

RIZVI COLLEGE OF ARTS, SCIENCE AND COMMERCE

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ECOLOGY

Chapter 03

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I. IMPORTANCE OF ENVIRONMENTAL STUDIES IN THE CURRENT DEVELOPMENTAL CONTEXT:

Environment studies is all about learning the way we should live and how we can develop sustainable strategies to protect the environment. It helps individuals to develop an understanding of living and physical environment and how to resolve challenging environmental issues affecting nature.

The environment studies make us aware about the importance of protection and conservation of our mother earth and about the destruction due to the release of pollution into the environment. The increase in human and animal population, industries and other issues make the survival cumbersome.

2. CONCEPT OF ENVIRONMENT:

Environment includes water, air and land, and their inter-relationships with human beings, other living creatures, plants and microorganisms. Environment provides basic services essential to humanity such as supporting life, supplying materials, energy and absorbing waste products.

Components of Environment:

The components of environment can be further broadly divided into two groups:

- (I) **The Natural Environment** can be listed into 4 major aspects – Lithosphere, Hydrosphere, Atmosphere and Biosphere.
- (II) **The Human Environment** is called as Anthrosphere.

3. CONCEPT OF ECOLOGY

Ecology is a term coined from the Greek word oikos, which means 'home' or 'place to live'. When first described in 1869 by Ernst Haeckel this science dealt with the study of the relationships between an organism and its environment.

Ecology is the study of the relationships between living organisms, including humans, and their physical environment; it seeks to understand the vital connections between plants and animals and the world around them.



DISCIPLINE OF ECOLOGY:



Physiological
ecology

Behavioural
ecology

Population
ecology

Community
ecology

Ecosystem
ecology

Medical
ecology

Landscape
ecology

Global
ecology

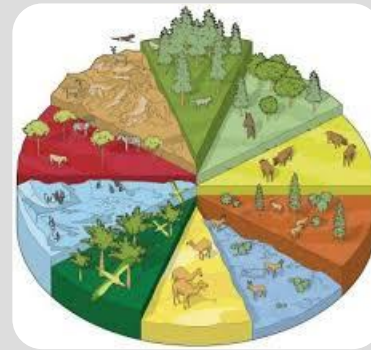
Evolutionary
ecology

Ecolinguistics

4. INTERCONNECTEDNESS BETWEEN ENVIRONMENT AND ECOLOGY:

Environment and Ecology are two different terms. But they are interrelated.

Environmental science is a broader field that incorporates many elements of earth and life sciences, whereas ecology is usually more focused on how organisms interact with each other and their surroundings, and often on a very specific population of living things.



5. ENVIRONMENT AS NATURAL CAPITAL AND CONNECTION TO QUALITY OF HUMAN LIFE:

Natural capital is the world's stock of natural resources, which includes geology, soils, air, water and all living organisms. Some natural capital assets provide people with free goods and services, often called ecosystem services. Two of these (clean water and fertile soil) underpin our economy and society, and thus make human life possible.

Thus natural capital if managed efficiently, will lead to sustainable development and also enhance the quality of life of the human community.



6. ENVIRONMENTAL DEGRADATION:



Environmental degradation is a process through which the natural environment is compromised in some way, reducing biological diversity and the general health of the environment.

Environmental degradation is the deterioration of the environment through depletion of resources such as air, water and soil; the destruction of ecosystems; habitat destruction; the extinction of wildlife; and pollution.

FORMS OF ENVIRONMENTAL DEGRADATION:



1. Environmental degradation of Air

2. Environmental degradation of Water

3. Environmental degradation of land

4. Soil erosion and chemicalization

5. Deforestation

6. Desertification

7. Other forms of environmental degradation

CAUSES OF ENVIRONMENTAL DEGRADATION:





IMPACTS OF ENVIRONMENTAL DEGRADATION:

The impacts or effects of Environmental Degradation are as follows:

- Losing earth's beauty
- Ozone layer depletion
- Potable water contamination and depletion
- Ocean acidification and acid rain
- Water and air pollution
- Spread of diseases
- Land productivity reduces
- Localized flooding
- Loss of biodiversity
- Atmosphere changes

7. SUSTAINABLE DEVELOPMENT

Sustainable development is the idea that human societies must live and meet their needs without compromising the ability of future generations to meet their own needs. The “official” definition of sustainable development was developed for the first time in the Brundtland Report in 1987.

Sustainable development is the organizing principle for meeting human development goals while simultaneously sustaining the ability of natural systems to provide the natural resources and ecosystem services on which the economy and society depend.



PRINCIPLES OF SUSTAINABLE DEVELOPMENT:



The principle of sustainable development emphasizes on two basic needs, firstly, need for socio-economic development and secondly, need of limitation imposed on the environment's capability to cope with the present and future requirements.

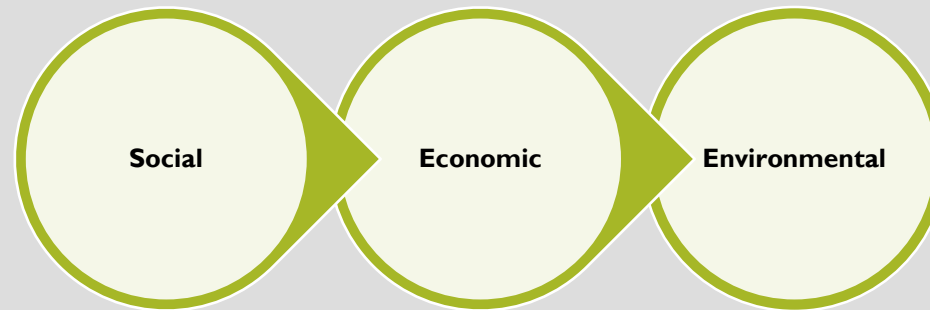
GLOBAL NEED FOR SUSTAINABLE DEVELOPMENT:



The goal of sustainable development is to meet the needs of today, without compromising the needs of tomorrow. This means we cannot continue using current levels of resources as this will not leave enough for future generations. Stabilizing and reducing carbon emissions is key to living within environmental limits.

Eradicate poverty and hunger, guaranteeing a healthy life. Universalize access to basic services such as water, sanitation and sustainable energy. Support the generation of development opportunities through inclusive education and decent work.

COMPONENTS OF SUSTAINABLE DEVELOPMENT:



8. POVERTY AND ENVIRONMENT:

Poverty often causes people to put relatively more pressure on the environment which results in larger families (due to high death rates and insecurity), improper human waste disposal leading to unhealthy living conditions, more pressure on fragile land to meet their needs, overexploitation of natural resources and more deforestation. Insufficient knowledge about agricultural practices can also lead to a decline in crop yield and productivity etc.

One of the biggest ways that the environment is affected by poverty is through deforestation. Impoverished communities, unaware of the errant, harmful ways in which they use natural resources, such as forest wood and soil, are continuing the destructive cycle that spirals the environment further downward.

THANK YOU...!