



Environmental Education for Sustainable Development

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Abstract

The environment in the world faces several challenges. These challenges may be due to poverty, low literacy levels and rapidly increasing population. One of the important concerns is to bring awareness about environmental issues of the world. There are many initiatives taken at international level to generate awareness about environmental issues and challenges that the world is facing today. An enhanced awareness of environmental issues and challenges has led to make environmental education an integral part of educational and environmental policies. The curriculum aims at generating among learners an awareness of and sensitivity to the total environment in a holistic manner and the problems associated with it. It would also equip the future custodians of the earth with the requisite knowledge of the total environment, natural and social, the challenges associated with it and the required skills for solving these problems in a sustainable manner. The learners would appreciate local knowledge through traditions and customs and they would also discover their linkages with both national and global concerns. Environmental Education is to sensitise the learners by giving a better understanding of the way the environment functions towards peaceful and harmonious co-existence of all life forms in nature with sustainability. Through the experiential learning, the students will act as pro-active future citizens and create a vigilant society for better and healthy environment, thus leading to a sustainable future. Environmental Education encompasses awareness raising, acquiring new perspectives, values, knowledge and skills, and the processes that lead to changed behaviour in support of a sustainable environment

Keywords: Environmental Education, Sustainable Development

INTRODUCTION

In the past, environment has been perceived as an inexhaustible resource for the use of humankind. But the process of economic development has gradually led to environmental degradation with adverse effects on the local, national and global communities. An enhanced awareness of environmental issues and problems has led to make environmental education an integral part of educational and environmental policies. Environmental education, in its broadest sense, encompasses awareness raising, acquiring new perspectives, values, knowledge and skills, and the processes that lead to changed behaviour in support of a sustainable environment.

There is a need for environmental education in all sectors of the community, especially its inclusion in school curriculum is one of the most effective means for addressing the challenge of sustainability. It is to sensitise the learners by giving a better understanding of the way the environment functions towards peaceful and harmonious co-existence of all life forms in nature..

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Environmental Education and Sustainable Development

It is being realized all over the world that living a harmonious and healthy life on this earth is the greatest need of human beings. Therefore, humanity needs a new relationship with nature and a 'paradigm shift' in the global vision of the relationship between the Human beings and the Nature. In the 'Earth Summits' held in Stockholm, Sweden (1972) and in Rio de Janeiro, Brazil (1992), discussions were held about manmade global warming and the depletion of biodiversity. Agreement reached at 'Earth Summits' include

- A framework convention on climate change to stabilize concentration of green house gases at a safe level.
- A connection on biodiversity to identify and protect the variety of plant and animal species and their habitats.
- An action plan for environmental protection and sustainable development etc.

In the international context, the report of the 'Club of Rome' in early seventies of last century strongly advocated the environment factor. The Brundtland Commission Report (1987) looked critically at the environmental issues. This report provided an explanatory link between third world poverty and global environmental deterioration. It also generated intellectual awareness of a growth i.e., Sustainable Development. According to Brundtland Report 'Sustainable development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs.' It informs that the satisfaction of human needs and aspirations is the major objective of development. It necessitates that societies meet human needs both by increasing productive potential and by ensuring equitable opportunities for all.

Various agricultural practices, change of waterways, the extraction of minerals, the release of harmful gases into the air, forest resources, etc. are some of the examples of human involvement in natural systems during the course of development. Such human involvement was less in the past and small in scale and hence the impact was less. But now the human involvement is more severe and hence it is more threatening to the life forms on earth. Sustainable development should not threaten the natural systems that support life on Earth i.e., the air, the water, the soil, and the living beings.

As poverty, environmental degradation, and population growth are related to one another and these fundamental problems can't be addressed in isolation. Plant and animal species are not renewable when once they are extinct. Conservation of plant and animal species is important for Sustainable development.

The deliberations of other conferences held at various places in the world provided inputs for curriculum construction in environmental education.

"Environmental Education is the process of recognizing values and clarifying concepts in order to develop skills and attitudes necessary to understand and appreciate the interrelatedness among man, his culture and his biophysical surroundings. It also entails practice in decision-making and self-formulating of a code of behaviour about issues concerning environmental quality (International Union for the Conservation of Nature)."

In 1977, the Inter-Governmental Conference on Environmental Education was organized at Tbilisi, Georgia. The recommendations of this conference are given in the historic document namely "The Tbilisi Declaration". The aims, objectives and guiding principles given in this document provide an essential basis to build curricula in environmental education.

The aims of environmental education are:

- To foster awareness of and concern about, economic, social, political, and ecological interdependence in urban and rural areas.
- To provide every person with opportunities to acquire knowledge, values, attitudes, commitment and skills to protect and improve the environment.
- To create new patterns of behaviour of individuals, groups and societies towards the environment.

The Objectives of Environmental Education are:

- **Awareness:** to help learners acquire an awareness of and sensitivity to the total environment
- **Knowledge:** to help learners gain a variety of experience in and acquire a basic understanding of the environment
- **Attitudes:** to help learners acquire a set of values and feelings of concern for the environment, and the motivation for actively

participating in environmental improvement and protection

- **Skills:** to help learners acquire the skills for identifying and understanding environmental issues and participating in environmental improvement and protection
- **Participation:** to provide learners with an opportunity to be actively involved at all levels in environmental improvement and protection.

