

INTRODUCTION

Scheme of paper

- Maximum marks= 100

Theory =75

Practical=25

- Project report =8
- Presentation=8
- Assignments=5
- Class test=4

Books

1. Environmental studies by **H.Kaur.**
2. Perspectives in Environmental Sciences by **Kaushik and Kaushik.**
3. An Introduction To Environmental Sciences by **S. Deswal & A. Deswal.**
4. Ecology and Environment by **P.D.Sharma.**

Chapters(1-7)

1. Multidisciplinary nature of Environment Science.
2. Eco-system.
3. Biodiversity and its Conservation.
4. Natural Resources.
5. Environmental Pollution.
6. Social issues and the Environment.

CHAPTER 1

The multidisciplinary nature
of Environment science.

ENVIRONMENT

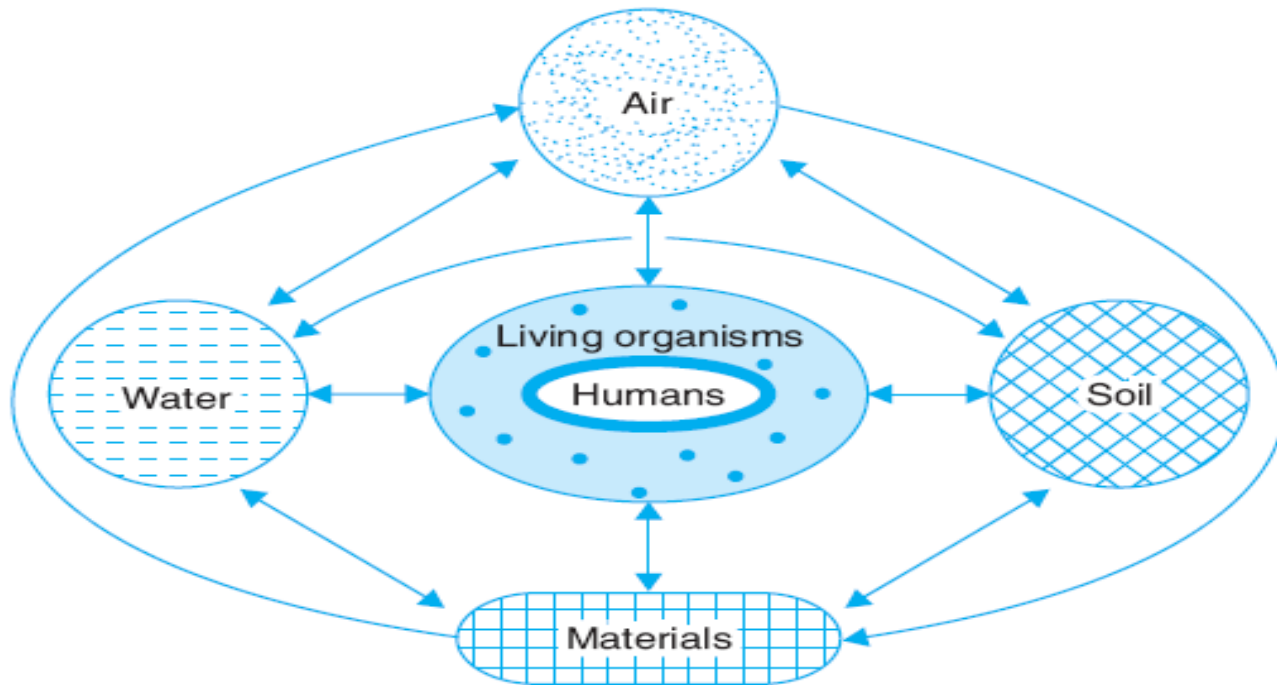


Fig. 1.1 Concept of Environment: air, water, land, living organisms and materials surrounding us and their interactions together constitute environment.

Components of Environment

ABIOTIC COMPONENTS-

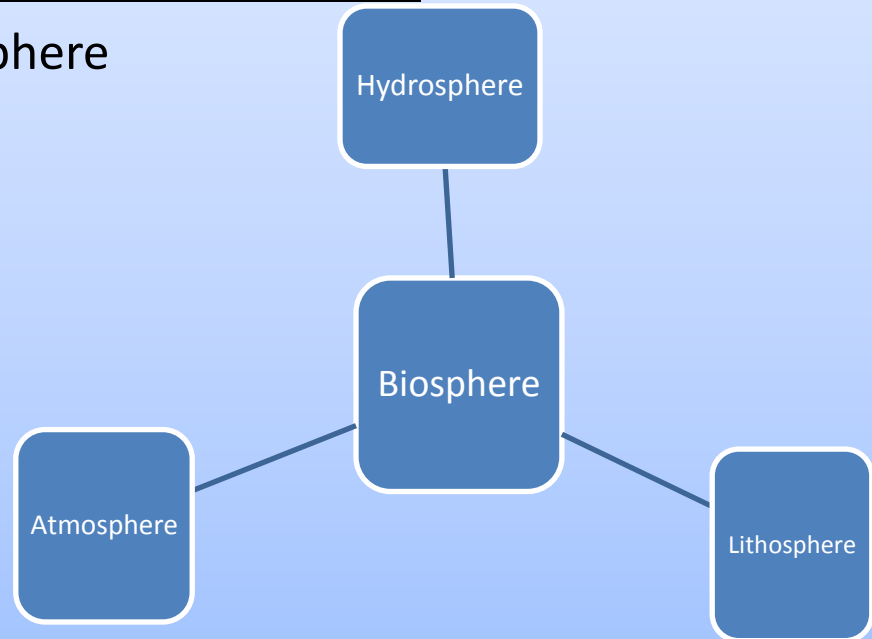
- It includes non living components.
- Include two factors **climate** (temp., water, light, humidity etc) and **edaphic** (soil and substratum) .

