

# Study of Awareness about Environmental Problems among Rural and Urban Secondary School Students of Bhaderwah Tehsil of J&K, India

Malvika Kotwal<sup>1</sup>, Somalya Dogra<sup>2</sup>

<sup>1</sup>Lecturer in Environmental Science, Govt. Degree College, Kishtwar, India  
Email: malvikakotwal[at]gmail.com

<sup>2</sup>Lecturer in Environmental Science, Govt. Degree College, Katra, India  
Email: somalyadogra00[at]gmail.com

**Abstract:** *Awareness of the various environmental problems among the people is very much important today. Environmental problems like global warming, air pollution, water pollution, soil erosion, ozone depletion, acid rain, waste disposal, loss of biodiversity, climate change etc. has become a global issue which can be solved if only each one of us take the responsibility to act sustainably. This study aimed to examine the awareness about environmental problems among rural and urban secondary school students of Bhaderwah and to compare the level of awareness about environmental problems with regard to locality, type of institution and gender among secondary school students of Bhaderwah. Data was collected from 8 secondary school students of Bhaderwah (4 government and 4 private) 100 male and 100 female out of which 100 students were from rural area and 100 students were from urban area. The data was analysed by employing statistical techniques like Mean, Standard deviation, Standard error of mean difference, Critical ratio. It was analysed that significant difference has been found in the awareness about environmental problems among rural and urban secondary school students. No significant difference in the awareness about environmental problems among male and female secondary school students was reported.*

**Keywords:** Awareness, Environmental problems, secondary school, Bhaderwah

## 1. Introduction

The term environment etymologically means surroundings. Environment means physical and biological surroundings of an organism. The environment of an organism includes living and non-living factors – living organisms include animals, plants and micro-organisms, and non-living factors include temperature, air, water, soil and atmosphere. Alterations in both, physico-chemical (abiotic) and biological (biotic) components of the biosphere by human resulted in environmental degradation world over. Major environmental problems (issues, challenges) that are in fact the manifestations of the degraded environments at global level include air and water pollution, loss of biodiversity, global warming and climate change and ozone layer depletion.

The genesis of the above said environmental problems can be easily traced to the life styles and developmental processes during the industrial revolution. Such a close relationship between environment and development has now been realized globally. Not only scientists, but every section of the society, rich or poor, having become convinced with this relationship, are now engaged to find the solution of these environmental problems. Unfortunately, there are differences in sharing the responsibilities of apparent cause (s) of these problems, and the approaches to manage the relationship between environment and development in a way that life standard (development) of every man on the planet improves with minimum damage to the environment.

Today, the conservation, protection, and improvement of human environment (degraded by human itself) are major

issues all over the world land, water, air, plants, animals and other forms of life (micro-organisms) are to be conserved/managed. Urbanization, population pressure, over-exploitation of resources, disruption of natural ecological balance, loss of biodiversity for economic purposes are the chief factors of environmental degradation. Today, we can no longer live in isolation; this is age of holism; there is one world. If environment of India is degraded, the global environment is to be affected.

In order to protect and conserve the environment, environmental awareness is necessary. Environmental awareness can be created through environmental education. Only when the students and the people are made aware about environmental problems, they will be motivated to conserve natural resources and find out ways and means to solve the problems locally and globally. Therefore, the investigator, found it worthwhile to study awareness of environmental problems among secondary school students with a view to find out to what extent the students are aware of the significance of environment in their day-to-day life. It is necessary to study how far the school students are aware about the environment and environmental problems.

A brief review of the relevant literature are as follows:

Singhal and Verma (2012) in his study measured environmental awareness by a standard tool in higher secondary students of Jabalpur, Madhya Pradesh. Level of environmental awareness was high in most students of different disciplines without gender difference. The students of biology or mathematics showed the maximum environmental awareness; humanities showed minimum

awareness. The students of Central Board were better aware than those of State Board.

A study attempts to examine the level of environmental education and awareness among higher secondary students of different colleges of Jhansi city has been conducted by Kumar et al.2016. A questionnaire was distributed to 803 students constituted 295 of IX standard, 205 of X standard, 143 of XI standard and 160 of XII standard. The questionnaire was based on various elements of environment. The data was collected and analyzed statistically by using "One-way ANOVA." Level of knowledge among different group of students was significant. The students of higher standard had more knowledge as compared to the preceding one. The status of environmental education and awareness was found not satisfactory as the student advances in next class, their age and mental level of understanding also improves and there is an immediate need to start awareness program for students and teachers as well.

