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Assessing awareness and attitudes towards environmental education and sustainability among the students at Isabella Thoburn College, University of Lucknow: A case study

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Abstract
This paper shows a case study on a case study on the awareness and attitudes of students at Isabella Thoburn College concerning environmental education and sustainability. Increasing global challenges over climate change, biodiversity loss, and pollution, educational institutions play a crucial role for promoting environmental awareness, and sustainability practises. The study estimates the extent of environmental awareness, and sustainability practises. In this study quantitative method was used and the data was collected through google form using questionnaire. Questionnaire contains both multiple choice question and open- ended questions. The finding shows a high level of awareness among students and many respondents is familiar with environmental education and sustainability. Pollution and climate change highlights a most common environmental concern, while the main motive of learning about environmental issue was concern for future generation. This finding also shows time constraints and financial limitations. The study shows the importance of institutional support and the incorporation of sustainability to encourage a more engaged and knowledgeable students for better sustainable practices.

Keywords: Environmental Education, Sustainability, Student Awareness, Climate Change, Environmental Attitudes, Campus Sustainability, Pollution.

Introduction

The study of environmental education and the principles governing the operation of natural systems is known as environmental education, and it supports in the development of practical skills and the capacity to improve the condition of the environment. Environmental rules and programs are being developed everywhere around the world as a result of the remarkable growth in understanding of the detrimental effects that humans have on the environment. Environmental education also provides critical thinking and boosts our problem-solving skills which are related to the ecological issue. Rachel Carson (1962), in her influential work Silent Spring, highlights the connection between human and environment. It is very important to educate each and every student about environmental issues which help them to take responsibility for protecting the environment.

Education plays a crucial role for spreading awareness among student, encouraging them to engage with environmental issues, as Paulo Freire's (1970) says in his educational philosophy. Ajzen and Fishbein (1980) say that individual behaviour is influenced by action and beliefs towards the issues of environment.

Educational Institution also plays an important role in educating about the change in climate and environmental issue, towards promoting the sustainable practices, as mentioned by Fritjof Capra (1996) in his work The Web of Life. People are aware of their daily actions that how it affects the environment and, concurrently, how they affect the governance of the local communities. The concept arise that only focus on two aspects which is: educating and awaking each and every one about the environmental system and helping them to have a more responsible attitude toward the environment. However, Environmental Education provides a better opportunity for both students as well as teachers to connect their appreciation of the natural to academics, making passionate students in a world when getting children interested in classroom lessons is becoming more difficult. The critical thinking of students and their personal abilities are enhanced by the help Environmental Education. It also helps in the development of additional skills like communication and teamwork. However, children in any education institutions must be taught about how to use their surroundings It is also said that this awareness of Environmental Education into all curriculum at every grade can create a more comprehensive treatment of environmental issues (Jekayinfa & Yusuf, 2008).

Study Area

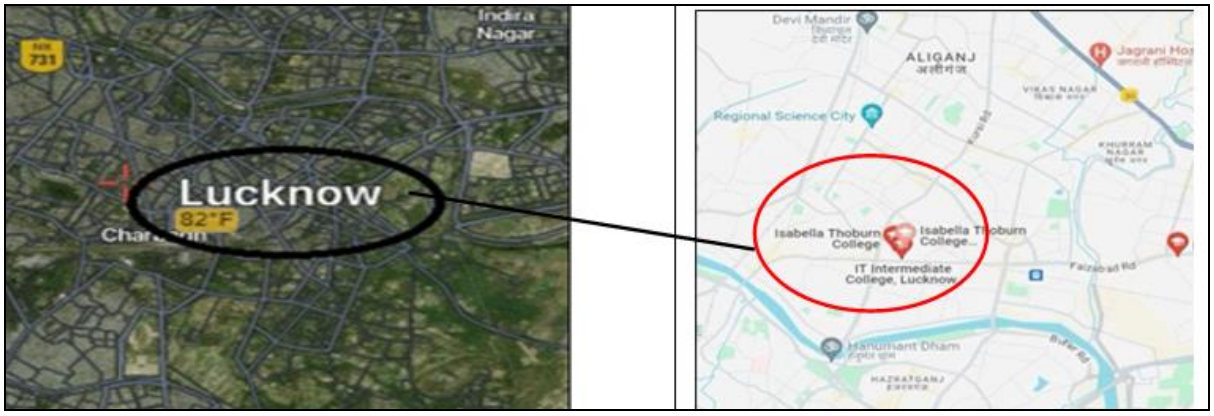
The entire study is done at Isabella Thoburn College, University of Lucknow, a well-known prestigious educational institutional in Lucknow, Uttar Pradesh in India, it is widely known for its good academic reputation and making a good environment for a student to learn and be aware about the environmental education and sustainability

Targeted populations

This study focuses on students from various academic programs, including: Undergraduate students (B.sc, B.Ed. etc). Postgraduate students (M.A., M.Sc., Ph.D. etc). Students from different stream helps to differences in environmental awareness and attitudes.

