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Impact of Environmental Education on College Students in Supaul Block (Supaul District), Bihar, India: An Assessment

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Abstract
All of the physical elements of the planet, including the air, water, and land, which nourish and mould life in the biosphere, are collectively referred to as the environment. Learning about and understanding environmental issues such as pollution, overpopulation, deforestation, ecological disturbance, and energy scarcity, as well as its consequences is known as environmental education. To study Environmental awareness and the use of related practices the major objectives have been formulated such as to assess the Environmental awareness related to different environmental problems among college students, to evaluate the level of environmental awareness about gender and locality, and to identify the factors affecting environmental awareness of college students. This study investigates the attitudes of urban and rural students towards their educational experiences. This research is based on a primary database with a stratified random sampling method of nearly 595 samples. Microsoft Office suite, SPSS, and QGIS play a vital role in map making and statistical calculation. After the Z test, it is observed that 1.09 indicates that there is no discernible difference between pupils who are male and female and 3.11 indicates that there is a discernible difference between pupils who are rural and urban students in 0.01 level of significance. The results are the result of inadequate facilities, interest, and knowledge. Students in rural areas lack awareness of the environment, but students in metropolitan areas have access to resources, information, and enthusiasm. Thus, the pupils in both areas are where the differences exist.

Keywords: Environment, Environmental Education, Awareness, Attitude, College Students.

1. Introduction

All of the physical elements of the planet, including the air, water, and land, which nourish and mould life in the biosphere, are collectively referred to as the environment. Although the environment may be seen in many different ways, it can be accurately argued that it is an indivisible whole made up of interrelated systems of physical, biological, and cultural characteristics. Learning about and understanding environmental issues—such as pollution, overpopulation, deforestation, ecological disturbance, and energy scarcity—as well as its consequences is known as environmental education. Environmental education should be incorporated into the school curriculum as it is essential for

increasing student knowledge, according to the 1972 report of the first conference on the human environment sponsored by the United Nations. Two international conferences were held in New Delhi, India in 1981 and 1985. Raising awareness of social issues and educating society about how ecological disturbances affect both individual and community well-being are the main objectives of environmental education, as stated by our late Prime Minister Indira Gandhi at the inaugural conference. Following the numerous conferences, knowledge, awareness, attitudes, skills, capacity, and participation are the most essential goals of environmental education. Environmental education is now seen as being necessary by both the government and members of the public. Though it is a unique idea in the modern world, it might be utilized to reduce environmental degradation. Its importance has been acknowledged by several conferences throughout the globe, ensuring its continued inclusion in the curriculum for education. According to Mahatma Gandhi, "the world supplies enough to meet everyone's needs, but not everyone's greed." Environmental issues are becoming more pressing as the twenty-first century draws near, sparking discussion on a global level. Because of industrialization, urbanization, and globalization the world of today is very different from the one that existed earlier in history. The environment is facing several challenges these days. The loss of forests for habitation and agriculture is a significant problem. In myth, stumps of trees are thought to symbolize the planet's lungs. They take all of the carbon dioxide out of the atmosphere and replace it with oxygen. The number of vehicles on the road has increased environmental pollution, which raises the concentration of other pollutants and carbon in the air, water, and land. We as a society no longer care about wasting our resources. The yearly generation of hundreds of millions of tons of garbage is one of the largest hazards to the environment. They stink terribly, seriously endanger public health, impede the environment, and might be a contributing reason to the deceleration of economic progress. God's gift of a natural environment is gradually being diminished without anyone realizing it due to all the problems. Because of this, action must be taken by people, governmental bodies, and non-governmental groups to slow down the rate of deterioration. Educational films may be used to raise awareness of environmental issues and to encourage respect for the natural world. Teachers may use excellent resources, such as films highlighting the importance of cultural heritage preservation. Television, with its plethora of shows, is another important source of environmental education. We may contribute to the preservation of the environment in a number of ways. This will have a significant effect and benefit the environment, therefore let's begin with:

- Whenever possible, erecting trees.
- Take use of energy-efficient light bulbs.
- Local recycling facilities may be found.
- The lights and electrical devices should be turned off whenever they are not in use.
- Use a bicycle or walk instead of a car if you need to go a small distance.
- Travel by air only if necessary.
- Get a worm farm or compost bin.
- Have a conversation with others about environmental problems.
- The '3 R's' are important for everyone to know. Reduce, Reuse, and Recycle!

People could come to realize that protecting the one and only environment we have is our duty. Now is the right time to educate the public about the value of environmental stewardship and to motivate each individual to play a part. In the current world, schools have a greater effect on our families and us than any other institution. The way that schools are run is part of the nation's educational system. An efficiently operated school is the cornerstone of education. They are referred to as "little societies,"

and their main objective is to spread knowledge within the neighbourhood. In addition to studying and developing academically and socially while in school, we also build our character and pick up life's essentials. We lay the groundwork for our character throughout our time in school. As a result, it is imperative that the people of today get an education on environmental challenges and their impact. This is only achievable by including environmental education in the educational curriculum. Improving people's attitudes towards the environment and fostering a stronger feeling of environmental responsibility are the two main objectives of environmental education. This is a process where education plays a major role. It is the duty of society to educate itself on environmental concerns in order to create a future devoid of environmental challenges. It is the responsibility of every educator to make sure that students comprehend environmental issues and develop character qualities that support long-term well-being (**Conde & Sanchez, 2010**). Given that environmental education is highly valued by the Indian constitution, it is one of the world's developing countries. The Supreme Court issued an order on November 22, 1991, directing the states and other authorities to teach students about the environment through the educational system. The decree was to be strictly implemented by the state authorities. Additionally, NCERT was mandated to create an environmental awareness curriculum suitable for teaching across many grade levels. As was previously said, there are several methods that we may maintain and safeguard the health of our environment, including environmental conservation, wise use of natural resources, environmental preservation, adopting healthy lifestyles, and minimizing the use of plastics. When educational institutions assist in instilling these principles, a transformation can be achieved. Considering this, emphasis has been placed on environmental education. Analyzing efforts made in this area, this research aims to investigate environmental consciousness among secondary school pupils.

2. Objectives:

In order to study Environmental awareness and the use of related practices the major objectives have been formulated

a. To assess the Environmental awareness related to different environmental problems among college students.

b. To evaluate the level of environmental awareness with regard to gender and locality among college students.

c. To identify the factors affecting the environmental awareness of college students.

3. Literature review:

It is essential for every researcher to be familiar with the sources that are currently accessible in their subject. There are three categories of literature to choose from. Primary sources are novels, journals, and other such works, Digital sources and some indirect sources. This type of knowledge is essential for every researcher to have in order to perform worthwhile studies within their field. The researcher has surveyed all three of the linked literature sources since they are aware of the importance of the related literature.

- **Larijani, M. (2010),** It is the goal of this research to examine the environmental consciousness of Mysore City's upper primary school teachers. Teachers were tested on their environmental awareness (EAW) using an environmental awareness exam. In order to determine the significance of the differences in gender, age, and school type, chi-square tests and contingency tables were used. The majori-

ty of instructors were found to have modest environmental knowledge. As compared to their male colleagues, female instructors exhibited much greater levels of environmental awareness.

