

# INTERNATIONAL JOURNAL OF SCIENCE AND NATURE

© 2004 - 2020 Society For Science and Nature(SFSN). All Rights Reserved

www.scienceandnature.org

Short Communication

## PRO-ENVIRONMENTAL ATTITUDE AND BEHAVIOUR OF RURAL STUDENTS – A CASE STUDY FROM BHOPAL, MADHYA PRADESH, INDIA

Kanchan Puri<sup>1\*</sup>, A. Senthil Vel<sup>1</sup>, N. Manoharan<sup>2</sup>, R. Arthur James<sup>2</sup> and Ritesh Joshi<sup>1</sup> <sup>1</sup>Ministry of Environment, Forest and Climate Change, Government of India, New Delhi <sup>2</sup>Department of Marine Science, Bharathidasan University, Tiruchirappalli \* Corresponding author Email: genetics\_1407@yahoo.co.in

## ABSTRACT

The purpose of this study was to assess environmental literacy which includes the dimensions of environmental attitudes and behaviour among rural school students in Bhopal, Madhya Pradesh, India. Environment education has been introduced as a regular course in formal school education system following the directive of the Honorable Supreme Court of India. The population for the study was VIII and IX class school students. This study was primarily based on field survey, wherein students responded to predefined questionnaire covering environment aspects. A total of 120 students were randomly selected and students responded voluntarily. The environmentally responsive behavior of these students are great indicators of how environment education is progressing in rural areas.

KEY WORDS: Environment Education; Environmental behaviour; Bhopal; school students

## **INTRODUCTION**

Environment Education (EE) is a tool for life-long learning right from one's childhood to protect the deteriorating environment. EE can be defined as a process of developing a community that is aware of, concerned about, the total environment and its associated paradigms and which has the knowledge, attitudes, commitments and skills to work individually and collectively towards the situation of current problems and prevention of new ones (Sonowal, 2009). In India, EE has been mandatory at school and college level vide Supreme Court orders to Central and State Governments which was outcome of the petition filed by M.C. Mehta in 1991. The Constitution of India explicitly makes environmental conservation a duty. The Central Government and all states within India have a Ministry or Department of Environment. In 2010, Supreme Court disposed off the petition and accepted the affidavit of NCERT for implementation of EE as: Classes I and II - EE concerns are transacted through activities; Classes III to V- EE through a subject namely EVS (Environmental Studies); Classes VI to X -Follows infusion approach for EE (10 percent of assessment of grand total is based on EE besides project and field work in separate time carved out from existing timetable) and Classes XI and XII - Besides infusion in electives (A separate compulsory course 50 marks based on core syllabus and projects work is for all). [NCERT (a and b)]. Environmental Education became a focal point of the world community, when first Inter-Governmental Conference on Environmental Education was held in Tbilsi in 1977. UNESCO-UNEP Tbilisi intergovernmental conference on EE wanted to provide every person with opportunities to acquire the knowledge, values, attitudes, commitment and skills needed to protect and improve the

environment. It also emphasized to create new patterns of behaviour of individuals, groups and society as a whole towards the environment.

Educating the people at large about environment and its components would develop critical thinking and problem solving skills in them. Environmental awareness implies knowledge about environment and inculcates values and skills to solve environmental issues and it is a initial step leading to carry responsible citizenship behaviour (Sengupta, Das and Maji, 2010; Chawla, 1992). It would develop knowledge and insights to improve quality of human life on earth. Further Article 51 A of the Constitution of India has made fundamental duty of every citizen to protect and improve the natural environment including forests, lakes, rivers and wildlife (Ministry of Environment, Forest and Climate Change). Conducting a study on school students' environmental literacy is crucial to gain better insights of how environmental dimensions are reflected in the minds of the students. This study attempts to assess environmental attitudes and environmental behaviours of rural secondary school students in Bhopal, Madhya Pradesh, India.

## MATERIALS AND METHODS

The methodologies used for this research were (i) literature review (on the concept of sustainable development) and (ii) collection of data (using questionnaire survey). The research instrument is the questionnaire using Likert scale with five (5) alternatives rating. Environmental attitude is directly linked with the level of knowledge regarding environmental issues possessed by an individual, and behaviour is if he/she modify his/ her daily life activities in view of the knowledge attained. Literature reveals that most of the researchers have used questionnaires as a tool to collect

data on assessing environment education levels. This study is primarily based on field survey, wherein students responded to predefined questionnaire covering environment aspects. A total of 120 students were randomly selected and students responded voluntarily (Table 1). Questionnaire was compiled to assess student's environmental behaviour and attitude. To assess the environment attitude the questionnaire was made on 5 point likert scale which ranged from 1 (strongly agree) to 5 (strongly disagree). Remaining questions were given the option of yes or no. The responses were then computed in excel format. Respondents (VIII and IX class students) took approximately 30 minutes to complete this survey. These schools were hindi medium, hence the group discussion, questionnaire was interpreted in hindi with VIII and IX class students.

<b>TABLE 1:</b> Perc	entage of tota	l population of	f the study
----------------------	----------------	-----------------	-------------

Particular	Number	%
Male	49	41%
Female	71	59%
Total	120	100

#### **RESULTS & DISCUSSION**

Of the total 120 students, 59% were female students and 41 % male (Table 1). Average age of the respondents was 16 years and they belonged from the rural areas of Bhopal. It was found that 65.8% of the students agreed that humans are severely abusing environment whereas 2.5% were disagreed. 72.5% of students were neutral on being asked that plants and animals have equal right as humans to exist. 76.6% agreed that human interfere with environment, it produces disastrous consequences. Further 30.8% disagreed on Environment education (EE) be a separate subject as it might bring additional load to them whereas 50.8% were neutral. However 59.17% agreed that Government rules. Data has been tabulated in Table 2.

