

MECHANICAL ENGINEERING DEPARTMENT

LECTURE NOTES

FOR

THE SUBJECT

ENVIRONMENTAL STUDIES

3RD SEMESTER

By

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CHAPTER-1: THE MULTIDISCIPLINARY NATURE OF ENVIRONMENTAL STUDIES

INTRODUCTION

→ The word environment is derived from the French word 'Environ' which means to encircle or surround.

→ Thus our environment can be defined as the social, cultural and physical condition that surround, affect and influence the survival, growth, and development of people, animals & plants.

→ This broad definition includes the natural world and the technological environment as well as the cultural and social context that shape human lives.

SEGMENT OF ENVIRONMENT

Environment consist of four segment.

(a) Atmosphere - Blanket of gases surrounding the earth.

(b) Hydrosphere - Various water bodies present on the earth.

(c) Lithosphere - Contain various types of soils and rock on the earth.

(d) Biosphere - Composed of all living organism and their interaction with the environment.

MULTIDISCIPLINARY NATURE OF ENVIRONMENTAL STUDIES

(1) The environmental studies is a multidisciplinary science because it comprises various branches of studies like chemistry, physics, medical science, life science, Agricultural, public health, etc.

(2) It is the science of physical phenomenon in the environment. It studies about the sources, reactions, transports, effect and fate of physical & biological species in the Air, water, soil and the effect of from human Activity upon these.

(3) This subject educate the student to appreciate the complexity of environmental issues and citizens & experts in many field.

SCOPE OF THE ENVIRONMENTAL STUDIES

Environmental studies as a subject has a wide scope and include a large no. of Areas & Aspects.

- (a) Natural Resource
- (b) Ecology & Biodiversity
- (c) Environmental pollution & Control.
- (d) Human population.
- (e) Social issues.
- (f) Research & development in environment
- (g) Green Advocacy
- (h) Green marketing
- (i) Green media
- (j) Environmental Consultancy.

IMPORTANCE OF ENVIRONMENTAL STUDIES

1. Environmental issues being of international importance.
2. Problem cropped in the wake of Development.
3. Explosively Increase in pollution.
4. Need for an Alternative solution.
5. Need to save Humanity from Extinction.
6. Need for wise planning of Development.

NEED FOR PUBLIC AWARENESS

1. Growing Population.
2. Poverty
3. Environment degradation
4. Agricultural growth
5. Need to increase ground water
6. Development & Forests.
7. Degradation of Land
8. Evil consequence of Urbanization
9. Air & water pollution.

ELEMENTS OF ENVIRONMENT

Environment is constituted by the interacting system of physical, biological & cultural element interrelated in various ways, individual as well as collectively.

These elements may be explained as under.

(a) Physical element

There are air, space, Land forms, water bodies, climate, soils, rocks & minerals. They determine the variable character of the human habitat, its opportunities as well as limitations.

(b) Biological elements

Biological element such as plants, animals, microorganisms, & men constitute the biosphere.

(c) Cultural Element

It such as economics, social & political elements are essentially man made features which make cultural milieu.

SOME INSTITUTION IN ENVIRONMENT

→ Managing natural resources require efficient institution at all level i.e. Local, national & global. Among the large no. of institution that deal with environment protection & conservation.

→ A few well known organization include government organization like the BSI & ZSI & NGO like BNHS, WWF-1 etc.

- The Bombay Natural History society (BNHS), Mumbai
- World wide fund for nature - 1, India (WWF-1)
- Centre for science & environment (CSE), New Delhi.

- Zoological survey of India (ZSI)
- Wild life Institute of India (WII), Dehradun.
- Botanical Survey of India (BSI)
- The Madras Crocodile Bank Trust (MCBT)
- Bharati Vidyapeeth university (Pune).
- Centre for Environment education (CEE)