- **Sengupta, M., Das, J., & Maji, P. K. (2010),** Streams (Arts, Science, and Commerce) and gender have a significant role in the environmental awareness and behaviours of Kolkata's 12th-grade students. To conduct this study, researchers employed two 5-point Likert-type questionnaires. ANOVA and Coefficient of Correlation were used for statistical analysis to examine the influence of stream and gender on environmental awareness and environmental-related behaviour.
- **Kumari, S., Gangwar, R. K., Singh, J., & Singh, A. P. (2012),** Bareilly City's Junior and Senior Secondary teachers' environmental understanding, attitudes, and practices are the subject of this research. Knowledge, attitude, and limits of teaching environmental education are the fundamental components of environmental education. Quantitative data was acquired from the responses of 30 Bareilly City teachers to a questionnaire. Teachers' views toward environmental concerns and environmental education were found to be favourable, according to the survey. Teachers' primary information sources were determined to be mass media and personal reading. Environmental education was limited by a hard workload, a lack of teaching resources, a lack of training, and time restrictions.
- **Kaur, M., & Kaur, M. (2013),** the current world is plagued by environmental deterioration. They need individuals who care about the environment to help them fight this issue. The purpose of this research was to gather information regarding the environmental awareness of school teachers in the Patiala district of Punjab, India. It is determined that there is no gender or subject-specific disparity in environmental awareness among aspiring teachers. On the other hand, female teachers, particularly those in the classroom, have a greater knowledge of environmental concerns. It is recommended that the in-service training program for school teachers be re-designed.
- **Ratner, S. (2014),** Russia has a low degree of environmental awareness compared to the European Union. Now this issue is a barrier to the development and dissemination of new energy-efficient technologies that are creative. For the purpose of assessing environmental consciousness in Krasnodar, southern Russia, they conducted an empirical study. In their study, they also assess the level of informational openness in Russia's ecological sector and identify the most popular sources of information. These findings and recommendations are presented in the third section, which discusses the factors that contribute to a lack of environmental consciousness.
- **Ali, A. R., Toriman, M. E., Gasim, M. B., & Juahir, H. (2015),** The goal of this study was to examine students' environmental awareness, attitudes toward the environment, and interest in science. The pupils in this study's sample include both male and female students in their fourth year of high school. The researcher devised a scale for measuring environmental awareness. Descriptive statistics, t-tests, and Karl Pearson's coefficient of correlation were all used in the analysis process. Students' environmental awareness is great, but their interest in science is just modest.
- **Garcia, E. C., &Luansing, B. (2016),** Students graduating from **Region IVA** were chosen for the research to assess their environmental consciousness and to examine the association between their demographic profile and their environmental awareness. The research was carried out using a descriptive-correlation approach. The link between environmental awareness and gender was 216, while the correlation between environmental awareness and residency was 180 Male students should be exposed to environmental education to close the gender gap and aid the distant community by providing an environmental education program, it was suggested that the school implement this recommendation.

- **Badoni, A. K. (2017),** Earth's future is in jeopardy because of human-caused environmental degradations of all kinds. A wide range of environmental issues are caused by uncontrolled human activity, such as industrialization and urbanization. It's important to address the issues of deforestation and soil erosion as well as the loss of biodiversity and the depletion of the ozone layer. It is critical that every citizen get environmental education in order to raise awareness about environmental issues with which they are personally involved. In order to assist residents, in developing the skills and attitudes essential to safeguard the environment, it is critical that they receive environmental education. Environmental education has a direct effect on the public's knowledge and comprehension of the environment.
- **Kumar, H. (2018)** In order to be environmentally aware, one must be aware of the surroundings. The lack of environmental remedies is worse than the problem itself. A survey of rural and urban secondary school pupils in the Pauri (Garhwal) District was conducted to see how much they care about the environment. This study used a survey technique of research and a random sample of 300 secondary school students from various schools in Uttarakhand's Pauri (Garhwal) District. Dr Rawat of D.A.V. (P.G.) College, Dehradun, created an environmental awareness ability scale for data collecting. The findings of this research also show that boys and girls have different levels of environmental awareness. In contrast to urban students, rural students have a better understanding of soil contamination since they live in rural regions, where soil pollution is less of an issue. As a result, they may infer that there is no difference in environmental awareness between males and women. According to this, rural and urban kids are equally concerned about the environment.
- **Mónus, F. (2019),** Education for environmental sustainability and sustainable development (ESD) has been recognized for decades. Research on students' environmental consciousness has been conducted in several ways, with most research being straightforward descriptions. For the purpose of identifying the primary contributors to students' wide range of environmental awareness, a pragmatic analysis was carried out to determine if students' backgrounds or schools' backgrounds were the most important considerations. Preliminary research also inquired about instructors' knowledge of environmental education concepts and the school's infrastructure. They discovered that pupils' socioeconomic status had a significant impact on their level of environmental consciousness. In order to determine the impact of ESD on students' attitudes and behaviours, more detailed assessments of schools' environmental education concepts (including eco-school titles and practices) are required.
- **Chauhan, R. S. (2020),** As a result, they may conclude that sex has no effect on in-service secondary school teachers' environmental understanding and attitude. Compared to their rural counterparts in terms of environmental awareness, In-service urban secondary school teachers were somewhat ahead of their rural counterparts in terms of environmental attitude, but this difference was not statistically significant. It is therefore possible to conclude that both groups of instructors, rural secondary school teachers and urban teachers, were almost identical when it came to their environmental knowledge and attitude. In-service secondary school teachers aren't affected by geography to a substantial degree, according to this study.
- **Mkumbachi, R. L., Astina, I. K., & Handoyo, B. (2020),** It was the goal of this research to examine Malang University students' environmental consciousness and pro-environmental conduct, as well as the link between environmental awareness and pro-environmental behaviour. The survey technique was utilized in this study as part of a descriptive quantitative research design. Most respondents had a greater environmental concern and pro-green behaviour mean scores to support this

claim. Students' replies to individual questions about environmental awareness and pro-environmental conduct, as well as their total responses to the questionnaire, show a positive association between environmental awareness and environmentally friendly behaviour. Consequently, Malang City's university students have made major improvements in their environmental behaviour as a result of environmental literacy.

- **Thor, D., & Karlsudd, P. (2020),** Students learn about environmental responsibility as part of this project's partnership between design and education. This initiative intends to re-educate a new generation of environmentalists by generating environmental citizen tokens for children and teens. There is a significant chance that the efforts of young people to make the world a better place inspire adults to do the same. An environmental and personal responsibility-based learning project is described in this article's design and execution process. Game-based activities and digital activities, together with a validated mechanism for tracking progress, are at the heart of the project's methodology. Through interviews with teacher educators, administrators, teachers, student teachers, parents and students, a final design and implementation plan have been developed, which will be tested in 10 Swedish obligatory schools following this validation.
- **Darmawan, M. D., & Dagamac, N. H. (2021),** Indonesian teachers' perspectives on present educational practices in the country, as well as the potential for enhancing environmental education in Indonesian high schools, were the focus of this study. Teachers questioned for this research agreed that students today have distinct learning styles and that the digital age has an impact on their perceptions of their role in safeguarding the environment. The teacher's responsibility today is to constantly improve their teaching methods in order to inform pupils about the importance of environmental preservation. They see this as a basic religious commitment, not merely a moral one. Indonesian students at the senior high school level are currently not required to learn about environmental issues. In order to raise a generation of environmentally conscious and literate citizens, curriculums should include both standard classroom education and methods that encourage students to actively participate in environmental issues. As a result, this new generation of Indonesian students may be the catalyst for a more sustainable future if they are educated properly.

This study investigates the attitudes of urban and rural students towards their educational experiences. The primary study was to determine the fundamental causes of secondary school students' environmental awareness and actions. Additionally, investigates how student development, particularly in secondary schools, affects academic achievement. The reader is informed by this landscape that the author has included all prior, noteworthy works in the field in the investigation. It is possible to determine from a review of several prior studies that students' attitudes towards pollution and environmental preservation vary significantly depending on their family, social, and educational backgrounds. Numerous studies have demonstrated the potential utility of the Attitudes towards Sustainable Development measure in gaining insight into students' perspectives on sustainability-related matters. According to studies and research, there hasn't been much research on the practicability of integrating environmental awareness with Indian education. The analysis of several publications indicates that the variables influencing environmental awareness and associated behaviours in the context of urban and rural students have not been looked into. Also, there is a lack of study on how to effectively grow secondary school pupils while taking a variety of influencing elements into consideration in order to provide superior outcomes. Research gaps exist about senior secondary school students' degree of environmental awareness

regarding gender and area. Furthermore, estimating the effect of the current circumstances on secondary school students' environmental consciousness is a need for further research.

4. Methodology:

The aim of this study is to investigate secondary school students' environmental awareness and related practices. The purpose of this section is to make the technique utilized to arrive at the outcomes obvious. This section of the paper will discuss the structure of the response data and the study methods. The problem statement, operational definitions of key terms, objectives, hypotheses, study design, development and testing of the Attitude of Teachers (Self-made Scale), creation of research instruments, sampling procedure, and statistical techniques for data analysis are all covered in this section. The goal of the current study is to learn more about secondary college students' environmental awareness and the practices they pursue to protect and conserve the environment. The study demonstrates how students in secondary schools in both urban and rural areas understand their surroundings. The distinct strengths and shortcomings of rural and urban schools are what set them apart. This study is restricted to the opinions of college students. A systematic sampling-based technique will be employed for the purpose of sample selection. Based on demographic traits and the investigation's purpose, the sample was chosen in an unlikely way.

