

ENVIRONMENTAL EDUCATION: THE RELEVANCE DISCIPLINE FOR SUSTAINABLE DEVELOPMENT

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ABSTRACT

Environmental Education is very important in present scenario. Because problem of ecological imbalance and environmental pollution creates problem for human being for survive in this universe. A feeling of environment protection is to be generated in one and all. The NPE 1986 states, "There is a paramount need to create consciousness of the environment. It must permeate all ages and all sections of the society beginning with the child. Environmental consciousness should inform teaching in schools. This aspect will be integrated in the entire educational process." Environmental Education would benefit from being included in the perspective of education for the development of responsible societies, as inspired by the treaty on environmental education for sustainable societies and global responsibility. The present world is environmentally less sustainable than in the previous days. The progress whatever the rich developed countries have made so far has largely been achieved through the relocation of their dirty manufacturing facilities to poor developing countries. However the relocation of the manufacturing facilities in this way cannot address the growing problem of anthropogenic pollution – it merely changes the jurisdiction of the pollution created from the 'rich' to the 'poor' world. Sustainable development concentrates on aspects of the economy, society and environment in order to achieve its goals. Therefore in order to achieve the acceptable level of global environmental sustainability, the citizens must be empowered with essential knowledge and information especially in developing countries like India.

Keywords: Environmental Education, Sustainable Development.

INTRODUCTION:

"Unsustainable development has degraded and polluted the environment in such a way that it acts now as the major constraint followed by social inequity that limits the implementation of perpetual growth."

.....Emil Salim

Education has made many valuable contributions to societies and development globally, and is recognized for the important role it has in improving livelihoods worldwide. Quality education should prepare societies to actively participate in global politics and economics, as well as provide people with the skills necessary to make informed decisions and take responsible actions. Throughout the world, societies have recognized education as a key component of sustainable development.

Sustainable development has been promoted since its inception over 20 years ago as an effective means to abate the degradation of human and environmental systems. The United Nations defines sustainable development as a development strategy that focuses on meeting the demands and needs of present-day citizens without compromising the future's ability to meet theirs'. Sustainable development concentrates on aspects of the economy, society and environment in order to achieve its goals. Sustainable development is a central concept for our age. It is both a way of understanding the world and a method for solving global problems.

The reason is very predictable that the poor developing countries had been seriously thwarted by the lack of financial and skilled manpower resources whereas the rich developed countries appeared to be reasonably content with the progress they had made. The progress whatever the developed countries have made so far has largely been achieved through the relocation of their dirty manufacturing facilities to poor developing countries. However, the relocation of the manufacturing facilities in this way cannot address the growing problem of anthropogenic pollution – it merely changes the jurisdiction of the pollution created from the 'rich' to the 'poor' world. Therefore in order to achieve the acceptable level of global environmental sustainability, the citizens must be empowered with essential knowledge and information. Then only they can exert pressure on their elected representatives to develop and implement policies for securing environmental sustainability. The awareness among the public and industrial generators has to be created and motivated by the updated techniques and incorporating the innovative and implementable solutions to reform our economy. These can be achieved through environmental education.

REVIEW OF RELATED LITERATURE:

- **Majra, J.P, & Gur, A. (2010):** To purpose of study was to assess the status of school environment and sanitation in rural India. This was a cross sectional study where twenty schools were randomly selected. A pre tested close-ended questionnaire was used to get the information. The minimum standards for sanitation of the school and its environment in India were used as the guiding principles to evaluate the appropriateness/ adequacy of the various attributes.
- **Norizan Esa, (2010):** This study is a survey of the environmental knowledge, attitude, and practices of pre-service secondary teachers enrolled in an undergraduate Biology Teaching Methods course. The results suggest the readiness of these teachers to realize the goal of integrating ESD in the teaching of biology in schools. Results also indicate the need for more concerted effort in teacher education to prepare them for their role in educating for and about the environment.
- **Lindemann-Matthies, Petra & Knecht, Sarah (2011):** This article investigates benefits and challenges of forest education in view of 257 Swiss elementary school teachers (1st-3rd grade), by means of a written questionnaire and 15 in-depth interviews. Two thirds of the teachers carried out forest education during normal lesson hours (mean visits = eight per year). Forests were clearly considered as an educational setting, and especially suitable for the enhancement of personal and social skills. Setting rules was seen as indispensable for successful forest education and a must to communicate to 'novice' teachers. Moreover, the didactic of forest education should be implemented in teacher education curricula.

