

AWARENESS AND BEHAVIOR IN REGARD TO ENVIRONMENTAL ISSUES: A CASE STUDY AMONG COLLEGE STUDENTS OF DARRANG DISTRICT

*Prabodh Sarma

Assistant Professor, Mangaldai Commerce College, Mangaldai, Mangaldai, Assam, India

ABSTRACT

The Environmental issues are major problem of global concern. The purpose of this study was to determine students' awareness of environmental issues and problems and their behavior towards the environment in Darrang district of the state of Assam. Purposive sampling technique was used to select a sample of 60 college students consisted of both male and female and of commerce and science streams. For this purpose, an instrument of 18 items were designed and tested on the selected sample of the students. As the result of the study, global warming (26.67%) is seen as the most environmental problem in India, while depletion of natural resources (16.67%) and soil pollution and loss of farmland (20.00%) were mentioned as the most important environmental problems in the state. The students mostly agreed (50.00%) on the education of the people as the most appropriate and imminent solution that can be taken against the problems while printing and electronic media is regarded as the most intriguing equipment (48.33%) that boosts people's awareness. It is also determined that students are concerned about environmental issues and present positive behaviour towards them. Only 8.33% of the students taken into consideration regularly follow the publications about the environment, while just 6.67% of students are holding a membership to an environmental organization.

Key Words: Environment, Awareness, Behaviour, College students, Education, etc.

INTRODUCTION

Since the beginning of the life in the world, human beings constantly derive benefits from environment to provide their needs and the environment has basically been used to expand the habitat and to improve the quality of life (Sudarmadi, S. et al. 2001). The uncontrolled and uncoordinated usage of environmental sources resulted in many problems such as deforestation, loss of biodiversity, pollution, ozone depletion, global climate change and over-consumption of natural resources. As a result of the increasing environmental problems, environmental concerns have dramatically increased among the public over the last few decades (Thapa, B. 2001 and Castillo, A. S. et al. 2001). However, the most important task is to use the resources while protecting the environment since environmental issues and enhancing the protective attitude towards the life in future. For raising public awareness and environmental education plays very important role (Talay, O. et al. 2004). Environmental education aims to raise environmental awareness among human population and provide opportunities to acquire the knowledge, values, attitudes and skills needed to protect the environment (Dahiya, R K., 2016). Since the colleges and universities educate young generations who are expected to be the future leaders in many different areas in the society and who will be the decision-makers, the role of the colleges and universities will affect the sustainability of the public existence, their approach and activities will have important consequences for the environment. For this reason, educational institutions, particularly, the colleges bear profound

responsibilities to increase the awareness, knowledge, technology and tools to create an environmentally sustainable future (Kaur, J. 2017).

As a developing country, India, with its gradually increasing population and industrial growth, is facing many environmental problems. According to the 2011 census, the official population of India is 121.01 crore. Approximately half of the population (52%) is comprised of young people under the age of 30 years (<https://indianexpress.com>, 2022). Based on the logical approach described in the previous paragraph, it is an important task to analyze the level of awareness and behaviour attributed to environmental issues by college students since it can present significant results that can be used while making the necessary decisions about the education of the students on environmental issues. From this point of view, the purpose of this study was to determine the awareness of the undergraduate students at college level about the environmental problems and to analyze and understand the behavioural characteristics of the students about the solutions.

MATERIAL AND METHODS

The survey was conducted among and limited to the undergraduate students of Degree College of Darrang district. The questionnaires were administered at the end of regular class periods and students responded voluntarily. The time required to complete the survey was approximately 20-25 minute. In the survey, Goal-oriented sampling method was used and the population of the students was decided to be 60. The numbers of the participant students of the streams are as follow: 30 students from science stream and the other 30 from commerce stream.

The questionnaire, used in the survey, was designed in consultation with the faculty from the environmental science who taught in different colleges of the district. The questionnaire consists of 18 questions and has three main parts:

General characteristics of the participants: This part gathers the basic data about the students e.g., gender, age, family residence, the year spent in the school family's monthly income, etc. (5 questions).

Measurement of the awareness: The concern and the perception of the students, with the amount of attention they put on and their level of sensitivity towards the environmental issues are determined (4 questions).

