



An environmental awareness studies among the students of rural and urban colleges of Assam, India

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Abstract

Environment is the sum of total air, water and land, their inter relationship among themselves and also with human beings and other living organism and property. Mahatma Gandhi said "Earth provides enough to satisfy every man's need but not for every man's greed." But man as used when progressed in his scientific and modern attitude he started to be unkind to natural environment. They mercilessly cut the trees and destroyed the green forest for construction. Man's continuous construction of various types of building, industries, dam, bridges, roads were increased. The natural materials were not sufficient for this proposes. Therefore man invented many things out of available materials to fulfill his needs. So nature at present is in a highly modified state which is quite different from its original shape untouched by the human greed and power. So by observing the situation through this paper the investigator has tried to study the awareness level of the students towards environment.

Keywords: environment, awareness, students.

1. Introduction

1.1 Environment in Assam

Human survival depends upon availability of clear air to breath, fresh water to drink and food in the form of cereals fruits and vegetables etc. All these are met through consumption of one or more of the natural resources. But there is a serious challenge created by the adverse effect of depletion of resources, anvil pollution, population explosion and damage to the fragile eco-system through which life on earth can survive. With the concept of sustainable development there is an inherent conflict between conservation of environment and our present path of development. We cannot maintain the quality of human development if we continue to degrade the environment.

Swami Vivekananda had once said that... '...next to Kashmir, Assam is the most beautiful place in India.' It is a beautiful and diverse state with an incredible range of cultures and landscapes.

Assam, known as the gateway of North East India, is a land of rich biodiversity and full of aesthetic beauty with green hills, tea gardens, river plains and wilderness all around. The mighty river 'The Brahmaputra' in the North and the river 'Barak' in the south along with

their tributaries run through the entire length and breadth of the State. They nourish a wide range of precious flora and fauna in the hills and plains of this charming land. The North East India is the treasure house of rare and endangered flora and fauna. That is why it is called biodiversity heaven of India. The 'Kaziranga', home of the rare one horn Rhinoceros, and 'Manas' are two UNESCO world heritage Sites. In wildlife the one horn Rhino which was almost extinct in India, with only a dozen left at the turn of the last century, now stands restored to scientifically sustainable level because of its preservation in Assam.

As per Forest profile of the State, the Reserved Forest area and Proposed Forest area is 14212 sq km and 2102 sq km respectively in 2010-11 as against 14206 sq km and 1942 sq km reported in 2009-10 by the State Forest Department. The total Forest area excluding unclassified State Forest is 20092 sq km and 3778 sq km area is under protected Area in 2010-11.

Because of its rich biodiversity and natural resources Assam's environment should be maintained and preserved for future. All these are required a lot of effort from the present and future generation of upcoming youngsters, as the youth are the future of

the world. If we can bring awareness among the upcoming young generation then maximum people will be educated about the environmental benefits of such a beautiful place as Assam.

So in order to bring awareness among the upcoming young people or the youths of the generation of North East India i.e. Assam, the investigator has taken up this topic for her research so that research can also serve as social benefit of the society.

1.2 Significance of the study

During the last few decades the problems of environmental degradation have attracted the attention of a wide section people all over the globe. World educators and environmental specialists have repeatedly pointed out that any solution to the environmental crisis will require environmental awareness and understanding to be deeply rooted in education systems at all levels.

The introduction of environmental studies at undergraduate and postgraduate levels has become mandatory on the part of the university after judgement of the Hon'ble Supreme Court in the case of M.C. Mehta vs. Union of India and others delivered by Justice Ranganath Mishra, Justice G.N Ray and Justice A.S Anand.

Thus the University system has a responsibility in translating this order into action, as it is educative in nature. However, if one looks at the spirit of the judgement, it is cleared that the State should take up the responsibility of not only educating the people but also ensure a curriculum to see that the environment is protected and improved.

There is a Chinese proverb "If you plan for one year, plant rice, if you plan for ten years, plant trees and if you plan for 100 years, educate people." If we want to manage our planet earth, we have to make all the persons environmentally educated.

2. Objectives of the study

1. To study the environmental awareness of the urban and rural college students.
 - (a) To make a comparative study of the Arts and Science stream college students towards environmental awareness.
 - (b) To make a comparative study of the male and female college students towards environmental awareness.

2.1 Hypotheses

H_{01} There exists no significant difference among the urban students and rural college students' awareness towards environment.

