

**REGIONAL DISPARITY AND GENDER IN
ENVIRONMENTAL AWARENESS: A COMPARATIVE
STUDY ON ENVIRONMENTAL AWARENESS AMONG
SCHOOL STUDENTS IN URBAN AND RURAL INDIA**

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ABSTRACT

The concept environment can be understood in total of all components surrounding the man i.e. environment is the sum of all social, biological, physical and chemical factors which compose the surroundings of man. Each component of these surroundings constitutes of resource on which man draws with a view of promoting human welfare.

Environmental problem is global issue that needs commitment from everyone irrespective of region, culture, country and age group. Environmental pollution is the matter of life and death. We, who live and breathe, drink and eat, play and enjoy the beautiful gifts of nature today, must consider it our duty not to pollute air, water and soil but leave this earth a cleaner and safer place to live in for the flesh and blood for our blood, i.e. we must care for the nature then only nature will care for us. There is a close interaction between the mankind and the nature. The human being, who is also the creation of the nature must always keep this in mind that his happiness will increase if he respect the nature; but if he misuse, overuse or abuse it then will imperil the very right of the life.

Key Words: environment pollution, global issue, flesh, deterioration, ozone depletion,

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INTRODUCTION:

Environment is the surrounding of many objects which include many things, are vital for the existence of human beings. The concept environment can be understood in total of all components surrounding the man i.e. environment is the sum of all social, biological, physical and chemical factors which compose the surroundings of man. Each component of these surroundings constitutes of resource on which man draws with a view of promoting human welfare.

Humans, in their overzealous attempts to develop the world around us set in motion the process of its deterioration. Today, we hear of environmental problems such as pollution of air, water, earth, ozone depletion, climate change, greenhouse effect and etc. due to rapid processes of industrialization, urbanization and modernization. Unfortunately, environmental pollution has become part and parcel of our postmodern lives. Environmental problem is global issue that needs commitment from everyone irrespective of region, culture, country and age group. Environmental pollution is the matter of life and death. We, who live and breathe, drink and eat, play and enjoy the beautiful gifts of nature today, must consider it our duty not to pollute air, water and soil but leave this earth a cleaner and safer place to live in for the flesh and blood for our blood, i.e. we must care for the nature then only nature will care for us. There is a close interaction between the mankind and the nature. The human being, who is also the creation of the nature must always keep this in mind that his happiness will increase if he respect the nature; but if he misuse, overuse or abuse it then will imperil the very right of the life.

BACKGROUND FOR THE STUDY:

In current scenario environmental protection is inevitable. The task of environmental protection is not merely come under government's jurisdiction. But it is every person's duty to protect it. Only those people can protect environment that have environmental awareness. Here aware implies knowledge gained through one's own perceptions of means of information, its number may vary. Awareness about environment among people varies from culture to culture, region to region, person to person and even varies among different age groups. An infant starts to learn its relationship with society through the process of socialization. Furthermore, a child gets to know about its environment through the agents of socialization, viz., parents, school, media and etc. It is interesting and challenging for people of environmental awareness in the context of

globalization era accompanied by new invention, advanced science and technology that potent to destruct the earth.

The recent development in the findings on environmental changes by Inter-Governmental Panel for Environmental Change (IGPEC) has significantly focused on the imperative of the study on environment. The panel has proclaimed that, “it is the duty of every single human being to get a sense of environment, and should try his/her level best to protect the environment. Furthermore environmental specialists have repeatedly pointed out that a solution to environmental crisis will require an environmental awareness and its proper understanding. India is one of the first countries where the constitution recognized the need for harmonizing environmental concerns with development. Article 48A specifically directs ‘The state shall endeavor to protect and improve the environment and to safeguard the forest and wildlife in the country’ and Article 51A (g) enjoins upon Indian citizens a fundamental duty ‘to protect and improve the natural.

However, it can be noted here that, no problems on the earth, in present times need a considerable and urgent attention than environmental pollution. Either denying or delaying to find out solutions of the problems of human environment is to perish the very right to life of both the present and the future generations to come. Therefore, the perspective of the study has the privileges to bring on light of the depth and extent of the grave dangers that environment is facing now. Therefore, the perspective of the study is a stepping stone towards conveying the possible solution for this grave danger in environment to the state, people and civil society, in order to accomplish a constructivist approach for environmental preservation and protection through creating environmental awareness.

The role of students would go a long way in achieving such desired goals. In order to faster their awareness towards environment it is necessary to know what levels of awareness they possess in these areas, and as such there are limited number of researchers who have taken up research in the said field and hence the study. So, in this paper a comparative study of environmental awareness among school students in Urban and Rural India has been endeavored and state of awareness in this area is analyzed. Fundamentally this study is based on an interdisciplinary approach but it never losses Sociological Imagination on its focus.

OBJECTIVES OF THE STUDY:

The major objectives of the proposed study shall be a regional disparity and gender in environmental awareness: a comparative study on environmental awareness among school students in urban and rural India. The study shall have the following specific objectives are outlined for the present study.