Selecting Isabella Thoburn College

The college has a student from different educational field, which helps in the study for assessing about environmental awareness. The college passionately participates in academic and extracurricular activities, which is related to environmental awareness that helps for making this research suitable. Isabella Thoburn College works as a suitable study area for its academic diversity, institution commitment to education, related to sustainability issues. The finding from this study will helps to improve environmental education strategies and helps students for gaining sustainable behaviours.



Map-1: Showing satellite map of Isabella Thoburn College (Source: satellites.pro)

Material and methods

Methodology

This research contains survey questions, helpful to understand student's perspective about environmental education and sustainable development, and also collects the data from respondents for further analysis. This survey started from 30th December 2024 to 31st January 2025. The further step contains:

1. Sampling Technique

Simple sampling method to check the student who wants to take part in this survey, by which it became easy to complete this survey, Different students from different academic fields were surveyed which can help to check their views and behaviour regarding environmental education and sustainable development.

2. Data collection

The data is collected through questionnaire survey that contain a mix questions which can helps to detect their levels of awareness as well as their attitude towards environmental issue. The questionnaire contains their details (such as age, program as well as their type of study) and Future goals regarding sustainability. Respondents were given choice to self-choose their answer through multiple choice questions and give their thoughts and idea in open or close- ended question. The respondent also skips their question if they needed

Method of the study

The method which is used for conducting this survey contain questionnaire and the survey performed through Google forms which is also known as online survey platform. This study gives a descriptive survey and the goal is to understand the level of awareness, attitudes and behaviour towards environmental education and sustainability in the academic field.

Group of Data

The data may contain multiple choice questions like yes, no or other option and some question contain open and close ended where they can write their ideas which can help to check their opinions regarding environmental education and sustainability.

Data analysis

A Google form automatically collect, organizes, and analyse the data. After that further analysis for better results was done.

Result and Discussion

Survey Question 1: Was based on the Respondents age in which the majority of the people from the datasheet fall within 21-23 age group, followed by 8% of the people under the age group of 24 or above while the least people from the datasheet fall within 18-20 age group.

Survey Question 2: Was based on the Respondents program they are enrolled in which the numbers of responses were from undergraduate or post-graduate program. We received the clear visual representation that undergraduate category has more count approximately 60 and postgraduate category have least response which is around 30. This clearly indicates that the students in undergraduate have responded in majority as comparison to the Post Graduates.

Survey Question 3: Was based on the Respondents year of study divided into 4 segments-

- First Year (17.8%)
- Second Year (56.7%)
- Third Year (20%)
- Onwards (5.6%)

Which shows that the majority of the responses are from Second year making up more than half (56.7%) of the total. Second highest responses from Third Year which is 20% of the total. And from First Year we got 17.8% responses. And the least responses are from onwards which 5.6% of the total.

Survey Question 4: Was based on the comparison between the field of study i.e., Science, Commerce, Others which clearly represents the majority of the response from science field reaching around 80 and the rest of the responses from Commerce and others whose value appeared to be below 10.

Survey Question 5: After gathering the Respondents Basic Information, from this survey question we started analyzing their knowledge of environmental issues which represents the portion of people who were Aware about the topic as comparison to those who have less knowledge about the topic "Environmental Education and Sustainability Development".

It was clearly visible that 97.8% of the totals are Aware and there is very minimal portion 2.2% of total with no or less knowledge. This data indicates that the most of the people have information about the topic.

Survey Question 6: From this we analyzed the pollution types considered as the hottest topic which is 80% (72 respondents). Second is climate change which is 75.6% (68 respondents) which is second in hot news by following Deforestation, Bio-diversity loss, Waste Management, Global Warning and Others have also been considered as hot news.

