



INCULCATION OF MULTIDISCIPLINARY NATURE OF ENVIRONMENTAL EDUCATION AS PER NEP-2020

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ABSTRACT

Environmental Education (EE) is an integrated process which deals with man's interrelationship with his natural and manmade surroundings, including the relation of population growth, pollution, resource allocation and depletion, to the total human environment. Environmental Education (EE) is a study of the factors influencing ecosystems, mental and physical health, living and working conditions, decaying cities and population pressures. Environmental Education (EE) is intended to promote among citizens the awareness and understanding of the environment, our relationship to it and the concern and responsible action necessary to assure our survival and to improve the quality of life. NEP-2020 focus on environmental education (EE) will include areas such as climate change, pollution, waste management, sanitation, conservation of biological diversity, management of biological resource and biodiversity, forest and wildlife conservation, and sustainable development and living. The global education development agenda reflected in the Goal 4(SDG4) of the 2030 Agenda for sustainable development, adopted by India in 2015-seeks to 'ensure inclusive and equitable quality education and promote lifelong learning opportunities for all' by 2030. Towards the attainment of such a holistic and multidisciplinary education, the flexible and innovative curricula of all School education and HEIs shall include credit-based course and projects in the areas of community engagement and service. Its second aspect covers teaching-learning about environment. That is important, for man has to tackle his environment every day for his survival, sustenance and prosperity. As child grows, he involves himself in many activities, he moves about in his neighbourhood and in the community. It is, therefore, in one's own interest that one learns about environment. Environment is a source of happiness to man and his happiness will be heightened, all the more, if he learns to love and appreciate nature. The third aspect of environmental education (EE) is education for environment. In present century, environment has undergone revolution. Population explosion has taken place. Physical resources are being increasingly depleted. Technological growth has been phenomenal resulting in an unprecedented air, water, noise pollution. If we don't take any precaution our own existence will be in danger. It has become very necessary to adopt preventive and curative measures.

Key-Words: Environmental education (EE), Environmental problems, Environmental Issues and solution, Local versus Global, Multidisciplinary nature of environmental education.

Introduction

Environment means surroundings. It may be considered as the aggregate of surrounding things or conditions or influences affecting the life and development of an organism. It is also a state of being environed. It carries different meanings as habitat, locale, milieu etc. It is not merely air, water, soil, trees, rivers and other associated biosphere that forms our environment but also the social, cultural and economic conditions under which we live.

When a newly born child opens eyes it just sees a limited region and as he/she grows, he/she sees and interacts with many living and non-living things. He talks and plays with his parents, brothers, sisters and others. He looks at beautiful moon, twinkling stars which are very very far away. His extent of environment increases as he grows. NEP-2020 focus on environmental education (EE) will include areas such as climate change, pollution, waste management, sanitation, conservation of biological diversity, management of biological resource and biodiversity, forest and wildlife conservation, and sustainable development and living. The global education development agenda reflected in the Goal 4 (SDG4) of the 2030 Agenda for sustainable development, adopted by India in 2015-seeks to 'ensure inclusive and equitable quality education and promote lifelong learning opportunities for all' by 2030. Towards the attainment of such a holistic and multidisciplinary education, the flexible and innovative curricula of all School education and HEIs shall include credit-based course and projects in the areas of community engagement and service.

Today, we can say that extent of environment is very vast and endless. For few, it may be just a limited region while for others it may extend up to thousands of kilometres away. For Neil Armstrong and others, who have landed on moon the environment may extend upto surface of the moon. Thus, the extent of environment is a function of interest.

Objectives of Environmental Education (EE):

Because of the breadth and depth of environmental concepts and their dispersion through-out the curricula at various levels, categories of environmental education (EE) objectives may be outlined as follows:

- (1) **Awareness:** The first and perhaps the most important objective is to help students, teachers, parents, social groups and individuals to acquire an awareness of and sensitivity to the environment, its problems and interrelationship between human beings and environment.
- (2) **Social Knowledge:** To help students, teachers, parents, groups and individuals to acquire a basic understanding of how the environment functions, how people interact with the environment and how issues and problems dealing with the environment arise and how they can be resolved. To help various groups and individuals to acquire a set of values and feelings of concern for the environment and the motivation for actively participating in environmental improvement and protection.
- (3) **Skills:** To help students, teachers, parents, social groups and individuals to acquire the skills needed to identify, investigate and contribute to the resolution of environmental issues and problems.
- (4) **Participation:** To help and provide students, teachers, parents, social groups and individuals with an opportunity to be actively involved at all levels in working towards resolution of environmental problems.