These objectives cannot be achieved through any one subject or discipline area. Their achievement will involve all students and all subject areas at all levels of school and college education.

The Guiding Principles for Environmental Education are:

- Environmental Education should consider the environment in its totality, natural and built, technological and social dimensions.
- Environmental Education should draw on the specific content of each discipline in order to construct a holistic and balanced perspective.
- Environmental Education should utilize diverse learning environments and a broad array of educational approaches to teaching-learning about, in and for the environment with due stress on practical activities and first-hand experience.
- Environmental Education should relate environmental sensitivity, knowledge, problem-solving skills and values clarification to every age, but with special emphasis on the learner's own community in early years.
- Environmental Education should examine major environmental issues from local, regional, national and international points of view so that students receive insights into environmental conditions in other geographical areas.
- Environmental Education should emphasise the complexity of environmental improvement and protection and hence there is a need to develop critical thinking and problem-solving skills.
- Environmental Education should enable learners to have a role in planning their learning experiences and provide an opportunity for making decisions and accepting their consequence.

The goals, objectives and guiding principles of environmental education provide the rationale from which an appropriate conceptual framework can be derived. To achieve these aims and objectives, curriculum should be developed to impart 'Education through Environment, *Education about Environment and Education for Environment*'.

i) Education through Environment

The environment is viewed as a medium of instruction and transaction. It uses the environment as a resource where enquiry skills are developed or as a source of material for realistic activities in language, science, social science, mathematics, craft or other subjects. Education through the environment encourages student-centred and activity-based learning which involves learning through outdoor activities.

ii) Education about Environment

This is a study where components are investigated through the disciplines of science and social science as environmental science to further improve the quality of human life and protect the environment.

iii) Education for the Environment

It seeks to develop students' informed concern for environment and responsibility towards environment through activities aimed at developing values which affect behaviour and lead to the development of a personal environmental ethic. It involves education for protecting, conserving and improving the environment. While the above two approaches are limited to promote understanding, appreciation and concern, education *for* the environment goes beyond this and develops a sense of responsibility and active student participation in resolving environmental problems. It adopts a holistic outlook to the study of environmental problems, reflected in its world wide and interdisciplinary approach.

Education '*about*', '*through or in*' and '*for*' the environment can take place within the classroom or outside, in the local area, at historic buildings, at the market area or anywhere. Education '*about*' and '*from*' the environment involves the acquisition of knowledge and the development of skills which are important bases for environmental education, but it is only when education '*for*' the environment is the intention that environmental education is actually taking place and the aims and objectives given above have a possibility of being achieved.

Achieving the goals of 'Environmental Education for Sustainable Development' requires the integration of the above three approaches. This results in ensuring that learning programmes develop environmental awareness, knowledge, values, concern, responsibility and action. That is, Environmental Education is more than just developing knowledge about the environment and skills to explore the environment. It involves developing a willingness to take responsible action to improve the quality of life and accepting responsibility for environmental management and protection.

The description given above indicates that environmental education is much more than teaching 'about', 'through' and 'for' the environment. It is concerned with developing attitudes, providing opportunities for practice in decision making and making informed decisions about the environment.

Sustainable development aims for improving the economic and social living conditions of individuals without destroying the natural basis of life. 'Education is an essential prerequisite for the promotion of sustainable development and the better empowerment of people to deal with environmental and development issues (Agenda 21 1992, p. 329)'. As education is considered a key component of sustainable development, Agenda 21 (1996) recommends reorientation of Education for Sustainable Development. Thus, it deals with economic and social conditions and considers these in its interrelationship with environmental problems.

CONCLUSION

Although a considerable amount of information about the environment is being integrated in the curriculum, it has not succeeded to generate a concern that may lead to effective action for conserving and further improving the environment for sustainable development. Environmental Education should emphasise the emotional and attitudinal aspects of the learners' personality along with the requisite cognitive component most of which is available in the curriculum of different subjects. Thus a value based, action oriented content in environmental education would lead from knowledge to feeling and finally to appropriate action. This may bridge the wide gap between the intended environmental education

programme and the actual implementation that concerns the present and future of the entire humanity on earth. Environmental Education is not a 'discipline,' it is a way of looking at the world. Hence there is a need to infuse environmental education into every discipline making it multidisciplinary and cross-curricular which should give an experience of life-long continuing process.

Sustainable development aims at promoting harmony among human beings and between humanity and nature. The main purpose of including environmental education in curriculum is for understanding Environmental Education for Sustainable Development. Imparting education with this objective builds upon the principles of environmental education of 1980s, by adding importance to the curriculum, implementing an issue-based approach, by emphasising participation and action-orientated aspects in learning and by giving importance to value education. Its purpose is to create a more holistic outlook on problems, requiring a deeper integration between the study of environment and development problems. Environmental Education for Sustainable Development follows a three-way approach namely 'education about the environment, education through the environment and education for the environment'.

Competing interests

The authors have declared that no competing interests exist.

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