Overall pollution, climate change and deforestation are the most significant environmental concern among respondent. The lower percentages of waste management and global warming shows that there is more need of awareness regarding their long-term effects on the planet.

Survey Question 7: Basically in this survey question we recorded the responses of the people who have attended environmental awareness programs (e.g., workshops, lectures, seminars) in the college. The majorities have responded 'NO' (65.6%) which indicates that they have not attended any workshops, lectures or seminars and on other side only (34.4%) of them have attended such types of programs.

The majority people who have not attended such type of program clearly show that they may have lack of awareness as compare to the people who have attended any kind of environmental awareness programs.

Survey Question 8: The survey question records the believe of environmental education importance in college education, in which we got a total of 90 responses.

As we can see that 100% of them have agreed and there is 0% of disagreement, which shows that there is strong agreement for the Environmental education in the college curricular. The lack of disagreement indicates that the respondent accepts that environmental education is the best way for raising awareness about sustainability, climate change and ecological conservation.

And other side the 100% agreement shows the concern about environmental issues and they believe that higher education should equip the students with the knowledge and skill so that they should be ready with the challenge.

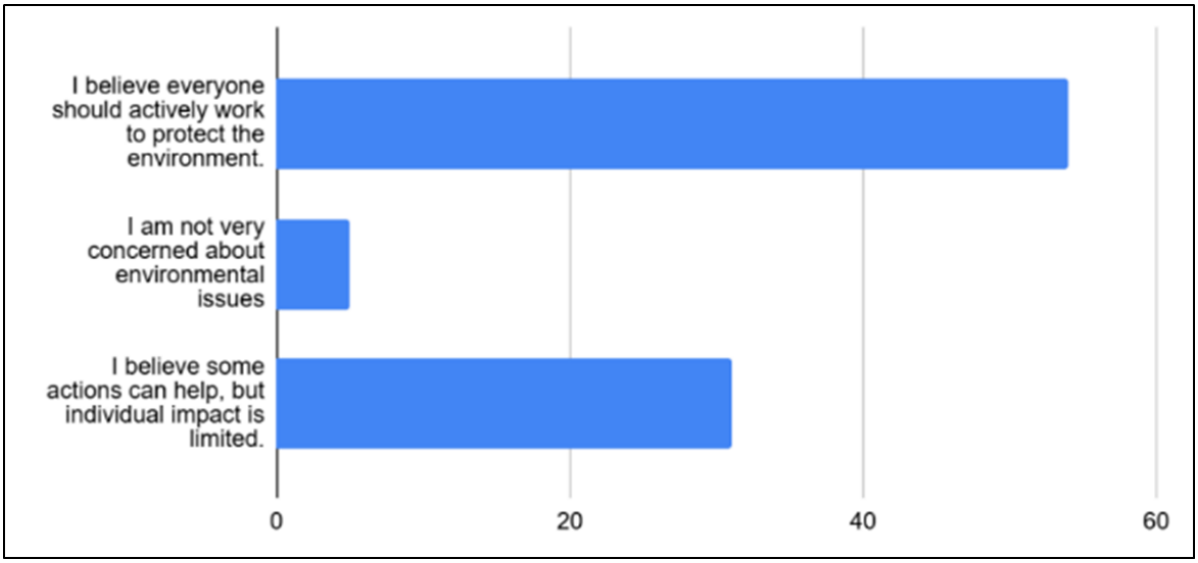
Survey Question 9: deals with the importance of education given to the students about Environment and Sustainability under three categories "very important, important, and not very important".

From these more than 40 responses out of 90 were from the category of "important". The "very important" category around 35 responses out of 90, these shows that substantial number of people considers the environmental education should be part of education system. And there are negligible responses in "not very important" category indicates that there are very few people who consider environmental education is unimportant.

Survey Question 10 deals about the believe in the learning about the environment education being the part of every student's curriculum. From which we received nearly 97.8% people consider environmental education should be the part of every student's curriculum and on the other hand very negligible amount of people believe that environmental education to be the part of student's curriculum.