STATEMENT OF THE PROBLEM:

The investigator had taken up the problem for the present study is entitled as, **“Environmental Education: The Relevance Discipline for Sustainable Development”**.

OBJECTIVES OF THE STUDY:

The main objectives of the study are as follows:

- To define Environmental Education.
- To describe importance of Environmental Education.
- To acquire knowledge of need of Environmental Education.
- To study concepts of Sustainable Development.
- To find out need for Sustainable Development.
- To explain the relation between Sustainable Development and Environmental Education.
- To analysis the discipline of Environmental Education for Sustainable Development
- To interpret the role of teacher and school for Sustainable Development.

QUESTIONS OF THE STUDY:

Based on the above objectives of the study the following the major eight questions have been formulated.

1. What are the definitions of Environmental Education?
2. What is Importance of Environmental Education?
3. What is Need of Environmental Education?
4. What are concepts of Sustainable Development?
5. What is Need for Sustainable Development?
6. What are the relation between Sustainable Development and Environmental Education?
7. What are role of Teacher and School for Sustainable Development?
8. What is Discipline of Environmental Education for Sustainable Development?

SIGNIFICANCE OF THE STUDY:

- The investigation like this will be relevant to the field of higher education.
- This investigation will grow more interest among the teachers' in Environmental Education subject.
- This investigation will have a way for the students who are choosing Environmental Education subject.

METHODOLOGY OF THE STUDY:

The investigator attempt to study **Environmental Education: The Relevance Discipline for Sustainable Development**. In this paper, the investigation was based on different secondary data like

commission,committee, abstract, journal, research paper and also different types of books. And also study of questions is used for analysis of data.

ANALYSIS AND INTERPRITATIONS:

1. What are the definitions of Environmental Education?

Environment is derived from the French word “Environner”, which means encircle or surrounding. Environment is a complex of many variables, which surrounds man as well as the living organisms. The term environmental education is made up of two terms “environment” and education. Environment is defined as “the sum total of all conditions and influences affecting the life and development of organisms”. Education is forming desirable attitudes, values, skills, understanding and interest about the environment so as to preserve it and improve it for survival of the present and future mankind. Environmental education describe the interrelationships among organisms, the environment and all the factors, which influence life on earth, including atmospheric conditions, food chains, the water cycle, etc. It is a basic science about our earth and its daily activities, and therefore, this science is important for everyone.

- **According to UNESCO** “Environmental education is the process of recognizing values and clarifying concepts in order to develop skills and attitudes necessary to understand and appreciate the inter relatedness among man, his culture and his bio physical surrounding. Environmental also entails practice in decision making and concerning environmental quality”.
- **According to United States Environmental Education Act (1970):** “Environmental Education is an integrated process which deals with man’s interrelationship with his nature, population growth, pollution, resource allocation, technology and urban and rural planning to the total human environment”
- **Allen A Schmieder (1974) states that** “environmental education is concerned with interaction between humanity and nature and it is directed at the improvement of the quality and existence all living things”.