- (a) There exists no significant difference among the Science stream and the Arts stream college students' towards environmental awareness.
- (b) There exists no significant difference among the male and the female college students' towards environmental awareness.

3. Review of the related literature

From the various literature reviewed, it has been found that the natural resources in the world are degraded drastically leading to phenomena like global warming, Ozone depletion, green house effect etc. The pollution level, whether land, water, air, noise has risen to unimaginable heights. Every researcher felt that the whole world is facing above mentioned environmental problems, threatening to the flora and fauna, whole ecosystems and their problems are getting worse every day.

Some researchers felt that childhood is the best time to generate environmental behaviour and motivate them to establish a congenial and harmonious relationship with nature.

Man has now come to dominate the earth; utilizing and depleting its natural resources and environment. This can only be countered, if we launch an awareness drive towards preserving our natural heritage. That is why researchers felt that all citizens should be partners in the endeavour to save the environment. All have a stake in and responsibility towards conserving and improving the environment.

4. Methodology and procedure:

For the present study 'Descriptive Survey Method' is used. Descriptive Survey Method is the most commonly used research method in education which tries to highlight the conditions and relationships that exists, opinions that are held by the major stakeholders of education.

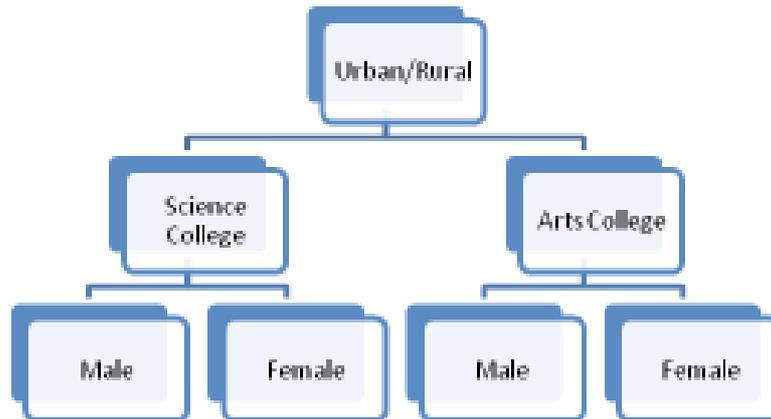
4.1 Population

The population of the present study consists of undergraduate Arts & Science students' studying in the colleges of Assam.

4.2 Design of the study

For this study random sampling technique was applied. On random selection of a college, it is also taken care of that entire District of Assam may consider.

In order to minimize the inter sample and intra-sample variability between the Arts and Science students, male and female students in the comparison area, the college where both Science and Arts stream



available are selected as far as practicable.

Though the nature of the study was only on college students, but it is differentiated by Urban & Rural, Arts & Science and male & female student.

4.3 Sample selection

For the present study, multistage stratified random sampling technique has been used, where the first-stage sampling units are the rural and urban colleges and they differ in size, measured by streams (Arts and Science). In this situation, the first-stage sample is obtained by sampling method with probability proportional to size (PPS).

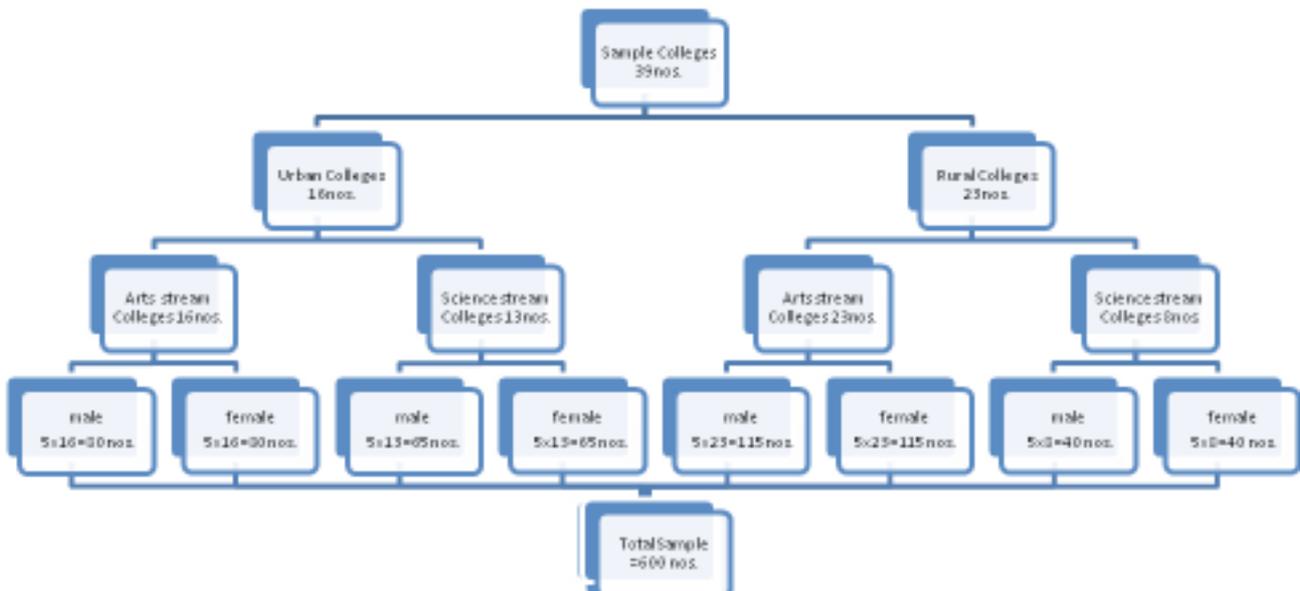
The universe of the study consists of 39 nos. of