- To understand the level of environmental awareness among school students in urban and rural regions.
- To find out regional disparities in environmental awareness among them.
- To analyse and asses students level of environmental awareness related to the type of school where they study (Ownership and management).
- To examine gender variable in the level of environmental awareness among school students.
- To provide suitable recommendations to the governmental bodies to implement effective environmental awareness programmes.

DATA AND METHODS:

The present study is an attempt to examine the environmental awareness of school students in relation to region or residential background where they live, gender and type of school in terms of government or private owned schools. This section contains brief details about hypotheses, sampling method, questionnaire method, interview schedule method, participant observation method and finally statistical techniques used for the study.

HYPOTHESES:

The present study is an attempt to examine the environmental awareness of school students in relation to region or residential background where they live, gender and type of school in terms of government or private owned schools. To proceed in a systematic way, following hypothesis are formed for testing to arrive at some definite conclusions they are:

1. There will be significant difference in the level of environmental awareness among school students in rural(Kolar district) and urban(Bangalore district) regions.

2. There will be no significant difference between boy and girl students in their level of environmental awareness in rural (Kolar district) and urban (Bangalore district) regions.
3. There will be no significant difference between students studying in different type of schools in their level of environmental awareness among school students in rural(Kolar district) and urban(Bangalore district) regions.

QUESTIONNAIRE:

Here the tool Environment Awareness Ability Measure (EAAM) has been used in the present investigation. This method has been used in the questionnaire to construct a list of questions. This tool measures the extent and degree of awareness of students about environmental pollution and its protection, as consisting of five components, viz., i) Causes of pollution, ii) Conservation of soil, forest, air, etc., iii) Energy conservation, iv) Conservation of human health and v) Conservation of wild life and animal husbandry. There were several items in each component constituting the total of fifty one items on the scale. Generally an Environment Awareness Ability Measure is a Scale or a tool or is a kind of inquiry form which helps us to find out about Environmental awareness among school students.

For the rural students original English version has been translated into Kannada and provided them list of questionnaires which were only in Kannada language. And for urban students both English and Kannada language versions of questionnaires were provided for the study. In both rural (Kolar district) and urban (Bangalore city) regions, i had personally visited to all the selected schools for the collection of primary data on the concerned subject. And i met the students for explaining the purpose of study and instructed them as how to respond to the questionnaire. Also, for students, whenever, they had doubt in understanding questions, myself made those questions very clear to them.

STUDY AREA:

Two districts are selected for the present study which are Kolar district and Bangalore district. Here a brief description is provided about these districts. Kolar district is located in the southern region of the Karnataka state. It is bounded by the districts of Bangalore and Tumkur on the west and on all the other sides by the districts of the adjoining states of Andhra Pradesh and

Tamil Nadu. Kolar town is located 65 Kms, north east of Bangalore. The town's eminence drew from the nearby Kolar Gold Mines which recently actively produced a major part of the country's gold. Kolar is now well known for its silk farming and wool spinning. Kolar is popularly known as city of Gold, Silk, Mangos and Milk. Its population is 13,87,062 according to recent census, total rural population is 9,82,561 and urban follows 4,04,501

Bangalore is located on the Deccan plateau in the south-eastern part of Karnataka. It is India's third most populous city and fifth-most populous urban agglomeration. Today as a large city and growing metropolis, Bangalore is home to many of the most well-recognized colleges and research institutions in India. Numerous public sector heavy industries, software companies, aerospace, telecommunications, and defense organizations are located in the city. Bangalore is known as garden city because of its beautiful gardens. Bangalore is also known as the Silicon Valley of India because of its position as the nation's leading IT exporter. A demographically diverse city, Bangalore is a major economic and cultural hub and the second fastest growing major metropolis in India. According to 2001 population census of India Bangalore's population was around 50 lakhs.

SAMPLING METHOD:

Stratified random sampling technique was used to select the sample. A sample of 1000 secondary school students (485 boys and 515 girls) was selected from different schools in rural (Kolar district) and urban region (Bangalore district).

USING STATISTICAL METHODS:

There were fifty one items in (Questionnaire) the Environment Awareness Ability Measure (EAAM). Each agree item carries the value of 1 mark and each disagree item carries zero mark, but the negative items are scored inversely. Thus, on the total scale the scores of fifty one questions ranged between 0-51. The total scale gives a composite score of environment awareness ability of the subject. Here, i have used SPSS statistical package for generating and tabulation of raw data. Along with, ANOVA (Analysis variance) was employed to find out the difference in various aspects from level of environmental awareness including region, gender and type of school in each aspect.

RESULTS AND DISCUSSION:

In this study the level of environmental awareness has been identified on the basis of their responses given by respondents in the questionnaire which is comprised by multiple questions which include environment awareness ability measures.