Table 1: Sample of the Research

Gender	**Rural**	**Urban**
Male	150	145
Female	150	150
Total	595	

Table 2: Details of the selected School

Sl. No.	**Name of the College**	**Rural/ Urban**
01	B.S.S. COLLEGE, SUPAUL	URBAN
02	DEGREE COLLEGE, SUPAUL	URBAN
03	S.N.S. MAHILA COLLEGE, SUPAUL	RURAL
04	RADHE SHYAM TEACHER'S TRAINING COLLEGE, SUPAUL	RURAL

All the students studying in the selected schools be selected as samples for the study. The instrument used for data collecting in descriptive survey research is crucial as it aids in obtaining accurate and unbiased information about the phenomena being studied. This inquiry is centered on the study of an analysis of the environmental consciousness and conduct of secondary school pupils. The researcher developed an attitude scale using the Likert approach for this purpose. The investigator created a Likert scale-style attitude scale to collect data. A four-point Likert scale is used for the exam. There are four options for each statement on this scale. Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SDA) are these. Positive remarks are all that are made in the scale. Essentially, for every assertion, a score of 1 represents strong disagreement and a score of 4 represents strong agreement. This indicates that the scale has a minimum score of 40 and a maximum value of 160. The instructors were

told to carefully read the sentences and mark them in the column that corresponded to what they thought was suitable. The scale was scored using the methodology outlined in the table -3 is the scoring key.

Table 3: Scoring details of the Likert Scale

Sl. No.	No. of alternatives	Rank
1	Strongly Agree (SA)	4
2	Agree (A)	3
3	Disagree (D)	2
4	Strongly Disagree (SDA)	1

The study's purpose was explained to the responding teachers, and they were asked to fill out a questionnaire. MS Excel was then used to examine the data.

5. Study area:

Supaul district is bounded on the north by Nepal, on the south by the districts of Saharsa and Madhepura, on the east by the district of Araria and on the west by the district of Madhubani. Supaul is the chief town being the district headquarters. The location of the district on the global map is between 25°37' and 26°25' North latitude and 86°22' and 87°10' East longitude. Supaul district in Bihar covers an area of 2,420sq km Supaul district was created as a separate district carving out Supaul and Birpur sub-divisions of the erstwhile Saharsa District. The district has four subdivisions viz., Nirmali, Birpur, Tribeniganj and Supaul. There are altogether eleven Community Development Blocks in the district. The number of Statutory Towns and Villages in the district is 3 and 551 respectively. Supaul district is a part of the Kosi division.

The entire district lies north of the Ganges and is comprised of planes. The eastern portion of the district is more fertile and more densely populated. The deposits left by the turbulent Kosi have affected the fertility of the soil but the progressive implementation of the Kosi project has turned the district into a veritable granary. The topography of the district had been affected by the ravages of floods. After the construction of Kosi Barrage and several embankments, the sandy tracts are being reclaimed the areas of wasteland, full of kans and pater (Jungles), lying mostly in Supaul district have been largely reclaimed and are yielding crops. A number of canals have been constructed under the Kosi project which provides irrigational facilities to the districts of Supaul, Saharsa, Darbhanga, Purnia and Madhepura besides some parts of Nepal.

Kosi is the most important river in the district. It rises from the Himalayas. It is also known as Sapt Kosi for its seven upper tributaries. Its three tributaries Sun Deosi, Arun and Tamur meet at Tribeni and form the Sapt Kosi. It enters the plains at Chatra. A number of rivers such as the Tilguga, the Bhuthhi Balan, the Sugarwe, the Sonior, the Jangar Balan, the Kamla and the Bagmati join the Kosi on its right bank on the plain. The Kosi is notorious for its vagaries and was known as the Biha River of Sorrow. During the rainy season, it swells and inundates large tracts of the district. It has changed its course a number of times and at present, it has shifted its course to the west and flows near Nirmali and Madhepur, the latter being a part of Madhubani district. The other important rivers of the district emerge from the Himalayas and fall into the Khagari River which itself joins the Kosi. These rivers are the Tiljuga, the Bati, the Dhimra, the Tilabe, the Parwan, the Dhusan, the Chalausi, the Loran, the Katana, the Daus and the Ghagri.

Paddy and wheat are grown in the alluvial and reclaimed soils the Kosi affected areas still contain Kans and Paterforest, though reclamation is in progress. Small trees such as babul, jhaua, Harjora etc., and water berries such as Makhana, Ramdana and Motha grass are also found, Sabai Grass, Munj and varieties of cane etc., also grow in the district. Though the Kosi has destroyed a large number of fruit-bearing trees, the district still produces a large quantity of mangoes. Other common trees are Mahua, Jackfruit, Plantain, tamarind, Bair, Jamun and Kath jamun, Khajur, Sal, Sesum, Semal, Lichi, Guava, lemon watermelon, coconut and betelnut are also grown. The denudation of forests, the reclamation of Kans and Pater infested waste-lands, and indiscriminate hunting in the past have led to the decline of tiger, panther, hog-deer, chital, wild boar, etc., Nilgai, hares, and Khikhir are still found. Jackals, monkeys, and wolves are also common. Several deadly species of reptiles such as cobra and karait and various kinds of lizards are also found. Jungle crow, house crow, tree pie, crow pheasant, grey hornbill, little brown dove, grey partridge, white-breasted water hen, bronze-winged jacana, curlew- stint black ibis, glossy ibis, white-necked stork, cattle egret pond heron, pink-headed duck, silly or cotton teal, white-fronted goose, large whistling teal, brahmin duck, eastern grey duck, marbled teal and eastern goosander are the different varieties of birds found in the district of Supaul. The reclamation of water pools and indiscriminate shooting have led to the extinction of the pink-headed duck, marbled teal, copperbreasted teal and floricans. Various species of ducks, mallard, nakta comb ducks and geese are no longer found.

From the eleven community development blocks, my study area is Supaul block and survey four colleges of which 2 are urban and 2 are rural colleges. For an interview, I used a questionnaire of fourteen questions related to the environmental perspective of students and teachers.

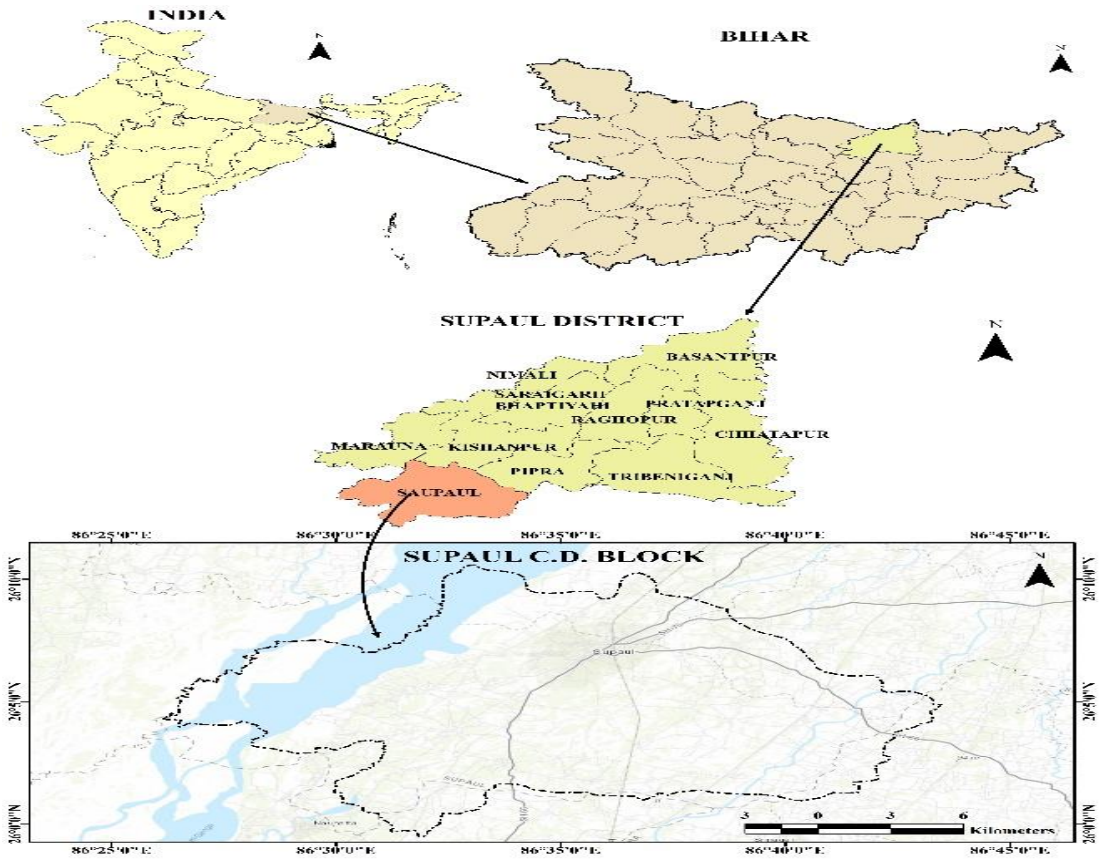

Fig.1: Location map of the study area

6. Hypotheses of the study:

The hypothesis of the study has been laid out as given below:

- There is no significant difference in the level of environmental awareness among male and female students.
- There is no significant difference in the level of environmental awareness among rural and urban students.

7. Limitations of the study:

- Demography is very limited.
- A number of samples only have a limited scope of the selected region.
- Response could vary in time phase.

8. Analysis and interpretation:

In the previous part, the method used in the research was described in depth, including the issue statement, variables, operational definitions, study design, tool creation and validation, sampling technique, data collecting process, and data analysis process. The current section illustrates how the research study's hypotheses were verified through data analysis. The purpose of the current study is to look at secondary school students in Supaul block's environmental awareness and connected practices. The results of the study will be analyzed, assessed, and compared with those of other relevant studies in this section. Analyzing data entails investigating the tabulated information to identify underlying truths or implications. It entails decomposing already complex factors into simpler components and reassembling the components in novel configurations for interpreting purposes. In the current study, a variety of precisely specified statistical formulas were used to assess data gathered through Environmental Awareness and associated behaviours. This section presents the results of the statistical analysis of the data.

Statement 1: Environment Safety is our responsibility

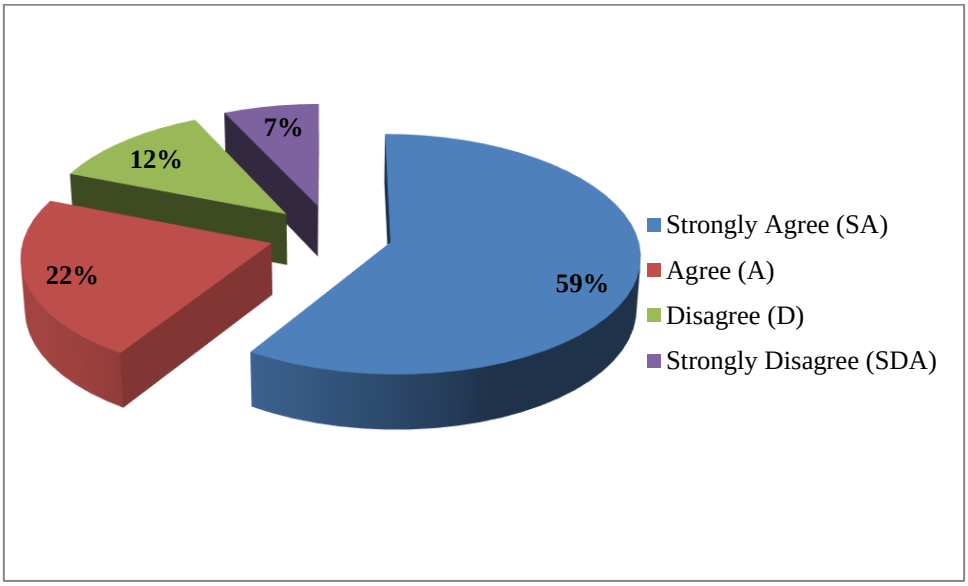

Fig. 1: Pie graph showing environmental safety and our responsibility.

The statement, "Environment Safety is most acceptable among students," was examined using a pie graph. According to the response, around 7 % strongly disagree, 12% disagree, 22% Agree and 59 % Strongly Agree. Therefore, we may draw the conclusion that the majority of respondents believe it is our obligation to ensure environmental safety.

Statement 2: Environmental problems make the future bad

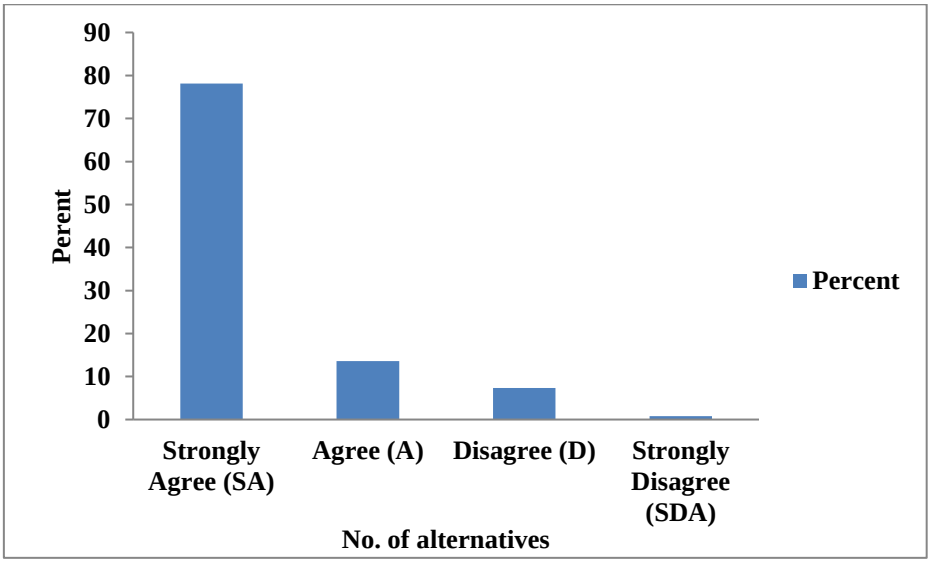

Fig. 2: Bar graph showing the environmental problems make the future bad.

The reaction to "environmental problems make the future bad" was examined in the bar diagram. About 0.8% strongly Disagree, 7.3% Disagree, 13.61% Agree, and 78.15% Strongly Agree, according to the answer. Therefore, we may draw the conclusion that the majority of respondents support the idea that environmental issues would negatively impact the future.

Statement 3: The study of Science teach us about various environmental problems

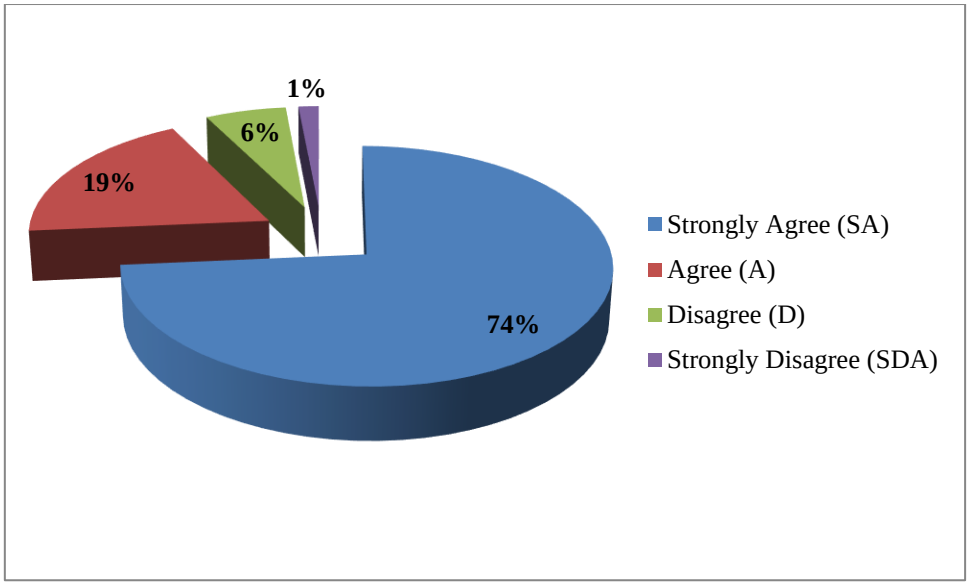

Fig. 3: Pie graph showing the study of science teach us about various environmental problems.