BIOTIC COMPONENTS-

- The living organisms form the biotic components of the environment.
- PRODUCERS(green plants) – CONSUMERS(animals) – DECOMPOSERS(fungi, bacteria).

Biosphere

- Bios-life sphere-area
- Largest unit of Environment.
- That part of earth in which life exists.
- Term biosphere was coined by Vladimir Vernadsky in 1929.
- There are 3 sub division of biosphere
 1. Lithosphere
 2. Hydrosphere
 3. Atmosphere



Segments of Environment

1. Atmosphere:

The atmosphere implies the protective blanket of gases, surrounding the earth.

Layers of atmosphere:

1. Troposphere
2. Stratosphere
3. Mesosphere
4. Thermosphere

2. Hydrosphere:

The Hydrosphere comprises all types of water resources oceans, seas, lakes, rivers, streams, reservoirs, polar icecaps, glaciers, and ground water.

3. Lithosphere:

Lithosphere is the outer mantle of the solid earth. It consists of minerals occurring in the earth's crusts and the soil.

Importance of Environment Education

It provides knowledge about :

- The hazardous impact of intensive agricultural practices and people will be made aware of these impacts. This will help society to move towards sustainable agricultural practices.
- The aspects of mining operations involving exploration of resources, degradation of land and social unrest due to displacement will be studied. Understanding these issues will help in finding the solution.
- Various global problems like green house effect, global warming, acid rain etc. will be discussed. The knowledge of these will help in finding the solutions.
- The negative impacts of deforestation and awareness in this regard will give an acceleration to afforestation, social forestry etc.
- The importance of conserving wildlife and ways to do so.
- Understanding of various problems associated with energy intensive life styles, will probably help in judicious use of energy resources.
- Impact of water scarcity and this will help us in changing our approach towards misuse of water resources.
- It will help in assessing and evaluating the effects of various environmental hazards.

Importance of Environment Education

- Promotes the use of eco-friendly technology or engineered technology .
- Educate us to conserve our fast depleting natural resources.
- promote reduce, reuse & recycle the waste material.
- Helps in inculcating the attitudes, values and strong feeling of concern for the environment and the motivation to act in protecting and improving it.
- Directs attentions towards the problem of population explosion, pollution of environment, threats to biodiversity and the methods of solving such problems.

