



Environment Education In Contemporary Times: Issues And Challenges

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Abstract

Humanity's effect on the environment is now generally accepted to be enormous and to have dire effects on the next generation. Youth environmental awareness, green social behaviour, and effective solutions to environmental issues are all facilitated by environmental education. India has made environmental education mandatory for all school-aged children, among other steps, since it recognises the significance and need of this field of study. There is a pressing need to refocus environmental education curricula to make them more engaging and relevant to local environmental concerns at a time when environmental conditions are deteriorating and all forms of life are feeling the ill effects of pollution and shifting weather patterns. The public, and notably high school and university students, need to be educated differently on environmental management challenges, hence it is important to rethink relevant policies.

Introduction

A new way of thinking about how to educate people about their place in the natural world and how they may help protect it is essential for the field of environment education (EE), which is expanding quickly. In recent years, EE has gained widespread recognition as a powerful conservation tool with the potential to influence individual patterns of behaviour. Greener ways of thinking, approaching, behaving, and committing to the environment are instilled in the populace via EE, particularly among the young. People's environmental attitudes and actions may be improved via first-hand contact with nature, according to the available research data.¹ EE should be a component of every student's civic, moral, and liberal education,² not just the scientific curriculum. This catalyst also aids in raising public awareness of environmental concerns and encouraging individuals to take part in environmental management. EE uses both formal and non-formal modes of approach to achieve its primary aim of encouraging people to comprehend their surroundings. Now more than ever, with the whole globe grappling with a wide range of environmental problems, EE is a crucial part of the educational process for mitigating the worst effects of this crisis. Nature-based environmental education is a very promising strategy for generating environmentally motivated persons; an additional study into the value of cultivating both environmental knowledge and connectivity to nature as complementing drivers of ecological behaviour is needed.³

Even though “environment” is a phrase that most of us are familiar with, it’s likely that we have no idea how crucially important it is to human civilization’s fate. As the number and severity of environmental threats grew, so did our understanding of the need of EE as a means of generating public support for initiatives designed to mitigate those dangers and ensure a brighter future. In the 1990s, EE was seen as an essential field of study since environmental pollution had become a global issue that threatened the very life of flora and animals. It was during this decade when EE was first used nationally, primarily as a means of raising awareness about environmental concerns.

The Supreme Court of India mandated environmental education as a required course of study in its 1991 ruling on the case *M.C. Mehta Vs. Union of India*.⁴ This mandate applied to all levels of education, from elementary and secondary schools to universities and technical institutes. Finally, in 2003, the Supreme Court of India issued yet another judgement making EE a required study for students of all ages and backgrounds. Some schools around the nation have begun offering “Environmental Sciences” programmes after being directed to do so by the Supreme Court. However, early on it generated hardly any buzz among the young and the general public. Since then, EE has become an established part of K-12 and postsecondary curricula alike. For this reason, India stands out among other nations for providing formal recognition of EE’s significance in the law. According to a UNESCO assessment, the decision of the Supreme Court of India has led to EE education being provided to more than 300 million kids across 1.3 million schools.⁵

Subsequently, as a result of the proliferation of environmental crises such as pollution, loss of biodiversity, improper waste disposal, and global warming, EE attracted the attention of many different groups, and many different universities began offering specialised courses such as “Environmental Microbiology,” “Biodiversity,” “Natural Resource Management,” “Wildlife Biology,” “Marine Biology/Sciences,” “Environmental Impact Assessment,” and so on. When EE’s place in K–12 and higher education is considered as a whole, it becomes abundantly evident that EE is only a vocational subject that must be studied and passed by every student. From kindergarten through fifth grade, EE is taught as its own distinct subject; from sixth grade forward, it is integrated into the science curriculum as a topic under which students study topics connected to the environment. EE is often included in the first year of a college’s technical and professional curriculum. In addition to creating a model EE curriculum, the National Council for Education, Research, and Training also published a reference book for primary schools called “Towards a green school,” which focuses on education for sustainable development.