Principles of environmental Education (EE)

Environmental education must:

1. Consider the environment in its totality-natural and man-made or built, technological and social economical, political, moral, aesthetic etc.; cultural-historical,
2. Be a continuous life long process, beginning at pre-school level and continuing through all formal and non-formal stages of education;
3. Be multidisciplinary in its approach, drawing on the specific content of each discipline in making possible a holistic and balanced perspective;
4. Examine environmental issues from local, regional, national and international points of view so that learners receive insights into environmental conditions in other geographical areas;

5. Focus on current and potential environmental situations, while taking into account historical perspectives;
6. Promote the value and necessity of local, national and international cooperation in the prevention and solution of environmental problems;
7. Explicitly consider environmental aspects in plans for development and growth;
8. Enable learners to have a role in planning their learning experiences and provide an opportunity for making decisions consequences; and accepting their
9. Relate environmental sensitivity, knowledge, problem-solving skills and values clarification to everyone;
10. Help learners to find real causes of environmental problems;
11. Utilize diverse learning environments in teaching or learning about and from the environment with due emphasis on practical/experimental activities and first-hand experience.

Environmental Education (Meaning and Scope):

Environmental Education (EE) is an integrated process which deals with man's interrelationship with his natural and manmade surroundings, including the relation of population growth, pollution, resource allocation and depletion, to the total human environment. Environmental Education (EE) is a study of the factors influencing ecosystems, mental and physical health, living and working conditions, decaying cities and population pressures. Environmental Education is intended to promote among citizens the awareness and understanding of the environment, our relationship to it and the concern and responsible action necessary to assure our survival and to improve the quality of life.

We observe beautiful moon, twinkling stars, flowers, trees, rivers, ocean, lakes, insects, birds, wild life etc. etc. We also observe TajMahal, KutubMinar, caves of Ajanta & Ellora, Khajuraho temples, Sanchi Stup etc. They all fascinate us. Why shall they be not used in their natural setting as a teaching- learning aid? Thus, a lot of teaching-learning can be carried through environment. This we may consider as the first aspect of Environmental education (EE).

Its second aspect covers teaching-learning about environment. That is important, for man has to tackle his environment every day for his survival, sustenance and prosperity. As child grows, he involves himself in many activities, he moves about in his neighbourhood and in the community. It is, therefore, in one's own interest that one learns about environment. Environment is a source of happiness to man and his happiness will be heightened, all the more, if he learns to love and appreciate nature.

The third aspect of environmental education (EE) is education for environment. In present century, environment has undergone revolution. Population explosion has taken place. Physical resources are being increasingly depleted. Technological growth has been phenomenal resulting in an unprecedented air, water, noise pollution. If we don't take any precaution our own existence will be in danger. It has become very necessary to adopt preventive and curative measures.

History of Environmental Education (EE) :

Environmental education (EE) was practised in ancient times too, though more attention under the term 'nature' was paid to the physical, chemical and biological factors. The Indo Aryans lived in complete harmony with nature and enjoyed its beauty. Both in the pre-Vedic and the Vedic periods the Aryans sang hymns in deep appreciation of nature. The writings of ancient philosophers namely Aristotle etc. and many religious preachers are environmental in nature. In the present century emphasis has shifted to the social environment also.

A conference on 'Human Environment' was held at Stockholm in 1972. The delegates of the conference recommended the development of Environmental education (EE) as one of the most powerful instruments in an all-out attack on the world's environmental crisis. Since then, it has provided a lead to national and international agencies for developing and implementing programmes for Environmental education (EE). In 1975, UNESCO and the United Nations Environment Programme (UNEP) launched the International Environmental Education Programme (IIEP) which was designed to promote reflection and action as well as international cooperation in

this field. Through its activities the IEEP has directly involved large number of countries from all regions of the world.

