



## "A STUDY ON ENVIRONMENTAL AWARENESS OF HIGHER SECONDARY SCHOOL STUDENTS IN BIRBHUM DISTRICT, W.B."

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### ABSTRACT

*Environmental Education is a key to the success of any overall environmental strategy. National policy on education (1986) emphasizing. The role of environmental education says that there is a paramount need to create a consciousness of the environment. It must permeate all ages and section of the society beginning with the child environmental consciousness should be inculcated into teaching in school and colleges. Environmental crises will require an environmental awareness which should be deeply rooted in the education system at all levels of school education. Today environmental awareness is a very important topic for discussion and lots of conferences and seminars are being held at various levels. The environment and energy related problems cannot be solved unless students are aware of them because the students are the future citizens of our country. It is an essential need for each individual to develop an awareness of protection and preservation of the environment. In order to hasten student awareness towards environment. It is necessary to know what levels of awareness they possess towards environment. The present study focused on environmental Awareness of Higher secondary students. Major objective of the study explored to find out significant differences in the environmental awareness of the H.S. School Students due to gender, strata, and component wise variation 120 students consisting 60 male and 60 female comprised the sample. Environmental Awareness measurement scale (EAMS) consisting 76 items in Five areas developed by Mr Shyamal Kumar Biswas of Burdwan University (2014) was employed for data collection. Inferential statistics like Mean, S.D. t-test and correlation test were used for data analysis. The results shows 1) Female students are environmentally more aware than male students.*

*2) There is no significant difference between environmental awareness of urban and rural students 3) students of private school are more aware than government School. At the end some recommendation and scope for the further research relation with environmental awareness and environmental education.*

**KEYWORDS:** Environment, environmental awareness, Environmental education, Environmental Problem,.

### INTRODUCTION

Environmental awareness is an integral part of the movement's success. By teaching our friends and family that the physical environment is fragile and indispensable we can be fixing the problems that threaten it. Environmental education is the teaching of individuals and communities in transitioning to a society. That is knowledgeable of the environment and its associated problems, aware of the solutions to these problems, and motivated to solve them. Awareness and education of environment is the paramount concern of all the citizen of society this chapter gives contextual, conceptual and theoretical basis of the research. This chapter itemizes the concept of environment. The component of environment major current environmental problem need of environmental awareness. It puts into perspective environment



challenges and how environmental education can be used as a tool of addressing these challenge. The term "Environment has been derived from a French word " Environia means to surround Environment is in general terms, a surrounding or conditions influencing development and growth of all the living beings. It refers to both abiotic and biotic environment. Environment mainly consists of atmosphere, hydrosphere, lithosphere and biosphere. But it can be roughly divided into two types such as 1) Micro environment and 2) Macro environment. It can also be divided into two other types such as 1) Physical 2) Biotic environment.

- 1) Micro environment refers to the immediate local surrounding of the organism
- 2) Macro environment refers to all the physical and biotic conditions that surround the organism externally.
- 3) Physical environment refers to all abiotic factors like temperature, sunlight, rainfall, soil, minerals etc. It compresses of atmosphere lithosphere and hydrosphere.
- 4) Biotic environment includes all biotic factors or living forms like plants, animals micro organism.

