Environmental Education
What and Why?

STRUCTURE
1.1 Introduction
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Environmental Education (EE) is a perspective or way of looking at the world around us. It is often said that good education is EE, implying that EE is not merely an add-on in terms of content, but a way of transforming education itself.

1.1

You have learnt in Module One that the word “Environment” includes everything—natural and man-made. The subject matter of environment thus permeates all other subjects and disciplines, it transcends all ages and stages of life. Environment is simply the world around us—starting with our skin and reaching out in all directions, in ever widening circles, until it embraces the universe.

So how does one educate about the environment? In other words, what is “environmental education”?

In this unit you will see how environmental education has been defined, and learn about the objectives and guiding principles of this field. You will also get an idea of how EE has been adopted by the government as well as non-government agencies in India, and what is the status and scope of the subject today.

1.2

On the completion of this unit, you should be able to:
- know the definition and goals of EE
- list the objectives and guiding principles of EE
- relate the evolution of EE in the context of India, and understand its current status.

1.3 EE: WHAT & WHY?

1.3.1 Definition and Goals of EE

There are many definitions of Environmental Education (EE). For our purposes, we could understand EE in the context of the definition given below:

Environmental education is a process aimed at developing a world population that is aware of and concerned about the total environment and its associated problems and which has the knowledge, attitudes, commitments and skills to work individually and collectively towards the solution of current problems and prevention of new ones.
The Ultimate Goals of EE are

- To enable people to understand the interdependence of all life on this planet.
- To increase people’s awareness of the economic, political, social, cultural, technological and environmental forces which foster sustainable development.

Objectives of EE
The first inter-governmental Conference on EE held at Tbilisi in 1977 established the objectives of EE. These are to develop the following qualities in individuals and social groups:

a. an awareness of the environment and its problems;
b. basic knowledge and understanding of the environment and its inter-relationship with man;
c. social values and attitudes which are in harmony with environmental quality;
d. skills to solve environmental problems;
e. ability to evaluate environmental measures and education programmes;
f. a sense of responsibility and urgency towards the environment so as to ensure appropriate actions to solve environmental problems.

Do you know where Tbilisi is? Why don’t you find out?

1.3.2 Guiding Principles of EE
To meet these objectives, a number of guiding principles were framed for those involved in developing EE programmes and materials of various kinds. The guiding principles laid down that EE should:

- consider the environment in its totality-natural and built, technological and social (economic political, cultural, historical, moral, aesthetic);
- be a continuous lifelong process, beginning at the pre-school level and continuing through all formal and non-formal stages;
- be interdisciplinary in its approach, drawing on the specific content of each discipline in making possible a holistic and balanced perspective;
- examine major environmental issues from local, national, regional and international points of view, so that students receive insights into environmental conditions in other geographical areas;
- focus on current and potential environmental situations, while taking into account the historical perspective;
promote the value and necessity of local, national and international co-operation in the prevention and solution of environmental problems;

- explicitly consider environmental aspects in plans for development and growth;

- enable learners to have a role in planning their learning experiences and provide an opportunity for making decisions and accepting their consequences;

- relate environmental sensitivity, knowledge, problem-solving skills and values clarification to every age but with special emphasis on environmental sensitivity to the learner’s own community in early years;

- help learners discover the symptoms and real causes of environmental problems;

- emphasize the complexity of environmental problems and thus the need to develop critical thinking and problem-solving skills;

- utilize diverse learning environments and a broad array of educational approaches to teaching/learning about and from the environment with due stress on practical activities and first-hand experience.

Thus we see that when we talk about EE, we are thinking about education that is intimately connected with the environment. It is education about the environment, education through the environment, and education for the environment.

**Education about the environment:**

- Provides understanding of how natural systems work

- Provides understanding of the impact of human activities upon these systems

- Fosters environmental awareness and concerns

**Education through the environment:**

- Gives reality, relevance and practical experience to learning through direct contact with the environment

- Develops important skills of data gathering and field investigations

- Develops aesthetic appreciation

**Education for the environment:**

- Develops an informal concern and sense of responsibility for the environment

- Develops the motivation and skills to participate in environmental improvement

- Compatible with the wise use of environmental resources
To put it another way, EE is holistic in that it encompasses all that is around us, giving us a better understanding of the way the world functions, how it operates as a total system, how the actions of the human race are altering the environment, and what are its consequences on the system and on us. It is education nor merely through books and lectures, but education through direct exposure to the environment, learning by doing and problem solving.

