



ENVIRONMENTAL AWARENESS OF HIGHER SECONDARY SCHOOL STUDENTS



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ABSTRACT

Environmental awareness as the term itself connotes is to be aware about one's own environment. Environmental awareness is a phenomenon that helps social groups and individuals to acquire an awareness of and sensitivity to the total environment and its allied problems. A sample of 973 higher secondary school students has been chosen for the study. A standardized tool Environmental Awareness Ability Measure (2010) developed by Dr. Praveen Kumar Jah was used. The study revealed that majority (81.8%) of the higher secondary school students of East Khasi Hills District, Meghalaya, have high environmental awareness levels. Further, significant difference was observed in the level of environmental awareness among male and female students and also rural and urban students.

KEYWORDS : environment, environmental awareness, higher secondary.

INTRODUCTION

Since time immemorial man has depended on his surroundings and has extracted innumerable resources from his environment. All basic necessities of life such as food, clothing and shelter are met through the resources that are available in our environment. Our ancestors understood the role of nature and had maintained the balance of life; they extracted according to their needs and were content with what Mother Nature had to offer.

However, over the years, with the advent of science and technology, man's relationship with nature has undergone a continuous change. Man started to transform his environment to meet his needs and wants. Life has been made easier and more comfortable with the invention of faster motorised means of transportation, electronic communication and also other machines and equipment that further our quest for better things. However this luxurious unlimited lifestyle comes at the cost of altering environmental balance and increased environmental pollution. Man continues to feed his endless greed at the expense of our environment and is the primary reason for almost all the environmental problems that are occurring today.

Man in his endless quest for improvement has by and large ignored the laws of nature. He has been exploiting and extracting from nature with very little thought with regards to conservation of resources and the sustainability of endless fulfilment of his wants and desires. Karl Marx had noted that; "human projects that ignore great laws of nature bring only disaster". With our current mode of living and lifestyle, sooner rather than later, a time will come when the environment will no longer be able to sustain itself. This will cause mass extinction and our planet will die killing everyone and everything with it. Our planet would then be no different from the other barren lifeless planets. In perspective, Mahatma Gandhi had rightly remarked that, "Earth provides enough to satisfy every man's needs, but not every man's greed."

The varied environmental problems such as the number of deaths cause due to pollution, extinction of species, desertification, depletion of the ozone layer, acid rain, climate change, global warming, over

population and the increasing number of environmental problems facing our world everyday are unimaginable. However, many are turning a blind eye to the realities outside the four walls of our house.

It is only very recently that man has come to realize the adverse effects of his actions on the environment. Environmental issues have now started to come to the fore not only in our country but across the world. Countries all over the world have come up with programmes and initiatives to minimize environmental pollution and reverse existing damages. Laws and regulations have been framed in order to manage and control environmental pollution. It is also now realised that cooperation and collaboration of all the people is essential to prevent and control all possible environmental risks. It is only logical, therefore, that creating environmental awareness and educating the public about the looming environmental issues is necessary in order to counteract and perhaps reverse society's many mistakes regarding treatment of the environment and to engineer possible sustainable solutions.

ENVIRONMENTAL AWARENESS

Environmental awareness as the term implies is the awareness about one's environment. Environmental awareness is a phenomenon which encompasses various dimensions such as acquiring knowledge about the various components of the environment, to be aware about the issues and problems relating to the environment and also to be aware about how to handle environmental problems. Environmental awareness is the first step to environmental sustenance. One needs to be aware in order to be able to make conscious decisions and to take the necessary actions relating to the environment.

Environmental awareness is one of the main objectives of environmental education and it is an important initiative to educate people about their environment, its components, its problems and remedies. Environmental awareness acts like an eye opener to the various issues across the world.

(Sharma, 2007) The Belgrade International Workshop (1975) stated that environmental awareness may provide power and understanding

- ❖ To recognize the interdependence among materials into physical environment, plant and animal life for survival, growth and development
- ❖ To take decisions individually and collectively and initiate actions for social, cultural and economic survival, growth and development and for conservation of nature and natural resources.
- ❖ To identify human, material, space and time resources in the environment.
- ❖ To recognize ways of making effective use of environmental resources for social, economic and cultural survival, growth and development.
- ❖ To take decisions for the effective use of resources, to recognize the special significance of conservation of natural resources and initiate or support community efforts for the purpose.

