

ACADEMIC INTERVENTIONS - ITS ROLE TOWARDS ENVIRONMENTAL SUSTAINABILITY AND CONCERNS AMONG ADOLESCENT STUDENTS, A SOCIOLOGICAL STUDY

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Abstract

Alarming rate of climatic change towards global warming is the after effect of rapid growth and development (?) along with industrialization which resulted in exploitation of natural resources. It is high time that sustainable development is given a serious thought. Environmental sustainability is the process of making sure whether the current process of interaction with environment is pursued with the idea of keeping our environment on ideal-seeking behavior. The Report of 'Third Global Environment Outlook' state that by 2032, urbanization will convert 3% of the earth surface into concrete. Drought will affect more than half of population. Of the remaining land and animals, 70% would be under threat; annual release of 16 billion tons of carbon dioxide from fossil fuels. An unsustainable situation occurs when natural capital is used faster than it can be reinstated. Therefore, sustainability requires that human activity uses nature's resources at a rate which can be restored naturally. Formal Education, as per the sociologist's view is a way of socialization, has to play a vital role to make the people aware and act upon the various issues related to unsustainable situation of the environment. The United Nation recognized the role of education and declared a decade of education for sustainable development during 2005- 2014, which aimed to, 'challenge us all to adopt new behavior and participate to secure our future'. They aimed at utilizing education as means of integrating the principles of sustainable development with human values and perspectives in order to create a sustainable society. The present paper investigates the issues and concerns related to the environment and the role of education, as a social institution i.e., role of teachers and students in academic interventions, for environmental sustainability.

KEY WORDS: *Environment, Sustainable development, education, academic interventions*

Introduction

All human societies are based on ecology, the web of physical and biological systems and processes, which is facing one of the most challenging global issues in the form of climatic changes. It is a concern not only for the scientists who are to analyze it but also of the policy makers, academicians and the people from various sections of the society. Environmental pollution has become serious and critical. We have lost the qualities of a healthy environment due to continuous pollution. Environmental issue has fast changed into life issues for the risk society. According to the British sociologist Anthony Giddens, a risk society is "a society increasingly preoccupied with the future (and also with safety), which generates the notion of risk,¹ whilst the German sociologist Ulrich Beck defines it as "a systematic way of dealing with hazards and insecurities induced and introduced by modernization itself (Beck 1992:21).²

Objectives of this study

- To analyze the environmental issues.
- To find out the need for sustainable environmental protection.
- To analyze the measures taken towards sustainable environmental protection taken by different agencies.
- To identify the role of teachers in developing proper attitude among the students through academic interventions for sustainable environmental protection

Environmental issues

Deforestation, climatic changes due to global warming are some among those calamities due to human interventions. We are almost helpless in identifying and distinguishing natural and manmade factors in the changing ecology. Even Agriculture, Industrialization, and Urbanization cannot escape the guilt of responsibility on environmental degradation. Capitalism has its own influence on the ecology. Capitalist commoditization has transferred human life and land scape. Exploitation has altered natural environment, often permanently towards the worst. Commoditization of nature has changed it into a commodity which can be bought or sold for economic gain.

Water, land, fossil fuels, and petroleum products are fast depleted and destructed. Many regions in our country are facing drought due to lack of ground water. Aquifers are being emptied of accumulated water over hundreds of years with in a small period of time. Rivers are being polluted and diverted, water bodies are damaged, causing irreversible damage to them. Urban development destroyed water beds as well as cultivatable upper soil.

Bio diversity is challenged by deforestation. Destruction of grass land and wetland has become an everyday practice. Industrial pollution has become a major issue, Polluted air, water and sound has changed the urban and even the rural environment into an unhealthy state. Not any aspect of the globe is exempted of man's greed.

Even though economic progress helps in enriching our standard of life and provides us with ample comfort, it degrades the environment to a large extent. Exploitation, the watch dog of capitalism, helps in the economic growth, subsequently exhaust and degrade resources. Thus current generation are not only the one which is going to be affected by the repercussions but also the life standards of future generations.

Is there any way out? On Theory of Trusteeship- Mahatma Gandhi ³says that, 'I must know that all that wealth does not belong to me; what belongs to me is the right to an honourable livelihood, no better is the right to an honourable livelihood, no better than that enjoyed by millions of others. The rest of my wealth belongs to the community and must be used for the welfare of the community. Harijan, 3-6-1939

The concept and need for sustainable development

Sustainable development is an important milestone in environmental theory because it points out how society itself should be organized, and not simply why certain environmental protections should be adopted or how they can be best implemented. Of course, just how much social and economic change is necessary to achieve sustainability depends upon how –unsustainable one believes the present to be. Many advocates of the idea clearly believe the present to be quite unsustainable and thus are prepared for radical change

The concept of Sustainable development gained worldwide momentum with the publication of the Brundtland Report 'Our Common Future' by the World Commission on Environment and Development (WCED) ⁴ in 1987. Among the definitions on Sustainable development, the most widely accepted one is by WCED -development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Three fundamental components of sustainable development was pointed out by this report they were; environmental protection, economic growth and social equity. Sustainable development focused on ways to attain economic and social development in ways that minimized environmental degradations, over - exploitation or pollution.