A pie graph was used to investigate the response to the question, "Study of Science teaches us about various environmental problems." Approximately 1 percent strongly disagree, 6% disagree, 19% agree, and 74% strongly agree with the outcome of the survey. So, it is reasonable to say that the majority of respondents believe that studying science can inform us about a variety of environmental issues.

Statement 4: Students should participate towards the solution of environmental problems

The response analysis of students in helping to solve environmental problems was investigated using the bar diagram. Approximately 2.85% of respondents strongly disagree, 3.86% disagree, 18.82% agree, and 74.45% strongly agree, according to the answer. Thus, it may be inferred that the majority of respondents believe that students have contributed to the solution of environmental issues.

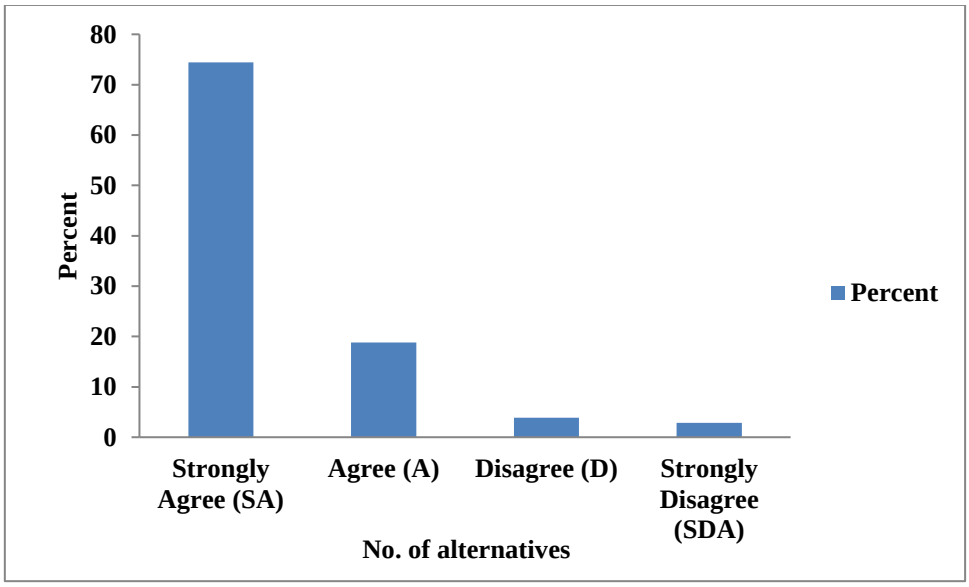

Fig. 4: Bar graph showing the student should participate towards the solution of environmental problems.

Statement 5: Students should arrange the program to others for other people to understand the environmental issues

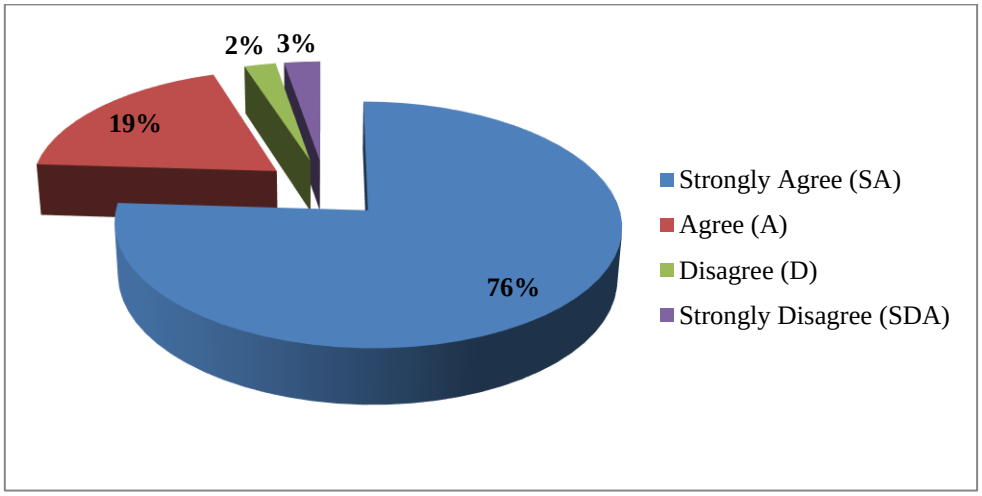

Fig. 5: Pie graph showing the students should arrange the program to others for other people to understand the environmental issues.

The pie diagram examined how students responded to their understanding of environmental concerns. About 2.68 percent of respondents strongly disagree, 2.35% disagree, 18.99% agree, and 75.96 percent very agree. Therefore, we may draw the conclusion that the majority of respondents believe students should organize the programme so others can learn about environmental concerns.

Statement 6: Student Contribution is significant to environmental protection

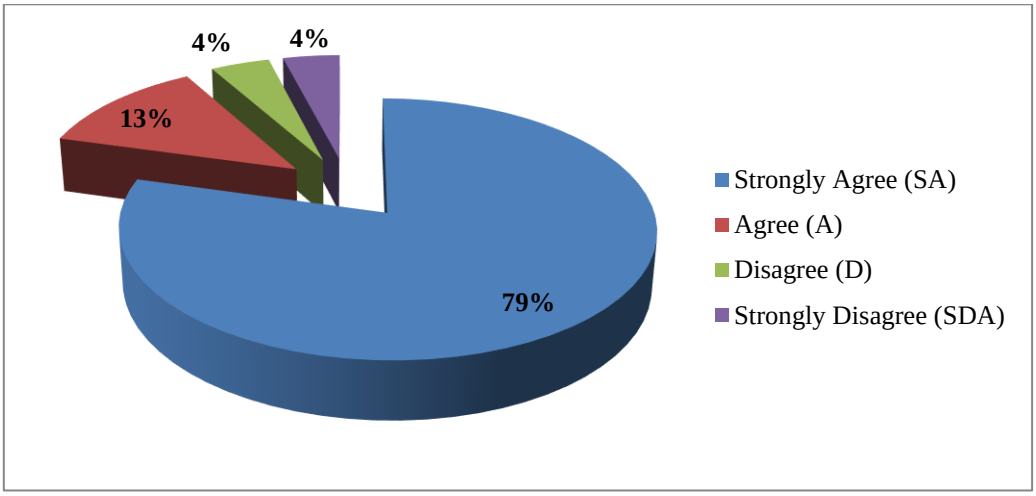

Fig. 6: Pie graph showing the students contribution is significant to environmental protection.

The reaction of student contribution to environmental conservation is considerable, as the pie diagram demonstrated. According to the response, around 4.03 percent strongly disagree, 4.20 percent disagree, 12.43% agree, and 79.32 percent strongly agree. Therefore, we may draw the conclusion that the majority of respondents support the idea that student contributions to environmental conservation are significant.

Statement 7: I am concerned and prioritize environmental Issue

The pie graphic demonstrated my concern and prioritization of environmental issues. According to the response, around 3.36 percent disagree strongly, 5.21% disagree, 15.96 percent agree, and 75.46% strongly agree. Therefore, we might infer that the majority of respondents give priority to environmental issues.

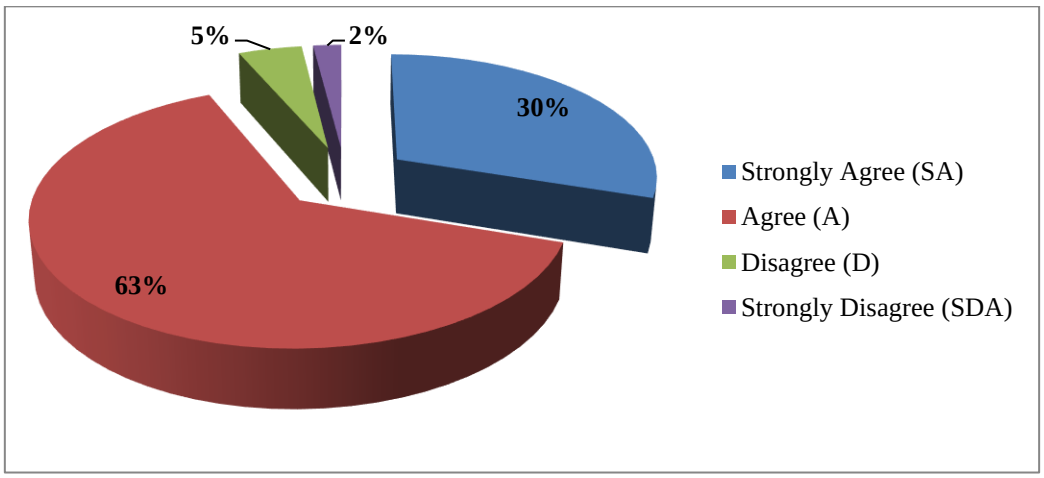

Fig.7: Pie graph showing I am concerned and prioritize environmental Issue.

