of economic growth' has changed the scenario of both the rural and urban areas. People are migrating from the rural areas to urban areas in search of better economic prospects, and the need for economic wellbeing has overshadowed the environmental wellbeing. India has brought enormous problems of housing shortage and even deteriorating quality of housing, characterised by highly dense conditions. This has resulted in the poor living conditions and lack

of space for freedom. Also, it has resulted in the negative effect on the mental wellbeing of individuals. The effects of high density living in slum areas affects human behaviour as well.

Environment being a life support system needs proper planning to maintain its standards, to control environmental conditions and evaluate the impact of human activities on the environment. Environment is everything around us and people should have an understanding of their basic responsibilities to protect and conserve the environment. The relationship between man and environment is bi-directional, as both affect one another. The capacity of human beings to modify the environment is clearly a dynamic one, varying in both time and space. It is the responsibility of human beings to create a good and healthy environment for human beings and also save our environment as much as possible.



CHECK YOUR PROGRESS

Q 8: How does immediate living environment direct human behaviour?

.....

Q 9: What is meant by sense of place?

.....



2.5 LET US SUM UP

- Environment mainly comprises the natural environment (such as places, geographical features like rivers, mountains, valleys; environmental conditions like temperature, rainfall, flora and fauna) and the built-up environment (such as houses, buildings, cities, communities, etc.). The environmental conditions not only influence our physical environment but also our psychological wellbeing.

- Ecology is a science which deals with various principles which govern the relationship and interdependence between organisms and their environment. Ecological perspective of relationship of man and environment includes dynamic process of growth, decline and reorganisation, nested systems and feedbacks. It suggests educational practices that helps the learners to view themselves as the part of the ecological system and contribute to the resource management practices and policies.
- Another important part of the ecological perspective is Ecosystem. The ecosystem is a unit of organisms connected to one another and to their environment within a given space and time unit. It is composed of three basic components- biotic, abiotic and energy components. Ecosystem has its own productivity which is the process of building organic matter based on the availability and amount of energy passing through ecosystem
- Human beings are not just the products of environment alone, man has become the creator and transformer which dominates the ecology. Humans are in the highest level of the food chain. They not only consume food but also produce the same. The relationship of man with the environment is different from plants and animals. Human depends on the nature for its survival on the other hand human beings through his knowledge, scientific and technological advancements transforms the environment according to his/her needs.
- Environment not only influences the physical entity of human beings but the psychological wellbeing also depends on the environment. There is transaction between environment and human beings and individuals change their environments and their behaviour and experiences change their environment. Environment affects human behaviour and human behaviour affects environment and thus, the two interact.



2.6 FURTHER READING

Book

Sharma, R.A. (2006). *Environmental Education: Ecological Challenges and Educational Programmes.* Meerut: R. Lall Book Depot.

Online Sources

1) Bhattacharya, S. (2015). Human Being and Environment – Psychological Point of View. Working papers . *Voice of Research.* Retrieved from, *https://ideas.repec.org/p/vor/issues/2015-06-06.html*

2) Kumar, M. & Kumar, P. (2008). Valuation of the ecosystem services: a psycho-cultural perspective. *Ecological Economics.* 64, 808–819 DOI:10.1016/j.ecolecon.2007.05.008.

3) Tidball, Keith G. and Krasny, Marianne E. (2011). Urban Environmental Education from a Social-Ecological Perspective: Conceptual Framework for Civic Ecology Education. *Cities and the Environment (CATE)*: 3(1). Retrieved from, https://digitalcommons.lmu.edu/cate/vol3/iss1/11.



2.7 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: Ecological perspective provides us an opportunity to understand the interdependence between organisms and environmental components.

Ans to Q No 2: Human ecology studies the relationship between man and environment and the effects on each other

Ans to Q No 3: Artificial ecosystem is managed by human beings.

Ans to Q No 4: Ecological perspective is a concept of community psychology in which a community is viewed in terms of the interrelations among

people, roles, organisations, local events, resources and problems.

Ans to Q No 5: Deforestation is one of the results of human activity. Forests play an important role in maintaining the ecological balance. Deforestation of forests changes surface, air, temperature, moisture content and rainfall which also shapes and changes the lifestyles of human beings.

Ans to Q No 6: There is a close relationship between the environment and psychological processes of human being. The environmental factors have a significant effect on both mental and behavioural activities of human beings. Mental activities denote how we perceive, judge, believe interpret and our attitudes whereas behavioural activities refer to how we respond to the environment.

Ans to Q No 7: The way we see or attend to our surrounding or environment shapes our action towards it. It is a part of our lives or we just think that we are simply surrounded by our environment. Also, the way we give attention influences our relationship with the environment.

Ans to Q No 8: Planning, the design of office and living space, the conservation of natural resources and the building of institutions are made to share, to serve, to think and to feel for others around him. These are the stimulations for a healthy life which a person receives till his death. People tend to seek out places where they feel competent and confident, places where they can make sense of the environment while also being engaged with it.

Ans to Q No 9: Sense of place is a symbolic representation of the memories, feelings, values, experiences related to the physical setting.



2.8 POSSIBLE QUESTIONS

A) Short Questions (Answer each question in about 150 words)

Q 1: What do you understand by ecological perspective?

Q 2: What is the meaning of habitat ecology?

Q 3: Define the term ecosystem.

Q 4: What is psychological perspective with regard to the environment?

Q 5: How is man and environment related ecologically?

Q 6: How is man and environment related psychologically?

Q 7: What is sustainability?

B. Long Questions (Answer each question in around 300- 500 words)

Q 1: Discuss the ecological perspective of man and environment relationship with proper illustration.

Q 2: How does modern science and technology affect us physically and mentally? Explain with suitable examples.

Q 3: Discuss the effect of environmental conditions on the psychological well-being of human beings.

Q 4: How to revert the influences of negative environmental conditions? Describe.

Q 5: How does urbanisation affect us? Discuss.

*** ***** ***