

Environment



- Environment is ‘a word which describes, in the aggregate, all of the extrinsic (external) forces influences and conditions, which affect the life, nature, behaviour and the growth, development and maturation of living organisms’.
- ‘Environment covers all the outside factors that have acted on the individual since he began life’.



- Environment is the aggregate of physical, chemical, biological and social components on Earth which are capable of causing direct or indirect effects in the short or long term on living and non-living things and their interactions and activities.
- Based on this environment is defined as the sum of total of water, air and land and the inter-relationship that exist among them and with the human beings, other living organisms and materials.

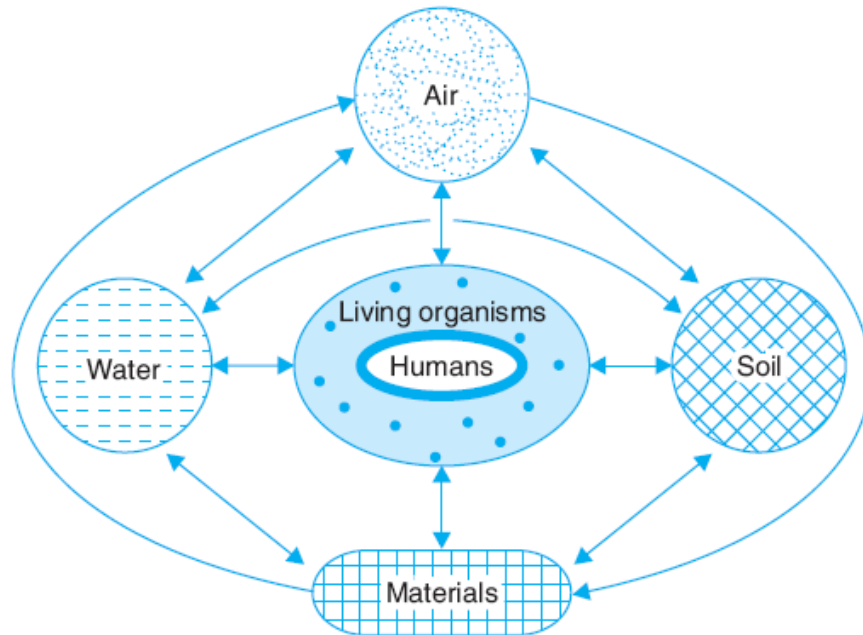


Fig. 1.1 Concept of Environment: air, water, land, living organisms and materials surrounding us and their interactions together constitute environment.

Multidisciplinary Nature of Environmental Studies



- The study of environmental components is multidisciplinary in nature. Since it includes all disciplines such as science, humanities, commerce, meteorology, climatology, geography and other disciplines.
- Environmental studies is a multidisciplinary programme created to promote the study of our natural surroundings.

