

AN APPRAISAL OF ENVIRONMENTAL EDUCATION SYSTEM IN INDIA

R. K. Kamble*

Naznin T.A.J. Kazi**

ABSTRACT

Today every government throughout the world has a superseding anxiety for environment deterioration which is the byproduct of progress for economic development resulted into expected consequences such as terrible environmental problems that tackle us today and those that intimidate the very survival of our species on the earth. Environmental education will not only open our eyes to this havoc but also guide us about how a wine progress and life exist together. Environmental education helps the learner to recognize and understand environmental values and tribulations and assess their benefits and risks. Over last few years, environmental education has been part of the curriculum in Indian schools and universities, since the general instruction provided by the Honorable Supreme Court of India to make environmental education mandatory in curriculum and also ordered NCERT and UGC to make a syllabus for different stages of schools and one common syllabus for all the stream of universities respectively. The present writing is an attempt to appraise the status of environmental education in India with respect to existing curriculum for environmental education in schools and universities.

Keywords: Environmental education; environmental studies course; formal environmental education; environmental education system; universities and schools

* Centre for Higher Learning and Research in Environmental Science, Sardar Patel College, Chandrapur, India

Introduction

During the last few decades human beings has abused environment beyond its capacity which led to enormously bigger environmental problems at global, regional and local levels (Kaur, 2013). As of non cooperative thinking of human towards nature, natural resources were consumed in a unsustainable way, which have been resulting into future of an unpredicted massive hazard for whole creature (Barman, 2015). Currently the chief global concerns were pollution, deforestation, desertification, biodiversity loss, coral bleaching, global warming has caused as a consequence of increasing population. A grave health troubles have reached at alarming levels was caused due to air and water pollution that also created unenthusiastic effects on environment, has been responsible for unavoidably pressure on the economic growth for long-term scenario (Kumari *et al.*, 2012). Global anxiety increasingly worsening the state of environment has emphasized the need for environmental education (Shoberi *et al.*, 2007). The main root of environmental problems was the maladaptive behavior of man which is responsible for environmental crisis (Shivkumara *et al.*, 2015). In seventies, the world realized that through a mass environmental education, environmental concerns and awareness could be spread; at this period, the concept of environmental education emerged out which called as the decade of environmental education (Pant, 2005). In 1972, the movement of environmental education became truly international; the United Nations organized the International Conference on Human Environment in Stockholm, Sweden. For the present widespread environment problems and to solve these problems environmental education was considered necessary and was established by the conference. The conference also established United Nations Environmental Programme which together with UNESCO embarked upon in January 1975 as an International Environmental Education Programme (Rao and Reddy, 2005). A resolution was passed by the United Nations General Assembly declaring 2005–2014 as the Decade of Education for Sustainable Development. For the promotion of the decade the organization was selected to guide was UNESCO (Mc Crea, 2006).

Environmental Education

According to Tbilisi declaration 1977, environmental education is seen as a life-long process that is interdisciplinary and holistic in nature and application (Ghosh, 2014). A world population can be made aware and concerned about total environment and its associated problems only

through the process of environmental education and through which people have knowledge, skills, attitudes and motivations to work independently and in a group toward solutions of current problems and prevention of new ones (De Lavega, 2004). In 1948 at meeting of the International Union for the Conservation of Nature and Natural Resources the term “Environmental Education” appeared for the first time (Bartosh, 2003). To create awareness among citizens of a country was the eventual goal of environmental education whether it is formal or non-formal (Shoberi *et al.*, 2007). Environmental education is education through, about and for environment having both style and subject matter of education. Style is related to the education while subject matter is related with lessons about the components and constituents of environment (Singh, 2011). To achieve the aim of sustainable development, the people participation was essential in the conservation, protection and management of environment, only obtained through environmental education sensitization and training for environmental conservation. The students should recognize the relation between human and nature through environmental education (Kaur, 2013). The fact that natural environment and manmade environment are interdependent is accepted by a general viewpoint created through environmental education which is a process to know the values and helpful to develop skills and necessary tools to understand the inter-relationship among man, his culture and his biophysical surrounding (Sengupta *et al.*, 2010). The national educational policies, curriculum documents, curriculum development program and conservation strategies are now included broad spreading concept of environmental education (Halder, 2012). According to IUCN, 1970 “Environmental Education is the process of recognizing values and clarifying concepts in order to develop skills and attitudes necessary to understand and appreciate the interrelatedness among man, his culture and his biophysical surrounding. Environmental Education also entails practiced in decision making and self formulation of a code of behavior about issues concerning environmental quality” (Kadji-Beltran, 2002).