colleges, out of which 16 nos. are in urban area and 23 nos. are in rural area.

From the selected colleges (first-stage sampling units) second-stage sampling units (students) are obtained by using the simple random sampling technique. A uniform sampling fraction of five male and five female students from each stream i.e Arts & Science are randomly selected from the selected colleges. Accordingly a total of 600 students have been considered as sampling units for the study. Details of sample collection breakage are shown in the Fig. below

4.4 Data collection

The investigator had collected the data from the



39 colleges, covering entire District of Assam

5. Statistical technique of the data

As the study is based on the criterion group

design involving comparison of group performance, the statistical technique suited for the purpose was t test. The computation of data was done through the

most widely used computer package for analyzing quantitative data, known as the Statistical package for the social Science (SPSS).

6. Analysis and interpretation

Data analysis and interpretation is the process of assigning meaning to the collected information and determining the conclusions, significance, and implications of the findings.

The analysis and interpretation Chapter is divided into two parts.

Part-A: consists of the Graphical analysis and interpretation of the data for **objective no. – 1** and

Part-B: consists of the Statistical analysis and interpretation of the data for **hypothesis no.-1**

Table no.-1 and Fig.no.-1 shows that the level of awareness of urban college students about the

Part-A: Graphical analysis

Table 1 : Area-wise total percentage distribution of awareness

	Urban			Rural			Total		
	item analysis	respondent	%	item analysis	respondent	%	item analysis	respondent	%
Positive	3267	290	56.3	3663	310	59.1	6930	600	57.75
Negative	2533	290	43.7	2537	310	40.9	5070	600	42.25
Total	5800	290	100	6200	310	100	12000	1200	100

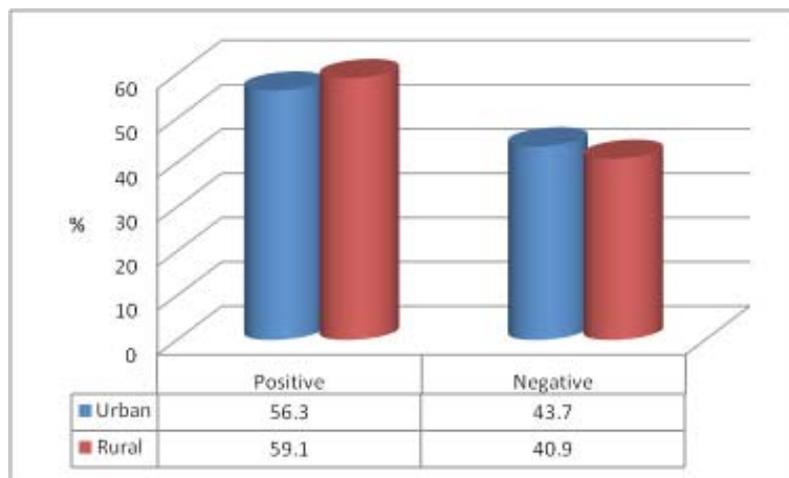


Fig 1 :

environment is 56.3%. Whereas in case of rural college students, is 59.1%. It means that rural college students are more aware than the urban

counterparts Table no.-2 and Fig.no.-2 shows that the level of awareness of Arts students towards