In Thiruvallur District of Tamil Nadu, India, a study has been conducted to the examine the relationship between environmental awareness among rural and urban secondary school students. Study highlighted that environmental awareness of male students is slightly better than that of the female. The environmental awareness of English medium student is slightly better than the Tamil medium students mean score (Balaji et al.2017).

Gupta N 2017, conducted a study to know the environmental awareness of urban and rural school students in Raipur city of Chhattisgarh state of India. The environmental awareness was measured by Haseen Taj's "Environmental Awareness Scale". Study revealed that boys and girls of urban and rural school had similar awareness.

Environmental awareness was assessed among undergraduate student in different Govt. colleges in rural areas of Chhattisgarh state of India by Sahu et al.2015. This paper highlights the attitude and awareness of colleges going undergraduate students towards the environment. Study revealed that overall level of awareness was found to be average. Number of students with high level of environmental awareness was found to low and no. of students with low level of environmental awareness was found too high.

### Objectives of the study

The present investigation was undertaken with the following objectives:

- 1) To study and compare awareness about environmental problems among rural and urban secondary school students.
- 2) To study and compare awareness about environmental problems of secondary school students studying in government and private schools.
- 3) To study and compare awareness about environmental problems among male and female secondary school students.

### Hypothesis of the study

- 1) There will be no significant difference in awareness about environmental problems among rural and urban secondary school students.
- 2) There will be no significant difference in awareness about environmental problems of secondary school students studying in government and private schools.
- 3) There will be no significant difference in awareness about environmental problems among male and female secondary school students.

### Delimitations of the study

- 1) The present study was confined to only 200 students of Bhaderwah.
- 2) The present study was confined to students studying in secondary schools only.
- 3) The present study was confined to students studying in urban and rural areas only.
- 4) The present study was confined to students studying in government and private schools only.

## 2. Methods and Procedure

### Sampling procedure

The sample in the present study was comprised of 200 students including males and females from different schools of Bhaderwah using simple random sampling technique.

The list of schools selected and number of students from each of the 8 schools for the present study are presented in table.

**Table showing the details of sample selected**

S. No	Name of Institution	Male	Female	Total
1	Govt. Girls Hr. Sec. School Bhaderwah	0	25	25
2	Govt. Boys Hr. Sec. School Bhaderwah	25	0	25
3	Govt. High School Bheja (Bhaderwah)	13	12	25
4	Govt. Hr. Sec. School Sartingal (Bhaderwah)	12	13	25
5	Umar Model Academy Bhaderwah	13	12	25
6	Bhartiya Vidya Mandir High School Bhaderwah	12	13	25
7	Atkhar Public High School Sartingal Bhaderwah	13	12	25
8	Sarswati Memorial Public School Kursari Bhaderwah	12	13	25
	<b>Total</b>	<b>100</b>	<b>100</b>	<b>200</b>

### Variables studied

The following variables were studied in the present research:

#### a) Independent variable

- i) Sex: Male and Female
- ii) Locality: Rural and Urban
- iii) Type of Institution: Govt. & Private

#### b) Dependent variable

Environment Awareness Scores

### Tool used

Self prepared questionnaire was employed for the data collection.

**Statistical Technique used**

The investigator was concerned with the following techniques: Mean, Standard deviation, Standard error of mean difference and Critical ratio.

**Analysis and Interpretation of data**

Analysis has been done with the help of various statistical techniques.

**Table 1:** Showing the critical ratio value computed for awareness about environmental problems among rural and urban secondary school students

Category	N	Mean	Standard Deviation (S. D)	SE <sub>DM</sub>	CR	Level of Significance
Rural	100	22.63	2.1525	0.2608	2.2239	Significant
Urban	100	23.21	1.4717			

**Interpretation**

Table 1 reveals that value of CR computed for the awareness about environmental problems among rural and urban secondary school students is 2.2239 which is significant at 0.05 level. Our calculated value is greater than 1.96 which means that there are significant differences in awareness

about environmental problems among rural and urban secondary school students. Hence, the hypothesis that there is no significant difference in awareness about environmental problems among rural and urban secondary school students is rejected.

