

LESSON 23

MAN-ENVIRONMENT INTERACTION

SUMMARY

Environment is a very broad concept. Everything that affects us during our lifetime is collectively known as environment. All over the world there is growing concern about the deteriorating quality of environment.

The first United Nations Conference on Environment and Development (UNCED) was held in Rio de Janeiro in 1992. It reflected world-wide concern about the quality of environment. International Environment Education Programme is the outcome of the 1992 conference and efforts are being made globally to educate people at all levels of society about the environmental concerns.

The environment in which we live and work affects our thoughts, feelings, and behaviours. The relationship of man and environment is, however, bi-directional. That is, human beings are affected by the environment and they also affect the environment. The study of environmental psychology emphasises this interaction.

Man-Environment Interaction

Physical environment directly or indirectly affects our behaviour. For example, it has been observed that

people become more irritable and aggressive when the weather is hot and humid, in comparison to cold weather. Interest in such environmental variables has led to the development of a field known as **Environmental Psychology**. Its focus is to study the reciprocal (bi-directional) relationships between psychological processes and physical environments, both natural and manmade.

Types of environment

Physical environment - It includes both physical reality and social-cultural phenomenon that surround us. E.g., noise, temperature, quality of air etc.

Social and cultural environment - It includes the aspects of social interaction including products such as beliefs, attitudes, stereotypes, etc. The material and non-material aspects of environment are included in it.

Psychological Environment: It includes the perceptions and experiences pertaining to any environmental setting. E.g., dull and boring environment or stimulating environment etc.

Environment is related to other subjects such as geography, urban planning etc., it is indeed multidisciplinary in nature and that is why it is labelled as **Environmental Science**. Given below are Major components of human-environment interaction.

- **Physical Environment:** It includes aspect of natural environment such as climate, terrain, temperature, rainfall, flora, fauna, etc.
- **Social –Cultural Environment:** It includes all aspects of cultural environment such as norms, customs, process of socialization, etc.
- **Environmental Orientations:** It refers to the beliefs that people hold about their environment.
- **Environmental Behaviour:** It refers to the use of environment by people in the course of social interactions.
- **Products of Behaviour:** These include the outcomes of people's actions such as homes, cities, dams, schools, etc.

It is very important to understand that human beings are part of the environment and degrading environment will result in extinction of human beings and other forms of life. Therefore, it is the prime responsibility of human beings to maintain the environment in trim condition, its destruction means destruction of human life.

Physical vs. Psychological environment

Kurt Lewin, a German Psychologist, differentiated between physical environment and psychological environment. According to Lewin, life space is the whole psychological reality that determines the behaviour of an individual. He gave the following equation:

$$B = f(L) = f(P.E)$$

That is behaviour (B) of an individual at a particular time is a function (f) of life space, which contains the person (P) and environment (E).

Foreign hull - the environment (E) in the life space influences individual's behaviour and other physical environment that does not directly influence behaviour that is called foreign hull.

Environmental effects on human behaviour

Environment has both nourishing as well as destructive effects on human beings.

Throughout human history, people have been threatened by floods, earthquakes, and other natural disasters. In recent times, technological innovations and advances have brought us new potential threats from the environment, which are manmade. These threats are physically harmful and stressful. These stressors are called pollutants and basically there are four: air pollution, water pollution, noise pollution and Crowding.

We find many natural disasters that affect human behaviour in many ways. The earth quakes at Lator and Bhuj (2001) and Super cyclone in Orissa (1999) not only caused extensive damage to property and physical environment (uprooting of trees etc) but also had long-term effect on the lives of the people.

There are various man-made disasters also. The technological disasters such as the Three Mile Island disaster (1979), Chernobyl disaster (1986) and Bhopal Gas Tragedy (1984) due to the leak of methyl isocyanate or MIC etc. They had intense and long-term adverse effects on the lives of the people. The victims of these disasters are still suffering from various health problems such as intellectual disability, physically handicap, anxiety, depression, PTSD etc.

Effects of human behaviour on environment

As indicated earlier human activities also affect the environment. In fact, almost every human being adds, through his activities, some effect that contributes cumulatively and negatively to the environment we live in. The effect of human activity is long-term and irreversible and will affect the lives of generations that are to follow.

Planning for the future

Environment is a naturally given capital having certain limits and we have to learn to use the resources judiciously. We have to pay greater attention to conserve water and air. Disposal of waste material we produce, ranging from sewage to garbage needs special attentions.

Water - We are using natural resources that we are not replenishing, and water is one such resource. On our planet, there are now at least 80 countries having serious water shortage with serious threat to agriculture. The solution lies in harvesting rain water and efforts are being made to use rain water to augment water supply.

Air - The quality of air has been adversely affected by automobile and industrial emission. Large quantities of emissions from such sources have increased the presence of harmful and toxic

gases like carbon monoxide, nitrogen dioxide, sulphur dioxide etc., in the air that we breathe. Interventions are required to restore the quality of air.

Waste Material - The waste product of our activity ranges from sewage to garbage. It is a very serious to manage. Much of the sewage disposal is flushed untreated into the rivers which has created serious problem of water pollution. Now-a-days some efforts are being made in pre-treating the sewage disposal before throwing it in the rivers and sea.

Another serious problem emanates from the tremendous amount of garbage we produce. The disposal of the garbage, especially of non-bio-degradable material (e.g., plastic bags) is a serious problem. We must take care not to use such material, like plastic bags for daily use. Recycling the waste should be undertaken to save the land from the polluting effects of such garbage.

Evaluate yourself

1. What is environmental psychology?
2. Discuss the major components of human environment interaction.
3. Discuss the concept of Life space.
4. Describe the effect of human behaviour on environment and vice-versa.