Table 2 : Stream-wise total percentage distribution of awareness

	Arts			Science			Total		
	item analysis	respondent	%	item analysis	respondent	%	item analysis	respondent	%
Positive	4468	390	57.3	2462	210	58.6	6930	600	57.75
Negative	3332	390	42.7	1738	210	41.4	5070	600	42.25
Total	7800	390	100	4200	210	100	12000	1200	100

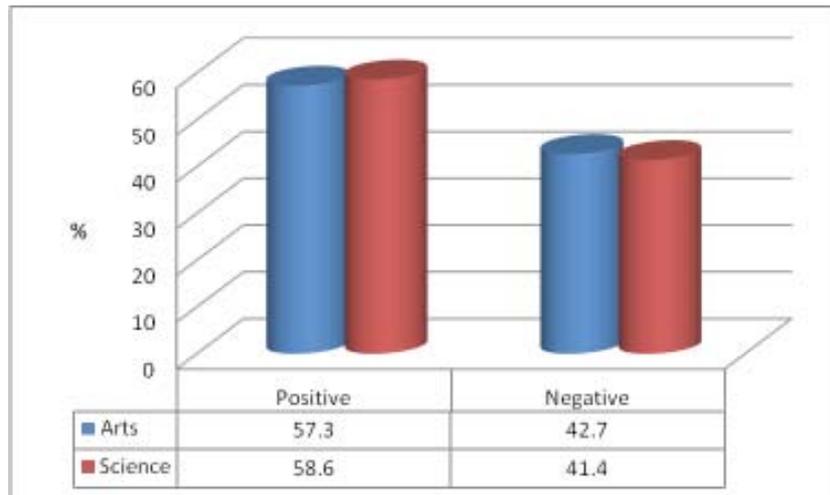


Fig 2 :

environment is 57.3%. Whereas in case of Science students, is 58.6%. It means that both Arts and Science college students are equally aware about the environment.

Table no.-3 and Fig.no.-3 shows that the level of awareness of male college students towards

Table 3 : Sex-wise total percentage distribution of awareness

	Male			Female			Total		
	item analysis	respondent	%	item analysis	respondent	%	item analysis	respondent	%
Positive	3477	300	58	3453	300	57.55	6930	600	57.75
Negative	2523	300	42	2547	300	42.45	5070	600	42.25
Total	6000	300	100	6000	300	100	12000	1200	100

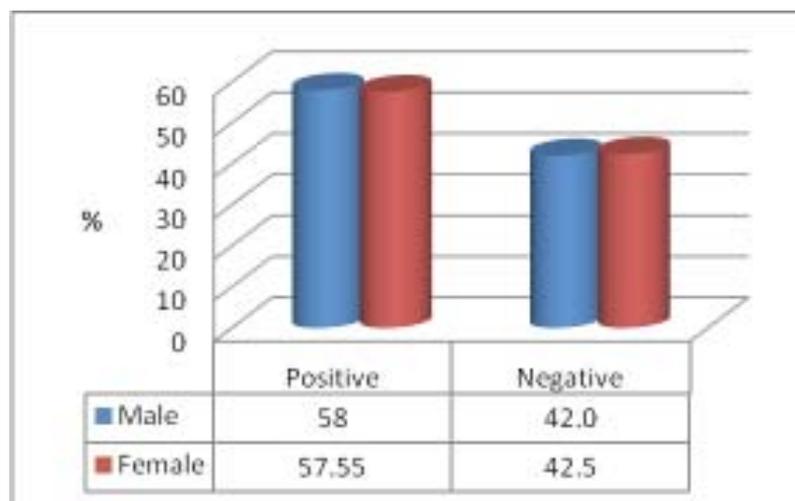


Fig 3 :

environment is 58%. Whereas, in case of female college students, is 57.55%. It means that both male students and female students are equally aware about the environment.

Part-B : Statistical analysis

The following statistical techniques were

employed to analyze the data obtained from the experiment in order to test the hypotheses.

- Mean
- Standard deviation
- t-ratio

Statistical analysis of Scores on Test on environmental awareness (Total Environment Score)

1. There exists no significant difference among

the urban students and rural college students' awareness towards environment.