Major current environmental problems are pollution, global warming, waste Disposal, climate change over population, ocean Acidification, Acid Rain, Water pollution, ozone layer depletion, and loss of Biodiversity, Public, Health issues, urban sprawl, and genetic engineering. According to UNESCO, 2012, At the dawn of the 21<sup>st</sup> century, a powerful and complex web of interactions has contributed to unprecedented global trends in environmental degradation, these include rapid globalization, Urbanization, poverty, Unsustainable consumption patterns and population growth. They have served the effects and intensity of the global environmental problems. Are all environmental problem that touch every nation and adversely affect the lives and health of their populations (UNEP, 2012) the level of global environmental challenges is now beyond serious scientific dispute. The environmental degradation poser a great danger to man's own survival. It should be realized, sooner than later, that conservation and important of the environmental are vital for the survival and well being of mankind. Therefore, the term Environment awareness has a broad connotation. It not only implies knowledge about environment but also attitude, values and necessary skills to solve environment moreover related problems. Environmental awareness is the initial step ultimately leading to the ability to carry on responsible citizenship behavior. The importance of environmental education (EE) is recognized and emphasized as one of the most effective ways, if not the only way, to meet the complicated problems of the environment. The objectives of EE is aimed at empowering citizens to participate in environmental conservation. It is aimed at modeling environmental behaviors by creating awareness, attitude, developing skills and creating opportunity and capacity for participation in environmental conservation. One of the key specific objectives was that EE should provide individuals and social groups with an opportunity to be actively involved at all levels working towards the resolution of environmental problems (UNESCO, UNEP 1985) Environmental awareness, attitude and participation are key elements of sustainable environmental behavior India has a very large number of very active NGOS who are involved in a variety of activities from policy analysis to school programs, from participatory natural resources management nut to activism. There are many challenges for environmental education in India. Apart from the obvious ones of helping strengthen environmental management and conservation one of the important ones is to bring about awareness of the need that the country develops in less wasteful ways than is the current paradigm EE is one of the tools that can help India achieve this goal. There are also several challenges, are

- 1) To find the right blend between centralized and decentralized efforts and approaches.
- 2) The challenge of putting EE on the agenda of educational decision markers.
- 3) The challenge of putting sustainable development concerns high on the agenda of policy makers.
- 4) The challenge of reaching out to large numbers cost effectively, and
- 5) Finding and developing human and financial resources for EE.

Thus EE for children and youth becomes an integral and important part of the EE strategy of our country. India, a land of diversity ecological, bio-geographical, Cultural, Social requires efforts which are rooted in the local content which present a picture to which the child relates, can provide solution.

### REVIEW OF RELATED LITERATURE:

Review of related literature is a significant aspect of any research work to know what other have learned from similar research situation and help in the formulation of hypothesis for the study. A number of related studies have been reviewed and presented systematically and chronological order in the following paragraphs.

- 1) **Arun Kumar (2012):** Studies on assessment of environmental awareness among teacher trainees in teacher training institutes in Tiruchirapalli district, Tamilnadu, the author used normative survey method for the study. The major finding of the study reveals that teacher trainees on Tiruchirapalli district have average level of environmental awareness with regard to background Variables such as gender, Locality and teaching competence.
- 2) **Boiyo (2014):** Provided a Comparative account of environmental awareness, attitude and participation among secondary school students of Kasarani and Kibera divisions of Nairobi Country of Kenya. There is no significant differences in the level of awareness attitude and participation in environmental activities of the students. It was also found that there is need to refocus the approach of EE in order to ensure that it does not only make learner aware but also create a sense of personal responsibility which is fundamental in ensuring sustainable environmental behavior.
- 3) **Gayatri et al. (2014)** Investigated environmental awareness among secondary school students in relation to cast father occupation class of study in chittor District. The finding are there is significant influence of caste on the environmental awareness of secondary school students. There is significant influence of father occupation on the environmental awareness of secondary school students. There is significant influence of class study on the environmental awareness of secondary school student.
- 4) **Khan (2013)** Studies attitude towards environmental awareness in relation to certain variables among senior secondary school students at the Aligarh city in Uttar Pradesh and found that there is neither significant difference between environmental awareness of the boys and girls nor between the students residing at their own house and those residing in rental houses. There is significant difference in the environmental awareness of the students studying in private and government senior secondary schools of the same city.
- 5) **Poonam (2012)** Investigated environmental awareness among government and private secondary school in Punjab, Environmental Education in school education has been accorded high priority by the National curriculum framework (NCF) 2005. The country is trying to solve local and national issue and problems. Environmental science as one of the school subject has been included in the school subject. Inspire of that secondary school students schools of Gurudaspur district differ significantly on the test of environmental Awareness and its different component. This study reveals that various steps taken for developing awareness for environment is not sufficient and various measures have to be taken to balance the ecology.

### OBJECTIVE OF THE STUDY:

To find out significant differences in the environmental awareness of the Higher secondary school students due to gender, strata and component wise variation.