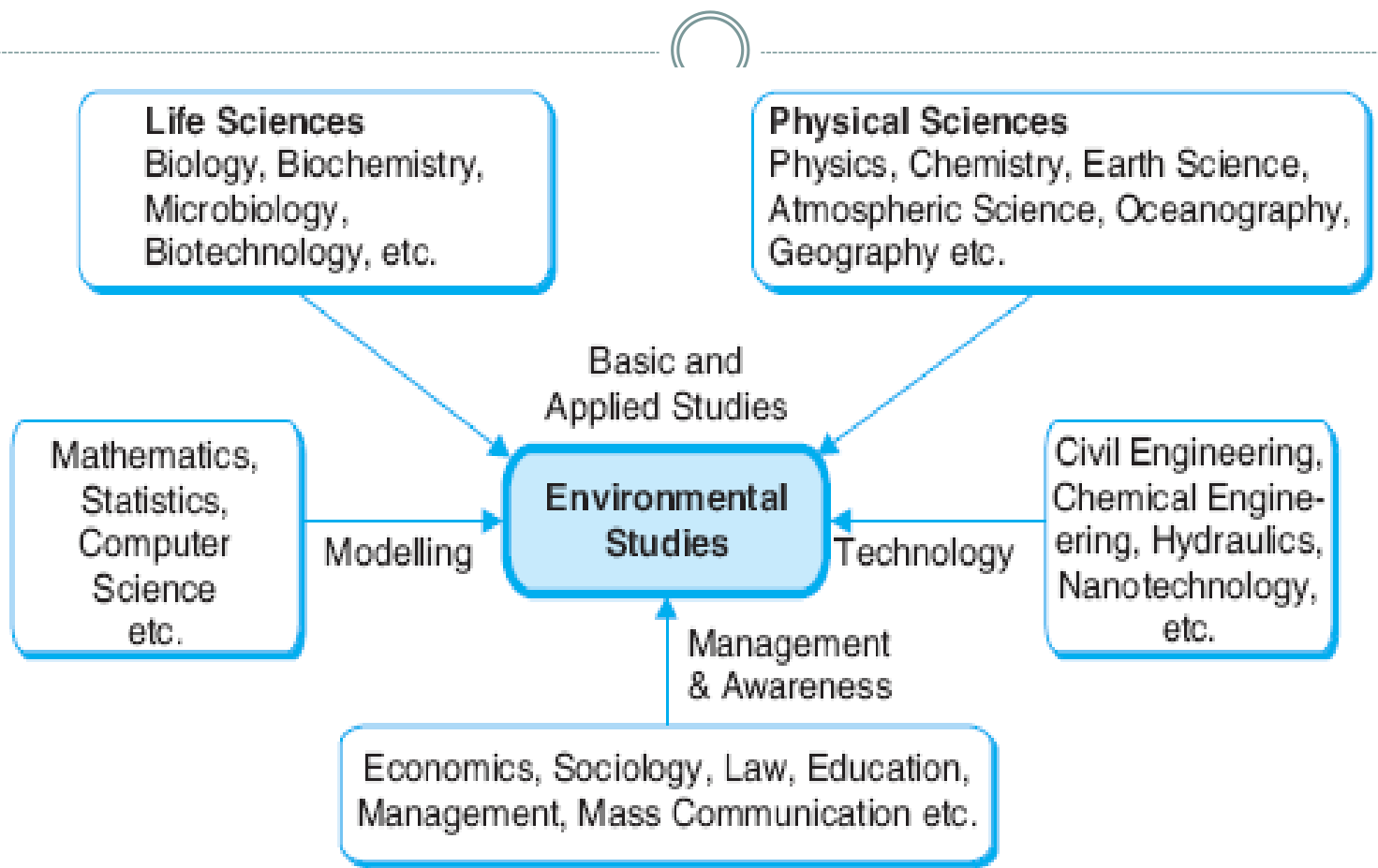


Fig 1.2 Multidisciplinary nature of environmental studies.



- Life sciences including botany, zoology, microbiology, genetics, biochemistry, biotechnology help in understanding the biotic components and their interactions.
- The physical and chemical structure of the biotic components and energy transfer and flow are understood with the help of basic concept of physics, chemistry, atmospheric science and oceanography.
- Mathematics, statistics and computer science serve as effective tools in environmental modelling and management.



- Economics, sociology and mass communication provides the input for dealing with socio economic aspects associated with various developmental activities.
- A synthesis with environmental engineering, civil engineering and chemical engineering form the basis for various technologies dealing with the control of environmental pollution, waste treatment and development of cleaner technologies that are important for protection of environment.
- Environmental laws provide the tools for effective management and protection of the environment.

OBJECTIVES OF ENVIRONMENTAL STUDIES



- ❑ Creating the awareness about environmental problems in the students.
- ❑ Giving basic knowledge about the environment and its related problems to the students.
- ❑ Developing an attitude of concern for the environment amongst the students.
- ❑ Motivating students to participate in environment protection and environment improvement.
- ❑ Acquiring skills to help the concerned individuals in identifying and solving environmental problems.

SCOPE OF THE ENVIRONMENTAL STUDIES



Scope of the environmental studies is broad based and it encompasses a large no of areas and aspects broadly listed below.

- 1. Natural resources—their conservation and management
- 2. Ecology and biodiversity
- 3. Environmental pollution and control
- 4. Social issues in relation to development and environment
- 5. Human population and environment



- **Natural resources-conservation:-** Natural aspects such as forests contribute towards maintaining a balance in the environment, managing and maintaining of forests and wild life is an important task under natural resources conservation.
- **Ecosystem structure and function:-** The study of the ecosystem mainly consists of the study of the processes that link with the biotic components to the non living (or) abiotic components.