Statement 8: **Environmental problems can only be solved with Government Support**

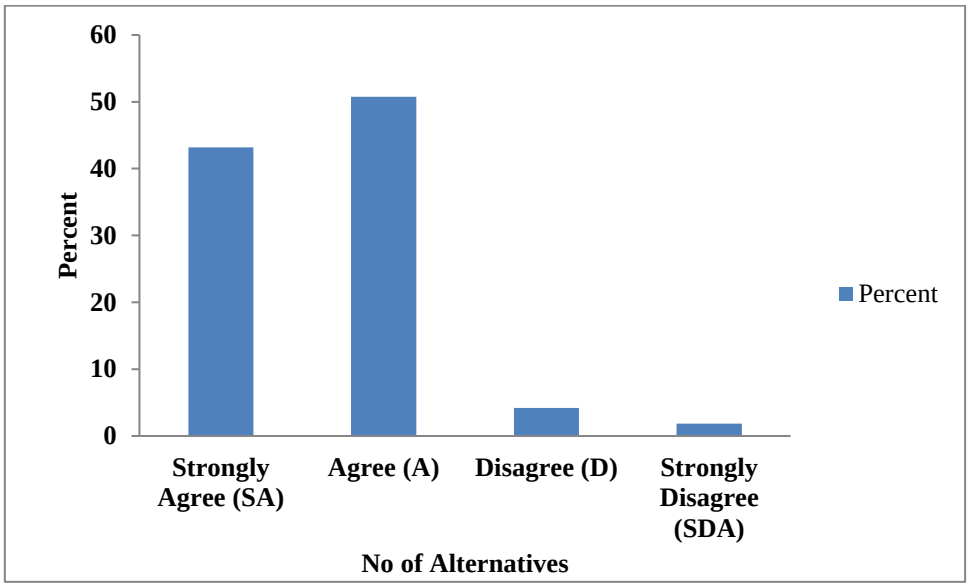

Fig.8: Bar graph showing the environmental problems can only be solved with government support.

The bar graphic demonstrated how government support is necessary to address environmental challenges. Roughly 15.08 percent of respondents strongly disagree, 10.22 percent disagree, 30 percent agree, and 45 percent strongly agree. Therefore, we may draw the conclusion that the majority of students get support for environmental issues that require government intervention to resolve.

Statement 9: **Students must care about protection of the environment**

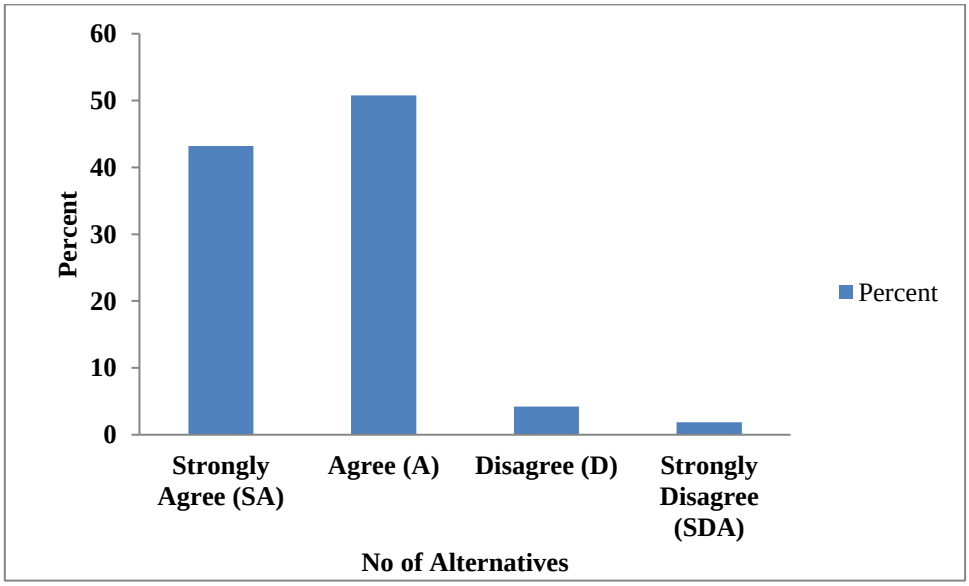

Fig.9: Bar graph showing the students must care about protection of the environment.

The bar diagram examined the need for students to be concerned about environmental conservation. About 4.03 percent strongly disagree, 4.36% disagree, 24.70% agree, and 66.69 percent very agree with the response. Thus, it follows that the majority of pupils need to be concerned about environmental conservation.

Statement 10: Environmental problems are a cause of concern for all people in society

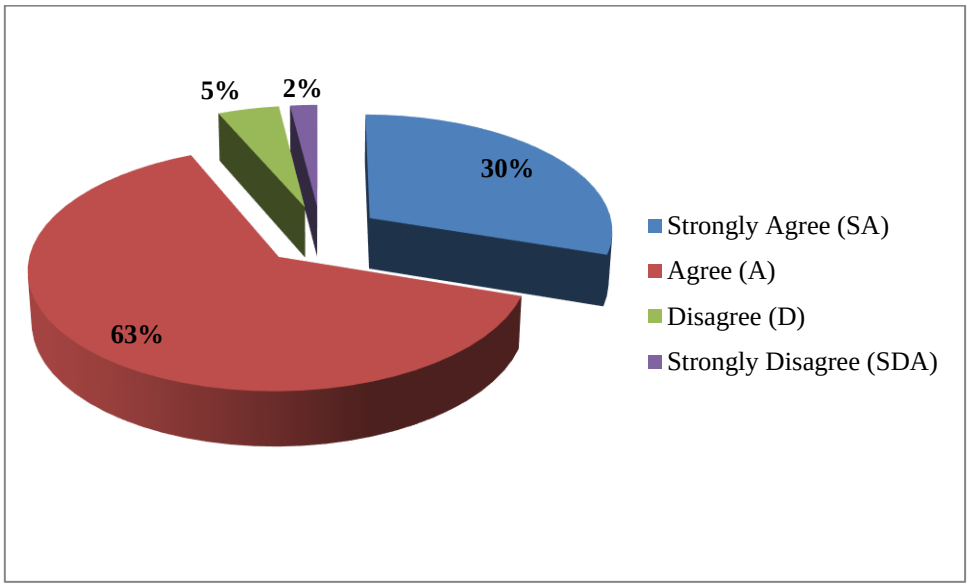

Fig.10: Pie graph showing the students environmental problems are a cause of concern for all people in society.

Every member of society is concerned about environmental issues, as seen by the bar diagram. 1.84 percent strongly disagrees, 5.37% disagree, 66.05% agree, and 27.22 percent strongly agree, according to the answer. Therefore, it may be inferred that a majority of the student body believes that environmental issues should be of concern to everyone in society.