### HYPOTHESIS OF THE STUDY:

The following null Hypothesis have been formulated on the basis of the objectives.

- 1)  $H_{0_1}$  : The scores a study of environmental awareness of higher secondary school students are not normally distribute in total.
- 2)  $H_{0_2}$  : There will be no significant difference between male and female higher secondary school students in their environmental awareness.
- 3)  $H_{0_3}$  : There will be no significant difference between Urban and Rural higher secondary school student in their environmental awareness.

4) H0<sub>4</sub>: There will be no significant difference between Government school and private school in their environmental awareness.

**DELIMITATION OF THE STUDY:**

The researcher intended to analyze the Environmental Awareness of Higher secondary school students. The sample was selected from the Nalhati Municipality and Murarai Block. The area selected for applying the tool was Nalhati and Murari block of Birbhum district, 120 samples are taken. Various types of questions were put to get their opinion. Statistical techniques like mean, S.D., t-test and correlation are used for data analysis.

**Definition of important Terms and concept used**

**1) Environments Awareness:**

Environmental awareness is to understand the fragility of our it’s environment and the importance of its protection. Promoting environmental awareness is an easy way to become an environmental steward and participate in creating a brighter future for our children.

**Methodology of the study:**

In this chapter, the attempt has been made to highlight on the methodology adopted for contracting the present study. So the section present a brief outline of the design adopted population the sample collected, description of the tool used for study techniques of the data analysis and procedure.

**Research design:**

The main purpose of the study is to find out the environmental awareness of higher secondary school students. It is a normative survey method and an ex-post facto type as the current status of phenomena what exists at present had been adopted.

**Population:**

In the present study, the population has consisted of all the higher secondary school students of Nalhati Municipality and Murarai Block in the district of Birbhum.

**The sample of the study:**

The sample for the study comprises of 120 students of class XI-XII. These students were selected through random sampling procedure. In this context the Urban and Rural schools of Birbhum district has been covered under the study. The sampling procedure has been adopted for the investigation basing upon following procedure At first, the place for conducting the research work was selected then four schools were selected for the study, two rural schools and two urban schools and they were arranged in a continuous numbers. The students of these schools in the sample are given below.

Sl. No	Strata	Boys	Girls	Total
01	Rural	15	15	30
	Govt			
02	Urban	15	15	30
	Govt			
03	Rural	15	15	30
	Private			
04	Urban	15	15	30
	Private			
Total				120

**Variables**

The variables are the condition or characteristic that a researcher manipulates controls. The variables considered for the present study are Male vs Female, Urban vs Rural and Govt. school vs private school in the study. Two variables have been selected for the present study, variables are given below.

- A) Major Variables: 1) Environmental awareness.
- B) Demographic variables: 1) Gender (Male and female)
- 2) Strata (Urban and Rural)
- 3) Institution (Govt and private school)

**Tool:**

Environmental Awareness measurement scale (EAMS) Constructed by Mr. Shyamal Kumar Biswas of Burwan University (2014) was used to study the attitude toward Environmental awareness in relation to certain variables between higher secondary school students. The tool consists of 76 questions of following dimensions a environmental issues.

Table-2 Distribution of question regarding the components.	
Name of the components	No of question regarding the components
Cause of pollution	13
Conservation of nature	23
Energy conservation	11
Conservation Human Heath	16
Environmental action	13

The participants had to indicate whether they agreed to the statement given or not, or they are uncertain about it. It is a likert type (3 point) scale.

**The administration of Tools:**

The administration procedure was followed by as per the prescribed norms and conditions. The test was administered on the sample of 120 students of higher secondary schools of Birbhum district. The investigator visited the different schools and personally with the head of the institution. A brief explanation was given to them about the purpose of the study. After obtaining their consent the investigator meet with students and discussed the study with them. They were told that this study is done only for the research purpose and the information furnished by them was kept confidential. To ensure the proper administration of the tools and the collection of the data the following measures of precautions were taken while administering the test.