List five words from the Guiding Principles of EE that help describe the nature of EE. List five verbs that describe what EE strives to achieve.

EE is often described as a 5-step ladder process that leads through a process from awareness to action. Fill in the linking steps.

AWARENESS- ________ -__________ -__________-ACTION.

1.4 EVOLUTION OF EE IN INDIA

In India, our social values and attitudes have, historically and culturally been in harmony with the environment. If one reads our own literature, the writing of our sages, our religious texts, all of these reflect the recognition that all life on earth—human life included is intimately dependent on the quality of the environment. These also talk of the humbleness of human in this larger system, and the need and responsibility to protect it.

The Indian constitution captured much of these deep rooted values and further strengthened them by giving responsibility to its citizens to protect the environment. The Constitution enjoins the “state to take measures to protect and improve the environment and to safeguard the forests and wildlife of the country” (Article 48-A).

It also makes it a “fundamental duty of every citizen to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have ecological compassion for the living creatures” (Article 519).

1.4.1 National Policy on Education

Environmental education has been an area of concern in all curriculum development programmes in India. The movement of Basic Education launched by Mahatma Gandhi in 1937, was perhaps the first serious attempt at relating education in schools to local environmental needs. The essential elements of Basic Education were: productive activity in education; correlation of curriculum with the productive activity and the social environment; and intimate contact between the school and the local community. The best that Basic Education had to offer was incorporated in the Report of the Education Commission (1964-66) so as to relate it to the life, needs and aspirations of the nation. For the primary stage, the Report recommended that “the aim of teaching science
in the primary school should be to develop proper understanding of the main facts, concepts, principles and processes in the physical and biological environment”.

The National Policy on Education, 1986 (NPE) states that “Protection of the Environment” is a value which along with certain other values must form an integral part of curriculum at all stages of education. Para 8.15 of the Policy states:

“There is a paramount need to create a consciousness of the Environment. It must permeate all ages and all sections of society, beginning with the child. Environmental consciousness should inform teaching in schools and colleges. This aspect will be integrated in the entire educational process”.

The national system of education, as defined in the National Policy on Education 1986, visualized a national curricular framework which contains a common core including several elements having direct bearing on the natural and social environment of the pupils, such as: Protection of the environment, content essential to nurture national identity, and inculcation of the scientific temper. These core areas are expected to occupy a place of prominence not only in the instructional materials, but also in the classroom and out-of-school activities.

1.4.2 NCERT and the NPE

Following the National Policy on Education, NCERT brought out detailed curriculum guidelines and model syllabi for classes I to X reflecting these ideas. The approach strongly recommended adoption of innovative teaching and learning techniques.

Subsequent curriculum frameworks brought out by the NCERT in 1988 and 2000 reiterated the importance of EE in school education.

1.5 THE SUPREME COURT AND EE

In 1991, Shri M.C. Mehta filed an application in the public interest, asking the Supreme Court to: (1) issue direction to cinema halls that they show slides with information on the environment; (2) issue direction for the spread of information relating to the environment on All India Radio; and (3) issue direction that the study of the environment become a compulsory subject in schools and colleges.

On 18 December 2003, the Hon’ble Supreme Court further ordered, “We also direct the NCERT . . . to prepare a module (model) syllabus”, and on 13 July 2004 it directed that “the syllabus prepared by the NCERT for Class I to XII shall be adopted by every state in their respective schools”. It further directed that “the NCERT be appointed as a nodal agency to supervise the implementation of this Court’s order”.

ENVIRONMENTAL EDUCATION IN SCHOOLS

6
Compliance to Supreme Court order is mandatory and desirable, and applies to all states and UTs (in fact, it is one of the few things that apply to all education in India)

NCERT has clarified that in order to have compliance, a separate subject is not a necessity. It can be done through infusion, in science, social studies, mathematics, language and other subjects, and/or through a separate subject.

It does however have to be part of the compulsory curriculum.

NCERT has developed a syllabus for Environment Education for 1 to 12 standards, which is accepted by the SC. Therefore in order to comply, this syllabus would need to be covered.