The behaviour of these students towards environment was found to be positive. Table 3 indicates the response towards various green activities they are involved. 81.67 % of them are practising recycle, reuse and reduce concept; 72.50 % are segregating their waste and all of them 100% are celebrating the important environment days which may be due to the reason that since the schools are already part of the Ecoclub programme of Ministry so school as whole celebrate these days like Earth Day, World Environment Day, Forest Day etc. 80.8% highlighted that their school is plastic free. Under the Ecoclub programme of the Ministry, the schools have been advised to ban single use plastic items. 90.83 % are not disposing the religious waste in rivers and during the discussion with the students it was also revealed that they are practising eco-friendly Ganesh idol making as well as promoting the same among the neighborhood.

TABLE 2: Items to assess environment attitude among rura	al students
--	-------------

S.No	Items		Strongly			Strongly
		Disagree	Disagree	Neutral	Agree	agree
				%		
1.	Humans are severely abusing environment	1.7	2.5	4.2	65.8	25.8
2.	Plants and animals have equal right as humans to exist	5	5.8	72.5	13.3	3.3
3.	When human interfere with environment, it produces disastrous consequences	0	0	0	76.6	23.3
4.	Should Environment education (EE) be a separate subject	9.2	30.8	50.8	5.8	3.3
5	Do you think Government should impose high penalty fine who disobey environment rules	2.5	9.17	25	59.17	4.17

**TABLE 3:** Items to assess environment behaviour among rural students

S.No.	Questions	Yes %	No %
1.	Practise recycle reuse reduce	81.67	18.33
2.	Waste segregation	72.50	27.50
3.	Water recycling	68.33	31.6
4.	Celebration of Environment important days	100.00	0
5.	Is your school single use plastic free	80.8	19.17
6.	Do you dispose religious waste in rivers	9.17	90.83

#### CONCLUSION

The attitude as well as behaviour of these rural students was high and they really care for the environmental issues even though the resources available with them are limited as compared to urban students. They believed that if the growing imbalance is not controlled then humankind shall have to bear the disastrous consequences. We need to mainstream EE through these students such that it develops responsible behaviour among society leading to improved environment.

During the interaction, it was also found that teachers felt the need of effective subject specific training on EE, as merely plantation drive, drawing competition or rally don't fulfill the mandate of EE. They require training and ongoing support to influence the EE programme. The support could be in form of workshops/updated resource material/field trips for students. Infact they suggested there should be regular implementation of programmes on EE such as nature camps so that they feel connected with nature/environment. A concern for the environment in India has led to increasing calls to sensitise youth through EE. Today social media plays a crucial role in spreading awareness on any topic, however in rural areas skits/nuked nataks can be used to sensitize the citizens & build capacity of environment educators. Various education projects, academic programmes and curriculum development initiatives can strengthen the movement of creating green brigade. Although the various challenges and prospects for future progress should also be looked into account.

The need to know the level of environmental literacy among secondary school students is crucial for us to better understand the effectiveness of EE programs in schools.

#### ACKNOWLEDGEMENTS

Authors are grateful to EPCO, Bhopal for facilitating the field visits to the schools. Author KP is thankful to Sh. Arvind Nautiyal, Joint Secretary, MoEF & CC for all the motivation and encouragement. Sincere thanks to the school students and teachers who participated in the survey and showed their interest to respond voluntarily.

#### REFERENCES

Chawla, L. (1992) Research Priorities In: Environmental Education. Children's Environments. 9 (1): 68-71.

Ministry of Environment, Forest and Climate Change, Government of India, Chapter 8: Education and Awareness, http://www.moef.nic.in/sites/default/ files/ annual\_report/ AR-2013-14-Eng.pdf.Accessed on 17.1. 2020.

NCERT (a) Environmental Education as infused in NCERT Syllabus for Classes I to XII as per NCF 2005http://ncert.nic.in/book\_publishing/ environ\_edu/ eei. pdf. Accessed on 23.2.2020.

NCERT (b), Supplementary affidavit submitted on behalf of Respondent no. 40, *i.e.*, NCERT; http://ncert.nic.in /book \_ publishing/environ\_edu/Affidavit.pdf. Accessed on 1.2.2020.

Sengupta, M., Das, J. & Maji, R.K. (2010) Environmental Awareness and Environmental Related Behaviour of Twelfth Grade Students in Kolkata: Effects of Stream and Gender, Anwesa, 5:1 - 8.

Sonowal, C.J. (2009) Environmental Education in Schools: The Indian Scenario, Journal of Human Ecology, 28(1): 15-36.

The UN Decade of Education for Sustainable Development (DESD 2005-2014) http://unesdoc. unesco. org/ images/ 0015/ 001540/ 154093e.pdf.

UNESCO (1978) Tbilisi Declaration (Final report of the International conference of EE: Tbilisi (USSR), 11-26 October 1977). Paris: UNESCO.

UNESCO (1978) Inter-governmental conference on environmental education. Tbilisi (USSR), 14-26. Final Report. Paris: UNESCO.