SIGNIFICANCE OF THE STUDY

Mankind's relatively short existence on the earth has altered the very structure of earth more drastically than any other species. Man has extorted, exploited and exhausted his environment to its breaking point. We have now come to a point where nature can no longer sustain and regenerate itself anymore. Our environment is visibly crumbling all around us because of man's continuous and uncontrolled extortions. Our environment is now highly polluted. Human population is multiplying at a very fast rate. Many species of flora and fauna are going extinct every year. Our quest for development and betterment of our living conditions is the sole reason for this environmental degradation. However, now the time has come for us to face the consequences of our actions.

Meghalaya, also popularly known as Scotland of the East, is regarded as one of the beautiful states in India. Over the years, however, we have seen the transformation of the places across the state. The areas especially around East Khasi Hills District and more specifically the capital city of Shillong has transformed from a green and serene town to a highly populated and polluted town. It is very disheartening to see once crystal clear river and streams turn black and murky. The once green hills are now strewn with plastic waste

and once fresh breeze have now turned into choking polluted air. The East Khasi Hills District of Meghalaya no doubt is the most populated and polluted district of the state. Hence, it is but appropriate to conduct a study on environmental awareness in East Khasi Hills District of Meghalaya.

The present study is an attempt made to study the environmental awareness of higher secondary school students in East Khasi Hills District of Meghalaya. The study also aims to find if there is any significant difference in environmental awareness between male and female students, and also among urban and rural students.

STATEMENT OF THE PROBLEM

On the basis of the need and justification highlighted above, the statement of the problem may be stated as:- "Environmental awareness of the Higher Secondary School Students of East Khasi Hills District, Meghalaya"

OPERATIONAL DEFINITION OF THE TERMS USED

The present study involves some key terms which are defined as below:-

- ❖ Environmental awareness – is to be aware about the various components of the environment, its problems and its solutions.
- ❖ Higher secondary school students – It constitutes students studying in class XI and XII both male and female.

OBJECTIVES OF THE STUDY

1. To study the level of environmental awareness of the higher secondary school students in East Khasi Hills District, Meghalaya.
2. To find if there is any significant difference in environmental awareness between male and female higher secondary school students.
3. To find if there is any significant difference in environmental awareness between Urban and rural higher secondary school students.

NULL HYPOTHESES

1. There is no significant difference in environmental awareness between male and female higher secondary school students.
2. There is no significant difference in environmental awareness between urban and rural higher secondary school students.

RESEARCH METHOD

Descriptive survey method was used in the present study.

POPULATION

The population of this study includes all higher secondary school students (male and female) in East Khasi Hills District, Meghalaya.

Table No. 1
Population of the Study

Location	No of Schools	Male	Female	Grand total
Urban	53	7783	9937	17720
Rural	54	3044	3575	6619
Total	107	10827	13512	24339

Source: Unified District Information System for Education (UDISE) 2014-15

SAMPLE

A representative sample of 43 institutions and 973 students were selected for the study.

Table No. 2
Sample of the Study

Location	No of Schools	Male	Female	Grand total
Urban	21	311	397	708
Rural	22	122	143	265
Total	43	433	540	973

SAMPLING TECHNIQUE

Stratified random sampling technique was used for selection of sample for the study.

RESEARCH TOOLS

A standardised tool 'Environmental Awareness Ability Measure' developed by Praveen Kumar Jah (2010) was used.

DELIMITATION OF THE STUDY

The present study is delimited to the higher secondary schools under Meghalaya Board of Secondary Education only and also delimited to a sample of 973 higher secondary school students.