International Status of Environmental Education

Tsindis (1987) underlined the necessity for establishing environmental education in school for creating awareness among citizen about the environmental crisis. Because of these, an attempt to introduce the environmental education was mandated to all schools took place. In European Union the environmental education promotion was consent by Ministries of Education. In their

commitment they include that in all education sectors environmental education was promoted, environmental education policy must be followed in all schools, while making plan for curriculum programmes, the aim of environmental education must considered whether in service courses or in teacher training (Council of Europe, 1988). According to Enemaerke (1994) in Denmark status report lacking of proper definition about environmental education, the educator followed the variable approaches (Ministry of Education of Denmark, 1998). Environmental education was promoted through various disciplines of curriculum such as biology, geography, natural and social science. Below the university level, the sustainable development was the main focus for formal education in Sweden (Ministry of Education and Science, 1999). The environmental education consortium was created in 1998, which developed a set of benchmarks that state, environment base knowledge and skills should be acquired by students at 5th grade, 8th grade and 10-12th grade level as to improve their critical thinking, analytical and inquiry skills as well as to assess knowledge and understanding of environment concepts (Bartosh, 2003). In 1973 and 1989, with the aim to preserve the earth's capability to sustain life in a healthy, enjoyable and productive, environment awareness formation was essential, which only developed through environmental education as realized by the state of Florida, was passed the Florida Environmental Education Act, which was mandated from the kindergarten to the university. In the Environmental Law Institute publication as cited by Calder and Clugston 2003, for the graduation an environmental course entitled "the University Colloquium: A Sustainable Future" was mandatory (De Lavega, 2004).

Environmental Education in India

In 1976 India integrated environmental concern in the Constitution through 42nd Amendment, taking idea from Stockholm Summit 1972. Particularly after 1980 with the establishment of Ministry of Environment and Forests environment has become a priority in policy statements, planes and strategies (Sonowal, 2009). The capabilities to protect the country depend on Indian government's policies and educational systems (Shivkumar, 2012). In 1979 First International Conference on Environmental Education was held in New Delhi. On the occasion, late Mrs. Indira Gandhi observed that environmental education help to stimulate social realization and make community aware of the fact that ecological disturbance can harmed to both good of the individual and that of the community. The Second International Conference on Environmental

Education was head at New Delhi in 1985. In the discussion at the international, national, regional and even local conferences on environmental education several important points come out for the environment protection through education (Halder, 2012). The environmental conservation is a duty of every citizen was clearly included in the Constitution of India. In India, a Ministry or Department of Environment was included in the Central Government and all states (Sarabhai *et al.*, 2002). In 1986 the National Policy on Education realizing that for social change the education was a potential instrument; so at all levels particularly in school the environmental education included as a part of the general education. The Supreme Court of India directed to Central and State educational authorities to make environmental education mandatory at school and college levels for creating awareness among children's importance and necessity for environment conservation (Supreme Court of India, 2003). Environmental awareness among people can be brought about through education. The education may be formal or non formal environmental education.

The Formal environmental education system in India

The Indian Constitution was committed with the environmental protection and improvement through the environmental education which has been a most important thrust for both the Ministry of Environment and Forests and the Ministry of Human Resources Development of the Government of India. For formal environmental education curriculum in schools and colleges work was carried out by Ministry of Human Resources Development and Ministry of Environmental and Forests had paid attention for development of environmental awareness and attitude in larger community which consist of children's, youth, urban and rural communities, industry, decision makers etc through non formal education (Pandya, 2000). The Supreme Court directed on 13th July 2004 that "the syllabus prepared by the NCERT for Class I to XII shall be aborted by every state in their respective schools". It further directed that "NCERT be appointed as a nodal agency to supervise the implementation of this court's order". The Supreme Court order fulfillment is obligatory that applies to all States and Union Territories. A stage wise syllabus was developed for environmental education for class I to XII and in senior colleges. The mission of this syllabus development was to "creating a society of motivated citizens committed to conservation, preservation and protection of the environment and striving towards a life in

perfect harmony with nature”. Developing an awareness of and concern about the environment and its associated problems among young minds this mission could be achieved (ENVIS, 2015). At different stages of school education, i.e., elementary, secondary and higher secondary, on the issue of viewing environmental education as a compulsory subject, the common agreement on the scope and dimension at each stage, as it come out, as follows: Elementary - Coverage be related to the child's surroundings, health and hygiene along with suitable field activities and observations. In Secondary - Moderate exposure to various environmental concepts, plant and animal life, their interaction with the environment, pollution and other problems. Higher secondary - Greater exposure to all the topics covered at the previous levels be given and, in addition, some other topics could also be included (Perspective of EE, 2015).

