Social Mobilization for Ecological Literacy

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Abstract

The global environmental crisis is now widely recognized as one of the most pressing issues of our times. It can be argued that this crisis is primarily a crisis of values, with serious implications for future generations and for the sustainable development of society. The nature and extent of the environmental crisis represents a context in which urgent responses from many sections of society are required. This paper focuses on one particular response, the development of environmental education and activism amongst school students. In particular, the paper presents a case study of school students involved in the Mathrubhumi SEED project in Alappuzha and how these students responded to a specific environmental issue. The objective of the case presentation is to highlight the importance of ecological literacy and the ways in which school-based environmental programmes may facilitate environmental education and subsequent activism. This article describes a situation which arose in Alappuzha where the district authorities moved to cut down trees along the canal-side as part of a beautification project. The trees were an important habitat for a range of wetland birds and were ecologically connected to the broader canal and wetland systems of the district, an internationally recognized Ramsar site. Students involved in the SEED project engaged in protest actions in response to this situation, mobilizing both media and wider community support, resulting in an effective change. This paper argues that such environmental education, focused on developing ecological literacy, is an important step in securing an ecologically sustainable future.

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Introduction

It has become increasingly obvious that the survival of humanity will depend on the widespread development of environmental and ecological literacy. Fundamentally, such literacy's relate to our ability to understand and learn from the operations of natural systems as well as developing a deep awareness of the interrelated and interconnected nature of all such systems. Such an understanding clearly places humans as part of this complex web of relationships and highlights our primary dependence upon the natural world. Given the urgent nature of the current global environmental crisis, an argument can be made that eco-literacy should be seen as an essential tool for politicians, business leaders, and professionals, as well as scientists and environmental activists. The urgency of these environmental issues facing our societies means that the pursuit of eco-literacy should also be an essential part of education at all levels-from primary and secondary schools to colleges, universities, and the continuing education and training of professionals (Capra, 2008). Ecological literacy is more than just a sense of awareness of the natural world. It is about the sense of belonging and insights about our own inter-relationship with nature. Environmental education is a particular practice and pathway that can help achieve such environmental and ecological literacy. Importantly, the development of such literacys' does not in itself lead inevitably to positive change. For this to happen, ecoliteracy must be translated into the practical level of everyday life and to actions which help move us towards a more sustainable future. It has been well established that direct experience with the natural environment has the power to transform a person and helps them to take action to stand up and protect their environment (Golley, 1999).

Environmental Education

Environmental education is a process that allows individuals to explore environmental issues, engage in problem solving, and take action to improve the environment. As a result, individuals develop a deeper understanding of the environmental issues and learn the skills to make informed decisions. One of the most widely accepted definitions of environmental education

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was given in the Tbilisi Declaration, which was developed at the international conference of environmental educators, sponsored by UNESCO in 1977. Environmental education is a learning process that increases people's knowledge and awareness about the environment and associated challenges. It also develops the skills and expertise to address the challenges. According to the Tbilisi Declaration environmental education is seen as a life-long process that is interdisciplinary and holistic in nature and application. It shows the interrelationship between the human and natural systems and encourages the development of an environmental ethics, awareness, understanding of environmental problems, and the development of critical thinking and problem-solving skills (Bartosha, 2003).

The components of environmental education are: awareness and sensitivity to the environment and environmental challenges, knowledge and understanding of the environment and environmental challenges, attitudes of concern for the environment and motivation to improve or maintain environmental quality, skills to identify and help resolve environmental challenges, participation in activities that lead to the resolution of environmental challenges. Environmental education does not advocate a particular viewpoint or course of action. Rather, environmental education teaches individuals how to weigh various aspects of the issue through critical thinking and enhances their problem-solving and decision-making skills.

The role of the school is significant in environmental education initiatives, where it often acts as an agent of socialization. Peer experience and collective action in the fields of environmental education helps to mold the children as environment friendly individuals. Experience-based environment education, in particular, molds the behaviour and attitudes of students. Teachers have an important role in this education process in at least ensuring that students can transfer their knowledge for positive environmental action into their wider schools and communities.

A collaborative focus on specific environmental issues is often the pathway towards broader social mobilization. Community mobilization can be understood as a process through which individual people, groups or community organizations use a participatory approach to identify needs and to plan, carry out and evaluate activities to improve their lives(UNICEF, 2013). Ecological literacy is clearly the need at all these levels of social organization and therefore lends itself to a community or social mobilization approach. Local empowerment through ecological literacy

can be a powerful force in mobilizing the community to protect their environment for their collective future. It is an action for a healthy and peaceful life. However, such mobilization and social involvement with regards to the environment can only happen when the communities are aware of the importance of maintaining a healthy and productive ecosystem(De Lorme, 2003). Therefore, campaigns and programmes should be designed by environmental educators and activists in a sustainable way, thereby assisting target groups with the development of their specific knowledge, skills, and attitudes that are necessary to solve environmental problems (Allen, 2001).

