

Need and Importance of Environment Education in Secondary School: A Critical Analysis in Indian Context

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ABSTRACT

Environmental education is considered one of the most important long-term solutions to the environmental crisis. Informal or alternative approaches in environmental education become ever more important in motivating attitudinal change. This paper is trying to focus on need and importance of environment education from school level to higher education globally and specific to Indian context secondary school education. Policy, prospects and recommendations by different committee in India and world are critically analyzed by the environmental thinkers are also presented. Research subject we investigate how this institutionalized educational activity is integrated into the general education of children, and what is its role in environmental awareness rising among schoolchildren. We focus on possibilities and difficulties to improve cooperation between public and nature schools for better environmental education. On the basis of our empirical observations of nature school sessions, interviews with schoolteachers, and interviews with nature interpreters an attempt is made to answer the research problem, and final statement of the research with a few recommendations included is presented.

Keywords: *environmental education, environmental awareness, environmental consciousness, nature interpretation, nature school, 'hands-on' method, experiential learning, tacit knowing, action competence, Ecosystem, Environmental Hazards*

I INTRODUCTION

Today's world is world of development and technology. The man of today has become habitual of technology and machinery. It is difficult for him to perform the life activities in the absence of inventions and discoveries he embodied in around last three centuries since the evolution of industrialization. The creation of different kind of machines and instruments, man is living more comfortable with prosperous life than his predecessors in past. Man through his course of so called development has achieved a number of accomplishments to make his habitats comfortable and full of enjoyment using his mind power with an impression that he is the unique animal of the world. Now the man is having power to control the floods, to withstand the droughts, and fight with the diseases and epidemics as these calamities often confronted by the communities' world over. This is a sign that man is now in a situation to have a control of only a fractional degree over nature. It is true that the aim of all the developmental activities is to enhance the quality of life of man beginning with the satisfaction of basic human needs leading to fulfilling health, educational and recreational requirements. Man has achieved a considerable success in this very objective of development. But, the fact cannot be denied and overlooked that the developmental activities have simultaneously been superimposing their negative impacts on the quality of environment.

“It is true that past industrial and agricultural development have created many environmental problems, ranging from the pollution of water, soil and air, and the consequent costs to human health and wellbeing, to the spread of the deserts, largely due to the mismanagement by man of natural ecosystems.” (Tolba 1988). This is not the end of the problem. The adverse environmental consequences of developmental projects are not localized in nature but these have global concerns in their impacts. One of the basic features of modern development is that the trench between the rich and poor is widening. The capitalism and the Multi National Corporations are also contributing towards the way of making a gap between not only rich and poor individually but between the nations too.

As stated above is the reality of the today's scenario. Keeping the above facts in consideration, now the time has come when the modern man has to contemplate on how to meet the basic need of human without destroying the resource base. This is a question of prime importance; the humanity has to confront with. There can be no more precise answer than the environmental education. Since the simple and common definition of environmental education is the education through, about and for the environment, hence the spreading environmental education is the right answer to fight the problem created by both poverty and over-development.

II RELEVANCE

“Man is a part of the vast web of life and cannot escape the natural consequences of his actions. The sheer power of the population and technological revolutions may make man himself an endangered species in many parts of the world.”

--Stewart Udall

Of course, man cannot escape the consequences of his own deeds whether good or bad. Man has been enjoying on the resources produced in nature over the milleniums. The primitive man derived his subsistence from his natural environment. In doing so he was materially poor but by and large in harmony with nature. But the man in the present time is materially sound but not in harmony in nature. In addition, through his activities man is making complex impacts on environment and is creating disharmony with nature. It is not easy and perhaps appropriate to return to life style of primitive man but some steps for the welfare of mankind need to be initiated. There is great need to harmonies our activities so that the harmony with nature can be achieved.

Due to the over exploitation of natural resources, a great complexity in environmental problems is appeared in the world. Environmental problems now are posing a grave threat to man life in the biosphere. In such a critical situation awareness about the environmental problems is essential. This is the urgent need of time that everyone should be environmentally aware. As MostafaKomalTolba, The Executive Director of the United Nations Environment Programme, stated at the inter-Governmental Conference on Environmental Education, Tlilisi, USSR, October 2007;

He further reveals on behalf of UNEP, “We in UNEP see environmental education, therefore, as a global, life-long process involving society as whole, directed at all members of the community, with due regard to their social, economic, cultural and political needs. We also believe that it is the action of man –as planner, builder, farmer, citizen or consumer – which causes environmental degradation. It is therefore on man's attitude that the future of our air, water, soil, forests, and mineral wealth ultimately depends. This why we feel it is so important that everyone becomes environmentally conscious through proper environmental education.” (Tolba 1992, P.83)

III THE ECOSYSTEM

Ecosystem is an area in which all living creatures and the soil-water-air-environment of this physical region of the earth have developed various inter-relationships to produce a quasi-stable or almost stable system of mutual interdependence. Ecosystem has been defined in various ways by different people having concern to the field of ecology or environment. Some of the definitions are:

Every ecosystem consists of biotic (living) and abiotic (non-living) subsystems. There is on fundamental characteristic of every ecosystem, however. Energy transfer plays the central role in defining bounds, character, and extent of the ecosystem. In fact in its most basic sense, an ecosystem is an energy transfer system. (Camp Willium G. and Donahue Roy L. 1994)

Environment consists of the following components:

- (a) **Physical component:** Water, air, land, minerals and fossil fuels, tidal processes, climate, chemical and geological processes etc.
- (b) **Biological component or resources:** animals, wildlife, vegetation, flora, food webs, specific ecosystems etc.
- (c) **Man-made components:** towns, roads, field etc., urban infrastructure, transport and communication systems, agricultural economy etc.
- (d) **Social components or resources:** social groups, political groups, cultural groups, social and political structure, legal structure etc.

Hence from the definition of environment given by various environmentalists and ecologists, we may arrive at a common consensus that the environment is sum total of all conditions- Physical, Biological, Social, and Cultural- that affect the development and life of organisms on the earth planet.

IV ENVIRONMENTAL HAZARDS

- (a) **Human beings** – the most intelligent creature of the universe known having discovered fire and wheel, his journey of development has not stopped but proceeding with a higher acceleration than ever before in the past. At present Homo sapiens has reached almost at zenith of scientific and technological advancement. Man has used this advancement in science and technology for his own survival. As far as the question of survival is concerned, it may be taken as appropriate step because it a creature has born he has to survive by any means. However, in case of human being, he

has not used the environment but devoured it, exploited it or more appropriately destroyed it.

(b) **The human environment** – air, water, soil, and vegetation, which comprise the basic life support systems on earth, is increasingly going to be degraded by virtue of man's greed and deeds. In the blind race to get political dominance over others leading to material development the ultimately consequence of which is the destruction of nature. This consequence is quite visible in the present time. Man has had always attempted to get victory over nature and to a fractional degree he has succeeded in his attempt but whatever he accomplished it proves false when we see the nature's retaliation for human activities. Man bound to his deeds and greed is pretending to forget the natural law that it answers in same manner as man is behaving with it. As R.K. Sinha states- " In the race for 'material development', made arrogant by their technological achievements mankind is out to exploit 'nature' and its creations and establish a false sense of victory over it forgetting the natural law that 'every action has equal and opposite reaction'. We are watching it more explicitly that nature has started to retaliate.

V ENVIRONMENTAL EDUCATION

There are three threads which have contributed to our present ideas and it has become almost commonplace nowadays to characterise these as education ABOUT, either FROM or FOR environment. Environmental education is the education through, about and for the environment. Its scope is there for very wide. Various combinations of words such as Environmental Education (EE), Environmental Study (ES), And Environmental Approach (EA) are being used in the literature in the context of environment and education.

Defining 'environmental education' is not an easy talk. Unlike other curriculum areas, the specific content of environmental education has never been well defined. It is universally agreed, however, that environmental education should be interdisciplinary, drawing from biological, sociological, anthropological, economic, political and human resources. (Saxena, 1986)

Environmental education is a medium and process of education and that it covers man's relationship with his natural as well social and manmade environment, and also includes the relationship of population, industrialization, pollution, resource allocation and depletion, conservation, transportation, technology, energy and urban and rural planning to the total biosphere. Keeping this in view the nexus of environmental education is multidisciplinary in character and its quintessence

is a commitment on the part on one and all, on the part of all of us inhabiting this planet earth, to prevent deterioration of air, water, land and physical and social environment including interrelationship among people so that a nuclear war, a chemical warfare or any other cataclysm generated by man may not destroy the world.

VI OBJECTIVES OF ENVIRONMENTAL EDUCATION

European Community organised a meeting in May 1988 on the need to take the concrete steps for the promotion of environmental education and they emphasized that on a comprehensive way to promote so that the environmental education could be intensified throughout the community. A Resolution on Environmental Education was adapted to that end, with the following objectives and guiding principles:

The objective environmental education is to increase the public awareness of the problems in this field, as well possible solutions, and to lay the foundations for a fully informed and active participation of the individual in the protection of the environment and the prudent and rational use of natural resources.

(a) Guiding principles:

- (i) The environment as the common heritage of mankind,
- (ii) The common duty of maintaining, protecting and improving the quality and the safeguarding of the ecological balance,
- (iii) The need for a prudent and rational utilisation of natural resources,
- (iv) The way in which each individual can, by his own behaviour, particularly as a consumer, contribute to the protection of the environment.

(b) UNESCO'S Objectives:-

According to UNESCO (1971), the objectives and guiding principles for developing environmental education in all the countries are as follows:

- (i) Awareness: To help social groups and individuals so as to get an awareness of and sensitivity to the total environment and it's allied problems.
- (ii) Knowledge: To help social groups and individuals so as to gain a variety of experiences in and get a basic understanding of the environment and its associated problems.
- (iii) Attitude: To help social groups and individuals achieve a set of values and feelings of concern for the environment and the motivation for actively participating in environmental improvement and protection.

