

Environmental Education for Sustainable Development in Selected Schools and Colleges of Karimnagar District

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I.INTRODUCTION

Education has been recognized as a necessary constituent for sustainable development all over the world. The function of education could also optimistically manipulate the administration of the stressed out natural resources through the integration of victorious procedures of environmental education. The environmental education offers students with the skills, experience and knowledge that are necessary to turn out to be victorious community leaders, and also making clever decisions pertaining to the administration of their natural resources.

The globally evolved concept of environmental education is a continuing lifelong procedure. As it is mentioned by Tbilisi, environmental education is considered as an everlasting process. In that, the community and the individuals obtain awareness of their surrounding and acquire the skills, experiences, values, and knowledge. They also possess the willpower to act collectively and individually to resolve current and future environmental problems. Teaching the people at huge regarding the environment and its features would build up decisive thinking, problem solving and analytical capabilities in them. Also it would enhance insights and knowledge to progress the quality of human life on earth.

India being a diverse nation, geographically, economically, climatically and geologically, the environmental education here has to be necessarily location – specific. It is at the initial level, that major attention has to be paid to the school going children and women, (that is, around 50 % of the population). They are to be made conscious about family planning, rural development, sanitation, food and water contamination, fuel wood, nutrition, slum improvement, hygiene, fodder etc.

Barrier and Constraints in Indian Environmental Education: The widespread practices for the promotion of Environmental Education in India have been unsuccessful through the years in many ways. Unfortunately, to-date the subject of Environmental Education is linked with the subject of Environmental Studies', which focuses on providing children with scientific facts and figures on global environmental problems. It addresses environmental issues from a viewer's point of view by identifying the primary sources and proposing corrective measures needed to redress the symptoms, for example, ozone depletion and global warming. Therefore, students end up knowing what is wrong with the planet but do not understand what should be done by 'them' as individuals to prevent such damage, neither can they see how to become responsible for the environmental problems and hence, understand how they need to help solve issues by changing their own lifestyles.

Methods of Assessment: The present assessment/evaluation system in education is a major bottleneck in bringing improvement in the education system of our country. Unfortunately, what is not relevant to examination is not considered relevant in teaching and learning. Framework of assessment used is not conducive to the development of problem-solving skill among the pupils – given the fact that instruction is mainly assessment-driven in India. Further, assessment of practical work is not attached much importance – resulting in utter neglect of practical work in school education and higher education.

The way Environmental Education is being dealt with in schools and colleges in India therefore, needs to be completely revamped and clearly-defined methods should be laid out for easy applicability in schools, bearing in mind the following aspects which have to be the foundation of this change.

EESD - An Indian perspective

Environmental education has been placed at the centre of efforts to achieve sustainable development for the last several decades. International agreements such as Agenda 21, for example, have called for a re-orientation of all education towards sustainability (UNCED, 1992, Chapter 36). Agenda 21 follows the lead of a number of earlier policies, including the Belgrade Charter and documents arising out of the First Intergovernmental Conference on Environmental Education in Tbilisi, all of which contained similar calls for the promotion of environmental education programs as a way of raising awareness of environmental issues and halting environmental destruction.

India adopted a new paradigm of thinking and experience of development post-Stockholm Conference of 1972 called Sustainable Development (SD), following which, India became a part of 187 countries agreeing on carrying out an important commitment towards SD by signing the Rio Declaration during 1992 UN Conference on Environment and Development. Since then the concept of sustainable development is adopted such that the country and society can meet the needs of the present without compromising the ability of future generations to meet their own needs and the level of growth rates is commensurate with social, economic and environment development (DESD 2005).

India has integrated sustainable development in planning process and has several programs directed towards this goal. It's initiatives in addressing development and sustainability issues touch upon the social, economic and environmental dimensions. The Government of India's sensitivity and commitment to sustainable and inclusive growth is reflected in the major policies of various ministries and also specific initiatives and programs adopted through its Five-Year Plans so as to achieve sustainability and MDG's (Millennium Development Goals).

In order to achieve the goals of sustainable development, one of the first steps taken was in the direction of environment conservation and protection by promoting Environment education. This strategy was adopted post Stockholm conference by setting up centres of Excellence for Environment Education under Ministry of Environment in the early 1980s. Though till sometime, most of these activities were restricted to this Ministry. However, gradually with

the realization of the role that Education can play for ensuing sustainable development, Government of India recommended Ministry of Human Resource Development to integrate environmental concerns into all aspects and levels of education. ESD aims to go beyond and achieve status of wellbeing in line with sustainable development by empowering people through various forms of educational processes and practices to assume responsibility for creating sustainable future. This goal became finer when India became part of UN General Assembly resolution for establishing UN-DESD (2005-2014) in the year 2005, in recognition of the need to enhance efforts in education and learning to address issues of sustainable development.