The world's first intergovernmental conference on Environmental Education (EE) was organised by UNESCO in cooperation with the United Nations Environment Programme (UNEP) in Tbilisi, Georgia (the then USSR) in October, 1977. The Tbilisi declaration noted the harmony and consensus which had prevailed and the unanimous accord in the the important role of environmental education (EE) in the preservation and improvement of the world's environment, as well as, in the sound and balanced development of the world's communities.

An International conference on Environment Education (EE) was held at New Delhi in the month of December, 1981. Some of the recommendations of the conference were as follows:

- Environmental Education (EE) Programmes in most of the countries have yet to become fully established, therefore, Governments should be urged to emphasise environmental issues in the educational scheme.
- It is realised that deeper understanding of the environment prevailed in the Vedic period and that Mahatma Gandhi had included this concept in the basic education scheme. A review of the strategies for creating environmental awareness in the past could give an insight into the approaches necessary in the future.
- Environmental action needs as pre-requisite commitment at the individual and national level. However, a clear national policy on environment is thus essential and without this curriculum development for Environmental education (EE) would lack directions and purpose.
- The main hurdle at present appears to be teacher training programmes in Environmental education (EE). Appropriate teacher training programmes and materials for their use must be started without delay in order to implement EE programmes in all the schools.
- To be meaningful, Environmental education (EE) must relate to real world situations and should be linked to current development plans.
- The multidisciplinary nature of environmental education (EE) must be recognised and accepted.
- All sections of human society must be exposed to some form and measure of Environmental education (EE) for arousing their awareness, sensitivity and perception of environmental problems and thereby motivate them to get involved in the worthwhile environmental action programmes.

The United Nations Conference on Environment and Development (UNCED) popularly known as EARTH SUMMIT or RIO SUMMIT was held in June, 1992. It was an "historic moment for humanity" and it mobilised tens of thousands of citizens' worldwide to voice their concerns about future of the planet. The conference was the largest ever gathering of world leaders. Our the Prime Minister, Mr. P.V. Narsimha Rao had also addressed the gathering. The RIO declaration is adoption of agreement on environment and development. Today, in whole world awareness about environment has been created. many agencies have started educating people so that our environment is protected and conserved.

Why Environmental Education (EE)?

Since the evolution of human life on the earth, the interaction between man and environment is one of the essential aspects of human development. The sensitive relationship between them was operating harmoniously because the limited needs of our ancestors could not be from the surroundings themselves. The functioning of the nature was almost undisturbed because the number of human beings was small and their demands on the environment and its resources were also insignificant.

Man in the beginning sought only knowledge about his environment and was concerned about living with it peacefully but his actions afterwards led to exploitation of nature. The whole spectrum of his damaging activities is seen in the large-scale destruction of forests, loss of fertile soil, frequent floods, shortage of fuels, energy crisis, pollution of all types, extinction of some of the living species, poorly planned industrial and urban development and much more. Atmosphere concentrations of carbon-dioxide and ozone-depleting chemicals are expected to increase to give birth to many serious diseases. Due to global warming sea level will increase and scarcity of drinking water will be in the whole world besides many other problems. It has resulted in an overall environmental crisis, where-in the very survival of human species is threatened. In some areas human efforts have led to fast development resulting in environmental imbalance, while other areas still experience

environmental problems on account of under development. It seems that both the over development due to thoughtless planning and the under development due to shortage of resources are responsible for environmental deterioration. Man now looks at the environment with greed rather than for his needs. If the present trend continues, the world at the end of the present century will be much more crowded and polluted, less stable ecologically and more vulnerable to disruption than the world we live in now.

Multidisciplinary Approach

A multidisciplinary approach in education is a way of learning which gives a major focus on diverse perspectives and different disciplines of learning to illustrate a theme, concept, or any issue. It is the one in which the same concept is learned through multiple viewpoints of more than one discipline. It helps the students to gain perspectives and knowledge in different ways.