2. What is Importance of Environmental Education?

- World population is increasing at an alarming rate especially in developing countries.
- The natural resources endowment in the earth is limited.
- The methods and techniques of exploiting natural resources are advanced.
- The resources are over-exploited and there is no foresight of leaving the resources to the future generations.
- The unplanned exploitation of natural resources lead to pollution of all types and at all levels.
- The pollution and degraded environment seriously affect the health of all living things on earth, including man.
- The people should take a combined responsibility for the deteriorating environment and begin to take appropriate actions to save the earth.
- Education and training are needed to save the biodiversity and species extinction.
- The urban area, coupled with industries, is major sources of pollution. The number and area extinct under protected area should be increased so that the wild life is protected at least in these sites.
- The study enables the people to understand the complexities of the environment and need for the people to adapt appropriate activities and pursue sustainable development, which are harmonious with the environment.
- The study motivates students to get involved in community action, and to participate in various environment and management projects.
- It is a high time to reorient educational systems and curricula towards these needs.
- Environmental education takes a multidisciplinary approach to the study of human interactions with the natural environment.
- Environmental study is a key instrument for bringing about the changes in the knowledge, values, behaviors and lifestyles required to achieve sustainability and stability within and among countries.

Environmental education deals with every issue that affects an organism. It is essentially multidisciplinary approach that brings about an appreciation of our natural world and human impacts on its integrity. It is an applied science as it seeks practical answers to making human civilization sustainable on the earth's finite resources.

3. What is Need of Environmental Education?

Need of environmental education are following given below:

- To help individuals and social groups acquire values, strong feeling of concern for the environment and the motivation for activity participating in its protection and improvement.
- To create clear awareness 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 needed to protect and improve the environment.
- To create new patterns of behavior of individual, groups and society as a whole towards the environment.
- To help individuals and social groups acquire an awareness of and sensitivity to the total environment and it's allied problems.
- To help individuals and social groups acquire basic understanding of the total environment, its associated problems and humanity's critically responsible presence and role in it.
- To help individual and social groups acquire the skills for solving environmental problems.
- To help to individuals and social groups develop a sense of responsibility and urgency regarding environmental problems to ensure appropriate action to solve their problems.

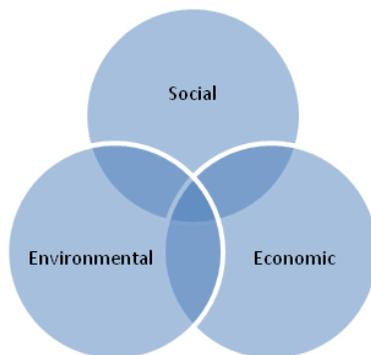
4. What are concept of Sustainable Development?

The world commission on Environment and Development introduced the term sustainable development. The Brundtland commission in its seminar report of 1987. "Our common future" defined it as "meeting the needs of the present generation without compromising the needs of future generation".

It emphasizes upon using the earth resources judiciously and compensating for it in sense. A balance has to be created between resource consumption and resource generation. In sustainable development two words are used let us understand. The meaning of these two words:

Sustainable: Sustainability is "that can be maintained" or "keep goal continuously" in ecology it refers to "conservation of ecological balance by avoiding depletion of natural resources". That means the resources that we have today should continue to exist tomorrow and..... for long times to come.

Development: The literal meaning of development is "the act or instance of growth, advancement". Here we are hinting the well being of human beings. The generation of comforts and luxuries bring environment under great stress. In the context of economical and technical development the world always had been better today than the world yesterday and will always be better tomorrow than today.



Social components	<ul style="list-style-type: none"> • Workers health and safety • Impact on local communities, quality of life • Benefits to disadvantaged groups
Economic components	<ul style="list-style-type: none"> • Creation for new markets and opportunities for sale growth • Cost reduction through efficiency and improvements and reduced energy and raw material inputs • Creation of additional value
Environmental components	<ul style="list-style-type: none"> • Reduce waste, effluent generation, emission into environment • Reduce impact on human health • Use of renewable raw material • Elimination of toxic substances

5. What is Need for Sustainable Development?

Sustainable development aims at improving the living standards and the quality of people's lives, both now and for the future generations. There are several challenges that need attention in the arena of economic development and environmental depletion. Hence the idea of Sustainable development is essential to address the following issues.