- 1) Preliminary considerations for administration of tests were made like free ventilation, good sitting accommodation and undisturbed zone of the institution.
- 2) All the students were provided questions and answer sheets.
- 3) The test was administered during the morning hour to make the respondents free from mental fatigue.
- 4) They were first gives necessary instruction and then were asked to start.
- 5) The investigator dealt with their doubts.
- 6) The answer sheets were collected from them all at a time after the completion.
- 7) The second test was administered on the same group of students on the same.

**Scoring of the Answer sheet:**

All the answer sheets filet in by the respondents were scored as per the scale manuals the data sheet was prepared grouping the students into different categories gender and locale. As per the objectives

and hypothesis stated, the scores of the students on the both scales in relation to all the variables were analyzed.

**Data Collection Procedure:**

Research work was carried out through survey method at Nalhati municipality and Murarai Block in the district of Birbhum of W.B. but for the study was selected by the suitable sampling technique. Data was collected through questionnaires and schedules from the higher secondary school students and tabulated with the help of suitable statistics technique relationship was established amongst parameters. Every students were provided the printed format of questionnaires and asked to give a tick mark against this choice. Finally the questionnaire was collected and analyzed in a descriptive as well as well questionnaires manner.

**Procedure of the study:**

The researcher followed the procedure for conducting present study are standardization tool of a opinion based quationnaires for data collection from 120 Higher secondary school students of Two areas of Birbhum District from West Bengal. Scoring was done according to the three point scale data were organized sub sample or variation wise. Appropriate statistical formula used to analysis the data (Mean, S.D., t value, Correlation test) from obtained scores degree of freedom at 0.05 and 0.01 level were decided the findings were included.

**Data Analysis and interpretation:**

**Results**

**Hypothesis testing:**

Researcher use inferential statistic inference about a population of study participants based on a sample of the participants. The research design of the study determines the type of inferential statistical used to analyze the data present data summaries and to examine the relationship between the dependent and independent variable. Frequency destitution and percentage were computed for each variables of the present study.

H0<sub>1</sub>: The score a study of environmental awareness of higher secondary school students are not normally distribute in total.

**Table-3**

<b>Group Statistic</b>	<b>Distribution of the scores of total students</b>
Number of students Involved	120
Mean	124.83
Median	126.37
S.D.	21.4
Skewness	- 4.74
Kurtosis	0.696

**Interpretation:**

From the above table shows the distribution could not be confirmed normal. It was found that distribution of the score of students on environmental awareness seem to be slightly skewed. The value of skewness is -4.74. The skewness could have occurred due to sampling error. The kurtosis is found 0.696 on this scale platykurtic. Which may be due to the non-normal distribution if sample chosen by the investigator as a result null hypothesis which was formulated by stating that the scores a study of environmental awareness of higher secondary level are not normally of distribute in total, component wise is accepted.

H<sub>0</sub><sub>2</sub>: There will be no significant difference between male and female of higher secondary school students in their environmental awareness.

**Table-4**

**Summarization of significant difference between mean scores of Male and female in environmental awareness.**

Group Statistic	Male	Female
Number of students Involved	60	60
Mean	116.66	133.0
S.D.	20.6	31.9
t-value	3.32	
Remark	Highly significant at 0.01 level i.e. H <sub>0</sub> <sub>2</sub> is rejected.	

**Interpretation:** "t" value in environmental awareness between male and female students was found to be 3.32 which was highly significant at the point 0.01 level (2.62) so the female students are more awareness in environmental issues than of male students. Hence, the hypothesis H<sub>0</sub><sub>2</sub> is rejected.

H<sub>0</sub><sub>3</sub>: There will be no significant difference between urban and rural higher secondary school students in their environmental awareness.

**Table-5**

**Summarization of significant difference between mean scores of urban and rural in environmental awareness.**

Group Statistic	Urban	Rural
Number of students Involved	60	60
Mean	127.33	121.33
S.D.	17.9	18.9
t-value	1.78	
Remark	Highly significant at 0.01 level i.e. H <sub>0</sub> <sub>2</sub> is accepted.	

**Interpretation:** "t" value in environmental awareness between urban and rural students was found to be 1.78 which was not significant at the point 0.05 level. It can be concluded that the urban students and rural students are almost equally in environmental awareness. Hence, the hypothesis H<sub>0</sub><sub>3</sub> is accepted.