Environmental and conservation education- role of different agencies

The Global Environment Outlook for Youth⁵ product GEO is produced by, and adapted for, a youth audience between the ages of 15 to 25. It aims to stimulate dialogue within the youth community on environmental themes and issues. The programme tries to educate and provide capacity-building tools to foster active youth commitment for achieving sustainable development. GEO for Youth aims to inform younger generations about the stimulants of the environmental change, the current state of the environment and explore pathways to achieve a healthy planet for future generations. GEO for Youth also aims to connect younger generations across the world to raise their voice and deeply empower them to participate in the decision-making processes in their regions. Past regional editions of GEO for Youth have facilitated cooperation between youth and other key stakeholders in working towards a sustainable future. The sixth edition of the Global Environment Outlook will be released in March 2019.

At Global Environment Outlook-6⁶, held in Singapore under the theme "Healthy People, Healthy Planet," students spoke up. If they must live with the environmental legacy left to them by previous generations, then they want to be part of the conversation on solutions and policy making. Young activists don't need to follow a movement anymore. As younger participants, 'we are already engaging as environmental scientists. We are looking for ways to implement environmental policy in our own local communities.

One thing they discussed during the conference is the huge gap between research knowledge generation and its application in the real world. They can bridge this gap, by helping companies to come up with new ideas or technology which can be piloted in the real world. Can seek help from organizations or platforms, which aims to provide expertise in business growth, investment, design, and marketing to drive business ideas forward in the real world. Can facilitate dialogues on how to strengthen science-policy-business interactions among their peers and how knowledge generated from research is used for awareness raising, youth empowerment and in policymaking. The Brundtland Report was later revised into 'Caring for the Earth: A Strategy for Sustainable Living' (IUCN et al., 1991), which was widely considered to be a timely contribution to the debate on the definition of environmental education, with its focus on translating ideas and principles of sustainable living into practical actions (Palmer, 1998)⁷. The declaration of 2005 to 2014 as the Decade of Education for Sustainable Development herald a new phase in the continuous evolution of environmental education and its subsidiary, conservation education. This initiative, for which UNESCO as the lead agency, was an international educational effort that aims to encourage changes in behaviour that will create a more sustainable future in terms of environmental integrity, economic viability and a just society for present and future generations.

Approaches to environmental education have evolved dramatically from their natural science base of the 1960s to a social sciences orientated perspective in the 1990s and present day (Palmer & Birch, 2005)⁸. Originally environmental education was considered to be simply nature studies and it was only in the 1970s that environmental studies and conservation education first emerged. In the 1980s, the promotion of environmentally responsible behaviour became the primary goal of environmental education (Hungerford & Volk, 1990, Mappin & Johnson, 2005)^{9, 10}, so that the broad title of environmental education now included global education, politics and development studies. In the last 15 to 20 years this has been expanded to incorporate capacity building and action research aimed at the resolution of socio-economic problems (Palmer & Birch, 2005)⁸. In effect environmental education has become education for behavioural, personal and social change (Mappin & Johnson, 2005)¹⁰

The development of environmental education

Rachel Carson's release of *Silent Spring* in 1962¹¹, stimulated us to ponder over the effects of pesticides in the environment. It brought about a new sense of urgency in how mankind interacted with their environment and paved the foundation for environmental literacy

A new educational movement was born after the publication of the landmark book. *Silent Spring* quickly became a catalyst for the environmental movement. From this movement, a different emphasis began to emerge, one is that development of awareness of human complicity in environmental decline and the other on involvement of public values that stressed the quality of the human experience and hence of the human environment. The environmental educators began to work towards a common definition for environmental education.

In 1970s, United Nations conference on the human environment held in Stockholm (1972)¹² boosted the emergence of environmental education movements by focusing the attention on environmental concerns. It led to the creation and promotion of many NGOs working towards the conservation of the environment. It also recommended that environmental education should be recognised and promoted in all countries.

Education is often viewed as an unalloyed good and, consequently there have been few empirical studies on the costs and benefits of different forms of education within the field of environmental conservation. Therefore, there is an urgent need for a comprehensive, quantitative and critical assessment of the role of education in order to determine how educational policies may be carried out in the most cost-effective manner to aid the implementation of environmental conservation strategies.

The Oxford English Dictionary defined education as "systematic training and instruction designed to impart knowledge and develop skill effectively", both the acquisition of knowledge and the ability to evaluate that knowledge. However, environmental education, first defined by the International Union for the Conservation of Nature and Natural Resources (IUCN) ¹³ in 1970, includes the element of behaviour; the idea that through knowledge, changes in behaviour at a personal, societal and global level will occur (IUCN, 1970). Environmental Education refers to the overall field of education which engages learners with their environments, be they natural, built or social.