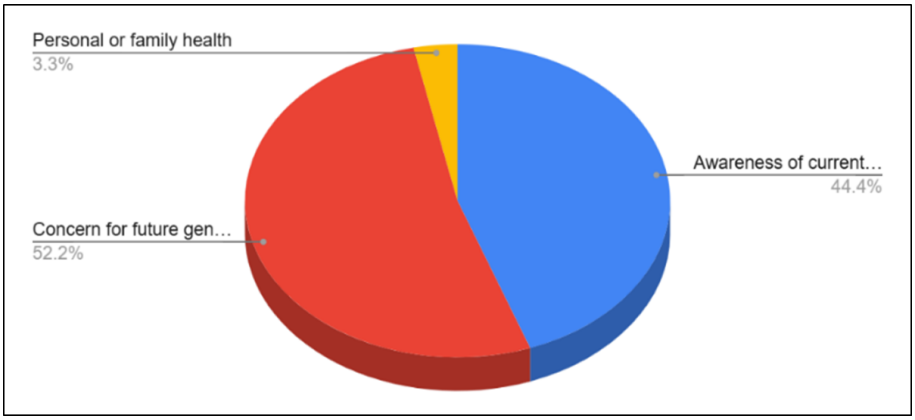
The majority of agreement shows the awareness of the people about the environmental education. This could be due to the change in climate, pollution and sustainability.

Survey Question 11: reflects the Respondents attitude towards environmental protection with the highest responded category as "I believe everyone should actively work to protect the environment" indicates that majority of the people is concern about the environment and they want each and every one should be responsible to protect it. The second highest response indicates that the people acknowledge the importance of protecting environment, but they believe that individual effort cannot be very effective. The least responses shows that very less percentage of people are there not much concerned about the environment.



Graph 11: Represent the data of attitude towards environmental protection.

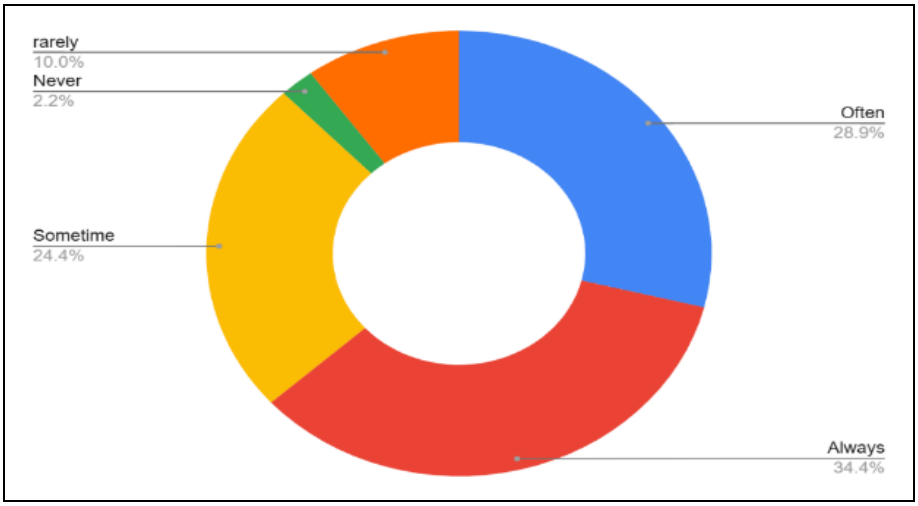
Survey Question 12: motivates the Respondents to learn about environmental issues in which they have to select any one of the option.



Graph 12: Represent the environment issues.

Under the three categories "Concern for future," "Awareness of current issues," and "Personal or family health", majority are (52.2%) concerned for the future generation, which shows that they are driven by long term environmental sustainability and impact of change in climate on upcoming future generation. The second with 44.4% of the individuals motivated by current or ongoing environmental challenges like pollution, deforestation, climate change, etc., and they feel to be informed by present issues, while the least 3.3% indicates that the environmental issues can have direct health impacts.

Survey Question 13: represents the Respondents data of "How often do they engage in the following sustainable practices - Reduce, Reuse, And Recycle.