Determination of the behaviour: The behavioural characteristics and general attitudes of the students about how to protect and enhance the environment (9 questions). SPSS software program was used for the data analysis, interpretations and evaluations.

RESULTS

General characteristics of the participants: This part of the survey aimed to gather the basic data about the students' gender, age, family residence, and the year spent in the college and family's monthly income (Table 1). About 58.33% of the participants was male while 41.67% were female. The largest group of students (63.33%) was between 18-20 years of age. Freshman, junior and senior accounted for 30.00, 30.00 and 40.00%, respectively for the students. 71.67% of the participant students grew up in rural area. Maximum half of the students come from a family whose monthly income is in the range of 10,000-30000 rupees. As a result of this, it can be seen that most of the participants come from lower middle-class families.

Table 1: Students' general profile

Variable	Count	%
1. Gender	60	100.00
Male	35	58.33
Female	24	41.67

2. Family Residence	60	100.00
Male	43	71.67
Female	17	28.33
3. Age (in years)	60	100.00
18-20	38	63.33
21-23	18	30.33
24<	4	6.67
4. Year in the school	60	100.00
Freshman	18	30.00
Junior	18	30.00
Senior	24	40.00
5. Family's monthly income (In rupees)	60	100.00
<5,000	60	16.67
5,000-10,000	10	13.33
10,000-30,000	8	43.33
30,000<	26	26.67
	16	

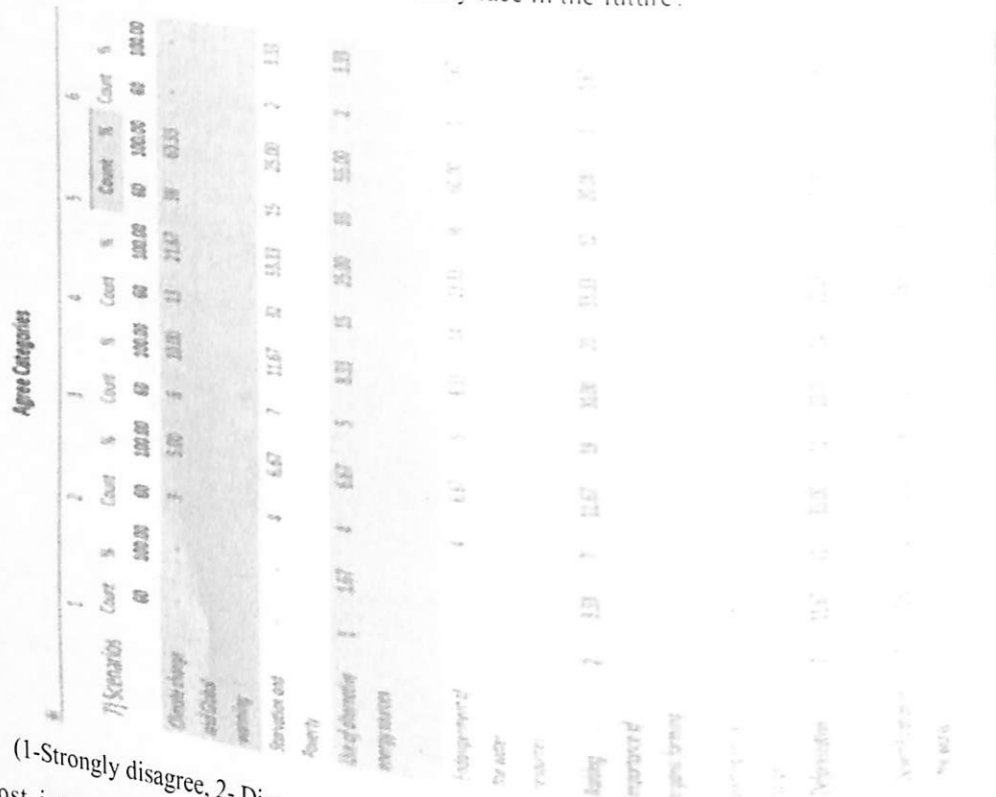
Table 2: What is the most serious environmental problem in the world and in India.