EE in India has always been seen in the development context. Therefore, much of the aspects of EE can be seen as ESD. For instance, issues such as water/housing/health can be seen from a variety of perspectives including access, equity, distribution and traditional use. Thus, the perspective of ESD needs to be built on the foundations of sector specific development already laid out and then integrating it as part with to achieve wider development agenda. It is in this respect that India is progressively marked different from other countries.

The Indian vision for the ESD is hence, based on a commitment towards sustainability rooted in a centuries old tradition of living in equilibrium with nature and all its elements. The 4th International conference on EE held at CEE in Ahmadabad 2004 recognized and gave a shape to this vision by bringing together the expertise across the world to build the partnership. India recognizes ESD as a major drive of change and its commitment to sustainable development is reflected in its policies, programs and other Government and NGO led activities. However, challenges are still to be met in terms of creating awareness and ensuing ESD based development perspective. This is because concerns for environment conservation/protection cannot be put into place without addressing/taking into account the other/larger socio-economic and cultural reality of society in which concerns of environment are inbuilt.

Current resource intensive development patterns are ecologically/economically unsustainable due to water scarcity, bio-diversity loss and pollution arising from lack of knowledge awareness/understanding the issues related to local environmental problems. Hence,

EESD needs to be embedded in all educational activities, so that awareness leads to understanding and understanding to action.

II.OBJECTIVES OF THE STUDY

- 1 To analyze the environmental education patterns adapted at present in the educational institutions.
- 2 To examine the environmental education important in the attainment of sustainability in the study area.
- 3 To analyse the changes in student ‘attitude towards environment.

The study population for the present survey consisted of 50 teachers and 50 students in Government schools and colleges from Karimnagar District, out of which 25 were working at schools and 25 at colleges. 50 students, out of which 25 were studying at schools and 25 at colleges from Karimnagar District. The respondents were picked on the basis of random sampling and using some technical tools for analyzing the data.

III.DATA ANALYSIS

For the purpose of this study, personal administration of questionnaires was carried out as it is one of the best ways for data collection when the survey is confined to limited region. Another reason for collecting data using a questionnaire was the application of the same methodology by previous researchers in the field of environmental education. On conducting the analyses, the following results were obtained.

Table-1 Age of the respondents

Age	Frequency	Percent
26 - 35 Years	08	16.0
36 - 45 Years	11	22.0
46 - 55 Years	15	30.0
55 and above	16	32.0
Total	50	100.0

Source: Field Survey

The above reveals the respondents’ age ranges from 26 years to 60 years. Nearly, 16.0% respondents participated in this study were in the age group of 26 and 35 years and 22.0% of them are in the age group of 36 and 45 years and 46.0% respondents were in the age group of 46- 55 and above years.

Table-2 Gender-wise Respondents

Gender	Frequency	Percent	Gender
Male	29	62.2	Male
Female	21	37.8	Female
Total	50	100.0	Total

Gender	Frequency	Percent	Gender
Male	29	62.2	Male
Female	21	37.8	Female
Total	50	100.0	Total

Source: Field Survey

Nearly 62.2% respondents participated in this study were male respondents and 37.8% of them were female respondents.

Table-3 Respondent’s Designation

Designation	Frequency	Percent
School Teachers	25	50.0
Lecturers	25	50.0
Total	50	100.0

Source: Field Survey

Regarding the designation of the respondents, nearly 50.0% respondents participated in this study are schoolteachers and 50.0% of them lecturers.

Table-4 My institution offers environmental education to all its students

	Teachers	Lecturers
Strongly Disagree	2	2
Disagree	2	1
Neutral	2	1
Agree	10	9
Strongly Agree	11	10
Total	50	
F-Value	0.946	

Source: Field Survey

Nearly 38.2% respondents agree that their institution offers environmental education to all its students (p – value = 0.942 >0.05). This indicates that the present status of environmental education offered by the educational institutions is at higher standard and there also exists great awareness over the importance of environmental education.

Table-5 Pursuing environmental education is mandatory

	Teachers	Lecturers
Strongly Disagree	2	0
Disagree	1	0
Neutral	1	0
Agree	9	10
Strongly Agree	10	17
Total	50	
F-Value	0.313	

Source: Field Survey

Nearly 92.0% respondents feel that pursuing environmental education is mandatory for all students studying at their institution (p – value = 0.313 < 0.05). This indicates that, all educational institutions take possible steps to create the awareness over the environment and its uses to their students through their subject areas.