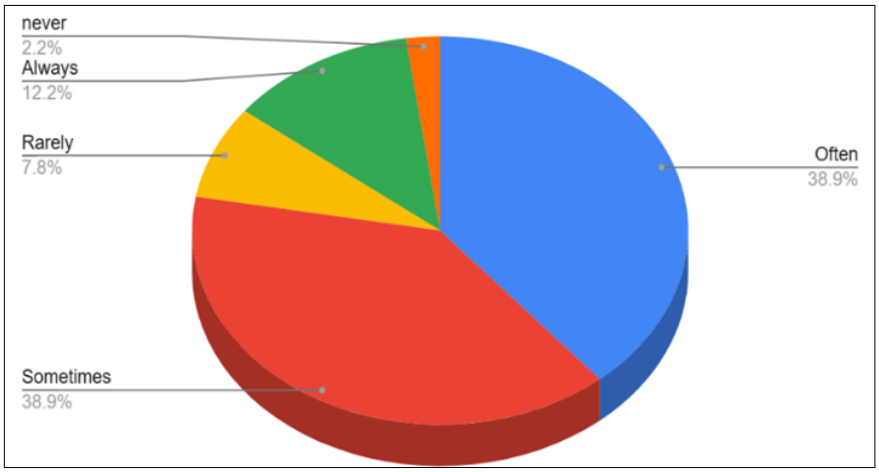
Graph 13: Represent the data of respondent engaged in sustainable practices.

The largest segment with 34.4% responses indicates that they always follow sustainable practices; this shows their responsibility and commitment towards sustainability. The second largest segment with 28.9% responses indicates that they often follow sustainable practices, which shows their high level of awareness and effort. The notable portion with 24.4% responses indicates that they sometimes follow sustainable practices, which shows their inconsistent and occasional effort towards sustainability. The rest 10% responses show rarely and 2.2% responses show that either they rarely engaged or they never engaged. This lower figure area says that where awareness campaigns and initiative could encourage better.

Survey Question 14: indicates the Respondents influential attitude towards friends and family to adopt eco-friendly habits under the three categories "often", "always", "and sometimes".
The highest responses from "often" category show that majority of respondent try to encourage eco-friendly habits across their social circles. The "always" category has significantly lower count which shows that the respondent are consistently advocating for eco-friendly behavior. The least one was "sometimes" indicating smaller portion of respondent occasionally influencing their community to adopt eco-friendly habits.

Survey Question 15: indicates how often the Respondents avoid single use plastics. There were four categories "often", "Always", "Rarely" and "Sometimes".
The highest responses from "often" category which shows that the significant portions of the people are aware of reducing the single use plastic in their daily lifestyle. The "always" and "sometimes" responses are nearly same which indicates that some people are consistently avoiding the use of single use plastic but the rest are doing it sometimes. The least count is "rarely" which indicates that the only small fraction of the people who hardly avoid using single use plastics.

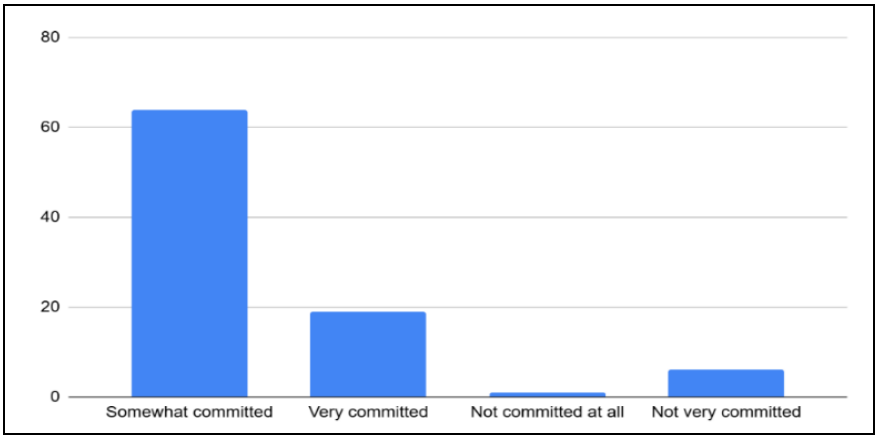
Survey Question 16: Discusses about the content shared through social media platforms on the topic "environment"



Graph 16: Represents content shared through social media platforms

The responses received was divided into five categories "never", "always", "Rarely", "Sometimes", "Often". The two most common responses are "often" and "sometimes" both accounting 38.9% of the responses which shows that the majority of the people are sharing the content on the social media. "Always" contains 12.2% of response which shows that the small but committed group of people shares the content on social media. "Rarely" and "Never" comprises 7.8% and 2.2% of the responses that are very few individuals who share the content on social media.

Survey Question 17: describes the Respondents commitment to a sustainable lifestyle?