The importance of education in achieving sustainable development is well acknowledged. Educating people effectively may have a significant impact on their outlook and behaviours, leading to more environmental protection. With the help of government, civil society, and private sector activities, education may play a crucial role in bringing about the necessary shift toward more ecologically sustainable societies.⁶ At the 1992 UN Conference on Environment and Development in Rio de Janeiro, a distinct chapter titled “Education, Awareness, and Training” (Chapter 21) was accepted. Later, after a decade had passed between the United Nations Conference on Environment and Development in 1992 and the World Summit on Sustainable

Development in 2002, UNESCO signalled the need for a reorientation of education towards sustainable development and a new vision for education (2002).⁷ Sustainable Development Goal (SDG) number four states, “provide inclusive and equitable quality education and encourage lifelong learning opportunities for everyone.” This goal is one of seventeen that aim to improve the world. Education is a strong and proven tool for guaranteeing SDG “4”, and its success in making sure all members of society have access to it is further proof of this.⁸

CHALLENGES AND OPPORTUNITIES

Producing quantifiable outcomes is one of the most difficult tasks facing education today. Unhappily, this objective is neither simple nor free of the politics of testing and the endless philosophical arguments about what constitutes noteworthy increases in learning and understanding. Although environmental education isn't immune to these challenges, it does provide some promising possibilities for improving instruction, honing students' observation and problem-solving abilities, and yielding quantifiable results.

The framework of educational programmes may be guided by a firm grasp of the end goal of teaching our children. Most people who have an opinion on the topic of educational reform agree that one of the primary aims of the school is to help kids grow into contributing members of society by teaching them new skills. The greatest potential for environmental education to improve people's lives is in helping them learn to be responsible, contributing members of society. Common graduation requirements in the United States include student participation in community service. This isn't tacked on for the sake of doing good; rather, it's an integral element of the learning-by-doing paradigm that has shaped American education for almost a century. It seems to reason that lessons on environmental protection would do better if they included exercises designed to really improve the state of the planet.

Even if environmental concerns are becoming more complex and harder to assess, they are frequently reduced to a “sound bite” instead of being described in depth. Those with a stake in an unsustainable, resource-extractive method of economic growth frequently use their influence to undermine legitimate efforts to address environmental issues. To guarantee that science maintains its central role in explaining and assessing environmental challenges and creating solutions to environmental problems, the challenge is to articulate this complexity in ways that are accessible and inviting.

When it comes to environmental issues affecting aquatic resources, for instance, there is a significant information gap between what the public hears and what they comprehend. Everyone is aware of the widespread worry amongst Americans about the quality of their drinking water. A National Environmental Education and Training Foundation (NEETF) study, however, found that “approximately one in four American citizens recognise that the major source of water pollution is surface water pouring off the land, from agricultural fields to city streets” (NEETF 1997). NEETF notes that “even if the bill-payer reads the report, its technical character may be

overwhelming” in reference to the “Consumer Confidence Reports” that utilities and water providers will soon be required to provide (NEETF 1997).

The chasm widens for other environmental concerns as well. Understanding these problems requires a certain level of scientific literacy, and there is some evidence to suggest that the United States is falling behind other developed nations in this regard. An article titled “The ABCs of Science Education” states, “Even our finest and brightest are slipping behind—the highest scoring students in the country.” Eighth graders in the United States get the same education as seventh graders in high-performing countries.⁹

In addition, there have been attempts to “dumb down” the current scientific foundations of environmental knowledge to promote an agenda that relies on a non-sustainable, resource-extractive method of economic development. The loss of biological variety, the deteriorating state of aquatic resources, and human-induced climate change are all targets of this movement’s assault on environmental education. These opposing viewpoints argue, in essence, that the environmental worries held by the majority of the American population are unfounded and that any educational materials devoted to the topic that fails to emphasise this are unfairly prejudiced (Manilov and Schwarz 1996–1997). It’s true that the anti-eco-education movement has died down in recent years, but it still plays a major role in determining the direction of environmental education in the United States.