Environmental Education (EE) is multidisciplinary because it comprises various branches of studies like chemistry, physics, medical science, life science, agriculture and public health. It is the science of physical phenomena in the environment. Environmental Education (EE) deals with every issue that affects an organism. It is an applied science as it seeks practical answers to making human civilization sustainable on the earth's finite resources. The environment is constituted by the interacting systems of physical, biological and cultural elements inter-related in various ways, individually as well as collectively. These components are

- (1) **Physical:** include things like Space, landforms, water bodies, climate, soils, rocks and minerals. They determine the variable character of the human habitat, its opportunities as well as limitations
- (2) **Biological:** Plants, animals, microorganisms and human beings constitute the biosphere.
- (3) **Cultural:** Economic, social and political elements are essentially manmade features, which constitute the cultural milieu.

Multidisciplinary Nature of Environmental Education (EE)

Environmental education (EE) is crucial because they enable us to better understand our surroundings and the workings of nature. The utility of environmental education ' multidisciplinary nature is highlighted by a number of factors. They are as follows:

1. It aids in the gathering of knowledge about current environmental concerns. It gives us the information and abilities we require to address environmental issues like pollution, global warming, and climate change.
2. By giving a necessary comprehension of environmental systems and processes, it aids in the preservation of ecological balance.
3. It informs us of the environmental changes brought on by anthropogenic factors.
4. Additionally, it instructs us on how to evaluate various environmental systems and changes brought on by human activity.
5. Its objective is to protect and preserve biodiversity. It introduces us to various animal and plant species. It offers us many methods for preserving and protecting them.
6. It enlightens us to our duties in protecting the environment. Additionally, it alerts us to a number of environmental issues that demand immediate attention.
7. Environmental education (EE) also covers issues like reducing energy use, hazardous emissions, water usage, garbage disposal, and a host of other issues.
8. Studying environmental education (EE) allows people to interact and explore their natural environment. It helps people gain a better understanding of how people work, the natural world, and various environmental changes.

Inculcation of Environmental Education (EE) as per multidisciplinary approach (NEP-2020) the following points are included

- (1) Environmental Education (EE).
- (2) Environmental Problems and Concerns.

(3) Environmental containing points / themes:

- (i) Population and Environment.
- (ii) Resources- living (Biotic).
- (iii) Resources- Non-living (Abiotic).
- (iv) Human Health, Diseases and Environment Sanitation.
- (v) Socio- Economic and Political Development.
- (vi) Implications of Science, Technology Industry.
- (vii) Environmental Problems and Pollution.
- (viii) Conservation and Production.
- (ix) Quality of Life.
- (x) Environmental Ethics.

Environmental Problems, Issues as Local versus global and solution:

There are two fundamental approaches to solve environmental problems: the global and the local. Although the two complement each other, the tendency has been to emphasize the global. Even local issues are frequently interpreted in global terms. The local, immediate benefits of solutions to environmental problems are powerful examples to help empower students/teachers. An undue emphasis on global benefits may discourage rather than reinforce individual action. Locally focussed projects are more successful in motivating students. Such projects demonstrate to the students the value of their personal contributions to live in better harmony with nature.

All global problems arise locally somewhere and almost any local environmental issue can be interpreted in a global context. This can lead to a lack of balance in the concerns. For example, the global impact of automobile exhaust on the greenhouse effect is often more emphasized than the local effects of the automobile on air pollution, land use and water quality.

In Environmental Education (EE), the phrase "think globally, act locally" may not by itself convey the correct message for stimulating and maintaining individual responsibility and action. "Think locally, act locally" is an alternate philosophy that should be given equal attention. This expression places the results of individual action in a local context and emphasizes the role of a person in a local eco-system.

Conclusion

We all must realise our responsibility towards environment and appreciate the need for its We must the protection, preservation and conservation. We must understand that the environment cannot be exploited beyond certain limits. let us leave behind a good legacy of a healthy environment for our future generations. If we are interested to prepare environment conscious citizens it will be difficult to ignore the role of educational systems which are considered as well known pathways of disseminating knowledge and preparing better individuals. All over the world, people have realised the role of education in solving the environmental crisis. Today, education must have greater relevance to the environmental realities which may strengthen its ethical function.

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