Table No. 1: Number and percentage of students who fall under different categories on the basis of gender variable:

Sl. No.	Gender of the students	Number of Students	Percentage of Students
1	Female	515	51.5%
2	Male	485	48.5%
Total		1000	100%

Here, the above table shows gender of the respondents. In this study number of female students is more than male respondents; respectively their numbers are 515 and 485. Hence 51.5% of the respondents were girl students and 48.5% of the respondents were boy students.

Graph No.1 :Number of students who fall under different categories on the basis of gender variable

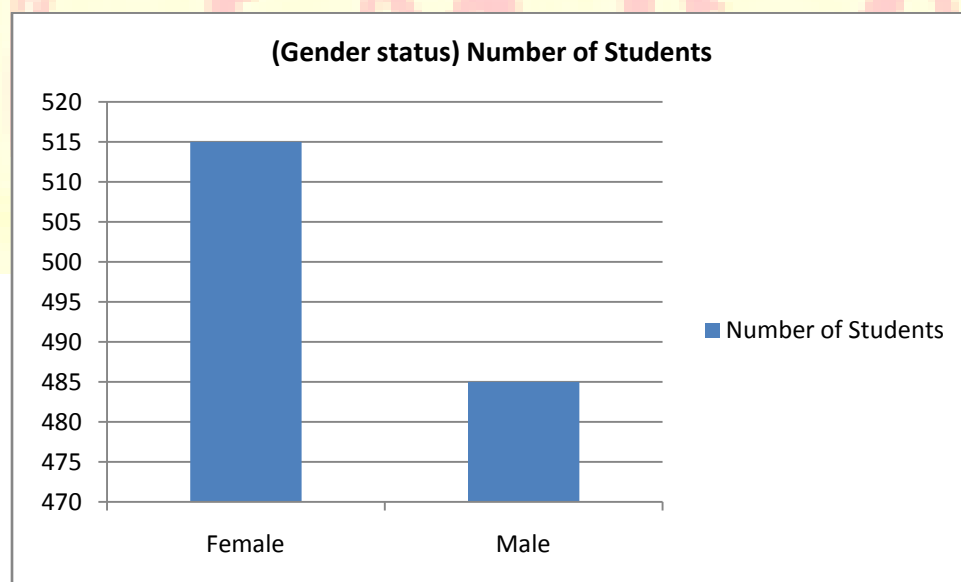


Table No. 2: Number and percentage of students who are divided under religious category:

Sl. No.	Religion of the students	Number of Students	Percentage of Students
1	Hindu	810	81.0%
2	Muslim	104	10.4%
3	Christian	72	07.2%
4	Others	14	01.4%
Total		1000	100.0%

The above written table provides information about the religious status of the respondents. According to it major portion of the respondents was Hindu and Muslim religion took next place in the ascending order. Christian and others categories followed ahead with lower portions. Here information was not collected from respondents merely to know their religion. Instead, it was collected to know their cultural and socio-economic background.

Graph No. 2: Number of students who are divided under religious category:

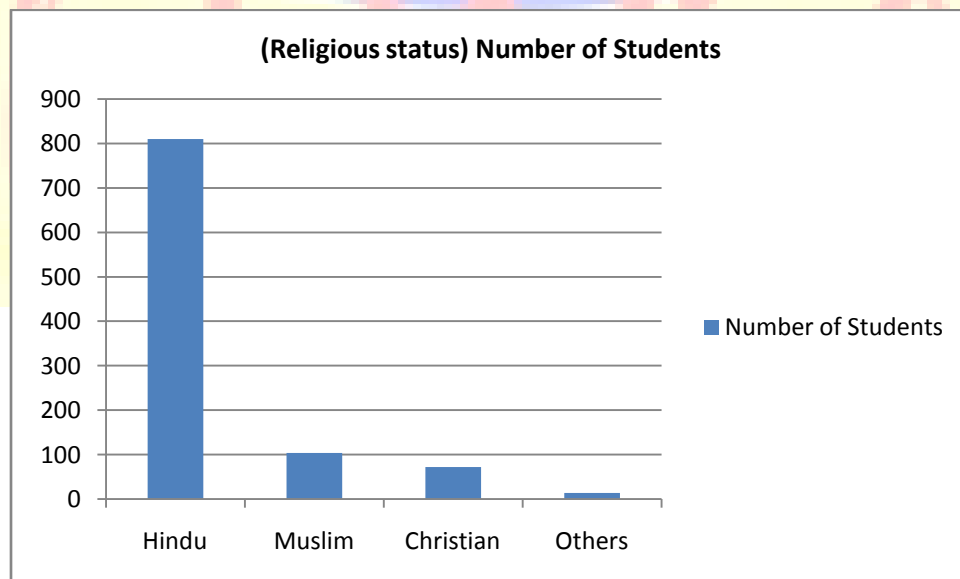


Table No. 3: Number and percentage of Hindu students who fall under different categories on the basis of their caste status:

Sl. No.	Caste status of Students	Number of Students	Percentage of Students
1	General	146	18.0%
2	OBC	429	52.9%
3	SC/ST	235	29.0%
Total		810	100.0%