6) Environmental problem	Most serious problem in India		Most serious problem in Assam	
	Count	%	Count	%
			8	13.33
Air pollution	3	5.00	3	5.00
Noise pollution	3	5.00	7	11.67
Water pollution	5	8.33	12	20.00
Soil Pollution and loss of farmland	4	6.67	2	3.33
Ozone depletion	9	15.00	6	10.00
Mistake urbanization	4	6.67	10	16.67
Depletion of natural resources	9	15.00	6	10.00
Rubbish disposal	5	8.33	5	8.33
Global warming	16	26.67	1	1.67
No response	2	3.33	60	100.00
Total	60	100.00		

Students' environmental awareness:

This part of the survey investigated the environmental awareness of the participants. A total of four questions were asked to the students. With the first question; 9 common environmental problems were given and students were asked to select the most serious problem in Assam and in India (Table 2)

Table 3: Which one of the following environmental disaster scenarios do you see as the most possible that the next generation may face in the future?



(1-Strongly disagree, 2- Disagree, 3- Neutral, 4- Agree, 5- Strongly agree, 6- No response)

The most interesting outcome of this question is the differences between the perception of the local and global problems. The most serious problems in India and in Assam as remarked by the students were global warming (26.67%), depletion of natural resources (15.00%) and soil pollution and loss of farmland (20.00%), respectively. With the second question: eight different disaster scenarios, which may be faced in the future as a result of environmental problems, were presented to the students (Table 3). Students were asked to put their thoughts about the possibilities of these disaster scenarios. They would mark 5 if they strongly agree, 4 for agree, 3 for neutral, 2 for disagree and 1 if they totally and strongly disagree. The overall result was mostly in favor of the high possibility about the occurrence of the disasters in the future. The students' general attitude about the environmental problems that may occur in the future can be assessed as pessimistic. As the result of the third question, 50.00% of the participants indicated that public education for raising the environmental awareness is the most viable precaution that can be taken against the possible environmental problems.

Table 4: What are the most viable solutions that can be exercised against the environmental problems?

Solutions	Count	%
8) Precautions	8	13.33
Technological improvements	30	50.00
Education for raising the awareness among people	14	23.33
Legal regulations	7	11.67
Monetary regulations such as fees, taxes, lancet	1	1.67
No response	60	100.00
Total		

Table 5: Which of the following can be used most effectively to attract the attention of the people and raise their awareness about the environmental issues?

Methods	Count	%
9) Activities	5	8.33
Conferences, seminars	15	25.00
Newspapers, magazines, books	29	48.33
TV-Radio shows	10	16.67
Activities of Non-governmental organizations	1	1.67
No response	60	100.00
Total		

Legal regulations and technical improvement like industrial use of the recycled material were the other possible solutions that came out of the survey with 23.33 and 13.33% respectively (Table 4). With the last question of this part, TV-Radio with 48.33%, print-media with 25.00% and other publication such as books, newspapers and magazines were ranked as the most effective means of propaganda to raise the public awareness of the people about the environmental issues (Table 5)

Students' environmental behavior:

Nine questions were included in this part in order to analyze the attitudes of the students towards the environmental issues (Table 6). Only a small proportion of students (8.33%) purchase magazines-newspapers and/or books on environmental issues regularly, while 16.67% of the participants do not buy these publications at all (Item: 11). Besides, 28.33% of the students indicated that they like watching TV and Radio shows about the environmental issues and 18.33% of them are not interested in watching the shows (Item: 13). With reference to items (17) (18) and (10); although only a small proportion of the students (6.67%) are members of non-governmental environmental organizations, a large proportion (95.00%) of them have participated in at least one of the many environmental campaigns (e.g., for the collection of waste, planting of trees, etc.) in their life. About 65.00% of the participants indicated that they can be a part of an environmental campaign and work for an organization voluntarily while only a very small part (6.67%) of them do not want to be included in any kind of environmental campaign.

