Environmental Education Framework

Creating an Environment to Educate about the Environment

United Nations Environment Programme
Division of Technology, Industry and Economics
Environmental Education Framework

Creating an Environment to Educate about the Environment

Abstract

Implementation of every environmental policy, programme, project and plan comes down to Environmental Education (EE). Yet, EE is as complex and complicated as the term 'environment' itself. It cuts across many disciplines, sectors, realms, eco-systems and spheres.

This paper explores the concept of EE – what is it, what are its components, what are its objectives and core themes, who is the target audience and what is the modern impetus for EE. Suggestions for implementing EE are also provided.
Introduction

Implementation of every environmental policy, programme, project and plan comes down to the same common denominator - environmental education (EE). Effective, timely and targeted EE lies at the core of operationalising these paradigms, especially at the local level.

There has been a changing vocabulary in local environment management - from 'simple' concepts such as community participation, to expanded issues such as capacity building, informed consent, public choice, decision-making, awareness building, governance, decentralisation, local autonomy, information disclosure.

EE, therefore, is about understanding the causes and effects, of positive and negative aspects, of global and local issues, of immediate and long-term issues, and of direct and indirect impacts.

Defining Environmental Education

Environmental education is a process in which individuals gain awareness of their environment and acquire knowledge, skills, values, experiences, and also the determination, which will enable them to act - individually and collectively - to solve present and future environmental problems.

EE is a complex process, covering not just events, but a strong underlying approach to society building as a whole. EE provides people with the awareness needed to build partnerships, understand NGO activities, develop participatory approaches to urban planning, and ensure future markets for eco-business.

Environmental education is a learning process that increases people’s knowledge and awareness about the environment and associated challenges, develops the necessary skills and expertise to address the challenges, and fosters attitudes, motivations, and commitments to make informed decisions and take responsible action (UNESCO, Tbilisi Declaration, 1978).

Environmental education enhances critical thinking, problem-solving, and effective decision-making skills, and teaches individuals to weigh various sides of an environmental issue to make informed and responsible decisions. Environmental education does not advocate a particular viewpoint or course of action.

The components of environmental education are:

1. Awareness and sensitivity to the environment and environmental challenges
2. Knowledge and understanding of the environment and environmental challenges
3. Attitudes of concern for the environment and motivation to improve or maintain environmental quality
4. Skills to identify and help resolve environmental challenges
5. Participation in activities that lead to the resolution of environmental challenges
6. Environmental education is aimed at producing a citizenry that is knowledgeable concerning the biophysical environment and its associated problems, aware of how to help solve these problems, and motivated to work toward their solution.
Environmental education, properly understood, should constitute a comprehensive lifelong education, one responsive to changes in a rapidly changing world. It should prepare the individual for life through an understanding of the major problems of the contemporary world, and the provision of skills and attributes needed to play a productive role towards improving life and protecting the environment with due regard given to ethical values.

Real Environmental Action

Real environmental action is local - at the micro level, reflecting the problems and capacity of individuals and groups.

'Environment' means different things to different people. For some, it means separating the garbage into burnable and non-burnable items. To others it means saving on electricity or using less water. The term 'environment' may be associated with restoring the vitality of tropical rain forests, maintaining biodiversity and arresting desertification. Developing healthy, sustainable and safe communities becomes important to yet others. The environment also means agricultural and industrial production that is sound and 'green'. Some associate man-made chemical and nuclear hazards with concrete environmental policies.

All of these views are right in their own way, and are united in its concern for the effects that the environment has on the day-to-day lives of current and future generations.

EE has Always Been Here

People have always lived symbiotically with nature, and built stories, religions and cultures around nature and the local environment.

Critical to a historical understanding of the environment is the definition of 'God' itself. Many ancient religions and beliefs invariably created 'Gods' and other Supreme Beings out of natural phenomena such as the sun, moon, stars, planets, and also from rivers, mountains, oceans, trees, and other animals.

This respect and 'fear' of inexplicable natural happenings and human dependence on it (for example, dependence on rain for a healthy harvest) - has had an influence on the relationship between humans and nature. Whole mountain systems or rivers were made sacred and revered as Gods so that it could be protected from human exploitation.