- To curb or prevent the environmental degradation.
- To ensure a safe human life.
- To check the exploitative technology and find alternative sources.
- To check the over exploitation and wastage of natural resources.
- To regenerate renewable energy resources.

Sustainable development is therefore:

A conceptual framework:	A way of changing the predominant world view to one that is more holistic and balanced.
A process:	A way of applying the principles of integration – across space and time – to all decisions.
An end goal:	Identifying and fixing the specific problems of resource depletion, health care, social exclusion, poverty, unemployment, etc.

- **Economic and environmental consideration in decision making:** Economic and environmental concerns are not conflicting. Policies that conserve the land, forest, and agriculture and improve them in long term have to be applied. Efficiency in using resources and energy would reduce the cost and wastage. The inter-sect oral decision help for improve for environmental quality.
- **Proper resource pricing:** The resources should be priced as per their availability and scarcity so that their use can be authentic and systematic.
- **Development of integrated protected Areas:** There is a need to protect the wild life. The wild species have to be protected they have been store house of our agricultural products, medicines and many other types of raw materials, directly or indirectly we get from the environment.
- **Residual Management:** Residual management helps looks at the pollution problems with an over all framework of materials policy, which includes resource recovery, recycling and by product design to save material and energy.
- **Environmental Education:** Primary aim of environmental education is to enable citizens to understand and appreciate the complex nature of the environment, as well as the role played by a properly management environment, in economic development.
- **Citizens' participation:** Promoting the active participation of the citizenry for sustainable development, non-government organization can be the central vehicle in mobilizing people to participate, since they are the segment of population, which will through community organizing, public information campaigns, research/situation assessment environmental surveillance and monitoring.

6. What are the relation between Sustainable Development and Environmental Education?

The environmental community there is many who do not understand the true meaning of sustainable development. In addition, the environmental community must discharge its collective professional responsibility in ways that are consistent with the core requirements of sustainable development and global environmental sustainability. It is the "Development that meets the needs of the present without compromising the ability of future generation to meet their own needs"

The resource base is not inexhaustible, it follows that there must exist some limit beyond which the rate of exploitation of natural resources to supply the open ended and increasing demand for goods and services will compromise the ability of future generations to meet their own needs. Therefore, it is clear that sustainable development is economic development that exclusively relies upon and is firmly rooted in the integrity and sustainability of the natural environment. National resources management has emerged in line with the evolving concept of sustainable development over the past three decades. If nature's resource base is irredeemably depleted or irreversibly degraded, the means of wealth creation for social welfare will be seriously jeopardized. Without environmental sustainability, it is impossible to achieve sustainable development.

Environment...	Type of relationship	Principal characteristics	Examples of teaching/learning strategies
As nature	to be appreciated, respected, preserved	The original, "pure" environment; nature-as-a cathedral; nature-as-a-uterus	nature exhibitions; immersion in nature
As a resource	to be managed	our collective biophysical heritage, sustaining quality of life	3Rs campaigns; audit of energy consumption
As a problem	to be solved	the biophysical environment, supporter of life, threatened by pollution, deterioration	problem-solving strategies case study
As a place to live	to know and learn about, to plan for, to take care of	our daily living environment with its sociocultural, technological and historical components	environmental story of our place eco-gardening project
As the biosphere	in which we all live together, into the future	the spaceship Earth, object of planetary consciousness, a world of interdependence between beings and things	case study on a global issue; storytelling illustrating different cosmologies
As a community Project	in which to get involved	a shared living milieu; the focus of socially critical analysis; a political concern for the community	integral action research (participatory process aimed at transformation); environmental issue forums

Source: A typology of conceptions of the environment in environmental education (Sauvé, 1992, 1994).