Statement 11: Environmental issues can be minimized

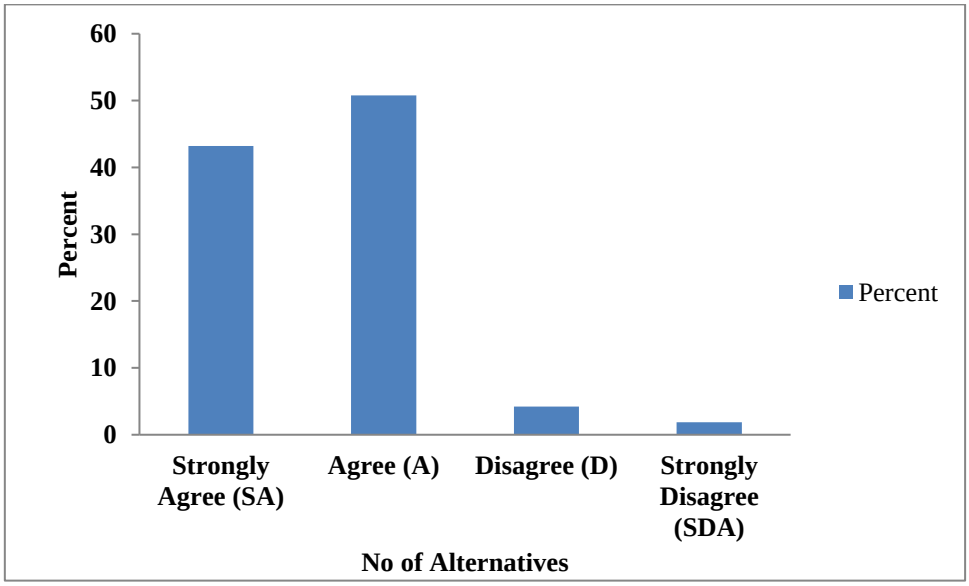

Fig.11: Bar graph showing the environmental issues can be minimized.

The bar diagram demonstrated how environmental concerns might have a little impact on response. 43.19 percent strongly agree, 50.75 percent agree, 4.20 percent disagree, and 1.84 percent strongly disagree, according to the answer. Thus, we may draw the conclusion that the majority of pupils who are supportive in environmental concerns might be reduced.

Statement 12: Ozone layer depletion is harmful

The pie plot illustrated the detrimental effects of ozone layer depletion. About 2.0% strongly Disagree, 4.53% Disagree, 63.36 % Agree, and 30.08 % strongly agree, according to the response. Thus, we might infer that the majority of students agreed that the Ozone layer's loss is detrimental.

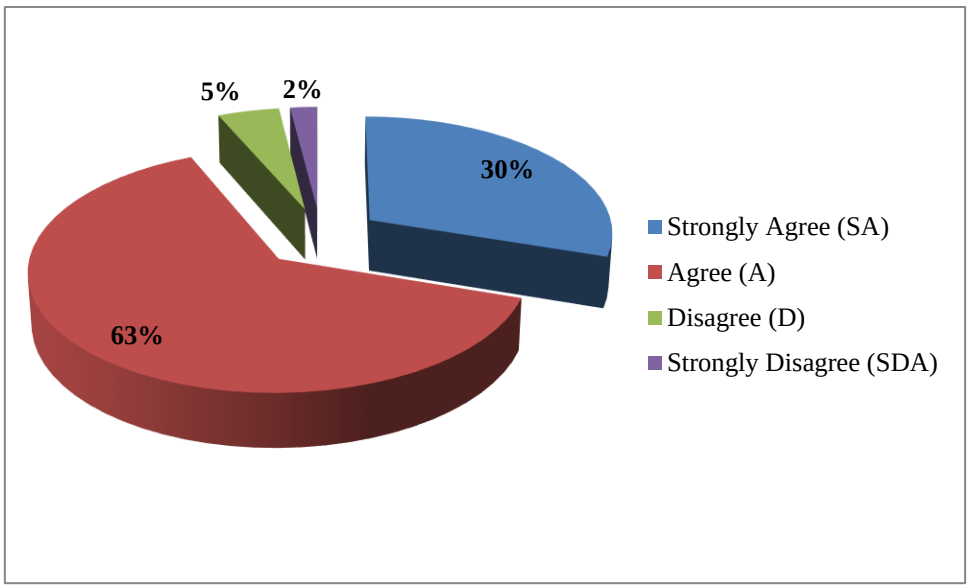

Fig.12: Pie graph showing the ozone layer depletion is harmful.

Statement 13: Miscellaneous item

In this segment, I am considering eight key factors which is directly related to our environmental studies. Those factors are – Use of polyethylene bags is harmful, jute bags are eco-friendly, deforestation does not disturb our environment, control the population growth, factories waste is good for plants and animals, environment does not play any role in development of child, non-rechargeable batteries and over all shape of our environment. In this star diagram it is clearly indicated that nearly 67.05 percent are directly answered strongly agreed about polyethylene bags is harmful; 72.1 percent are directly answered strongly agreed about jute bags are eco-friendly; 45.56 percent are directly answered strongly disagreed about deforestation does not disturb our environment; 67.22 percent are directly answered agreed about control the population growth is much more necessary to control the environment issues, 41.7 percent are directly answered strongly disagreed about factories waste is good for plants and animals, 48.8 percent are directly answered agreed about environment does not play any role in development of child; 84.3 percent of students assured that nor rechargeable batteries is very harmful to use for environment and they are trying to transforming their use from non-rechargeable to rechargeable batteries and last of all only 36.88 percent of student directly agreed about our environment good in shape.

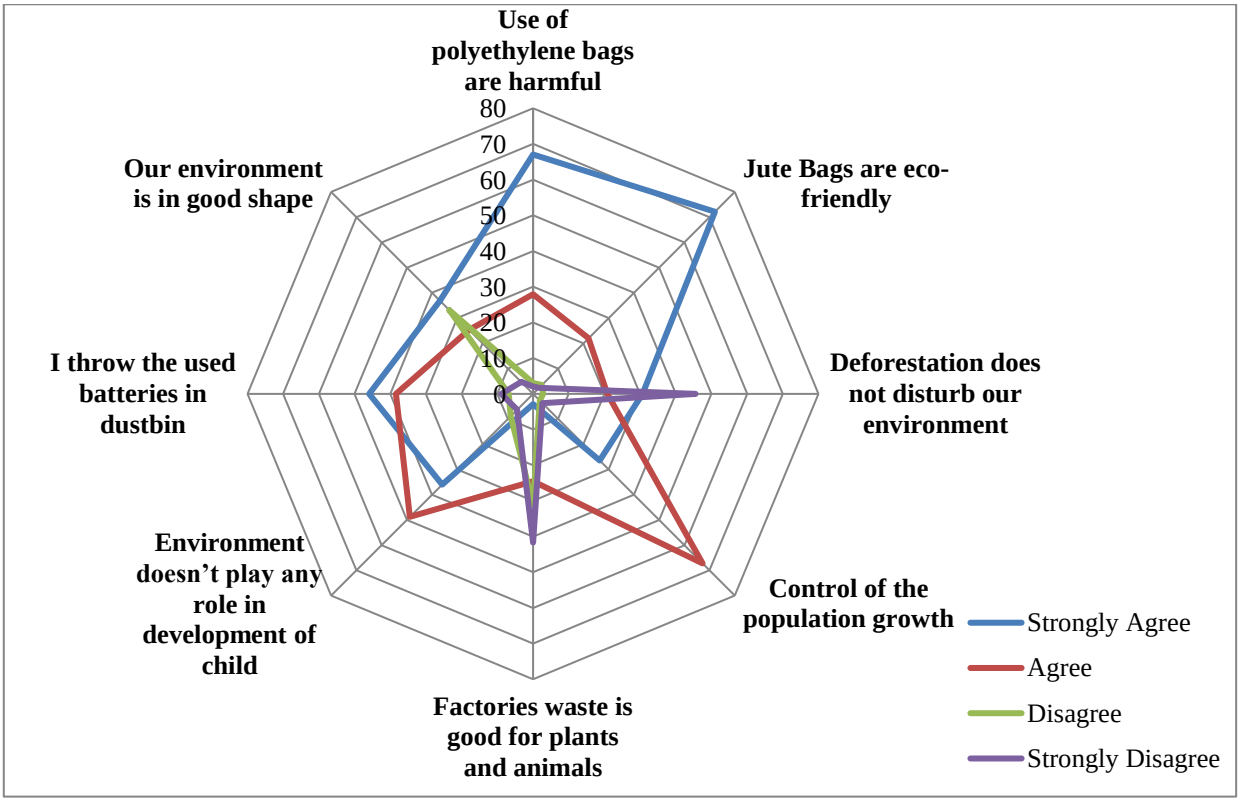

Fig.13: Star diagram showing the miscellaneous item.