LITERATURE REVIEW

Various studies related to environmental awareness have been conducted by a number of scholars in our country. Some of the findings of these studies relevant to the present study have presented varied findings. Pillai (2004) conducted a study on Environmental Awareness of the Higher Secondary and found that majority of the students have low environmental awareness which coincided with Pande (2007)'s finding who conducted a study on Environmental Awareness among rural and urban children: A comparative study in around Allahabad district of Uttar Pradesh. Sarojini (2010) conducted a study on Level of Environmental Awareness among School students in Chennai district and Kancheepuram district and found that the students have average environmental awareness. In a similar study conducted by Ralte (2013) in Aizawl and Lunglei district of Mizoram the investigator found that the students have average environmental awareness. However, in two different studies conducted by Sahaya and Paul (2005) and Bareh (2010) found that school students have high environmental awareness.

Zafar (2002) conducted a study on environmental awareness among senior secondary school children in relation to their gender, academic stream, intelligence and socio-economic background and found that female possessed more awareness of the environment than the male students. Similar findings were noted in studies conducted by Surekha (2011) in Uttar Haryana and Dakshin Haryana, and Marak (2013) in West Garo Hills. However, Astalin (2011) conducted a study of environmental awareness among higher secondary students and some educational factors affecting it and found that male students had more environmental awareness in comparison to female students.

On the other hand; Rout, and Agarwal (2006) conducted a study on 'Environmental awareness and environmental attitude of students at high school level' and found that there is no significant difference among male and female students' towards environmental awareness. Similar findings were also noted in

studies conducted by Shivakumar (2008) in Davangere District, Arumugarajan (2010) in Tuticorin district, Marak (2010) in Tura town, Sarojini (2010) in Chennai district and Kancheepuram district, and Das (2013) in Assam.

Rajput and Gupta (1998) conducted a study on the environmental awareness among children of rural and urban schools and non-formal education centres of Madhya Pradesh and Maharashtra and found that rural students have higher environmental awareness as compared to urban students. Similar findings were also noted in studies conducted by Amarjyothi, A.R (2009), and Das (2013).

Rout, and Agarwal (2006) conducted a study on Environmental awareness and environmental attitude of students at high school level of Moradabad city and found that there is a significant difference among urban and rural students' towards environmental awareness and that urban students have higher environmental awareness as compared to rural students. Similar findings were also noted in studies conducted by Roa, K. (2010) in Gurgaon and Rewari district, Sarojini (2010) in Chennai district and Kancheepuram district, Surekha (2011) in Uttar Haryana and Dakshin Haryana, Marak (2013) in West Garo Hills.

ANALYSIS AND INTERPRETATION OF DATA

Level of environmental awareness of the higher secondary school students

Table No.3 Levels of environmental awareness

Level of Environmental Awareness	Range of scores	Frequency	Percentage
High	37-51	790	81.19%
Average	16-36	183	18.8%
Low	0-15	0	0%

Table no. 3 above reveals that none of the higher secondary school students in the study have low environmental awareness. 18.8% of the higher secondary school students have average environmental awareness and 81.19% of the higher secondary school students have high environmental awareness.

ENVIRONMENTAL AWARENESS OF MALE AND FEMALE HIGHER SECONDARY SCHOOL STUDENTS

Table No. 4 Mean, SD and t-value of mean scores in environmental awareness of Male and female students

Sex	N	df	Mean	S.D	Computed t value	Table t value	Significance level
Female	540	971	40.02	4.97	3.40	1.96	Significant at 0.05 level
Male	433		41.11	4.94			

Table no. 4 above shows that the mean difference between male and female higher secondary school students was 1.09. Female students sample mean score was 40.02 and male students sample mean score was 41.11. The calculated 't' value between male and female higher secondary school students at 95% confidence level and 971 degree of freedom was calculated at 3.40. This indicates that male higher secondary school students have significantly higher environmental awareness as compared to female higher secondary school students. Thus the null hypothesis, "There is no significant difference in environmental awareness of male and female higher secondary school students" is rejected at 0.05 significance level.