The central education had to suggest environmental education and relate it to the life needs and hope of the people and the nation was suggested by the Kothari commission (1964-66) (Gopal and Anand, 2016). In primary stage from class I to class V, the environmental education syllabus is separating into sections, first is from class I to class II and second is from class III to class V. In classes I and II the complete transaction process is to be around the child's instant environment with the teacher being supposed as a curriculum constructor. The curriculum for environmental education for these classes will be transacted through language, mathematics and the Art of Healthy and Productive Living (AHPL). In class III to class V, environmental education is a separate subject in these classes in the form of environmental studies. Greater focus was emphasized upon to develop skills, proper habits and positive attitudes towards environment (ENVIS, 2015).

National Policy on Education 1986 with modifications undertaken in 1992 vides Article 8.15 regarding Environmental Education states: “There is a paramount need to create a consciousness of the environment. It must permeate all agrees and all sections of society beginning with the child. Environmental Consciousness should inform teaching in schools and colleges. This aspect will be integrated in the entire educational process” (ENVIS, 2015).

To take the necessary action for the environmental protection by the people, can be achieved through the formal education as the huge part of inhabitants was found in different schools and colleges. At the University level, for the enclosure of environmental education, the appropriate

steps were taken by the University Grants Commission with the interaction of Ministry of Human Resources Development (Singh, 2011).

The Honorable Supreme Court of India had directed the UGC to establish a fundamental course on environment at every level in college education. The UGC had considered the matter and prepared a compulsory course which was implemented in all the Universities/Colleges of India. The course is a six months compulsory core module course in environmental studies. For undergraduate courses of all branches of Higher Education a structure of the core module syllabus for environmental studies was prepared. The members of the curriculum development committee state that in their vision “We are deeply conscious that there are bound to be gaps between the ideal and real. Genuine endeavor is required to minimize the gaps by intellectual and material inputs. The success of this course will depend on the initiative and drive of the teachers and the receptive students” (UGC, 2003).

As to check the progress of the course across the region there was not an adequate quantity of monitoring team. However, environmental education was mandatory in all schools but not taken as seriously as other courses because in final examination the grade/marks obtained in final examination were not counted (Sonowal, 2009). According to Halder (2012), the status of environmental education is really not satisfactory as there was formal environmental education in every school but theoretical and practical classes did not conducted regularly in most of the schools; there is need to uniform and improve the education system.

Conclusion

As a direction of the Honorable Supreme Court to take the environmental education is mandatory in the formal education system. For environmental education the curriculum was developed as the stages of school. The stage wise curriculum of school was fine but it needs to be modified with respect to changes that occur in education to all curriculums according to the development of new technology, research or discovery. For universities the compulsory six months course “Environmental Studies” was developed for all the courses of the graduation whether it was arts, science, commerce, computer applications, fashion design, pharmacy, or engineering. At university level the syllabus has to be modified with respect to the streams so that students can

relate the environmental studies with their professional studies, which help the student to take appropriate steps to solve the environmental problems at their level, as to achieve the aim of formal environmental education.

Acknowledgements

Authors would like to thank the Indian Council of Social Science Research, New Delhi for providing financial assistance to carry out this study under Responsive Research Project Scheme. The financial support from ICSSR for carrying out this study is gratefully acknowledged.

References

1. Barman N., 2015, A comparative study of environmental awareness among secondary level students, *International Journal of Innovative Research in Science, Engineering and Technology*, 4(8), pp 7575-7579.
2. Bartosh, O., 2003, *Environmental Education: Improving Students Achievement*. A thesis submitted in partial fulfillment of the requirements for the degree of Master of Environmental Studies, The Evergreen State College, June 2003.
3. Council of Europe, 1988, *Resolution of the Council and Ministers of Education Meeting with the Council, Environmental Education*. No 88/C177/03, Council of Europe.
4. Calder W., and Clugston M. (2003) *Progress toward sustainability in higher education*. *Environmental Law Reporter, News & Analysis*. Document 33 ELR 10003. <http://www.elr.info/index.cfm>. Accessed on 15 December 2015
5. De Lavega, E.L., 2004, *Awareness, Knowledge, and Attitude about Environmental Education: Responses from Environmental Specialists, High School Instructors, Students, and Parents*. PhD Thesis, University of Central Florida Orlando, Florida.
6. ENVIS, Center on Environmental Education and Education (2015). <http://www.cceenvis.nic.in/school-ee-india.html>. Accessed on 11 November 2015.
7. Ghosh K., 2014, *Environmental awareness among secondary school students of Golaghat district in the state of Assam and their attitude towards environmental education*, *IOSR Journal of Humanities and Social Science*, 19(3), pp 30-34.