- (iv) **Skill:** To help social groups and individuals so as to acquire skills for identifying and solving environmental problems.
- (v) **Evaluation ability:** To help social groups and individuals so as to evaluate environmental measures and education programmes in terms of ecological, economic, social, aesthetic and educational factor.
- (vi) **Participation:** To help social groups and individuals so as to actively involved at all levels in working towards the resolution of environmental problems.

(c) The guiding principles of environmental education should

- (i) The environment has to be considered in its totality – natural as well as built, technological and social economic, political, moral, cultural, historical and aesthetic aspects.
- (ii) Environmental education should be a continuous life long process which is beginning at the pre-school level and continuing through all formal and non-formal stages;
- (iii) Environmental education should be an interdisciplinary in its approach. The specific contents of each discipline should play specific role in making possible a holistic and balanced perspective;
- (iv) Environmental education should emphasize active participation in preventing and solving environmental problems;
- (v) Environmental education should examine major environmental issues from local, national, regional and international point of view so that learners get insights into environmental conditions in other geographical areas;
- (vi) Environmental education should focus on current and potential environment situations, while taking into consideration the historical perspective.
- (vii) Environmental education should emphasize the complexity of environmental problems and thereby the need to develop critical thinking and problem solving skills;
- (viii) Environmental education should explicitly regard environmental aspects in plans for development and growth;
- (ix) Environmental education should be able to promote the value and necessity of local, national, and international co-operation in the prevention and solution of environmental problems prevention and solution of environmental problems;
- (x) Environmental education should use diverse learning environment and a broad array of educational approach with due stress on practical activities and firsthand experience;

- (xi) Environmental education should help learners to find out the symptoms and real causes of environmental problems;
- (xii) Environmental education should be able to relate environmental sensitivity, knowledge, problem- solving and values clarification at every grade laying, but begin special emphasis on environmental sensitivity to the learner's own community in early years; and
- (xiii) Environmental education should make learners to have a role in planning their learning experience and give an opportunity for making decisions and accepting their consequences.

VII GLOBAL ISSUES ON ENVIRONMENT EDUCATION

No one will doubt the fact that our present world is different from the world of the agricultural and the industrial revolution – the pressure on the planet (environment) due to some human activities (unnatural) and some natural activities (flood, earthquake, eruptions) seem to be weighing much on the limited planet that mankind and other living organisms sharing the planet with us are adversely affected by, even the environment itself. This calls for new trends and ideas where all, both young and old, 'educated' and 'non-educated', privileged and non-privileged would take part in saving our planet from 'total physical collapse' since all life on earth depends on it for survival.

This societal transition is seen in part in 'development' as a result of the explosion of science and technology coupled with an exponential increase in the global population. This transforms, irreversibly, not only biological, but also the psychological and social conditions in which humanity is living. Mankind is faced with serious problems created by himself as a result of his activities. Such problems are pollution, over population (hence over demand for everything – food, water, energy, transport, just to mention but few) that deteriorate our quality of life and the 'natural environment'; despite some claims to the contrary (example Lomborg, in the latter chapter(s) of this thesis). These problems are not getting better as time goes on because of increase in demand of the quality of living by more people. This forced some concerned elites in the developed world – Organisation for Economic and Cooperative Development (OECD) in April 1971 to analyse the serious need and urgency of establishing and developing new teaching programmes at school, college and university.

VIII CONCLUSION

That is to say that education (environmental) of pupils and students could be a contributing remedy since there has been little or no effort to make such problems in the past known to students. Other efforts concerted to abate these problems include: the establishment of the United Nations Environmental Programme (UNEP) in 1972 followed by the Belgrade Chapter in 1975; Intermediate Technology Development Group (ITDG) with concerted effort in East Asian and Western Sudan where the communities develop 'appropriate' technology to resolve poverty and devise traditional methods to resolving conflict. Danish University Consortium for Environment and Development – Industry and Urban Areas (DUCED – I & UA) established in 1998 for the qualified elites in environment and technology so as to devise appropriate measures in abating the unfolding environmental problems in industries and urban areas among other global challenges. Prominent in Denmark where universities cooperate and encourage EE and research in Denmark and other countries that receive Danish environmental aid such as Malaysia, Thailand and South Asia. The Danish University Consortium for Sustainable Land Use and Natural Resource Management (DUCED SLUSE) set up and encouraged the teaching of inter-disciplinary environmental courses in Malaysia, Thailand and South Asia (MUCED, TUCED and SACUDE SLUSE respectively). UNESCO is not left out, prominent in her efforts to achieving quality education for all children and encourages education for sustainable development (which on the other hand is EE). Also Danish National Development Assistance (DANIDA) and Danida's Centre for Competence Development (DCCD) are all concerned about sustainable use of natural resources and / or management measures as to abate the environmental issues and problems for the sake of all and the environment itself. Efforts should be made by policy makers, implementers and awareness generation programme among the people towards environment education basic need now a days for overcome environmental issues.

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