This table is an extended form of earlier one which provides information about caste status of the Hindu students. Here fundamentally students are divided into three categories. According to the data majority of the students belong to the other backward category. This helps us to know their economic conditions which lead further to educational opportunities and facilities

Graph No. 3: Number of Hindu students who fall under different categories on the basis of their caste status:

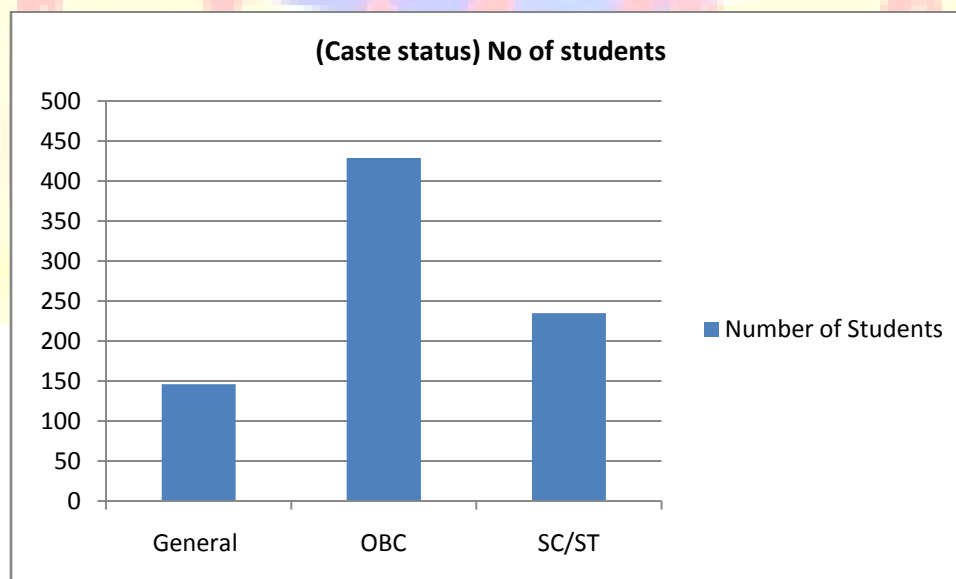


Table No. 4: Number and percentage of students belonging to different categories regarding their mother tongue:

Sl. No.	Mother tongue of students	Number of Students	Percentage of Students
1	Kannada	712	71.2%
2	Telugu	218	21.8%
3	English	44	04.4%
4	Hindi	19	01.9%
5	Others	07	00.7%
Total		1000	100.0%

This study is conducted in the Karnataka state. Therefore majority of the respondents said that their mother tongue was Kannada. Interestingly according to the present study Telugu is second dominant language spoken by the respondents in these fields. Because it is quite dominant one among students who live in Kolar and it is rightly situated in the Karnataka – Andhra Pradesh state border. Hence there is a significant influence of Telugu culture in the Kolar district.

Graph No. 4: Number of students belonging to different categories regarding their mother tongue:

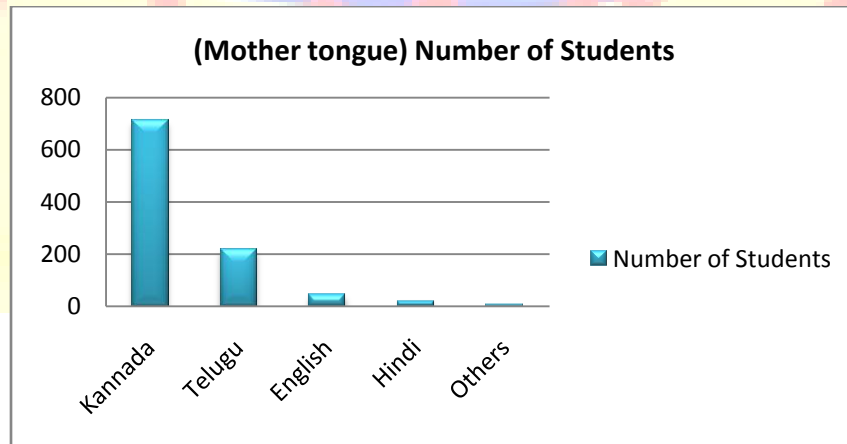
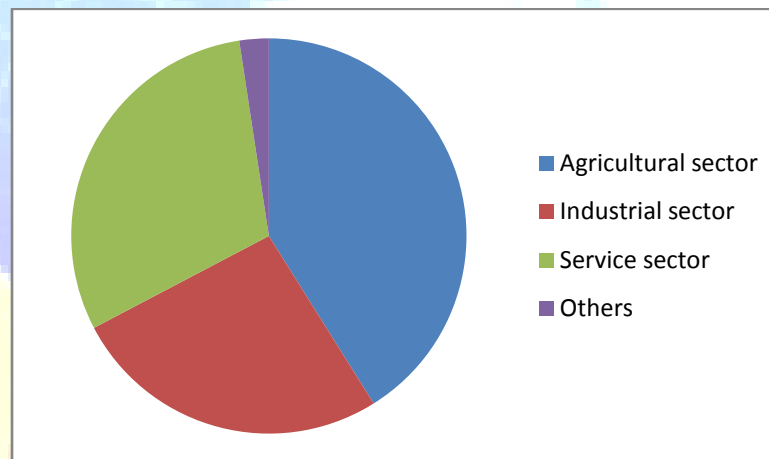