The range of practices and approaches to Environmental Education has evolved significantly since the term was first used in the late 1960s. Initially in the 1970s educators perceived Environmental Education as 'education about the environment' which focuses on developing knowledge and understanding. Environmental Education then progressed to favour the approach of education for the 'environment' with its focus on participation and action to improve the environment. Currently within Environment Education one can still find examples of all these approaches in practice. The most recent development in Environmental Education theory and practice is 'education for sustainability'. This approach challenges current practice in several ways to achieve more systemic change towards sustainability.

Education is often only considered to be the formal aspect, undertaken in schools or higher education. However, Agenda 21, drawn up at the Rio Earth Summit in 1992¹⁴, states that: "Education, including formal education, public awareness and training should be recognised as a process by which human beings and societies can reach their fullest potential. Education is critical for promoting sustainable development and improving the capacity of the people to address environmental and development issues.... Both formal and non-formal educations are indispensable to changing people's attitudes" (UNESCO, 1992). This highlights the importance of education as critical for achieving sustainable development but also emphasises that both formal and non-formal aspects have to be included as part of the curriculum. Consequently, environmental education, and therefore conservation education, should be considered to include, not just formal education and training, but also public awareness-raising such as, posters and media campaigns, school environmental clubs and transfer of indigenous knowledge etc.

IUCN¹⁵, International Union for Conservation of Nature, was established on 5 October 1948 in the French town of Fontainebleau. As the first global environmental union, it brought together governments and civil society organizations with a shared goal to protect nature. Its aim was to encourage international cooperation and provide scientific knowledge and tools to guide conservation action. The first IUCN conference in Paris, held in 1948, was the first time that the term environmental education was used (Palmer, 1998)⁷, however it was not until the 1960s that the term began to gain more common usage. In 1970, at an IUCN meeting in Nevada, US, the official definition of environmental education was coined (IUCN, 1970), but it was not until the late 1970s that the first international conferences were held specifically on the subject of environmental education (UNESCO, 1975, 1977).

Education includes both formal and non-formal aspects (UNESCO, 1992). It has been argued that non-formal education is a necessary supplement to formal education (Weladji et al., 2003)¹⁶, and that if delivered through existing local organisations may have a more immediate impact and be better able to absorb and utilise local knowledge than traditional, formal education (Nyhus et al., 2003)¹⁷. A number of studies exploring non-formal education have been undertaken in the agricultural field, and have shown that while formal education is not a significant factor in agricultural productivity, non-formal education is (Kalirajan & Shand, 1985, Parra-Lopez et al., 2007)^{18, 19}.

Attitude-behaviour framework

If education programme is to achieve a more long-lasting effect and consequently, conservation success, a change in attitudes, behavioural intention, and ultimately behaviour has to occur. Attitudes have been defined as peoples' "feelings, values or beliefs" (Henerson et al., 1987)²⁰, whilst behaviour is "the decisions, practices and actions of people, as individuals and as groups" (Byers, 1996)²¹

Recent research findings demonstrate that awareness and knowledge of environmental issues alone are not sufficient to elicit positive environmental behaviour (Hungerford & Volk, 1990, Palmer & Birch, 2005)^{8, 9} and that although community outreach initiatives and education may be effective in shaping attitudes towards conservation; they cannot automatically be related to behavioural changes. This may be because demographic and socio-economic factors exert important influences on the attitudes an individual holds (Foxall, 1984)²².

Academic intervention- Role of Teachers in a formal system

Education has an active role in improving the sustainability of our environment. And it is the teacher who is to play a major role to convince the society to adopt the urgency of environmental education, both at the formal and informal level.

After analysing the data the Suggestions which this study makes towards environmental sustainability are as follows

The students are to be inculcated with a vision for environmental sustainability.

They should be introduced to capacity building and training for the same.

They must be enriched for research and innovations on it.

Teachers and policy makers along with the educationists should re-visit and re-orient existing educational programmes for ensuring the inclusion of environmental sustainability.

Conduct celebrations of environment day and Earth day Population day. Planting and nurturing of flora.

Expose the students' to different kind of community projects in encouraging and experiencing preservation of genetic diversity with community participation.

Plan and execute ample environmental activities and field visits correlated with the customs and traditions of the community.

Take actions in the formulation of Botanical gardens in the schools along with the students. That should include plants which have many uses for the protection and purification of the environment.

Help plan and execute measures and activities to encourage the students to adopt eco- friendly life-styles, which shall be extended to the immediate community.

Teachers should and encourage their students to write articles on different aspects of sustainability of environment.

Proper environmental education will aim at the development of positive attitude towards soil, air, water, trees, and animals living in this globe. It is of utmost importance that they as well as the coming generations too have the right to lead a healthy and safe life. We are responsible of handing over this world to them in a better condition than from which we have inherited.

As the global biodiversity crisis continues to worsen, due to an ever-increasing human population and the intensifying threat of climate change, it may be wisest to act on, and learn from, the lessons of these studies. Albert Einstein²³ points out that, 'Environment is anything that is not me.' It means that, Environment includes all outside factors that have acted on the individual since he began life, without which the individual existence is a question.

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