8. Gopal G.V. and Anand V.V. (2015). Environmental Education in school curriculum an overallperspective.
http://www.ces.iisc.in/biodiversity/sahyadri_enews/newsletter/issue22/art5.htm. Accessed on 02 February 2016
9. Halder, S., 2012, An appraisal of environmental education in higher school education system: A case study of North Bengal, India, International Journal of Environmental Sciences, 2(4), pp 2223-2233.
10. Kadji-Beltran, C., 2002, Evaluation of Environmental Education Programmes as a Means for Policy Making and Implementation Support: The Case of Cyprus Primary Education, A thesis submitted for the degree of Doctor of Philosophy University of Warwick, Institute of Education June 2002.
11. Kaur S., 2013. Role of teachers in imparting environmental education for sustainable development, International Educational E-Journal, 2(2), pp10-16.
12. Kumari S., Gangwar, R.K., Singh, J. and Singh A.P., 2012, Assessment of environmental awareness and attitude among the school teachers in Bareilly city, International Journal of Innovative Research & Development, 1(8), pp 486-492.
13. Mc Crea E. J., 2006, The Roots of Environmental Education: How the Past Supports the Future. Environmental Education and Training Partnership, pp 1-12.
14. Ministry of Education of Denmark, 1998, A green approach to education and training- Situation report after 5 years of a green approach to Education and Training, Ministry of Education, Denmark.
15. Ministry of Education and Science , 1999, Memorandum, education and Learning for sustainable Development in Sweden, Ministry of Education and Science, Stockholm, Sweden.
16. Pandya M., 2000, Teacher Education for Environmental Education in India. Paper presented at the third UNESCO/ Japan seminar on environmental education in Asian Pacific Region, Tokyo, Japan.
17. Pant H., 2005, Environment Education of Teachers through Technology Mediated Open and Distance Learning. Deputy Director, Indira Gandhi National Open University, Regional Centre Delhi-1, New Delhi, India.

18. Perspectives of Environmental Education in Schools Inputs from Experts and Practitioners (2015). [http://www.ncert.nic.in/html/pdf/environmet/environmental studies/chapter-3.pdf](http://www.ncert.nic.in/html/pdf/environmet/environmental%20studies/chapter-3.pdf). Accessed on 10 November 2015.
19. V.K. Rao and R.S. Reddy (2005). Environmental Education. Commonwealth Publishers in association with Dr. Zakir Hussain Institute for Non-formal and Continuing Education, pp 90.
20. Sarabhai K.V., Raghunathan M. and Jain S., 2002, Environmental Education: Some Experiences from India, Published in the Path to Success: Some Pioneering Examples of Environmental Education Institute for Global Environmental Strategies, Japan 2002, Center for Environment Education, pp 1-31.
21. Sengupta M., Das J. and Maji P.K., 2010, Environmental Awareness and Environment Related Behaviour of Twelfth Grade Students in Kolkata: Effects of Stream and Gender, Anwesa, 5, pp 1 – 8.
22. Shivkumar G.S., 2012, Environmental Concern among the secondary School Students, Golden Research Thought, 1(10), pp 1-4.
23. Shivkumara K., Sangeetha R.M., Diksha J., and Nagaraj O., 2015, Effect of gender on environmental awareness of post graduate students, British Journal of Educational, Society & Behavioral Science, 8(1), pp 25-33.
24. Shobeiri S. M., Omidvar B. and Prahallada N. N., 2007, A Comparative Study of Environmental Awareness among Secondary School Students in Iran and India, International Journal of Environmental Research, 1(1), pp 28-34.
25. Singh A., 2011, Study of Environmental Education among the Senior Secondary Students, International Journal of Educational Planning & Administration, 1(2), pp 99-107.
26. Sonowal C.J., 2009, Environmental Education in Schools: The Indian Scenario, Journal of Human Ecology, 28(1), pp15-36.
27. Tbilisi UNESCO-UNEP, 1977, First Intergovernmental Conference of Environmental Education, Final Report, USSR.
28. UGC, 2003, Six months module syllabus for Environmental Studies for under graduate Courses, UGC, New Delhi, India.