In the light of this directive, in 2004, the NCERT undertook a massive national consultation. It also initiated a review of the national curriculum framework towards which 21 National Focus Groups were set up on various problems and subject areas of education in schools.

1.5.1 Habitat and Learning

The focus group on Habitat and Learning was constituted to address the area of EE. The draft report of the Habitat and Learning Focus Group states that ‘The new paradigm of education, embodying the spirit of science, of democracy, and of caring for the environment, would emphasise a number of key elements:

- Learning rather than teaching;
- Building capacity for critical thinking and problem solving;
- Locale specificity in the context of a global vision;
- Multidisciplinary approach;
- Multi-sourced and accessed, rather than top-down, controlled and orchestrated in nature;
- Participatory with broad involvement of peers and other community members;
- Life long and continuous in character;
- Sensitivity to diversity, equity and gender;
- Knowledge generation;
- Empowerment, rather than indoctrination.

In the light of the new paradigm suggested by the Focus Group on Habitat and Learning, reflect on the subject that you teach, with reference to the key elements. Choose any two of these elements and explain how you would incorporate these into your teaching.
Support for EE

In India, at the central level, both the Ministry of Environment and Forests and the Ministry of Human Resources Development (MHRD) have been working towards supporting EE in schools. The Ministry of Environment and Forests supports two Centres of Excellence in Environmental Education—these are Centre for Environment Education, Ahmedabad and C.P.R. Environmental Education Centre, Madras. It has also supported training of teachers in EE and school level activities under the National Environmental Awareness Campaign. The Environmental Orientation to School Education scheme of the MHRD supports initiatives by state governments and NGOs for environmentalizing school education. Some state governments have also initiated efforts within their own state.

Academic institutions including Teacher Training Colleges are also looking to see how they can support EE in schools. Some colleges have already introduced special papers in EE in the B. Ed. course.

An innovative initiative was the Environment Education in School System (EESS) project undertaken by the Ministry of Environment and Forests (MoEF), to take stock of environmental education efforts in the country, and to assess how the Ministry of Environment and Forests could contribute to strengthening EE in schools.

Phase I involved a detailed study of the status of infusion of environmental concepts in school curricula in the country and the status of teaching of EE in schools.

Phase II involved pilot implementation of the programme in eight states at the middle school (Std VI, VII, VIII) mainly through impacting the teaching of Science, Social Studies and Languages and through extra and co-curricular activities. For strengthening EE in schools, as a first step, greening of existing State level textbooks has been undertaken by infusing environmental concepts into the textbooks of Science, Social Studies and Language for Standards 6, 7 and 8. The process of greening textbooks involved adding, deleting, modifying and adapting text, visuals, activities, exercises etc., to give an environmental perspective.

The participating states are Andhra Pradesh, Assam, Goa, Jammu & Kashmir, Maharashtra, Orissa, Punjab and Uttaranchal.

Phase III involved 8 more states for a similar exercise of greening textbooks, training teachers, and enriching EE by co-curricular hands-on activities. As part of Phase III, greening frameworks have been developed for Chhattisgarh, Kerala, Tamil Nadu, Karnataka, Himachal Pradesh, Sikkim, Tripura and West Bengal in consultation with the states. Training of Master Trainers and teachers, and co-curricular hands-on activities in the selected States has also been undertaken.
1.6

1. Given below is a statement about EE. Fill in the suitable words from the list given below:

<table>
<thead>
<tr>
<th>Inter-disciplinary</th>
<th>Participatory</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective</td>
<td>Habits</td>
<td>Commitment</td>
</tr>
<tr>
<td>Skills</td>
<td>Problem-solving</td>
<td></td>
</tr>
</tbody>
</table>

Environmental education should simultaneously attempt to create awareness, transmit ___________, teach knowledge, develop ___________ and ___________, promote values, provide criteria and standards and present guidelines for ___________ and decision making. It is therefore aims at both cognitive and ___________ and behaviour modification. The latter necessitates both classroom and field activities. This is an action-oriented, project-centred and ___________ process leading to self confidence, ___________ attitudes, and personal ___________ to environmental protection. Furthermore, the process should be implemented through an ___________ approach.

(The UNESCO-UNEP Congress on Environmental Education and Training 1987)

2. Can you think of two examples each of an activity you could undertake to achieve education about environment, education through the environment, and education for the environment?)