- Environmental pollution and control:- With the knowledge of the environmental science one can look for methods to control pollution and manage waste effectively.
- Environmental management:- There are several independent environmental consultants working with the central and state pollution control boards. These consultants offer advice related to environment problems and their solutions. The consultants involved in policy making, pollution control and maintenance of ecological balance



- **Research and development:-** With increase in public awareness, regarding environment issues, there is tremendous scope for research and development in this field. They conduct research studies in order to develop theories of monitoring and controlling environment.
- **Environmental journalism:-** There is an increasing demand for people who can report on environment issues to generate awareness among people. Environmental journalism is an emerging field which helps in bringing environmental problems to public notice.



- **Industry:-** Environmental scientists work towards maintaining ecological balance, conservation of bio diversity and preserve the natural resources. Rapid industrialization is increasingly degrading the environment to minimize this, there is a growing trend towards manufacturing of “green” goods and products.

NEED FOR PUBLIC AWARENESS



- Environmental pollution is effecting on plant, animals and human life. The soil, minerals, water, fuel, plants and animal resources are being depleted and climatic changes, desertification and floods are becoming drastic.
- More over, the human population is growing faster than ever and creating more pressure on the environment.
- More of the environmental problems are global in nature therefore every citizen of the world needs to be aware and actively participate in protecting in protecting global environment for participation, public awareness is essential.

OBJECTIVES OF PUBLIC AWARENESS



- It can be introduced as a course in school and colleges. It is the most successful method of propagating environmental awareness.
- This course spread awareness regarding the protection of the environment.
- A government at its own level cant achieve the goals of sustainable development until the public has a participatory role in it.
- The public has to be educated about the fact that if we degrading our environment we are actually harming our own selves.

THROUGH MASS MEDIA



- Mass media as news papers, magazines, radios, t v etc., can play an important role in educating the masses regarding environmental problems and issues.
- Through organizing seminars and conferences, organizing meeting seminars, and conferences at various levels help in spreading environmental information to general public.
- Awareness can also be spread by organizing various competitions on environmental problems, non conventional energy sources etc., such competitions may also help in disseminating information regarding various environmental issues.

ENTERTAINMENT



- Environmental awareness can also be propagating through folk songs, street plays, documentaries etc.,

IMPORTANCE OF ENVIRONMENTAL STUDIES



- 1) Environmental studies helps maintain ecological balance by providing a basic operating knowledge of environmental system and processes.
- 2) It gives information regarding the changes that takes place due to anthropogenic factors and helps gain skills of analysing various environmental system and the effect of human activities on them.
- 3) Environmental studies help to achieve sustainable development and understand the relationship between development and the environment.
- 4) This discipline helps to educate people regarding their duties towards environmental protection.



- 5) Environment is one subject that is actually global in nature.
- 6) Environmental study deals with the analysis of the processes in water, air, land, soil, and organism which leads to pollution (or) environment degradation.
- 7) It also deals with the most important issues like safe and clean drinking water, hygienic living conditions, clean and fresh air, healthy food for man and for development.
- 8) The discipline provides us with basic knowledge of the environment and various environmental issues. It examines the scientific basis for environmental and social concerns about our present energy needs, global climate changes, toxic emission and waste disposal.



- 9) It also provide knowledge about the development and utilisation of energy resources and the role of public policy there in.

- 10) Environmental law, business administration and environmental engineering are emerging as new career opportunities for environment protection and management.



- 11) Environmental studies also aims to protect bio diversity growth in human population and the resulting increase in material consumption and technological development have increased the rate and scale of degradation of the environment.
- 12) The concepts from environmental studies can be applied to the study of agriculture and the design of sustainable production system.
- 13) With the pollution control laws becoming more strengthen, are finding it difficult to dispose off the produced wastes.

OUTCOMES OF ENVIRONMENTAL STUDIES



- ❑ Illustrate Depleting Nature of Environmental Resources, Global Environmental Crisis and the concept of Ecosystem
- ❑ Adapt to the concept of 3R (Reuse, Recovery, Recycle).
- ❑ Suggest different control measures related to Environmental Pollution.
- ❑ Illustrate and analyse various Case Studies related to Environmental Legislation.
- ❑ Demonstrate the working of Renewable Energy sources.
- ❑ Illustrate the Techniques of Disaster Management and Green Building



Thank you