The first step in addressing environmental problems is therefore to develop an environmentally conscious society and to identify the environmental problems that are present and rising in the society. Education is a crucial process that needs to be effectively implemented in order to achieve this goal of environmental awareness. Moving outside the classrooms and working with nature is one way to transfer the information to the society.

SEED Project

SEED is a social initiative project of the *Mathrubhumi*news organisation, begun in 2009 in association with the Federal Bank. SEED is a novel project which aims to make school children aware of the importance of environmental protection and to make such activities as part of their daily life. It is an attempt to harness the power of environmental education with the long-term goal of restoring the purity of our air, water, and energy which are threatened due to human's selfish interference. Mathrubhumi began this movement for the children of the future generations with a goal to produce heightened awareness of environmental protection. Students from Upper Primary, High School and Higher Secondary Schools in the State are in the forefront of the project. The project works on a model of actively engaging the support of teachers, parents, various government departments, as well as private and public sector organisations who are then directly or indirectly involved with this project. The project now represents a foundation of 7,500 schools which have joined together under the SEED banner for enhancing environment conservation initiatives in Kerala. In Alappuzha, 400 schools within the four-educational districts have engaged in environmental education activities under the SEED project. This project empowers the student community with environmental

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protection ideas and action plans for the conservation of natural resource and ecosystems. The initiative aims to create awareness among the student community of the need for environmental protection and enables them to protect water, air, and soil. In this respect, SEED can be understood as providing an important opportunity for the younger generation to take responsibility for the environmental health of their communities.

Mathrubhumi SEED is a partnership based environmental education programme. It opens opportunities for practical and experiential learning for its partners and beneficiaries. It provides a platform for schools to initiate experience-based environment conservation efforts and provides media coverage and appreciation. Government and non-governmental organizations provide their support and guidance for implementing environmental conservation efforts at local levels. For example, the Education Department, Agriculture Department, Forest Department, Local Self Governments and other sectors of service providing centers are extending their constant support and guidance for this movement (Mathrubhumi SEED, 2012-13). It is a joint effort of the awakened schools and self-motivated teachers and their students.

The Alappuzha Case Study

Alappuzha is a district with no forest patch and very high population density. Alappuzha is a planned city, connected with the water body of the Vembanad Ramsar site. Its ecological and international significance serves to emphasize the responsibilities for environmental conservation underlined by the authority and local community. This case is a model for a local environment conservation movement in Alappuzha. This project had two phases: firstly, a reactive element after the occurrence of tree cutting issues, and secondly, the protective element of rethinking the decision to cut the trees.

Alappuzha is the home for a number of local and migratory wetland birds. Without any notice the district authority on 30 August 2013 decided to fell the trees on the sides of the canal of Alappuzha. Birds like the Oriental Darter, Indian Shag and Little Cormorant had made these trees their abode in the nesting season. District authorities sanctioned the chopping of the Ezhilam Pala (Alstoniascholaris) trees which had been the home for numerous birds. The felling of this one, single mighty tree resulted in the death of a large number, nearly 50 birds.

In Alappuzha, local SEED clubs had been formed in the schools to initiate environment conservation efforts at the school level. It is an experience-based environmental education programme. It included both indoor and community outreach programmes. From each SEED club students selected 10 students to act as the SEED police. This represents a group of environmentally and socially vigilant students. Their specific task is to observe and take action to protect the environment. When the Ezhilam Palaissue occurred the SEED police of Lajanathul Muhammadiya Higher Secondary School visited the incident site near the Alappuzha South police station and witnessed the unfortunate disturbance to the habitat of that biodiversity caused by the tree felling. Media representatives and Kerala Sasthra Sahitya Parisadh members interacted with the students at the scene. During the investigation by the Ranni Forest Division, the SEED police informed them of the incident. It was well covered by the press and the public came to know about the participation of the children and their involvement in preserving their own ecosystem.

The Mathrubhumi SEED club of Sanadhana Dharma Vidyalayam Girls HS in Alappuzha subsequently organized a rally to protest against the death of the birds and the decision of the authorities to cut down the trees. As part of this protest they covered their mouths with black cloth and carried placards in their hands accompanied by the school band playing mournful musical numbers. This action caught the attention of the town. This was followed by numerous other schools in different parts of Alappuzha district initiating similar protest actions. It raised the community consciousness about the issue of biodiversity conservation. Voluntary organizations were very impressed with the student initiative and subsequently provided support to this student action.

It has since become clear that the students' protest significantly influenced the society. To conserve the biodiversity of the Vembanad/Ramzar site, the Kottayam Nature Society shouldered the responsibility of conducting an annual birds' survey. They contacted the Mathrubhumi SEED project and agreed to conduct a survey of birds in Alappuzha town. This initiative led to a new phase in the environment conservation in the history of the Alappuzha town.