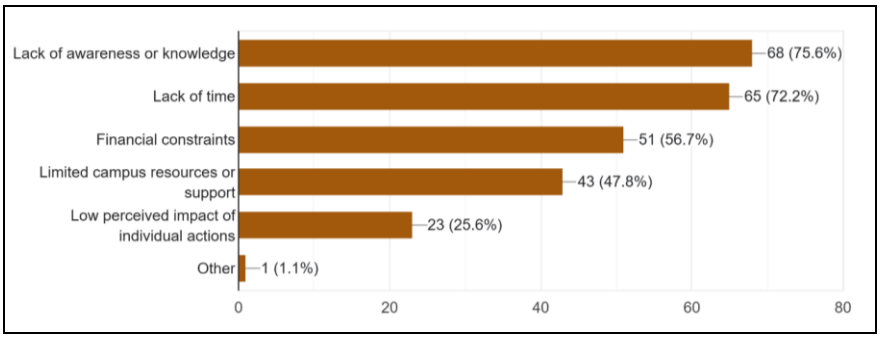


Graph 17: Represents the commitment to a sustainable lifestyle.

The graph represents the data of the question "How would you describe your commitment to a sustainable lifestyle?". The four response categories include "somewhat committed", "very committed", "not committed at all", "not very committed".

The highest response is from the "somewhat committed" category more than 60 respondent which shows that majority of respondent take some measures towards sustainability but may not completely adopted into their daily lifestyle. "Very committed" category is with nearly 20 respondents, this group is smaller but very actively pursuing sustainable lifestyle. "Not committed at all" and "not very committed" are having lower responses which is negligible, this shows that the minimal portion of the respondent disregards sustainability.

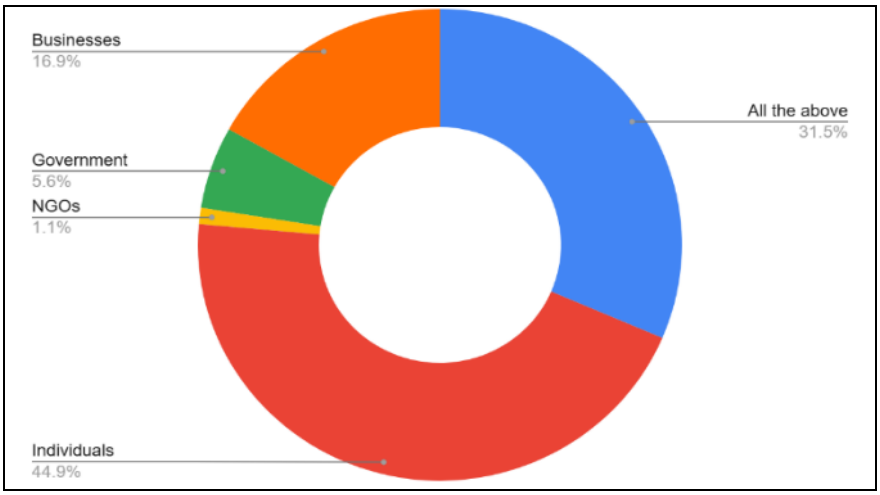
Survey Question 18: What do you think are the biggest obstacles for students' active participation in environmental sustainability? (Select up to three)



Graph 18: Represents the obstacle for students' active participation in environmental sustainability.

The above graph represents the data of biggest obstacles for the students for active participation in environmental sustainability. The most significant obstacles are "lack of awareness of knowledge" with 75.6% responses and "lack of time" with 72.2% responses. "Financial constraints" also play crucial role with 56.7% responses. Similarly, "limited campus resources or support" shows institutional barrier. Another notable factor is "Low perceived impact of individual action" states that students feel their contribution is insignificant.

