Environmental Education and Public Awareness

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Doi:10.5901/jesr.2014.v4n3p333

Abstract

The enhanced pace of development activities and rapid urbanization has resulted in stress on natural resources and quality of life. Humans are responsible for depletion of the natural resources. Environment can be seen to consist of two major components: natural - atmosphere, hydrosphere, lithosphere and biosphere environments and social or man-made environments. As a result of human intelligence, man has great influence on her biological and physical environment. Often time the influence is detrimental to the environment causing soil degradation and erosion, deforestation and desertification, and pollution. Other effects are adverse climate change such as ozone layer depletion, global warming and acid rain. The importance of environment and the complex nature of its components as well as the benefits that could accrue to mankind based in its awareness has given birth to the discipline of environmental education. The tremendous signification of the message of environmental education for the survival of man has made the relatively new academic discipline to attract great attention. The involvement of public in the implementation of environmental education programmes and campaigns cannot be over-emphasized but this is not the case. Air, water and soil pollution is on the increase. To minimize these problems, environmental awareness is imperative. Lack of adequate environmental knowledge is an obstacle in achieving a sustainable future for humankind at both global and local levels. Measuring the level of environmental awareness in a population can be difficult but environmental awareness programme can help reduce the impacts of human activities on the environment. Use of press media, awareness raising campaigns, incorporation in mainstream education (basic, secondary and tertiary), public participation in environmental matters, celebrities in media campaigns and civic education are some of the ways by which environmental education can be heralded. Educating adult, community, traditional and religious leaders on the importance of environmental health and on the well use of the natural environment is also very critical to sustainable development. This paper is an attempt to review the meaning of environment education, its aims and objectives, and ways of promoting environmental awareness in the society. It also considered how environmental education can be implemented in many contexts. The paper concluded with recommendations of ways of sensitizing the public on the need to be environmental conscious.

1. Introduction

Environmental Education (EE) is a learning process which increases people's knowledge and awareness about the environment and associated challenges, develop the necessary skills and expertise to address the challenges, and foster attitudes, motivations, and commitments to make informed decisions and take responsible action. The goal of EE is to develop citizens who are aware of the total environment, concerned about it and its associated problems and which has the collective aims towards a solution of current problems and the prevention of new ones. The ultimate goal of EE is the "quantity of the environment". It is also the improvement of the quality of life of man (IUCN, 1970; UNESCO-Tbilisi Declaration, 1978).

EE is not a separate branch of science or subject but it has been formulated into a definite discipline with clearly defined content area and it should be carried out according to the principle of lifelong education (Finnish National Commission for UNESCO, 1974). EE caters for all ages and social-professional groups in the population.

2. Objectives of the Study

The primary goals of this study are to review the status of EE and to sensitize the public on the need to be conscious about their environment and to suggest ways by which the public could be educated about the environment. More specific objectives are to;

- i. Review briefly the goals of EE ;
- ii. Sensitize the public on the need to develop positive attitude towards a better interaction with the natural world

- and
iii. Suggest ways of educating the public on the need to be environmental conscious.

3. Aim and Goal of Environmental Education

The aim of EE is to enable people to understand the complexities of the environment and the need for nations to adapt and pursue their activities and development in ways which is harmonious with the environment. According to Igbinkopogie (1990), EE is aimed at the acquisition of knowledge, skills, desirable attitude by an individual, towards a better interaction with the natural world.

4. Objectives of Environmental Education

The objective of EE may vary according to the values and interest held by various bodies, and those advocating for it. Martin (1975) sees advocates of EE as falling into two categories – the conservationists and educationist. The conservationist is more interested in the use of natural resources while the educationists are interested in implementation of EE curricular in schools.

The objectives of EE as outlined in UNESCO-UNEP (1989) are to

1. Awareness: EE should aim at sensitizing public by creating awareness about the total environment and its problems. This will help people gain insight into certain alternatives to environmental problems identified.
2. Knowledge: EE should aim at helping individual and social groups acquire experiences and knowledge about their environment and its associated problems. According to Martin (1975), learners should be made to identify the main features of any local environment where he finds himself, explain how these features interrelate, how they contribute to the character of the neighborhood and perceive where modifications to the environment might be made.
3. Attitude: This objective should deal with helping the individual and social groups acquire social values, strong feeling of concern for the environment and motivation for actively participating in its protection and improvement.
4. Skills: This objective is aimed at making people acquire skills for identifying and solving environmental problems and also help individual seek a balance between short and long range implications when taking environmental decisions.
5. Participation: This is aimed at helping individuals and social groups develop a sense of responsibility and urgency regarding environmental problems to ensure appropriate action to help solve these problem. Participatory objective will ensure that everybody become actively involved in solving environmental problems at all levels rather than leave the solutions to only environmentalist.