The bird survey report showed that while surveying the banks of the canal of Alappuzha there were 286 active nests and about 65 empty nests. Of these 286 active nests 103 were of Oriental Darter (Cherakkozhi), which is considered as a near-threatened species. The number of chicks found in

that category was about 260. The report found that 112 nests were of Indian shag and the numbers of chicks were about 310. The remaining nests (71) were of the Little Cormorant (Neerkakka) and the approximate numbers of chicks of this species were 210. The nesting season coming to an end was observed to be the cause of the empty nests. After the completion of the survey, they mapped the nesting and roosting spots of the birds and agreed to follow up with another bird count in the following year.

In the middle of November 2013 the district authority of Alappuzha announced the cutting of 183 trees along the sides of the canal of Alappuzha town as part of a canal beautification project. Under this project, it was planned to cut down big trees such as the rain trees, eucalyptus, and acacia on the bank of canals and replacing them with ornamental trees. Rain trees and associated vegetation are an integral part of the beauty of Alappuzha and its ecosystem. A previous experience showed that the authorities' attitude towards the environment and perspective of development was not viable. This news was covered in the media and student community and voluntary organizations acted again. The Lajanathul Muhammadiya HSS SEED club members filed a complaint with the Social Forestry Division in Alappuzha. At the same time, the SD College Alappuzha filed a Right to Information petition before the Assistant Conservator of Forest Alappuzha. School SEED clubs conducted rallies, students painting exhibitions and public platforms in their school and nearby communities. Voluntary organizations and citizen clubs joined them and protested against the decision of cutting 183 trees by the district authorities. A voluntary organization also filed a Public Interest Litigation to the High Court of Kerala. The media covered the student protest and news of their actions reached out to the broader society. Other schools with similar concern came forward for protecting each tree.

On 26November2013 Alappuzha town witnessed a mass protest against the district authority's decision. In that protest 12 schools and 15 voluntary organizations including the general public participated. Students and the public expressed their concern through various forms like role plays, rode shows and planting trees. They formed a People's Committee to take actions on this issue. This mass movement received widespread media coverage. The action forced the district authorities to withdraw their decision to cut the 183 trees and they agreed to reassess the selected trees for cutting as part of the beautification project. The following day the district authority called a meeting in the Alappuzha Collectorate. In the meeting, it was

revealed that the concerned department did not have reliable data on the biodiversity of Alappuzha town. As a result, they decided to conduct a tree count in Alappuzha town with public participation and to reassess the decision to cut the 183 trees. They selected two persons from the People's Committee to participate in this initiative. By that time, based on the public interest litigation filed at the court, the Kerala High Court ordered a stop to the cutting of trees and gave an order /direction to reassess the cutting of these trees.

The People's Committee (Janakeeya Samithi) conducted its first meeting on 1 December 2013. The People's Committee organized a Masters Training Programme for tree counting for the botany students for three of the colleges in Alappuzha. The selected two persons of Peoples' Committee visited the Social Forestry office and began the reassessment of the 183 trees. The reassessment helped to save 86 trees on the banks of the canal in Alappuzha. The assessment brought to notice that some of the trees were already fallen and dried. A group comprising of students of four colleges, 15 voluntary organizations, media and interested public participated in the programme and scientifically counted trees on the banks of the canal, documenting 1,622 trees of 51 species. The People's Committee suggested the planting of a list of saplings as part of beautification project.

Outcomes and Future Directions

This example of social mobilization for local environmental conservation clearly increased public consciousness and the subsequent mass action paved the way for the development of ecological literacy within the wider community. It mobilized the community to work for biodiversity conservation and brought together a feeling of appreciation for their local environment and its biodiversity. The younger generation, through the SEED project, initiated this movement and their participation guaranteed the rights of children in decision-making. Importantly, social work professionals can also play a significant role in this project in assisting schools to raise their voice for community and environmental development.

This case serves as a model for local environment conservation action in Alappuzha and beyond. Itdemonstrated two distinct phases: one is reactive after the occurrence of tree cutting issue and the other is a protective or preventive component which pushed the concerned authorities to

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rethink the decision on cutting the 183 trees on the canal sides of Alappuzha. Based on the efforts of these schools and their awakened student community, the media, voluntary organizations, other social organizations, policymakers, intellectuals and other environmentally sensitive people came forward to support these efforts.

The vigilant media and their power in creating public opinion were visible in these actions. It promoted the society to take ecologically and socially just decisions. It changed the attitude of policy makers and stakeholders. It improved the vigilance of the local community on their own ecosystem. This movement has changed the face of environment conservation initiative at grassroots levels. The local people have come forward, acted to preserve and conserve their ecosystem. After these initiatives, the public have come together and have taken firm steps for preserving their own local environment. Moreover, organized activities like birds count, tree count and reassessment of trees have ensured peoples' participation.



This initiative is a model for ecological education and intervention based on student's participation. They played a major role in this movement. These students' activities influence the community because of their sensitivity towards the environment and actions. Schools that participated in this movement showed their commitment towards their society and the environment. These schools showed how to facilitate environmental education for their local community through the efforts of these students.

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