ENVIRONMENTAL AWARENESS OF URBAN AND RURAL HIGHER SECONDARY SCHOOL STUDENTS**Table No. 5 Mean, SD and t-value of mean scores in environmental awareness of urban and rural students**

Region	N	df	Mean	S.D	Computed t value	Table t value	Significance level
Urban	708	971	40.28	5.17	2.55	1.96	Significant at 0.05 level
Rural	265		41.13	4.40			

From table no. 5 above it is observed that the mean difference between urban and rural higher secondary school students was 0.85. The urban sample had a mean score of 40.28 and rural sample mean score was 41.13. The calculated 't' value between urban and rural higher secondary school students at 95% confidence level and 971 degree of freedom was calculated at 2.55. This indicates that rural higher secondary school students have significantly higher environmental awareness as compared to urban higher secondary school students. Thus the null hypothesis, "There is no significant difference in environmental awareness of urban and rural higher secondary school students" is rejected at 0.05 significance level.

DISCUSSION

This study found that a majority of the higher secondary school students in East Khasi Hills District of Meghalaya have high environmental awareness. None of the students in the study have low environmental awareness which is heartening. Studies made by Sahaya and Paul (2005) and Bareh (2010) have also reported students having high environmental awareness. However, Pillai (2004) and Pande (2007) found that majority of the students in their studies have low environmental awareness. Further studies conducted by Sarojini (2010) and Ralte (2013) found that the students have average environmental awareness.

The present study also found that there is a significant difference in environmental awareness of male and female students with male students having significantly higher environmental awareness as compared to female students. Astalin (2011) also reported similar findings where male students expressed significantly more environmental awareness as compared to female students. On the contrary, Zafar (2002), Surekha (2011) and Marak (2013) found that female were significantly more environmentally aware than the male students.

The present study also found that a significant difference exists in environmental awareness of urban and rural students with rural students having significantly higher environmental awareness as compared to urban students. Similar findings were also reported in studies conducted by Rajput and Gupta (1998), Amarjyothi (2009), and Das (2013) who found that rural students have higher environmental awareness as compared to urban students. Other studies conducted by Rout and Agarwal (2006), Roa (2010), Sarojini (2010), Surekha (2011), Marak (2013) have however found that urban students have significantly higher environmental awareness as compared to rural students.

implication of the study

- ❖ The findings of the study could be utilized for bringing changes in higher secondary school curriculum in the subject of environmental studies.
- ❖ The findings of the study can help the teachers to boost the environmental awareness especially of female and urban students.
- ❖ The result can also help NGOs and other organizations working in the area of environmental related issues.

SUGGESTION FOR FURTHER RESEARCH

Similar studies can be conducted on various population groups such as the in service teachers, student and teacher, students studying at different levels, parents of students and others.

Studies can also be conducted on the variables that influence environmental awareness such as socio-economic status, occupation of the parents, educational status of the parents, school management and others.

CONCLUSION

With the rapid deterioration and depletion of our environment; there is no doubt on the need for Environmental awareness across all sections of society especially students who are the future of humanity. Environmental awareness is the first step to environmental sustenance and is a critical and important initiation to educate people about the current state of their environment; the components of the environment and their interrelations, current environmental problems and the possible remedies to such problems.

The findings of this study show that a majority (81.18%) of the higher secondary school students in East Khasi Hills of Meghalaya have high environmental awareness and hearteningly none of the students in the study have low environmental awareness. Further, the findings also show that environmental awareness of male higher secondary students was significantly higher compared to female higher secondary students. Significant difference in environmental awareness was also found between urban and rural higher secondary students with the rural higher secondary students having significantly higher environmental awareness as compared to urban students.

Notwithstanding that a majority of the higher secondary students in the study have high environmental awareness; it is a matter of concern that there were still students in the sample who fell short in their level of environmental awareness. It is here that the need for continuing and improved environmental education in schools is felt.

With the worldview increasingly focusing on the importance, improvement and sustainability of the environment; research on various environmental issues needs to be encouraged in order to better understand environmental problems being faced across the world today especially those concerning the problem of environmental behaviour, practices and conservation efforts of the different societies of people. Environmental problems can be resolved only when we have the knowledge of the root causes because our very continued existence depends on it.

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