THE MULTI-DISCIPLINARY NATURE OF ENVIRONMENTAL STUDIES

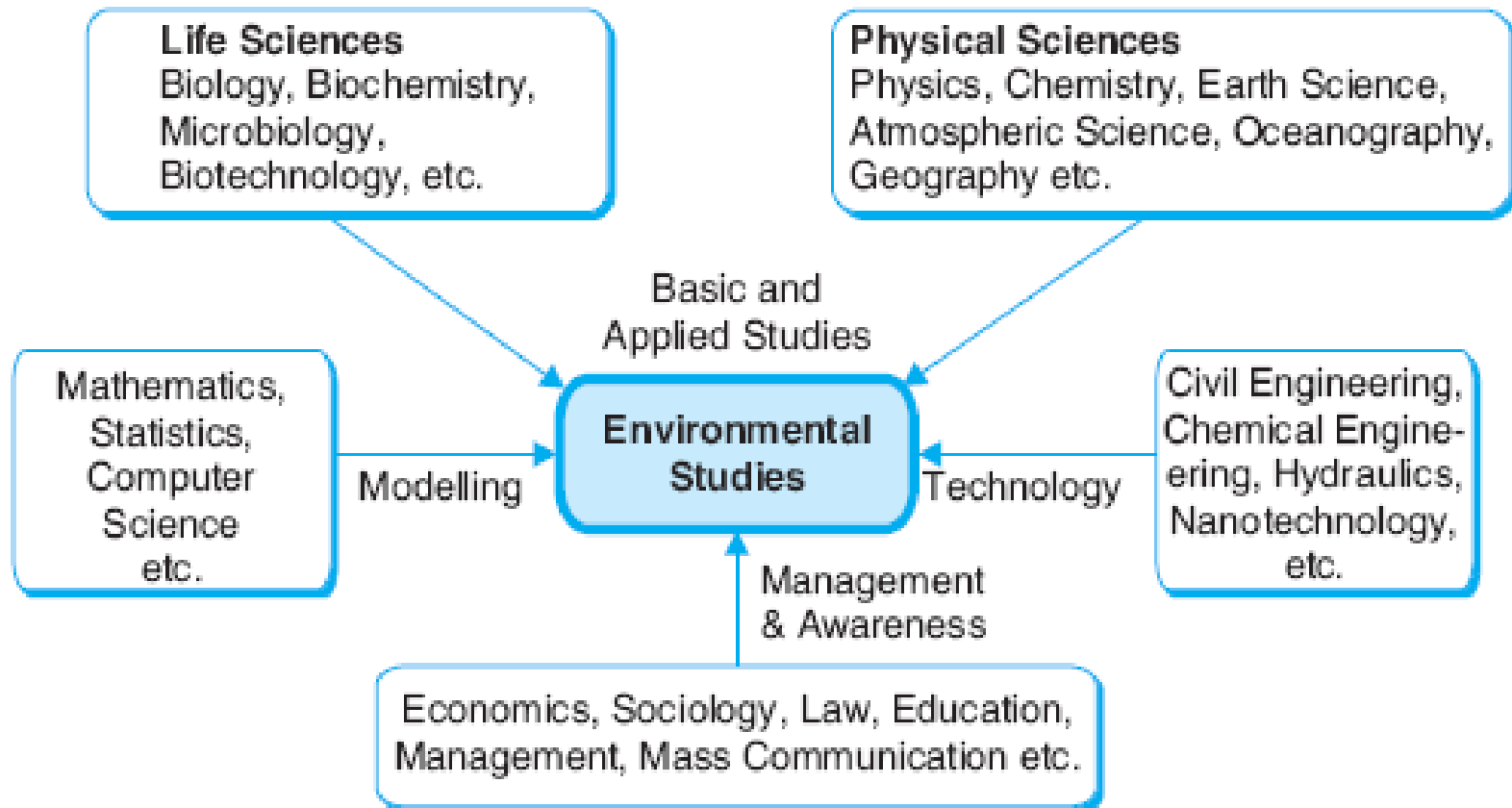


Fig 1.2 Multidisciplinary nature of environmental studies.

NEED FOR PUBLIC AWARENESS

Public awareness- making the people conscious, concerned about various aspects of environment.

In India public awareness about the environment protection is in its infant stage.

- Any government at its own level can not achieve the goal of sustainable development until the public is made aware about the complexities of environment or environmental crises. The public must know about the fact that if we are degrading our environment we are actually imbalancing our ecosystem.
- Our country has witnessed many successful environmental movements which are a results of awareness e.g. Narmada Bachao Andolan, Chipko movement.

“if you plan for one year, plant rice, if you plan for 10 year plant trees & if you plan for 100 years, educate people”.

Reasons for Environmental Ignorance-

- The matter concerned with environment protection are often considered anti- development.
- Our education system failed to integrate the environmental aspect in different courses.
- Illiteracy in people.
- Our policy makers do not incorporate environmental aspect with in their policies.

Methods adopted for Public awareness

- Through education
- Mass media
- Celebrating Environmental events
- Rewards (Indira Priya Darshani Vriskha Mitra Award)
- Training programme or workshop
- NGO's plays an important role to create awareness in the people and also act as an effective link between Government and Local people. E.g. Kerla shastra shahitya parishad, Environment society of Chandigarh

NOBEL PEACE PRIZE, 2004 FOR ENVIROMENTALIST

The 2004 Nobel Peace Prize was awarded to Kenyan Environmentalist **Wangari Maathai** for her contribution to sustainable development, democracy and peace. This is the greatest recognition given to the cause of environment at international level. The Norwegian Nobel Committee, while awarding the prize, expressed the views *“Peace on Earth depends on our ability to secure our living Environment”*.



Maathai, Kenya's Deputy Environment Minister is the founder of Kenya based **Green Belt Movement**. This movement comprising mainly of women has planted about 30 million trees across Africa. This has helped in slowing desertification, preserving forest habitats for wildlife and food for future generations and has helped combat poverty.

Maathai has given a beautiful slogan *“When we plant new trees, we plant the seeds of peace.”*

Environmental Calender

World Wetland Day	February 2
World Forest Day	March 21
World Day for Water	March 22
World Meteorological Day	March 23
Earth Day	April 22
International Biodiversity Day	May 22
Anti-tobacco Day	May 31
World Environment Day	June 5
World Ocean Day	June 8
World Population Day	July 11
Ozone Week	Sept. 16–23
World Car-free Day	Sept. 22
Green Consumer Day	Sept. 28
World Farm Animal's Day	Oct. 2
World Habitat Day	Oct. 3
World Animal Welfare Day	Oct. 4
Wildlife Week	Oct. 1–7
World Conservation Day	Oct. 24
International Day for Natural Disaster Reduction	Oct. 13
International Day for Biological Diversity	Dec. 29