Table No. 5: Number and percentage of students related to their parents occupation:

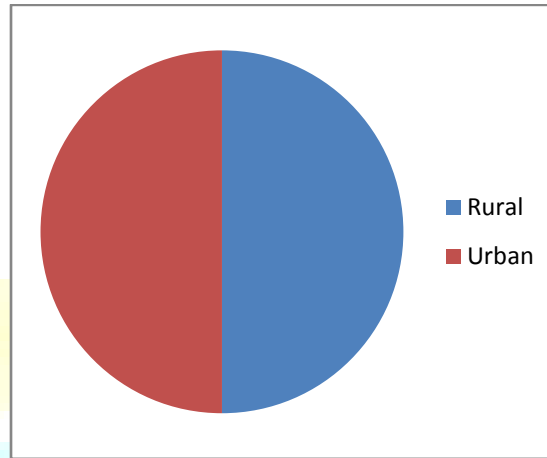
Sl. No.	Student's parents occupation	Number of Students	Percentage of Students
1	Agricultural sector	411	41.1%
2	Industrial sector	262	26.2%
3	Service sector	303	30.3%
4	Others	24	02.4%
Total		1000	100.0%

The above table portrays student's parent's occupation which is vital to understand their economic conditions. Majority were indulging themselves in agricultural sector. Service sector is also not an uninterested occupation among them.

Graph No. 5: Number of students related to their parents occupation:**Table No. 6: Number and percentage of student's area of residence:**

Sl. No.	Student's are of residence	Number of Students	Percentage of Students
1	Rural	500	50.0%
2	Urban	500	50.0%
Total		1000	100.0%

Since I have chosen equal number of students from both rural and urban regions this table shows 50 percent rural and 50 percent urban residence students.

Graph No. 6: Number of student's area of residence:**Table No. 7: Number and percentage of schools opted for the study on the basis of residential area of students:**

Sl. No.	Residential area of students	Number of Students	Percentage of Students
1	Rural	67	50.0%
2	Urban	67	50.0%
Total		134	100.0%

The above table depicts the number and percentage of schools opted for the study on the basis of residential area of students. Equal numbers of schools were chosen for the scientific study. Total 134 schools were opted for the study through a stratified sampling method.

Graph No. 7: Number of schools opted for the study on the basis of residential area of students:

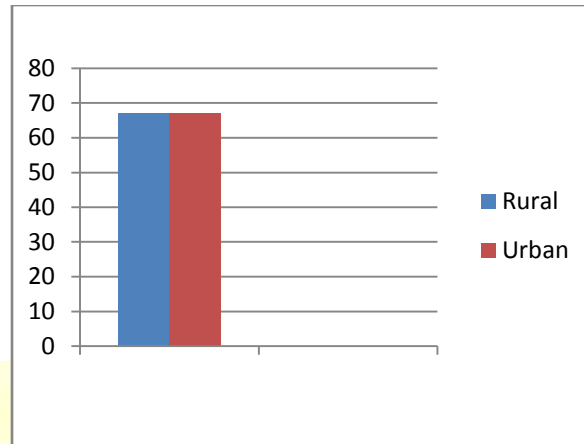


Table No.8: Number and percentage of students falling under different levels of environmental awareness

Level of score limit of environmental awareness of students		Average (16-36)	High (37-51)	Total
Rural	No.	371	129	500
	%	74.2	25.8	100.0
Urban	No.	73	427	500
	%	14.6	85.4	100.0
Total	No.	444	556	1000
	%	29.6	70.4	100.0

Result from Table 8 reveals that there is a high significance association between two regions in levels of environmental awareness of students. In this study it is apparent that the number of rural students with average level of environmental awareness (74.2 %) is more than their counterparts in urban region (14.6 %). Further it is evident that number of urban students with high level of environmental awareness (85.4 %) is more than rural students (25.8 %). However, findings of Table 8 clearly indicate that there is a significant difference between two regions in terms of level of environmental awareness of students and therefore the hypothesis no. one is accepted. The above table shows F-value, significance and mean value of student's environmental awareness scores based on their region. Here, the same data has been graphically shown in the graph no. 8.

Graph No.8 :Percentage of students falling under different levels of environmental awareness with reference to their regional background.