Table-6 Most frequently used resources in educational institution in imparting environmental education

Resource	Never been used	Used very rarely	Used occasionally	Frequently used	Most frequently used
Printed material	2 (4.0)	3 (6.0)	20(40.0)	17 (34.0)	8 (6.0)
CD	1 (2.0)	3 (6.0)	16 (18.0)	21 (42.0)	9 (15.4)
Geographic information system	2 (4.0)	2 (4.0)	17 (34.0)	18 (36.0)	11 (22.0)
Projectors	1 (2.0 %)	4 (8.0 %)	20 (40.0%)	11 (22.0%)	14 (28.0)
Internet or worldwide web	10 (20.0)	2 (4.0)	10 (20.0)	20 (40.0)	8 (16.0)

Source: Field Survey

Regarding the resource that was used most frequently in imparting environmental education, most of the respondents said that internet resource was used most frequently in imparting environmental education. Nearly 34.0% respondents participated in this study said that Printed Material was used in their educational institution in imparting environmental education, 42.0% respondents participated in this study said that CD was used in their educational institution in imparting environmental education, 36.0% respondents said that Geographic Information Systems was used in their educational institution in imparting environmental education and 40.0% respondents said that internet or world wide web was used in their educational institution in imparting environmental education. Majority of the teachers are using the material occasionally in classrooms.

Table-7 Areas covered in the educational institution while imparting Environmental education

Subject areas covered	Yes	No
General Environmental Education	15 (30.0)	35 (70.0)
Forestry	12 (24.0)	38 (76.0)
Solid Waste Management	13 (26.0)	37 (74.0)
Natural Resource Management	14 (28.0)	36 (72.0)
Pollution control	10 (20.0)	40 (80.0)
Biodiversity/Wildlife preservation	10 (20.0)	40 (80.0)
Sustainability	18 (36.0)	32 (64.0)
Climate Change	13 (26.0)	37 (74.0)
Environmental Health	11 (22.0)	39 (78.0)
Environmental Laws	12 (24.0)	38 (76.0)

Source: Field Survey

The above table revealed that the educational institutions are imparting the environmental education for which the students are attaining the values of all areas of environmental protection. Therefore, the teachers are trying to inculcating these values but coming into the implementation in real life somewhat gapping.

Table-8 Green Activities adapted in our Campus

Green Activities	Yes	No
Recycling Programme	13 (26.0)	37 (74.0)
Waste reduction Programme	15 (30.0)	35 (70.0)
Pest Management within premise	15 (30.0)	35 (70.0)
Water resource management	10 (20.0)	40 (80.0)
Food waste management	11 (22.0)	39 (78.0)
Policies to ensure hygienic of premise	10 (20.0)	40 (80.0)
Pollution control activities	8 (16.0)	42 (84.0)
Garden within campus	9 (18.0)	41 (82.0)
Plantation of trees	45 (90.0)	5 (10.0)

Source: Field Survey

Most of the respondents said that some the listed green activities not adapted within their campus. 90% of the respondents maintain the campus with plantation of the tree due to the Haritaharam Program is strictly conducted by the Telangana Government and other green activities not perfectly adapted in the institutions.

Table-9 Environmental Education-Present

	Observed N	Expected N
Yes	30	16.6
No	9	16.6
Maybe	11	16.6

Total	50	
Chi-Square	16.184	
Df	2	
Asymp. Sig.	0.000306	

Source: Field Survey

60.0% respondents feel that the present environmental education in the study area contributes towards sustainability (Chi – Square test statistic = 16.184, p – value = 0.000306 < 0.05). This means that the education institutions in study area show high importance over the environmental education with specific emphasis to sustainability and various environmental education patterns.

Table -10 Students Attitude towards Environment

Variables	School Students	College Students	School Students	College Students
	Observed Range		Expected Range	
Yes	05	21	13	13
No	20	04	12	12
Total	25	25		
Chi-Square	20.512			
Df	1			
P-Value	3.513			

Source: Field Survey

The above examines the students of college and school attitude towards the environment for which the calculated value is greater than the table value at 0.05 level. So, the hypothesis is rejected that there is a significant difference between the school and college students attitude towards environment, both level of education students acquiring knowledge but coming into the implementation of the knowledge is totally different in both of students.

VI.FINDINGS AND CONCLUSION

The study has drawn some findings are; it was seen that in the educational institutions, a lot of time is not allocated for the teaching of sustainable environment as a subject to students of all education levels. The Government and private management of the educational institutions finds it difficult to avail funds for offering high quality sustainable environmental education and they also find it difficult to access resources necessary for offering high quality sustainable environmental education. Some of the other challenges that exist in the current environmental education patterns present in the Indian educational

institutions are that the teachers / lecturers are not at all offered with adequate resources by the management to impart sustainable environmental education and also most of the teachers / lecturers lack sufficient knowledge to impart sustainable environmental education. Added to that, students also do not give importance in learning environment as a subject since they consider it to add no academic value to them.

Government should allocate resources for environmental studies and education in all level of education in India country and should concentrate on the teaching-learning programs while imparting the knowledge of environment. Teachers should develop their teaching ability towards teach the environment and inculcate the values in the students.

Cooperation among local governmental organizations, nongovernmental organisations (NGOs) and schools is essential in order to develop sustainable environmental projects (water conservation, biodiversity conservation, air pollution, waste management, recycling, re-using) in which all stakeholders will have to take active roles to protect and conserve the natural environment. Besides, educational and developmental policymakers, researchers and practitioners need to establish a stronger links so that the findings of EESD research can be reflected in the policy-making process and practice at the field level.

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