5. Ways of Educating the Populace

Man's daily activities has continued to upsets the balance of the environment in the following ways: Huge industrial installations every year, urbanisation, deforestation, over exploitation of natural resources, use of insecticides, pesticides, improper use of fertilizers and chemicals in environment and global warming/ozone layer depletion. Mine wastes and effluents from mining and metallurgical industries give a number of physical and chemical problems to human beings. Certain other industries like paper and pulp industries, fertilizer industries, explosive industries, soap and detergent industries, chemical industries, food processing industries, textile, tannery, leather, and petroleum industries release/discharge undesirable and harmful constituents which are responsible for air and water pollution and cause great public concern. Therefore, it is necessary to check all these destructive processes.

It is our foremost duty to conserve our environmental resources. The ultimate goal of environmental education whether it is formal or non-formal is to create awareness among the citizens of a country. This can be understood by the quotation mentioned in the Belgrade Charter, which was issued in the environmental education workshop held at Belgrade, Yugoslavia in 1975 (Tanner, 1980). It emphasizes the basic aim of environmental education as, "To develop a world population that is aware of and concerned about the environment, its associated problems, so that the population will have the knowledge, skill, attitudes, motivation and commitment to work individually and collectively towards the solutions of current problems and prevention of new ones" (UNESCO UNEP IEEP Environmental Education Series 6, 1990). Global concern regarding the steadily deteriorating state of the environment has emphasized the need for

environmental education. Obviously a powerful vehicle bringing about change, a panacea of all evils and a potent weapon for prevention plays a central role in the society. The need of the hour is to make people sensitive towards nature through a strong programme of environmental education (Nachimuthu and Vijayakumari, 1993). Environmental education is a way of creating knowledge, understanding, values, attitudes, skills, abilities and awareness among individuals and social groups towards the environment protection. Environmental education is an attempt to reorient education so that environmental competence is restored as one of its basic aims along with personal and social competence. It is not just a subject of education but an expansion of its whole philosophy recognizing our environment as continuous with ourselves and in need of the same care and understanding as we give to our personal and social well being (Smyth, 1995). World educators and environment specialists have repeatedly pointed out that a solution to environmental crisis will require an environmental awareness and its proper understanding which should be deeply rooted in the education system at all levels of school education (Shukla, 2001). The existing curricula at primary, secondary and college levels provide a lot of opportunities to make the students aware of environment. The integration of environmental education is possible if teachers have a will to introduce it in a quite natural way while teaching different curricular areas at primary, secondary and higher education level. In this present context the need for studying the environment awareness of secondary school student is a must. It is an essential need for each individual to develop an awareness of protection and preservation towards environment. Our environment is threatened due to many hazards. Air, water and soil pollution is on the increase. Degradation of environment results in many problems. Therefore, there is a great need to protect and preserve our environment.

Action can be taken in a variety of areas to increase environmental awareness and education. Environmental education and awareness raising can include any of the following types of activities:

Educating Community and Traditional Leaders: Traditional, religious, and local community leaders can play an influential or even decisive role in how people act. This is particularly true in rural areas. Education of these leaders through environmental campaigns demonstrates a commitment to environmental protection.

Environmental Awareness in Teaching Programmes: Environmental awareness, although essential to good citizenship, is not always a prominent feature of education programmes in institutions of primary or higher learning. "Mainstreaming" environmental education programmes into schools as a regular part of the curriculum increase public environmental awareness and demonstrates a commitment to environmental protection. Environmental education can be integrated into existing disciplines or it can be taught as a subject in its own right. It can be taught as early as primary school as well as in adult education programmes.

Effective Use of Media Outlets: The media's role in environmental education is important because it is through newspapers, magazines, radio, and television that people gain awareness. Awareness is simply a step in EE.

Scientific groups, journalists and non-governmental organizations: These play a major role in environmental public education processes. Scientists are among the first to come across evidence of detrimental environmental impacts resulting from human-related activities. However, due mainly to cultural clashes, these groups frequently experiences difficulties in knowing how to efficiently communicate their discoveries between themselves and the general public. It has been recognized that with the help of well-informed communication professionals, proper information exchange among scientists, communities and non-governmental organizations, significantly increases public awareness of environmental issues. This occurs best when well-designed and cooperative communication strategies are put in place. As Allen (2001) says; "Scientists and journalists have had plenty of positive interactions".

Maps, Radio and Video: What we communicate with maps is our relationship to the territory we inhabit (Wood, 1994). Maps are also a way of communicating with the environment that can be stimulating, emotionally linking and context aware. A map can be produced in a participatory way where members of the community (including kids) contribute with the information and ideas. This creates a "sense of inclusion" and thus, the map becomes an excellent tool both as an educational aid to create awareness, and as a public participation tool that helps unite the community. Even in the poorest and most remote communities, radio ownership is high. Therefore, it is an excellent medium that permits messages to be delivered to large audiences at low cost. When radio broadcasting, reinforces environmental awareness campaigns, changes can be positive and significant.