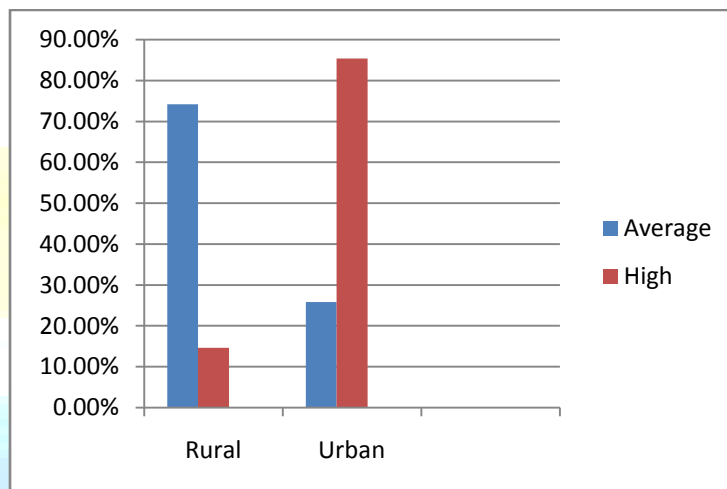


Table No. 9: Rank order of Environmental awareness of students (Rural regions)

Rank	Dimensions	Mean	SD	Weightage %
1	Conservation of human health	11.41	2.37	58.36
2	Conservation of wild life and animal husbandry	1.71	0.54	43.61
3	Conservation of soil, forest, air and etc.	9.86	2.32	38.68
4	Causes of pollution	9.76	2.02	35.55
5	Energy conservation	4.37	1.52	31.84

Table No.10: Rank order of Environmental awareness of students (Urban regions)

Rank	Dimensions	Mean	SD	Weightage %
1	Conservation of wild life and animal husbandry	1.78	0.45	45.39
2	Conservation of human health	12.94	1.61	43.99
3	Conservation of soil, forest, air and etc.	10.72	1.81	42.06
4	Causes of pollution	10.48	1.68	38.18
5	Energy conservation	4.89	1.00	34.97

Table No.11: Rank order of Environmental awareness of students (Total)

Rank	Dimensions	Mean	SD	Weightage %
1	Conservation of human health	12.18	1.99	51.18
2	Conservation of wild life and animal husbandry	10.75	0.50	44.50
3	Conservation of soil, forest, air and etc.	10.29	2.07	40.37
4	Causes of pollution	10.12	1.85	36.87
5	Energy conservation	4.63	1.26	33.41

In table 9, 10 and 11 an attempt has been made to find the differences between students in two regions regarding the level of environmental awareness for each of the five sub factors of the student environmental awareness ability measure as mentioned before.

Graph No. 8: Rank order of Environmental awareness of students (Total)

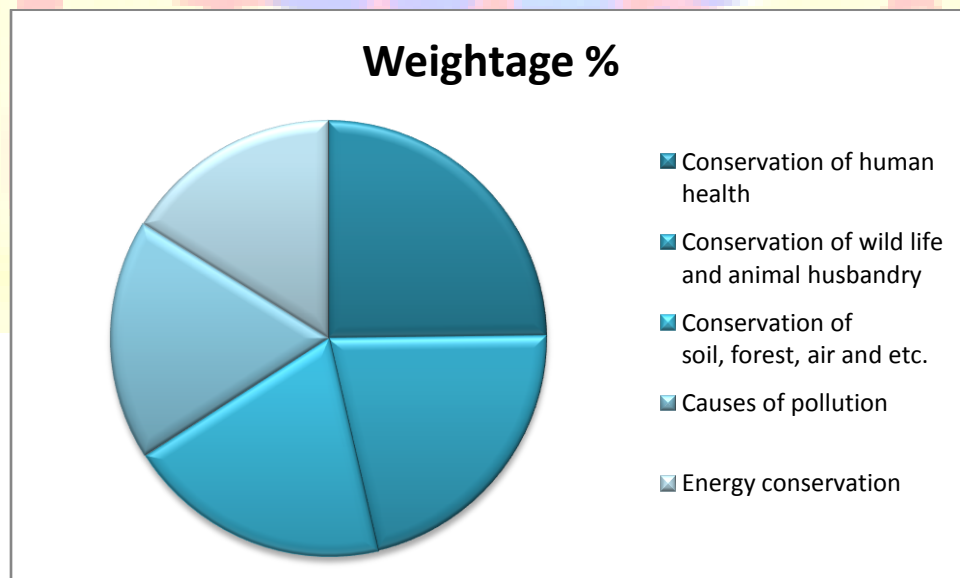


Table No. 12: Mean scores for various dimensions of student's environmental awareness with reference to the region and gender.