The mean, standard deviation and t-ratio of the urban and rural students for environmental awareness have been presented in the following Table no. 4

The mean score of urban students (11.27) is comparable to the mean of rural students (11.82). Comparison of urban and rural students with respect

Table 4 : Area wise T-Test of Environment Score

Area	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)	Remarks
Total Environment Score							
Urban	290	11.27	2.107	-3.250	598	.001	S
Rural	310	11.82	2.042				

Significant if $P < 0.05$

to environmental awareness t-ratio for the difference in mean of urban and rural students was found to be 3.250.

Since the calculated value of $|t|$ is 3.250, which is greater than table value of $|t|$ at 5% level of significance, therefore, we reject the hypothesis no. 1 and we conclude that there exists significant difference among the rural and urban college students' awareness towards environment.

1(a) There exists no significant difference among the Science stream and the Arts stream college students' towards environmental awareness.

The mean, standard deviation and t-ratio of the urban and rural students for environmental awareness have been presented in the following Table no.-5

The mean score of Arts students (11.46) is comparable to the mean of Science students (11.72). Comparison of Arts and Science students with respect

Table 5 : Stream wise T-Test of Environment Score

Stream	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)	Remarks
Total Environment Score							
Arts	390	11.46	2.132	-1.496	598	.135	NS
Science	210	11.72	2.002				

Significant if $P < 0.05$

to environmental awareness t-ratio for the difference in mean of Arts and Science students was found to be 1.496

Since the calculated value of $|t|$ is 1.496, which is smaller than table value of $|t|$ at 5% level of significance, therefore, we may accept our null hypothesis no. 1(a) and we conclude that there exists no significant difference among the Arts stream and Science stream college students' awareness towards environment.

1(b) There exists no significant difference among the male and female college students' towards environmental awareness.

The mean, standard deviation and t-ratio of the urban and rural students for environmental awareness have been presented in the following table no.-6

The mean score of male students (11.59) is comparable to the mean of female students (11.51).

Table 6 : Gender wise T-Test of Environment Score

Sex	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)	Remarks	
Total								
Environment Score	Male	300	11.59	2.103	.468	598	.640	NS
	Female	300	11.51	2.079				

Significant if $P < 0.05$

Comparison of male and female students with respect to environmental awareness t-ratio for the difference in mean of male and female students was found to be 0.468.

Since the calculated value of $|t|$ is 0.468, which is smaller than table value of $|t|$ at 5% level of significance, therefore, we may accept our null hypothesis no. 1(b) and we may conclude that there exists no significant difference among the male and female college students' awareness towards environment.

7. Major findings from the student's questionnaires

1. In case of area wise environmental awareness, it shows that awareness of urban college students about environment is 56.3%. Whereas, in case of rural college students, awareness is 59.1%. It means that the rural college students are more aware than their urban counterparts about the environment.
2. In case of stream wise environmental awareness it shows that awareness of Arts College students about environment is 57.3%, whereas, in case of Science College students, awareness is 58.6%. It means that both Arts and Science college students are equally aware about the environment.
3. In case of sex wise environmental awareness it shows that awareness of male College students about environment is 58%, whereas, in case of female college students, awareness is 57.55%. It means that both male students and female students are

equally aware about the environment.

8. Conclusion

From the study the investigator has come to the conclusion that students from both urban as well as rural, boys and girls, both from Arts and Science College have their environmental awareness. They have knowledge on global warming, pollution, traffic hazards etc. they even have knowledge about the bad impact of urbanisation, plastic bag hazards on environment etc. But it has been found that they are doing nothing for the improvement of environment of the society.

Investigator felt that just as every college has their union body for students, they should have eco-club to monitor the ecological balance of their college surrounding as well as of the society. Such clubs can organize various types of environment related activities to make the students aware of their social obligation for the environment.

Of course it is needless to say that environmental problem cannot be solved in a day. It requires constant efforts at all levels of education.

Hence, to mitigate the environmental problems value based education has the utmost need in our educational institutions. Legendary musician from Assam, Dr. Bhupen Hazarika's value based song "Manuhe Manuhar Babe, Jodihe Akonoo Nabhabe, Bhabio Kuneo Kua Samania..." is the best example of his humanistic ideals. Hope, this song will definitely inspire the upcoming young generations to conserve natural resources which is not only the need of the hour but also the prime duty as a member of a decent society, as environment belongs to everyone of us and everybody has responsibility to contribute towards its conservation.

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