It is significant that assigning merit to natural phenomena also brought about value systems that respected and fostered the environment.

The Modern Impetus for EE

Much of the modern impetus for comprehensive and holistic environmental education comes from Agenda 21, adopted at the Rio Conference in 1992.

Chapter 36 of Agenda 21 “Promoting Education, Public Awareness and Training” specifically calls for reorienting education towards sustainable development; increasing public awareness; and promoting training.
An EE Overview

- **What kinds of organisations are doing EE?**
  A whole range of organisations in the public, private and ‘popular’ sectors are involved, using different messages to target different audiences. Examples include - local and national governments, private sector, academia, NGOs, professional bodies, research, organisations, donor agencies, UN and international organisations, community and citizens groups, media etc.

- **Who are the target audience?**
  The target is usually the man-on-the-street, the ordinary citizen, but has also included policy and decision makers, business and industry etc. depending on the scale of EE ...

- **What is the scale of operation?**
  The scale of EE changes from a single individual, a household, and a community — all the way to the nation, region, and globe depending on the message being sent out ...

- **What is the message being disseminated?**
  EE has dealt with many problems and issues, focusing on the need for change, for sustainability, for awareness etc. using different modes of delivery ...

- **How is the message being delivered?**
  A whole variety of modes and media have been used (one-to-one, one-to-many, many-to-one, and many-to-many), both online and offline to achieve different aims and effects... The Internet has particularly offered a big boost with the flexibility and versatility that it offered.

- **What is the intended effect?**
  The message has aimed to achieve a number of effects - less resource use, less waste, more energy saving, etc. and delivered by partnering with different intermediaries ...

- **What intermediaries and partners are being used?**
  Each actor in the field of EE has partnered with others, depending on the issue - for funding, for information, for expertise, etc. Each partner has brought to the EE programme or project - essential skills, knowledge and resources not available with other partners.

**EE Objectives**

- **Participation** - to provide individuals, groups and societies with opportunities to be actively involved in exercising their skills of environmental citizenship and be actively involved at all levels in working towards sustainable development.

- **Knowledge** - to help individuals, groups and societies gain a variety of experiences in, and a basic understanding of, the knowledge and action competencies required for sustainable development

- **Values** - to help individuals, groups and societies acquire feelings of concern for issues of sustainability as well as a set of values upon which they can make judgments about appropriate ways of acting individually and with others to promote sustainable development

*Box 1 - A Simple EE Framework*

A useful framework for environmental education programmes and projects is the triple foci of education, research and practice. Education helps in building awareness among the target audience, primarily using knowledge and information as its resources. Research helps in assessment of the environment, using a number of problem issues as starting points. Practice helps in developing the appropriate action, using a number of skills and expertise for the purpose.
• **Skills** - to help individuals, groups and societies acquire the action competence or skills of environmental citizenship - in order to be able to identify and anticipate environmental problems and work with others to resolve, minimise and prevent them

• **Awareness** - to create an overall understanding of the impacts and effects of behaviours and lifestyles - on both the local and global environments, and on the short-term and long-term.

**Core Themes of EE**

- **Lifelong learning** - The potential for learning about sustainability throughout one's life exists both within formal and non-formal educational settings.
- **Interdisciplinary approaches** - Education for sustainability provides a unique theme to integrate content and issues across disciplines and curricula.
- **Systems thinking** - Learning about sustainability offers an opportunity to develop and exercise integrated systems approaches.
- **Partnerships** - Partnerships forged between educational institutions and the broader community are key to advancing education for sustainability.
- **Multicultural perspectives** - Achieving sustainability is dependent upon an understanding of diverse cultural perspectives and approaches to problem solving.
- **Empowerment** - Lifelong learning, interdisciplinary approaches, systems thinking, partnerships, and multicultural perspectives empower individuals and institutions to contribute to sustainability.

These underlying themes lay the foundation for a set of strategic actions and initiatives outlined in report, "Education for Sustainability: An Agenda for Action" This report was produced at a meeting held in San Francisco, California, in 1994.