To effectively analyse and react to environmental problems, education must include instruction on both the scientific method and the nature of the scientific inquiry. Environmental education suffers when pedagogical resources ignore science or fail to adhere to the accepted norms of scientific research.

However, educators still have the responsibility to communicate in a manner that is accessible to students who may be intimidated by complex scientific topics and does so without sacrificing the necessity to integrate science into instruction. In the instance of Pfiesteria, we have a perfect illustration of this principle at work. Once news spread about the devastating effects of Pfiesteria on fish populations and human health in the Chesapeake Bay and along the North Carolina coast, the poisonous bacterium gained widespread attention.

A highly charged topic that is reduced to sound bites throughout the media. Experts on the topic (such as JoAnn Burkholder, a world-renowned authority on Pfiesteria) tried mightily to express the difficulty in words that laypeople could grasp and to separate areas of known fact from those that were shrouded in mystery. The National Wildlife Federation also took an active role, publishing articles and activist materials that were neutral, based on science, easily understood, and, most importantly, prompted readers to do their own research.¹⁰

Lastly, the Federation’s engagement in the issue via the creation of resources that explain the scientific investigation and give avenues for future study is an important part of environmental education. The National Wildlife Federation’s Nature Scope books *Diving into Oceans* and

Wading into Wetlands are two excellent examples of the aforementioned method, among many more.¹¹ These books and articles include exercises that may be used to improve one's scientific learning abilities and provide ideas for where to get further reading material on the topic of aquatic resources. Both volumes benefited greatly from the peer review and editorial input of an impressive roster of prominent scientists.

The scientific community has presented the most compelling proof to date of the destruction we have wrought upon Earth. However, the reliance on scientific evidence to back environmental education programmes and materials persists, making it imperative that scientists acquire new methods of explaining and simplifying complicated topics so that the general public may grasp them.

Political choices and actions, as well as the formulation of policies pertaining to EE and the re-examination of existing policies from a perspective of environmental conservation, are also essential components of EE. Some of the reasons why the effects of EE are not readily apparent on the ground include a lack of care and dedication for the environment, as well as a lack of skills to solve environmental issues as a result of poor environmental courses.¹² The necessity to instil such information and abilities is especially pressing in the present day when climatic circumstances are changing unfavourably and all living creatures are suffering from the detrimental repercussions of environmental degradation and climate change. This will make it easier for individuals to take environmentally responsible behaviours. Therefore, a strategy to pique the attention of both students and teachers in environmental and associated concerns is required.

To realise its goal of creating a "Clean India," the government of India started the "Swachh Bharat Mission" in 2014. This expedition accomplished its goals and demonstrated India's dedication to creating a healthier, more environmentally friendly country. The "Swachh Bharat Mission" is, in reality, an environmental education initiative. Although it is difficult to quantify the effect of EE on producing environmental leaders, some environmentalists claim to have seen a dramatic shift in awareness levels as a result of education, while others remain unconvinced. In terms of enacting reform via the legal system, the Ministry of Human Resources Development issued the National Policy on Education back in 1986.

This was revised in 1992 and calls for environmental education to be included in schools at all levels. The National Education Policy, 2020, which supports EE, is now being published by the Ministry of Human Resource Development. The National Council for Educational Research and Training, whose primary mission is to create educational standards and curricula, may serve as a model for EE rollout throughout the nation. At addition, the University Grants Commission and the All India Council for Technical Education have a chance to have a significant impact on the development and dissemination of environmental education in India's tertiary and professional institutions.