6. Celebrities in Media Campaigns

As in any advertisement or public awareness campaign, the involvement of people that are well-known and respected public figures and effective use of the media can be a potent way of increasing understanding of the importance of environmental issues and enforcement. Newspapers, television, radio, magazines, and other media can be used to

quickly reach a large number of people.

Focusing Environmental Awareness Campaigns for Specific Sectors: Awareness raising campaigns are often most successful when they are targeted at specific groups because information can be tailored to the activities, needs and challenges of the group. Additionally, involving organisations and communities in environmental protection and enforcement can create a sense of stewardship towards the environment, ease hardship through the collaboration and provide a forum for new ideas and greater participation. Examples of such collaboration and stewardship are provided in the initiatives of some NGOs and organisations in the private sectors in States around the world. They have been active in raising public awareness of environment development issues and mobilised people to take actions that have contributed to positive changes for the environment.

Local Outreach: Environmental education is just as important in the developing world as it is in industrialized nations; however, reaching out to the people in those countries can be very difficult. Language barriers, illiteracy, and cultural differences can prevent them from learning about environmental issues, particularly in rural or tribal areas. Reaching out to tribal, religious, and community leaders can often help a government organization or non-governmental organization (NGO) educate the people on environmental issues. Community leaders can help ease communication problems and bridge the cultural divide that often stands in the way of outreach efforts.

Classroom Education: Thirty percent of the world's population is under the age of eighteen, according to UNEP, which is why educating children and young adults about environmental problems is crucial to long-term success. This will help them foster a sense of responsibility and "proactive citizenship," so that when they become adults they will make choices that help the environment rather than harm it. Many schools, however, do not currently teach their students about environmental issues. Integrating environmental education into current science classes or teaching environmental science as a separate discipline is one of the best ways to educate children and teens about environmental problems, particularly if the classes involve some sort of "hands-on" learning, like starting a garden or caring for an animal.

Other Approaches for Education and Public Awareness: Other Approaches for Education and Public Awareness by States and international organizations is to adopt a number of other approaches to promoting environmental education and public awareness. These include, for example, guiding frameworks for sustainable environmental education, information centres, environmental raffles (which can also be used for fund raising), and environmental "holidays".

7. Conclusion

To protect and conserve the Environment, emphasis should be given to Environmental Education in both formal and non-formal system of education. This calls for a radical change in the way we think, live and work. Action can be taken in a variety of areas to increase environmental awareness and education. Some of these categories are: use of the media, awareness raising campaigns, incorporation of environmental issues in mainstream education, increasing awareness and education in target groups and encouragement of public participation in environmental matters. Celebrities environmental campaigns; and other individuals and institutions could also be a mean of reaching people. Moreover, educational and awareness efforts can target practically any sector of society. They can seek to raise public awareness broadly on environmental issues or they may be a targeted campaign or educational effort focused on a specific sector (or target audience) on a specific issue.

An educated public can be one of the most powerful weapons in the world's battle against harm to the environment. The ways that the public can assist in enforcement efforts are as numerous as the potential approaches for increasing public awareness. Caring for the environment will not require one to become an environmental activist, but just to know more about one's environment. Public should understand about the fact that if we degrade our environment, we are harming ourselves. This is the duty of educated people to educate the others about the adverse effect of environment.

8. Recommendations

1. Government should organize Environmental Education campaign programmes for children, youth, men and women. The state government should establish appropriate funding mechanisms for raising public awareness of environmental education.
2. Government officials can make significant contributions to improve public awareness of environmental education.

3. NGOs (at national and community levels) should initiate and help by awareness campaigns to save environment.
4. Ban the littering of polythene cannot be successful until the public understands the environmental implications of the same.
5. Proper methods of disposal and its treatment should be applied otherwise they can be the causes of chronic diseases. When sewage is applied continuously on a part of land, the pores or voids of the soil are clogged and free circulation of air is prevented.
6. Humans are responsible for depletion of the natural resources; degradation of the vital life-supporting systems (like air, water, soil, etc.); ecological imbalance; deteriorated environment, etc. By exercising following actions, humans can protect global environment for sustainable development:
 - i. Preserve forest cover: Humans should minimize cutting of trees and using timber for aesthetic pleasure such as decoration of drawing rooms.
 - ii. Preserve natural resources: Human should not extract unnecessarily and exhaustively the natural resources such as mineral resources, water resources, etc.
 - iii. Conserve energy: Human should not harness too much energy from burning of fossil fuels.
 - iv. Maintain ecological balance: Human should exploit synergy between green revolution and industrial evolution by compulsory growing green belts around industrial areas, maintaining wild life sanctuaries and national parks.
 - v. Practice green technology: Everyone from a farmer in the village to a policy planner in the government should use green technology that incorporates: treatment of air emissions, treatment of waste waters, waste reduction, waste or emission management, use of non-conventional, renewable energy resources like solar energy on priority, etc.

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