

SNS College of Engineering An Autonomous Institution Accredited by NAAC – UGC with 'A' Grade Approved by AICTE, New Delhi & Anna University, Chennai



ENVIRONMENT, ECOSYSTEM AND

BIODIVERSITY DEFINITION, SCOPE AND

IMPORTANCE

Environmental science is the study of nature and the facts about environment. Basically environment can be defined as "all the social, economical, physical & chemical factors that surrounds man" (or) "all abiotic and biotic components around man-all living and non living things surrounds man".

Environment Components can be divided into biotic and abiotic components.

According to ancient man the environment was the Panchaboodhas (i.e) air, water, land, sky and energy. The human were disciples of nature. They were able to protect themselves from harmful one and protect the others. But according to modern man the env. is only air land and water. Exploitation of various earth resources to satisfy the increasing needs of human population has resulted in 1) depletion of various resources of earth 2) pollution.

Principles of environmental education:

- Examine the major environmental issues
- discover the root cause
- develop problem solving skills
- promote co-operation in solving problems
- emphasis active participation in prevention and solution to problems.

Scope of environmental science:

- Studying the interrelationship between the components of env.
- Carrying out impact analysis and env. Audit
- Preventing pollution from existing and new industries
- Stopping the use of biological and nuclear weapons
- Managing unpredictable disasters etc.

Public awareness:

Environmental Pollution or problems cannot be solved by mere laws. Public participation is an important aspect which serves the environmental Protection.

Public awareness of environmental is at infant stage



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- 30-40% of public of developing country are aware of environmental. Problems but they do not bother about it.
- Ignorance and incomplete knowledge has lead to misconceptions
- Development and improvement in std. of living has lead to serious environmental disasters
- Debate on environmental Issues are treated as anti-developmental

Reasons for environmental Ignorance:

- science, technology and economics failed to integrate the knowledge on environmental Aspects in curriculum
- the decision makers do not process environmental Angle of decision making
- consideration of economic growth, poverty eradication has lead to environmental Degradation
- only few developmental activities are made considering the environmental Aspects.

Need For Public Awareness:

The United Nations Conference on Environment and Development held at Reo de Janeiro in 1992 (popularly known as "Earth Summit") and world summit on sustainable development at Johannesburg in 2002, have highlighted the key issues of global environmental concern. They have attracted the attention of people.

Any government at its own cannot achieve the goals of clear environment until the public participate in action. Public participation is possible only when the public is aware about the ecological and environmental issues. Eg. Ban- the littering of polythene.

Methods to propagate environmental Awareness:

- 1. Among students through education introducing environmental studies in the curriculum.
- 2. Among public through mass media- environmental programmmes through TV, radio etc.
- 3. Among decision makers, planners, leaders etc.

Role of NGOs

- 1. Advise the government in interacting with ground level people
- 2. Organize public meetings to create environmental awareness
- Eg. Recent report of "centre for science and environment" on permissible limits of pesticides in cola drinks.



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Public awareness is needed in the area

- 1. study of natural resources-conservation and management
- 2. ecology and biodiversity conservation
- 3. environmental Pollution and prevention
- 4. social issues related to development and environment
- 5. human population and environment.

Introduction

- Global warming is defined as the overall warming of the planet, based on average temperature over the entire surface.
- Modern technology is based up on a number of manufacturing units exploiting the natural resources.
- Due to rapid industrialization and fast population growth we are suffering from an unwanted danger of environment problem.
- Science has given us atomic energy, comfortable communication systems etc.. for the betterment of the society but at the same time the life has become uncomfortable and tense full due to the presence of same devices. The pollution is accompanied by the gradual rise in global atmospheric temperature, which is known as global warming.
- This study deals with Global warming effects and Climate change

OBJECTIVES OF EVS

- Awareness: about our environment and its allied problems
- Knowledge: acquire basic understanding and experience about our environment and associated problems
- Attitude: concern for the environment and active participation in its improvement and protection
- Skill: identifying and solving environmental problems
- Participation: providing opportunity to be involved in resolving the environmental problems

MAJOR GLOBAL ENVIRONMENTAL PROBLEMS

- Global Warming
- Ozone Layer Depletion
- · Acid Rain
- Deforestation
- Loss of Biodiversity
- Water Pollution
- Desertification
- Waste disposal
- Rapid population growth
- Depletion of non-renewable energy sources
- Food and Water shortage