The Ministry of Environment, Forest, and Climate Change is enforcing a number of laws that emphasise environmental protection, including the Wildlife (Protection) Act (1972), the Environment (Protection) Act (1986), the Biological Diversity Act (2002), and the National Environment Policy (2006). The Ministry of Environment, Forest, and Climate Change is training the next generation of environmental advocates via initiatives including the Green Good Deeds initiative, the Green Skill Development programme, and the National Green Corps (Ecoclub) programme. As well as the aforementioned groups, the National Council of Science, Technology, and Communication, Prasar Bharati, the CSIR - National Institute of Science Communication and Information Resources, etc., run several environmental awareness programmes and campaigns. The Global Learning and Observations for Benefiting the Environment (GLOBE) programme is one example of a multinational initiative aimed at improving environmental conditions throughout the world. Students may actively contribute to our knowledge of Earth systems and the global environment via this program's data gathering and scientific process opportunities. The current count of nations taking part in the initiative is close to 122.¹³

Over the last three decades, the significance and urgency of EE have shifted greatly due to shifting environmental circumstances and a growing human population. The EE course outline should be reviewed and updated. Nature conservation features should be included into EE programmes to make them more appealing and fascinating, particularly to school-aged children. Field-oriented learning activities must be implemented to guarantee that the capacity of both students and educators is being built. Biological variety, pollution (air, water, soil, and noise), waste management, and forest and animal protection are just a few of the essential themes that may be covered in the training module. In addition, it is crucial to include certain field learning tools, which will help educators and students acquire and disseminate information about nature's dynamic components.

CONCLUSION

Even though EE has been incorporated more smoothly into the curricula at all levels of education, there is still a need to raise awareness, particularly among high school and university students. Getting this done may be accomplished via formal and informal learning. To get students excited about environmental concerns, we need to provide outdoor learning modules like nature camping, adventure, arranging training programmes and seminars, etc. Equality and equity (EE)-related efforts repeated often; "regularly" There ought to be a requirement for EE in all four years of college. It's important to educate young people on the wide range of career paths available to them, such as working as an Environment Advisor for a company, assessing the company's impact on the environment, or joining an international organisation like the United Nations Development Programme (UNDP), the World Wide Fund for Nature (WWF), the International Union for the Conservation of Nature (IUCN), the World Trade Organization (WTO).

If we and future generations are going to reap the advantages of a high quality of life and our natural legacy, we need to rise to the task of providing effective and meaningful environmental

education.¹⁴In light of the fact that “environment” is only the plural form of “nature,” environmental education should be seen not just as a “type of education,” but also as a knowledge-based conservation tool for dealing with environmental problems. “Education is the most effective weapon you can employ to change the world,” Nelson Mandela declared in 1990. Furthermore, it is an integral part of education at all levels that encourages people to embrace environmentally friendly practises for the sake of future generations and the planet’s long-term sustainability.

Significant progress has been made in protecting aquatic resources, but protecting them will continue to be difficult due to human population development and industrial usage. Despite being seen as “soft” and receiving less attention than other parts of environmental preservation, environmental education is crucial to the success of the environmental movement in the long run.

Supporters and problem-solvers are nurtured. Environmental education should acknowledge and begin successfully reacting to three important problems if it is to produce new leaders in the environmental field in the next century and if it is to encourage the general public’s understanding and care for the environment. Adapting to shifting demographics and a more diverse range of life experiences, combining new information sources with old, better informing the public about environmental challenges, and avoiding the psychology of despair are all important.

There is a lack of depth and useful information in current Indian Environmental Education. Curriculum designers should not only think about the theoretical aspects of the environment that need to be taught to students, but also about the content of the curriculum itself, which should provide students with ample opportunities to explore the environment on their own, so that they can understand the fundamental connection between people and the environment, the many ways in which people’s actions are harmful to the environment, and the roles we each play in preventing further degradation of the environment.

There has to be a connection between the material and the real world. It must be meaningful to the students, tackle pressing societal issues, and provide them with the knowledge and skills they need to be lifelong students. There is a strong case to be made for exposing students to real-world problems as early in their education as possible. Without a personal understanding of the issues, students are less likely to be motivated to develop and implement creative solutions that will ultimately benefit society as a whole. The goal of environmental education is to inspire the next generation to take concrete action to restore the planet’s deteriorated state, therefore its material should be both informative and motivating.

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