Environmental awareness of students	Gender	Rural	Urban	Total
Causes of pollution	Boys	9.64	10.49	10.04
	Girls	9.87	10.48	10.19
	Total	9.76	10.48	10.12
Conservation of soil, forest, air and etc.	Boys	9.45	10.94	10.16
	Girls	10.28	10.53	10.41
	Total	9.86	10.72	10.29
Energy conservation	Boys	4.46	5.00	4.72
	Girls	4.27	4.79	4.54
	Total	4.37	4.89	4.62
Conservation of human health	Boys	11.04	13.05	12.00
	Girls	11.78	12.84	12.33
	Total	11.41	12.94	12.17
Conservation of wild life and animal husbandry	Boys	1.68	1.82	1.75
	Girls	1.74	1.74	1.74
	Total	1.71	1.78	1.74
Total	Boys	36.31	41.29	38.68
	Girls	37.91	40.38	39.18
	Total	37.11	40.80	38.94

The above table shows F-value, significance and mean value of student's environmental awareness scores based on their gender. It clearly finds out that the overall environmental awareness scores indicate that there is no significant difference between boy and girl students therefore the hypothesis no. two is accepted. Hence boy and girl students in this study have the same level of environmental awareness and gender is not a factor which affects their environmental awareness.

Graph No. 9: Mean scores for various dimensions of student's environmental awareness with reference to the region and gender.

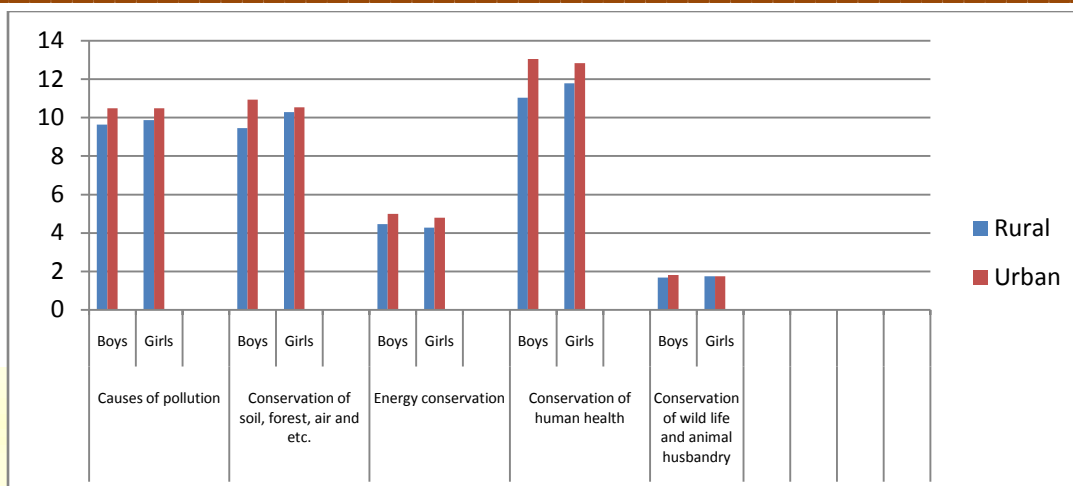


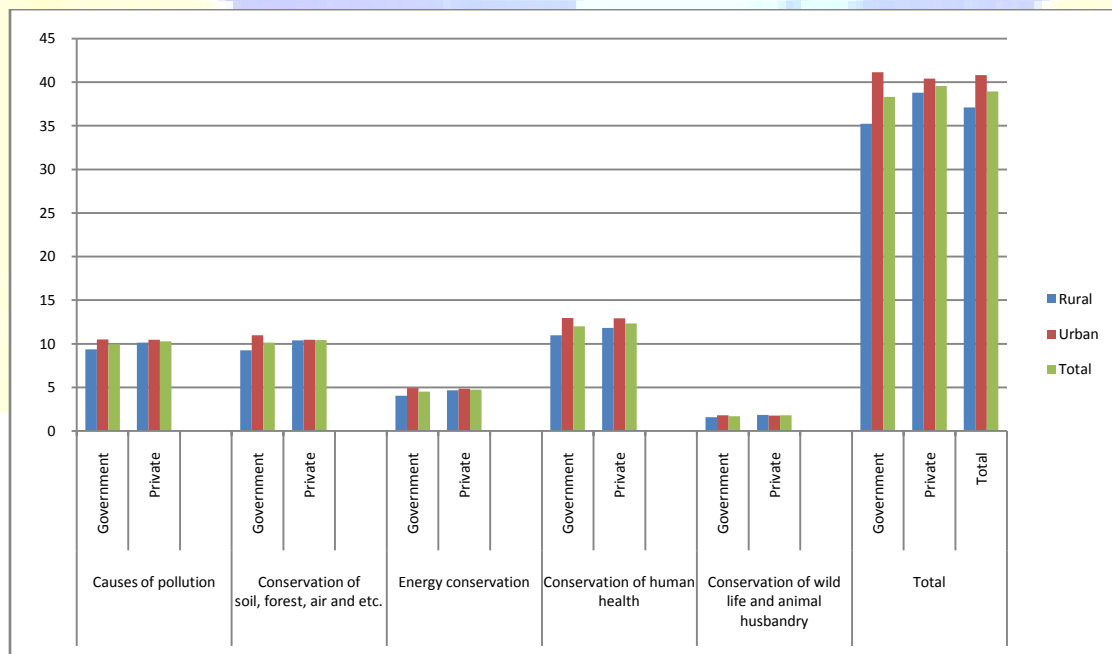
Table No. 13: Mean scores for various dimensions of student's environmental awareness with reference to country and type of school