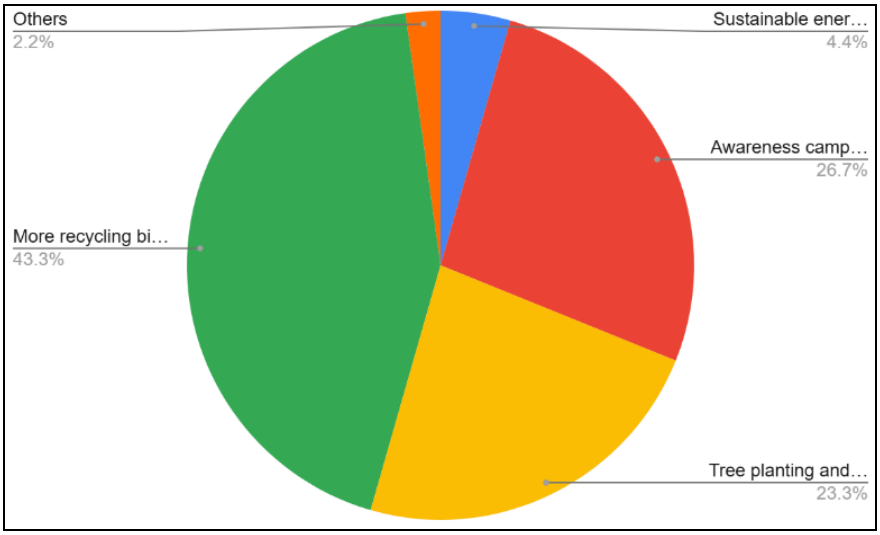
Survey Question 19: represents the data of the question "According to the Respondents, who has the most power for environmental sustainability?" The responses are categorized into five groups: "individuals", "businesses", "government", "NGOs" and "all the above".



Graph 19: Represents the most power for sustainability.

From the above data, the largest segment (44.9%) believes that "individuals" have most power for environmental sustainability. The second largest portion "all the above" (31.5%) believes that all the categories have the responsibility and power for sustainability. "Businesses" with (16.9%) responses shows the responsibility of corporate and sustainable business practices. "Government" with (5.6%) responses shows that sustainability depends on government policies. "NGOs" have only (1.1%) responses which indicate that they don't have much influence.

Survey Question 20: What environmental initiatives would you like to see more of at your college?



Graph 20: Represent the environmental initiatives at the College

The most responded initiative is "more recycle bin" with 43.3% responses indicates that students feel the need of more recycle bin and better waste management at their college. The second most preferred initiative is "awareness campaigns" with 26.7% responses which indicates the importance of educating students on environmental issues. "Tree planting and green spaces" receives 23.3% indicating interest of students in plantation and greenery. "Sustainable energy" receives 4.4% responses shows interest of students towards sustainability. While "others" receives 2.2% responses which is very minimal.

Survey Question 21: This question was also an Open-ended questions in which respondents were requested to answer in 'Yes' or 'No', depending upon their thinking ability to promote environmental awareness among the campus students.

Survey Question 22: represents the data of the question "Do the Respondents plan to pursue a career or engaged in opportunities related to environmental sustainability?"
Majority of the people (71.3%) responded on "maybe, if opportunities arise", this indicates that they are open for that career but if when opportunities will arise. The smaller portion says "yes definitely" with (27.6%) responses which shows the people clear commitment to the environment sustainability. Only (1.1%) of the respondent have said "no, I don't think so", which indicated that they are not clear about the sustainability or they don't want to pursue their career related to this.

Survey Question 23: tells about the sustainability practice by the Respondents that will be followed after education, categorized under the three categories- "likely", "very likely", and "unlikely".
The majority of the response is "likely" which is more than 60% indicating large portion of the students willing to practice sustainability after their education. The second highest response is from "very likely" which is nearly 20% showing strong commitment to practice sustainability after the education. The "unlikely" category is negligible which shows very small portion of people don't want to practice sustainability after their education.

Survey Question 24 & 25: Were the Open-ended questions in which respondents were requested to answer in 'Yes' or 'No', depending upon their perceptions (on technological innovations having an impact on sustainability development or not; and improving environmental education and sustainability initiatives on campus).

Conclusion
The study concluded with an awareness and positive attitude toward environmental education and sustainability among the students at Isabella Thoburn College. Almost maximum students (97.8%) of the respondents show the knowledge of environmental issues such as pollution, climate change, and deforestation, which shows a concern towards Environmental Aspects. However, on the other side, its shows the lack of awareness and concerns towards waste management and global warming which further gives the need for education and continuation of such Awareness Campaigns, Surveys, etc.
The study also concluded with the significant portion of students (65.6%) who were not involved in any environmental awareness programs, indicating a gap between awareness and active participation. This shows the need for more structured initiatives such as workshops, seminars, and community engagement programs to convert knowledge into action.
Most of the students agree (100%) on the importance of environmental education at School/College levels, further identifying its role in encouraging sustainability. The results advice that combination of environmental education into higher education is important for the attitude needed to describe global environmental challenges.
In conclusion, Institutions must continue to give knowledge about environmental education by conducting such Research that bridges the difference between knowledge and action, securing that students are well-prepared and have proper knowledge to contribute towards a sustainable future.

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