**Table 2:** Showing the critical ratio value computed for awareness about environmental problems among govt. and private secondary school students

Category	N	Mean	Standard Deviation (S. D)	SE <sub>DM</sub>	CR	Level of Significance
Govt.	100	22.97	1.8191	0.2638	0.3791	Not Significant
Private	100	22.87	1.9114			

**Interpretation**

Table 2 reveals that value of CR computed for the awareness about environmental problems among government and private secondary school students is 0.3791 which is not significant. Our calculated value is less than 1.96 which means that there are insignificant differences in awareness

about environmental problems among govt. and private secondary school students. Hence, the hypothesis that there is no significant difference in awareness about environmental problems among govt. and private secondary school students is accepted.

**Table 3:** Showing the critical ratio value computed for awareness about environmental problems among male and female secondary school students

Category	N	Mean	Standard Deviation (S. D)	SE <sub>DM</sub>	CR	Level of Significance
Male	100	22.8	1.8829	0.2629	0.9129	Not Significant
Female	100	23.04	1.8335			

**Interpretation**

Table 3 reveals that value of CR computed for the awareness about environmental problems among male and female secondary school students is 0.9129 which is not significant. Our calculated value is less than 1.96 which means that there are insignificant differences in awareness about environmental problems among male and female secondary school students. Hence, the hypothesis that there is no significant difference in awareness about environmental problems among male and female secondary school students is accepted.

From Table 1, it is very much clear that there are significant differences in awareness about environmental problems among rural and urban secondary school students as the value calculated is greater than 1.96 so, there is no significant difference in awareness among these students. Table 2 reveals results about awareness about environmental problems between government and private secondary school students and it has been reported that that there is no significant difference in awareness about environmental problems among govt. and private secondary school students as the calculated value is lesser than 1.96. From Table 3, it can be concluded that that there is also no significant difference in awareness about environmental problems among male and female secondary school students i. e., the students (male and female) of these schools are equally aware of the environmental problems and issues.

**3. Results and Discussion**

The tables mentioned above comprising of the calculated values of Mean, Standard Deviation (S. D), Standard error of mean difference (SE<sub>DM</sub>) and Critical ratio (CR). These values have been computed for the awareness about environmental problems among rural and urban secondary school students, awareness about environmental problems among govt. and private secondary school students and for the awareness about environmental problems among male and female secondary school students and the results for the same has been listed in Table 1, Table 2 & Table 3 respectively.

**4. Conclusion**

The statistical analysis of data helped in testing the various hypotheses formulated to realise the objectives of the study and concluded that:

- 1) Significant difference has been found in the awareness about environmental problems among rural and urban secondary school students.

- 2) No significant difference has been found in the awareness about environmental problems of secondary school students studying in government and private schools.
- 3) No significant difference has been found in the awareness about environmental problems among male and female secondary school students.

## 5. Educational Implications

On the basis of the results, following educational implications are suggested:-

There is need to create interest among students through seminar, demonstration and other Activities, so that they become aware about the importance of environmental education in the teaching learning process. Some of the awareness programme regarding the environmental education teaching, learning process can be organized like, debates, demonstrations, discussion, seminar and presentations.

Educational programs and curriculum should give attention in developing the individual's environment awareness.

### Acknowledgement

We hearty thank the principals and teachers of all the above-mentioned schools for their support and cooperation and helping us in completing our research well on time.

### References

- [1] Koul, L. (1997). *Methodology of educational research*. New Delhi Vikash Publishing House.
- [2] Kumar, V., Yadav, K. K., Gupta, N., Gautam, N., and Vishwakarma, S. K (2016). Examining environmental education and awareness among girls in higher secondary schools: A case study of Jhansi city, U. P., India. *International Journal of Environmental Sciences*, 6 (5), 820-824.
- [3] Neelima Gupta (2017), Environmental awareness of urban and rural school students, *International Journal of Engineering Development and Research*, Vol.5, Issue 3.
- [4] Balaji P. S. et al. (2017), Study on environmental awareness among rural and urban secondary school student in thiruvallur district, *International educational scientific research journal*, Vol 3, issue 6.
- [5] Sharma, P. D (2011). *Ecology and Environment*. Meerut: Rastogi Publication.
- [6] Sharma, R. A (2000). *Advanced statistics in education & psychology*. Meerut, Surya Publication.
- [7] Sharma, R. A. (2000). *Fundamentals of educational research*, Meerut: Loyal Book Depot.
- [8] Singh A and Verma U (2012), Environmental awareness among higher secondary students of Jabalpur. *Indo-Indian Journal of Social Science researches*, Vol.8 (2), pp: 81-86.
- [9] SahuU, Roy M, Monika, Rajkiran (2015), Environmental awareness among undergraduate student in rural area, *Journal of environmental science & food technology*, Vol.1, Issue 4, pp 27-32.