

MODULE-1

MULTIDISCIPLINARY NATURE

Introduction

The major challenges in environmental sciences require multidisciplinary approach. The components of this approach include biology, chemistry, physics, geology, anthropology, health, economics, statistics, engineering, computers and philosophy. The environmental studies are basically an applied science which focuses on sustainable living of the entire civilisation with the available limited natural resources.

Definition

The word 'environment' comes from French word 'environner', which means encircle or surrounds.

Scope

We are dependent on nature for all our needs, that sustainable living is not possible without protecting it. The wide scope of this can be realised as this study deals with the practical aspects of life such as pollution, population, natural resources, ecology, biodiversity, urbanisation etc.

In recent years, new training, new organisations and new funding have made environmental research a reality. In addition, every new project undertaken has to be assessed for its impact on the environment without which no clearance is given by the concerned body. Hence the need for environmental consultants is of great value. The scope of environmental studies extends to lawyers who can plead on environmental issues such as wildlife protection, pollution of water, air and land. With increasing emphasis on eco-friendly products, the scope of environmental managers and auditors are enormous.

Importance

The ancient traditional culture anywhere, had the emphasis on protection of nature and other living beings. In some culture, nature was even worshipped. Only in the past 100-150 years this has changed and instead of protecting, we have started exploiting nature. The technological innovations and the consumer society are the reasons the natural resources are being depleted at a faster rate than it can be replenished. Hence the importance of the environment studies is mandatory which is further realised by the following points:

- 1) The study gives the awareness about the environment and the basic knowledge about it.
- 2) It is a multidisciplinary subject which includes all other sciences.
- 3) The nature of the subject encourages collaborative research thus engaging the best brain power across various fields.
- 4) It makes the students think about their non-sustainable life style in terms of using the natural resources, and encourages them to make a concise decision in changing the same
- 5) The study also makes the students to give due recognition to the impact on environment in their future projects.

Need for awareness

Awareness shapes a hierarchy of values, and at the same time has an influence on the sense of responsibility for inappropriate choice of values and indifference towards wrong doing.

Public awareness of the environment means the ability to emotionally understand the surrounding world, including the laws of the natural environment, sensitivity to all the changes occurring in the environment, understanding of cause-and-effect relationships between the quality of the environment and human behaviour, an understanding of how the environment works as a system, and a sense of responsibility for the common heritage of the Earth, such as natural resources - with the aim of preserving them for future generations.

To know and understand what is good and what is better, and at the same time commit a wrong doing, is socially more injurious than committing a wrongdoing in ignorance. Therefore, building, in a society, a new system of values with the aim of creating environmental public awareness, should include systematic training activities aimed at increasing the basic knowledge of ecology and environmental protection, and, at the same time, heightening the sensitivity of individuals to nature.

Environmental public awareness comes from a result of general knowledge, specialist knowledge of a particular problem and also sensitivity to, and a sense of, responsibility for the environment.

Environmental public awareness is shaped throughout the whole life of particular people living in a given local community, performing specific work and having definite personal characteristics which have a deciding effect on their sense of responsibility and ability to emotionally perceive the environment as having value in itself. The knowledge acquired during school education and then systematically improved in adulthood, is an essential factor in

heightening the environmental awareness of an individual and, at the same time, an indispensable condition for the development of a pro-ecological lifestyle.

What shapes and increases the environmental public awareness?

- Schools and academic manuals,
- messages transmitted through mass media,
- children, youth, daily, popular and specialist press,
- television and radio programmes,
- films, including documentary films,
- Internet,
- own experience and observations,
- work for organizations, and,
- social status of the family and affluence.

To sum up, environmental public awareness depends on the level of environmental awareness of particular members of the community which is affected by many factors, including cultural, ethnic and religious connections, organization of family, professional and social life, type and level of education, social status, etc.

Environmental Institutes

- The Bombay Natural History & Society established in 1883 at Mumbai. It is Wild Life Research Institute. They publish Journal of Natural History.
- World Wide Fund for Nature India (1969) at New Delhi. Wild Life Education, Awareness and Nature clubs and programs for children.
- Centre for Science and Environment, New Delhi. Publishing books, poster, video games, conducting workshops campaigns and seminars on biodiversity. Down to Earth.
- CPR Environmental (1968) Education Centre at Madras (Chennai) is conducting workshops, seminars, training programs for NGOs, teachers, judges, lawyers, youth and children.
- Centre for Environmental Education (CEE, 1989) at Ahmadabad conducting training programmes.
- Bharathi Vidyapeeth Institute of Environmental Education & Research (1989) at Pune, conduct Bachelor & Post graduate degree courses and Ph.D. They publish hand books, text books and develop curriculum.
- Uttarakhand Seva Nidhi (Almora) organized training program for students, teachers and

officials on sustainable development.

- Kalpavarksh, Pune is organizing awareness programs, nature walks, National Biodiversity Strategy and Action Plan developed in 2003 and R&D,
- **Environmentalists Global Level**
- Charles Darwin expressed that the Man's relationship with other species based on evolution. And the relationship between habitats and species.
- Ralph Emerson expressed that wild life should be preserved. Few people do not care for nature they sell it for small amount.
- John Muir (USA) saved the great ancient tree "Sequoia" tree in California forest. In the year 1980 formed Sierra club which is major conservation at National Forest Organization in USA.
- EO Wilson is an Entomologist envisioned that biological diversity was a key to human survival on earth.
- Rachel Carson, writer, scientist, and ecologist, grew up simply in the rural river town of Springdale, Pennsylvania. She wrote a book 'Silent Spring'. The Govt. has changed policies and created public awareness according to her recommendation. Rachel Carson (1960) published many articles on effects of pesticides on nature and mankind.

National level: Authors

S.No	Environmentalists	Activity
1	Mrs. India Gandhi	Prime Minister of India instrumental in introducing the concept of environmental protection in the Constitution of India as a fundamental duty
2.	Mrs. Maneka Gandhi	Formerly environment minister has worked for protection of wild life.
3.	Sunderlal Bahuguna	Chipko movement, Teri bachao Andolan.
4	Smt. Medha Patkar, Mrs. Arundhati Roy	Narmada Bachao Andolan.
5	Magsaysay award Sh.Raender Singh	Water Conservation Efforts
6.	Salim Ali	Ornithologist, famous work

		on Indian Birds
7	Sh.Anil Aggarwal	Published Citizen Report. Founder Chairman of Centre for Science & Environment.
8.	Dr.MS.Swaminathan	Protection of Biodiversity, Rural Development and Sanitation. Research on protection of natural resources.

- India still yet to do for achieving healthy environment.
- Henry D. Thoreau said that “ What is the use of a beautiful house if you don’t have decent planet to put it on? We require good place to enjoy our nature.