Statement 14: Worst environmental problem facing the planet

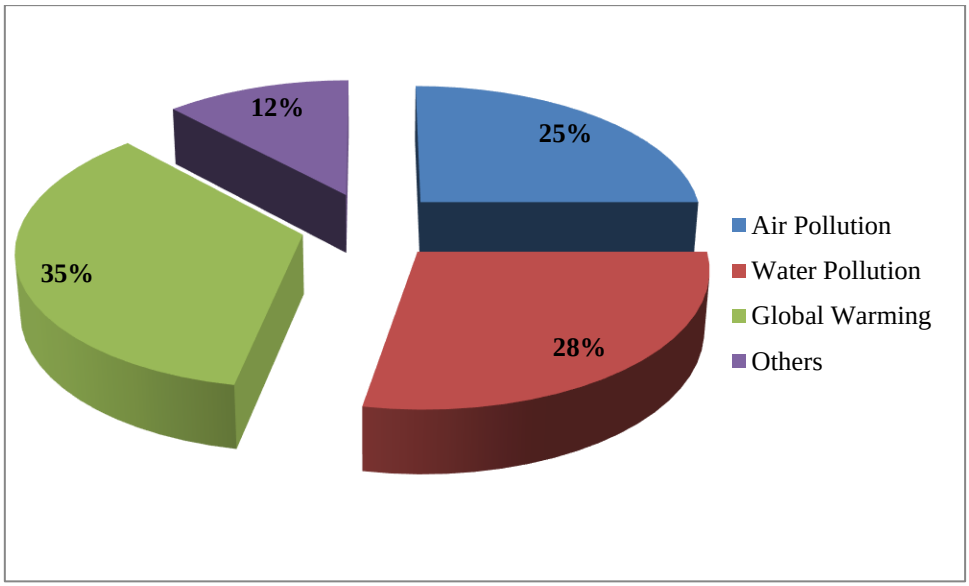

Fig.14: Pie diagram showing the worst environmental problem facing the planet.

In this diagram it is clearly demonstrated that the worst environmental problem facing the planet. 25 % says air pollution, 28% water pollution, 35 % global warming and only 12% agreed with others problem according to the response. When I am going deeply interviewed about the major source of pollution. Then nearly 40 percent of students say that vehicles play a very important role on air pollution. 42.35 % students say that pesticides are the major source of water pollution. Acid rain, solid waste and uncontrolled agricultural practices are the major sources of soil pollution. Nearly 59percent of the

student are agreed about environmental pollution triggered the numerous hazard not only India but also all over the world. Nearly 65 percentage of the student is agreed about the Indian central government must be implemented a strong environmental policy and law to control the environmental pollution.

HYPOTHESES 1: There is no significant difference in the level of environmental awareness among male and female students

Table 4: Environmental awareness among male and female students					
Test	**N**	**Mean**	**SD**	**SEM**	**Z test**
Male	**295**	**132.31**	**16.85**	**0.98**	**1.09**
Female	**300**	**130.81**	**16.44**	**0.94**	

The "Z" ratio, which was calculated to compare the mean environmental awareness score between male and female students, is shown in Table 4. The calculated "z" score of 1.09 indicates that there is no discernible difference between pupils who are male and female. The data clearly shows that the mean environmental awareness ratings of male and female students are equal.

One possible explanation for the given result might be that both parties have the same degree of environmental awareness. They are only students. It makes no difference if they are female or male. Since they share the same opinions about the environment, we may draw the conclusion that there are no appreciable differences between the environmental consciousness of male and female students.

HYPOTHESES 2: There is no significant difference in the level of environmental awareness among rural and urban students.

Table 5: No significant difference in the level of environmental awareness among rural and urban students					
Test	**N**	**Mean**	**SD**	**SEM**	**Z test**
Rural	**300**	**131.57**	**15.81**	**0.93**	**3.11**
Urban	**295**	**133.68**	**16.92**	**0.98**	

The "Z" ratio, which was calculated to compare the mean environmental awareness score between rural and urban students, is shown in Table 5. The calculated "z" score of 3.11 indicates that there is discernible difference between pupils who are rural and urban students in 0.01 level of significance. It is made actually evident that urban pupils outscored rural students in terms of mean environmental awareness.

The results are the result of inadequate facilities, interest, and knowledge. Students in rural areas lack awareness of the environment, but students in metropolitan areas have access to resources, information, and enthusiasm. Thus, the pupils in both areas are where the differences exist.

9. Conclusion:

The National Education Policy of 2020 has placed significant emphasis on the curricula of Essential Subjects, Skills, and Capacities. This includes the integration of Environmental Education at all educational levels, including teacher education. Environmental conservation is to be inculcated as a

value and a skill. NEP 2020 says that concerted curricular and pedagogical initiatives, including the introduction of contemporary subjects such as Artificial Intelligence, Design Thinking, Holistic Health, Organic Living, Environmental Education, Global Citizenship Education (GCED), etc. at relevant stages will be undertaken to develop various important skills in students at all levels. Environment education will include areas such as climate change, pollution, waste management, sanitation, conservation of biological diversity, management of biological resources and biodiversity, forest and wildlife conservation, and sustainable development and living. Teacher Education curricula also need to be revamped and include these components. This highlights the fact that more concerted efforts are needed in this direction and Education system has a very important role to play towards Environmental conservation and sustainable development. Students are conscious about environmental problems but they are not adopting ways to conserve environment. There is a need of relevant interventions in this regard.

Environmental Education is an integral component of school curriculum as it is the need of hour. Environmental awareness means to understand that physical environment is fragile and due to increasing human activities it is becoming more and more vulnerable. Secondly, it is imperative that through education an ideology is inculcated among students that evokes in them the need and responsibility to respect, protect and preserve the natural world. The study revealed high level of environmental awareness among secondary school students of Supaul block. The students have shown agreement towards the fact that environment is in danger due to pollution and deforestation. They have also revealed that students feel that it is the responsibility of each individual to protect and conserve the environment. The investigator interacted with students and found that students were aware of harmful effects of using plastic bags and other plastic products but as a practice they are not using environmental friendly practices. This means that study highlights the fact that there is a need of inculcation of values towards conservation. Similar studies have been carried out in the recent past.

In the 21st century, environmental degradation has become humanity's greatest challenge. In view of recent discoveries and improvements, environmental education should play a significant part in finding a solution to the problem. One of the most important steps in getting people to care about environmental problems is getting them to learn about them. Given this motivation, India is making serious strides toward a more ambitious goal in terms of environmental protection. The problem of environmental degradation is being addressed by both the government and non-profit organizations (NGOs). The term "environment" shares an etymological root with the word "surrounding," hence it can be understood to refer to anything in one's immediate physical environment. In order to ensure the continued existence of social, cultural, and economic systems, as well as the conservation of nature and natural resources, environmental awareness is what equips people with the knowledge and wherewithal to make decisions and take action on both an individual and a collective level. It can be thought of as an educational procedure whereby one gains enough information about the present state of affairs to comprehend the environmental problem and help in its resolution. The term "environmental literacy" describes this type of education. Understanding the environment and its needs is crucial if we are to do our part to preserve it. Textbooks are the go-to reference material for most students. India's educational efforts in ecology and environmental studies have fallen short, and they pale in comparison to the amount of cutting-edge research being conducted in these subjects on a national as well as worldwide scale. Many people have tried to pinpoint the problems and stress the critical need for widespread environmental education and investigation. This was the second international conference on environmental education, and it took

place in New Delhi, India, in March of 1985. Several studies have addressed the topic of environmental education programs in K-12 schools, colleges and universities, engineering schools, and other non-formal education settings found, in a survey of 100 secondary school teachers, that experienced instructors were no more likely to be concerned about the environment than less experienced teachers.
Once we have a thorough understanding of the environmental issues such as deforestation, environmental pollution, water crisis, global warming and climate change, loss of biodiversity etc. every one of our actions will come out of a place of concern for our surroundings, out of love for mother nature, out of the willingness to contribute towards sustainable development and make a positive change in the world.

10. Suggestions for further research

1. Studies should be planned to measure the environment awareness, environmental ethics and environmental attitude of general citizen.
2. Similar studies may be undertaken on other different state of India.
3. Studies including different variables like Environment Concept Achievement, home & school environment, social and economic status, adjustment, and quality of life can be undertaken.
4. Further studies may be conducted to find out the interrelationship between different psychological variables i.e.- environmental consciousness, attitude knowledge, awareness, values, moral and sense of responsibility.

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