H<sub>0</sub><sub>4</sub>: There will be no significant difference between Govt. school and Private school of higher secondary school students in their environmental awareness.

**Table-6**

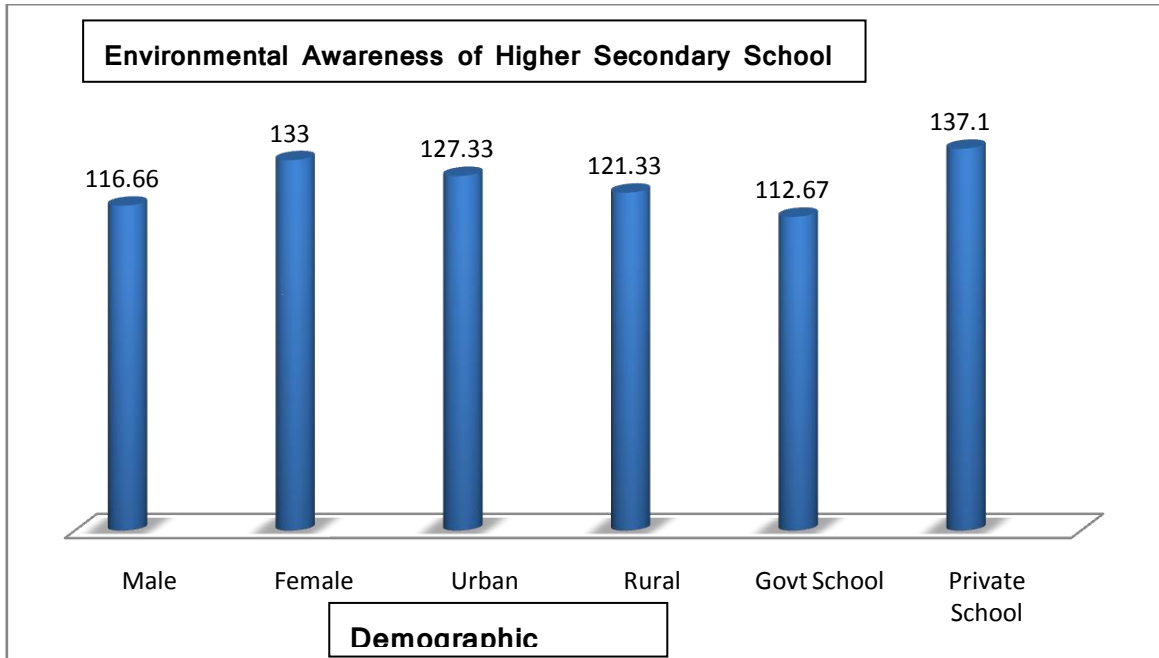
**Summarization of significant difference between mean scores of Govt. and Private school in environmental awareness.**

Group Statistic	Government School	Private School
Number of students Involved	60	60
Mean	112.67	137.1
S.D.	21.8	15.1
t-value	7.16	
Remark	Highly significant at 0.01 level i.e. H <sub>0</sub> <sub>2</sub> is rejected.	

**Interpretation:** "t" value in environmental awareness between government school and private school students was found to be 7.16 which was highly significant at the point 0.01 level (2.62). so the private

school students are more awareness in environmental issues than that of Government school students. Hence, the hypothesis H<sub>04</sub> is rejected.

**BAR DIAGRAM SHOWING MEAN SCORE DIFFERENT OF ENVIRONMENTAL AWARENESS OF HIGHER SECONDARY SCHOOL STUDENTS FOR GENDER, STRATA AND INSTITUTION WISE**



**Fig No-1**

Fig No-1 gives a comparative picture on environmental awareness of demographic variables like male, female, urban, rural and govt. and private of H.S school students. From the figure 1 shown female, Urban and private school students having more awareness then male, Rural and govt school students.

**Scope and delimitations of the study**

Under scope, environmental awareness of higher secondary students including male and females of different schools of Birbhum District in the sample selected through Random Sampling Procedure. 120 students of class XI-XII. From four schools from rural and urban areas in the district of Birbhum were selected and various types of questions under five components viz. Causes of pollution, conservation of nature, energy conservation, conservation of human health and environmental action were put to measure environmental awareness of the students.