Sustainable development conceptions	Principal characteristics	Associated conception of the environment	Associated educational paradigm
Continuous development owing to technological innovation and free trade CREDO: economic growth following neoliberal principles will solve social and environmental problems.	Productivity and competitively within a market-driven society; free trade on a world scale; scientific and technological innovation for economic growth; legislative control	Environment as a resource to be developed and managed; rational use of resources for sustainable profit, and thus sustainable quality of life	Rational paradigm: education as training, as an information transfer process (mainly of a scientific, technological and legislative nature)
Development as dependent on a world order CREDO: economic growth will solve social and environmental problems if a world order (from top	Free trade on a world scale; scientific and technological innovations for economic growth; restructuring of political, economic and social organizations: world	The whole biospheric environment, as a pool of resources to be globally managed by top organizations	Rational paradigm: same approach as in previous SD conception, but acceptance of a certain critical approach of the failures of the neoliberal

organizations) regulates consumption, pollution and mechanism of distribution of wealth.	or regional-wide pacts, agreements, legislation, etc.		system
Alternative development CREDO: only a complete global shift in social values and choices will permit the development of sustainable communities.	Development of bioregional economy: distinguishing real needs from desires, reducing dependency, increasing autonomy, favouring renewable resources, stimulating democratic process, participation and solidarity, etc.	Environment as a community project	Inventive paradigm: a community-led process of critical investigation toward the transformation of social realities
Autonomous development (Indigenous development) CREDO: development is valued if it is rooted in cultural identity and if it preserves territorial integrity.	Collective subsistence economy based on solidarity, associated with one's territory and drawn from a distinct cosmology	Environment as a territory (a place to live) and as a cultural community project	Inventive paradigm: construction of contextually significant and useful knowledge, taking into account traditional values and know-how.

Source: A typology of conceptions of sustainable development (from the Calgary Latin American Studies Group 1994).

7. What is Discipline of Environmental Education for Sustainable Development?

Curriculum for environmental education should be integrated into the whole system of formal education at all level. It should be interdisciplinary in nature. It should adopt a holistic perspective which will examine the ecological, social, cultural and other aspects of particular problems. Environmental education curriculum should aim at building up a sense of values.

Four strategies for curricular patterns of Environmental education:

- Single subject approach in which components are drawn from a single academic discipline.
- Interdisciplinary approach in which components are drawn from different discipline rolled into one subject and focus is on single topic.
- Multidisciplinary approach in which components are drawn from two or more academic disciplines and focused sequentially on a single topic.
- Holistic approach in which there is co-ordination of separate courses such that the diverse fragments of knowledge and understanding are woven together.

8. What are role of Teacher and School for Sustainable Development?

Teachers have a dominant role to play in environment education. Qualified teachers are required to meet the need of imparting truly ecological ways of thinking in specialized areas and while dealing with many complex relationship. Teachers have to develop a high level of specialized knowledge and pedagogical skill to impart information regarding new facts, relationship, threats and conflicts in the environment.

Teachers play a crucial role in forming, changing and establishing attitudes and values that are important for environmentally responsible behavior. What is more important than their teaching is the nature of the lifestyle that they lead. Without a good teacher, the best curriculum and the best environmental didactics can remain without effect for each of the appropriate ecological example.

Teachers should take a leading role in pursuing the action on environmental education, whether acting as individual infusing environmental perspectives into their classes or collectively fostering environmental education through their educational institutions and professional societies.

CONCLUSION:

Different conceptions of environment, education and sustainable development coexist. These conceptions influence the way educators define and practice Environmental Education. The ultimate goal of these interrelated dimensions of contemporary education is the development of responsible societies. And sustainability is one of the expected outcomes. It appears therefore redundant to speak of responsibility and sustainability. Responsible development, which must be defined contextually, becomes the guarantee of a type of sustainability deliberately chosen by the community. The community is serious about achieving even a modest degree of global environmental sustainability and sustainable development. Effective policies must be implemented to curb consumption by the affluent. We need moral education to instill genuine environment respecting moral values in the young budding engineers and other specialized area students who, in their professional careers as planners, designers, builders and decision makers, will bear considerable responsibility for mankind's impact on nature and the natural environment.

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