**Box 2 - The 'Multi' Strategy Approach**

The myriad range of problems and solutions, of actors and actions, and of resources and strengths, that concern the environment clearly requires a 'multi' strategy that takes into account all possible scenarios. The components of this strategy includes –

- **Multi-Media**: the use of different means and technologies to tackle a problem or issue
- **Multi-Level**: the understanding of issues involved at different scales at the local, regional, national and international levels
- **Multi-Purpose**: the use of information and resources for different purposes to achieve different goals and objectives.
- **Multi-Activity**: Use of different forms of formal and informal interaction and collaboration to initiate activities
- **Multi-Dimension**: Understand the different modes of communications from one-to-one, one-to-many, many-to-one and many-to-many
- **Multi-Actor**: Involve the different actors, bringing in different resources and strengths - including community groups, NGOs, businesses etc.
- **Multi-Time**: take a prudent timeline in developing policies that are valid and function on the short-term, medium-term and long-term
The Way Ahead for Environmental Education

EE is as complex and complicated as the term 'environment' itself. It cuts across many disciplines, sectors, realms, eco-systems and spheres. Because of this EE needs to be planned and implemented systematically for which some suggestions are given below:

- **Distill best practices and lessons** - A large number of innovative practices and lessons already exist in the region. They need to be identified and replicated in other countries of the region.

- **Review and revise the existing curriculum** - There is an urgency to review the existing curriculum in order to eliminate the dead woods and determine slots to incorporate environmental concerns.

- **Reorient the pedagogical approach** - There is an urgency to reorient out existing teaching methods from 'chalk to talk' and lecture methods to problem-solving methods, from activity and issue-based approach to field work and case studies, from didactic to advise-based approach, and from rote learning to attitudes and skills development and learning through participation and educational training.

- **Encourage traditional non-media** - Non-media (such as folklore, folk songs, storytelling, religious institutions, or traditional venue) should be involved to compliment the mass media to raise people's awareness about environment.

- **Synergize various efforts** - Develop a synergy of formal education, media and NGO for promotional activities.

- **Establish resource centers** - Resource centers need to be established to coordinate and support EE activities at various levels.

- **Develop national policies** - Encourage and motivate national governments to prepare acts, policies and national strategies on EE.
The UNEP - DTIE International Environmental Technology Centre

Established in April 1994, the International Environmental Technology Centre (IETC) is an integral part of the Division of Technology, Industry and Economics (DTIE) of the United Nations Environment Programme (UNEP). It has offices at two locations in Japan - Osaka and Shiga.

The Centre's main function is to promote the application of Environmentally Sound Technologies (ESTs) in developing countries and countries with economies in transition. IETC pays specific attention to urban problems, such as sewage, air pollution, solid waste, noise, and to the management of fresh water basins.

IETC is supported in its operations by two Japanese foundations: The Global Environment Centre Foundation (GEC), which is based in Osaka and handles urban environmental problems; and the International Lake Environment Committee Foundation (ILEC), which is located in Shiga Prefecture and contributes accumulated knowledge on sustainable management of fresh water resources.

IETC's mandate is based on Agenda 21, which came out of the UNCED process. Consequently IETC pursues a result-oriented work plan revolving around three issues, namely: (1) Improving access to information on ESTs; (2) Fostering technology cooperation, partnerships, adoption and use of ESTs; and (3) Building endogenous capacity.

IETC has secured specific results that have established it as a Centre of Excellence in its areas of specialty. Its products include: an overview on existing information sources for ESTs; a database of information on ESTs; a regular newsletter, a technical publication series and other media materials creating public awareness and disseminating information on ESTs; Local Agenda 21 documents developed for selected cities in collaboration with the UNCHS (Habitat)/UNEP Sustainable Cities Programme (SCP); training needs assessment surveys in the field of decision-making on technology transfer and management of ESTs; design and implementation of pilot training programmes for adoption, application and operation of ESTs; training materials for technology management of large cities and fresh water basins; and others.

The Centre coordinates its activities with substantive organisations within the UN system. IETC also seeks partnerships with international and bilateral finance institutions, technical assistance organisations, the private, academic and non-governmental sectors, foundations and corporations.

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