**FINDINGS**

This present study on "Environmental Awareness of higher secondary school students" can be concluded as follows:

1. There is significant difference between male and female students in environmental awareness. Female students are environmentally more aware than male students.
2. There is no significant difference between environmental awareness of urban and rural students. Rural and urban students are almost equally in environmental awareness in Birbhum District.
3. There is significant difference between environmental awareness of government and private school. Students of private are more aware than of government school.



## RECOMMENDATION

Based upon the above findings of the study, the following recommendations have been made:

First of all, it is strongly recommended that Environmental Education should be taken more seriously by teachers and students. It should be offered as an independent subject. If the content, which the students interact with, is not regularly update, it would be a matter of concern. So, it is recommended that there should be an updation in the curriculum of higher secondary schools, particular of subjects handling environmental education content in order to reflect the current and emergent environmental concepts and problems. The study found that though students in higher secondary schools are aware of several environmental concepts and problems. It's was evident that some of them were poor. Male students did not attention and perform well in the test. The classroom practices, therefore, need to improve awareness about environmental problems. More innovative and proper method and techniques in teaching of EE need to be used. It is recommended that the Government through the relevant ministry should come up with a clear policy framework to ensure that the students not only gain knowledge, but also skills. So that students can participate in environmental activities.

### Scope for the further research:

Research works never end .There is always scope for the further research in same field .and it leads to the increase of knowledge. The present study was conducted on random sampling of 120 higher secondary school students. The study gives rise to various problems for further research, such as:

1. The same study can be conducted on large sample by including more districts so as to present clear picture of the studies.
2. A study may be conducted other variable like experience age group, interest etc.
3. Similar studies can be conducted on college and university students.
4. The relationship between Environmental education and the level of environmental awareness, attitudes and participation in environmental activities among students.

## REFERENCES

1. **Arun Kumar, J. (2012):** A Study on Assessment of Environmental Awareness among Teacher Trainees in Teacher Training Institutes. *International Journal of Research in Social Sciences*;2(3), 312-313.
- Erzengin, O. U. & Teke, E. C. (2013):** A Study on Developing an Environmental Behavior and Attitude Scale for University Students. *Journal of Educational and instructional Studies in the World*, 3(2):art80, 49-57.
2. **Ghosh. K. (2014):** Environmental Awareness among Secondary School Students of Golaghat District in the State of Assam and Their Attitude towards Environmental Education. *Journal Of Humanities And Social Science*, 19(3U), 30-34.
3. **Mishra, S. K. (2012):** Environmental Awareness among senior Secondary Students of Maheshwar and Mandleshwar, Dist.- Khargone (M.P.). *International Journal of Scientific and Research Publications*, 2( 11 ), 1-3.
4. **Nagra, V. & Kaur, B. (2013):** Environmental Education Awareness among Senior Secondary School Students. *Zenith International Journal of Business Economics & Management Research*, 3(1 ), 1.
5. **Nagra, V. & Kaur, B. (2013):** Environmental Education Awareness among Senior Secondary School Teachers. *International Journal of Behavioural Social And Movement Science*, 2(1), 242-252.
6. **Poonam. (2012):** A Comparative Study of Environmental Awareness among Government and Private Secondary School Students. *international Journal of Education Planning & Administration* 2(2), 125-127.

7. **Reddy, Y. S., Reddy, B. Y. & Gayatree, A.(2014):** A Study of Environmental Awareness among Secondary School Students in Relation to Caste, Father Occupation, Class of Study in Chittoor. Indian Journal of Research, 3(2), 71- 73.
8. **Sengupta, M., Das, J., Maji, P. K. (2010):** Environmental Awareness and Environment Related Behaviour of Twelfth Grade Students in Kolkata: Effects of Stream and Gender. AN~ESA, 5(1):art8, 1-127.
9. **Sharma,N. K. (2013):** A Study on Environmental Awareness of College Students in Relation to Sex, Rural-Urban Background and Academic Streams wise. The Online Journal of New Horizons in Education, 4(2), 15-21.