Environmental awareness of students	Types of School	Rural	Urban	Total
Causes of pollution	Government	9.35	10.49	9.94
	Private	10.12	10.47	10.29
	Total	9.76	10.48	10.12
Conservation of soil, forest, air and etc.	Government	9.26	10.96	10.14
	Private	10.40	10.46	10.43
	Total	9.86	10.72	10.29
Energy conservation	Government	4.05	4.93	4.51
	Private	4.65	4.84	4.74
	Total	4.37	4.89	4.62
Conservation of human health	Government	10.96	12.96	12.00
	Private	11.82	12.91	12.33
	Total	11.41	12.94	12.17
Conservation of wild life and animal husbandry	Government	1.58	1.80	1.69
	Private	1.82	1.75	1.79
	Total	1.71	1.78	1.74
Total	Government	35.25	41.15	38.31
	Private	38.78	40.43	39.56
	Total	37.11	40.80	38.94

Above table clearly indicates that there is a significant difference between two regions. In all the sub factors of students environmental awareness, namely, ‘Causes of pollution’, ‘Conservation of soil, forest, air and etc.’, ‘Energy conservation’, ‘Conservation of human health’, ‘Conservation of wild life and animal husbandry’, urban students scored significantly higher than rural students. Along with, there is a significant difference between Government and private schools on all the sub factors of students environmental awareness, in private school students scored significantly higher than government school students. In all the sub factors urban Government school students scored significantly higher than their counterparts in rural regions.

The above table shows F-value, significance and mean value of student’s environmental awareness scores based on their type of school where they study. Hence, it is evident that the total environmental awareness scores indicate that there is significant difference with respect to Government and private school students. Therefore it could be concluded that the type of school is significantly related to student’s environmental awareness. So the hypothesis no. three is rejected.

Graph No. 10: Mean scores for various dimensions of student’s environmental awareness with reference to country and type of school



MAJOR FINDINGS OF THE STUDY:

First of all in this researched study it was found that there is a significant difference between two regions among school students in environmental awareness. Study clearly shows that the number of rural students with average level of environmental awareness (74.2 %) is more than their counterparts in urban area (14.6 %). Further it is noticed that number of urban students with high level of environmental awareness (85.4 %) is more than rural students (25.8 %).

Secondly, results indicate that there is no much significant difference between boy and girl students in their level of environmental awareness. Hence the gender variable doesn't play significant role in creating difference in environmental awareness among school students. In other words boy and girl students in this study have the same level of environmental awareness and gender is not a factor which affects their environmental awareness.

Thirdly, the present study highlighted that there is a influence of type of school management on the level of student's environmental awareness. Hence this study also shows that how government owned school students have lack of environmental awareness compare to privately owned schools. This significant observation clearly shows that the inability of government's plans, programmes and most importantly lack of good governance and management of schools in providing environmental awareness.

EXPERIENCE IN THE FIELD WORK:

Teachers can play an important role in educating their students about environment which is possible only when the teachers themselves have the necessary level of environmental awareness. But in contrary to this, unfortunately in the rural background schools most of the teachers have no such knowledge on environment. This observation was made while discussing with the teachers for collecting primary data.

Henceforth, most of the government owned schools have no sufficient infrastructure and there is a huge gap in the right proportion between faculty and students ratio. Even students have medium of instruction problem and many of them had the problem with English language.

Practically students in rural regions take part in many environmental activities, like, planting trees, soil conservation and etc. without their prior knowledge. Most of the students in rural regions were using some unique techniques for the conservation of environment. It was revealed at the time of discussion with children. And most importantly maximum number of students in rural regions was basically farmer's children. Many times students take part in agricultural activities directly or indirectly. There is a lack of implementation of programmes in increasing environmental awareness in rural school. While students in urban regions get lot of exposure related to environmental awareness through many means, for example media, their schools, some programmes and etc.

RECOMMENDATIONS AND CONCLUSION:

However, the potential intellectual contribution of this research paper is multiple and imperative. First of all, it tries to create a sense of urgency among the policy makers, environmentalists about the protection of environment in general and creating environmental awareness among school children in both rural and urban regions in particular. Second, while in the process of creating environmental awareness among student's government bodies should make best use of available effective and advanced technology to create multimedia means to strengthening environmental awareness programmes. By strengthening the structure and making efficient to the implementation of such programmes, this study will help in providing a new base for the protection of environment. Also, this study creates a sense of mutual understanding and awareness on the present hostile environmental endangers among members of civil society. As this study focuses its concern on various structural and functional avenues of programmes of environmental awareness, and people oriented approach for the better protection and preservation of environment, this in turn has its social, economic and developmental relevance.

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