Table 6: The attitudes of the students towards the environmental issues

Item	Count	%
10) How would you like to be a part of the environmental preservation activities?	60	100
Work voluntarily	39	65.00
Donation	7	11.67
Extra taxes	8	13.33
Nothing	4	6.67
No response	2	3.33

11) Do you follow any of the publications (newspapers, magazines, books) about the environmental issues?	60	100.00
Yes, every time		8.33
Not regularly	8	73.33
No, never	44	16.67
No, response	10	1.67
12) Which of the following type of waste do you sort?	1	100.00
Papers, newspapers	60	26.67
Glass	16	5.00
Plastics	3	13.33
Metals	8	3.33
Vegetables	2	3.33
Do not sort	2	46.67
No response	28	1.67
13) Do you enjoy following in the TV-Radio shows about the environmental issues?	1	100.00
Yes, every time	60	28.33
Not regularly	17	51.67
No, not interested	31	18.33
No response	11	1.67
14) Which of the following methods of transportation do you prefer for environmental protection issues?	1	100.00
Car	60	18.33
Public transportation (buses, minibuses, van, auto etc.)	11	6.67
Bike	4	6.67
Bicycle	4	68.33
No response	41	-
15) What is your reaction against the products that causes the increase of Ozone depletion?	-	100.00
Prefer not to buy any of them	60	38.33
Do not put any attention	23	11.67
Prefer Ozone friendly product	7	40.00
No idea	7	8.33
No response	24	1.67
16) What is your reaction against the polluters?	5	100.00
Prefer to make formal complains	1	21.67
Warn them personally	60	46.67
No reaction at all	13	15.00
Try to tell the people about effect	28	13.33
No response	9	3.33
17) Are you a member of an environmental organization?	8	100.00
Yes	2	6.67
No	60	90.00
No response	4	3.33
18) Have you ever taken part in an environmental activity? (Garbage collection, planting etc.)?	54	100.00
Yes	2	95.00
No	60	3.33
No response	57	1.67
	2	
	1	

With reference to items (14) and (15); 68.33% of the participants prefer bicycle for transportation instead of the pollution-generator buses, minibuses. 40.00% of them look of ozone-friendly products and choose to buy them if they could have a chance to choose. 46.67% of the students do

not sort their recyclables and do not put them in different trash cans. Among the sorted wastes, the recyclable paper wastes come first with 26.67% (Item: 12). 46.67% of them prefer to warn the polluters personally and 21.67% prefers to make formal complaints to the public and legal institutions (Item: 16).

DISCUSSION

The results of this study show that students are concerned about environment to some extent (Items: 10, 14, 15, 16, 18). However, they present inadequacies and do not have well-educated approaches about some other environmental issues (Items: 11, 12, 13, and 17). Environmental education plays a very important role in improving the environmental literacy which consists of peoples' perception, knowledge, awareness, attitude toward environmental issues. Increasing environmental literacy will lead to a positive change about the environmentally responsible behaviors or the actions of the people. Determining what people know about the environment is critical to establish the sustainability of a community. This will create a strong national environmental movement in schools and other educational institutes is an important strategy in achieving environmental improvement and in the formation of positive attitudes and behavior toward the environment of the young generations. In order to have well-educated and concerned people about the environmental issues educational program should be revised to include classes and programs in all of the schools including the primary Schools. Other than the schools, educational programs and shows should be prepared to be aired on national TV and Radios. More educational activities should be organized at the colleges (e.g., conference, seminars and symposiums). Printed and electronic media (including the internet) is the main source of information about environmental issues^[1]. The mass media should therefore be used more intensively to facilitate the transmission of environmental information and promote more positive environmental attitudes.

Member students of environmental organizations are aware of the environmental problems; therefore, they present a positive approach toward the environmental issues. Students should be encouraged to join an environmental organization and taste the joy of making something about the environment and being a part of a charity. Young people tend to be part of a group and show their skills to other members of the group and the society. Environmental organizations and educational institutes should base their activities on the young generations and help them present the gem hidden inside their young and precious brain. Organizing activities and encouraging them to join the organizations can play a very important role in the long path of environmental awareness. Unfortunately, reading is not a preferred habit among the young people. They do not read unless it is something about the classes they take or something really interesting. As a solution to this problem, students should be encouraged to read and learn about the environmental issues. The classical way of encouragement by the family and school might work to some extent, but the famous writers and celebrities may also be used to help students to start reading. Environmentally friendly products should be made cheaper to encourage people to use them and people should be educated to a level that they can realize the long-term advantage of using these products nationwide. Finally, in order to reach the real and perfect solutions about the environmental problems, it is crucial to work towards an integral dimension in which social, political, economic and environmental values are needed to develop a sense of responsibility and respect for the environment nationwide.

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