



A Study on the Environmental Concern among High School Students in Koch Bihar District, West Bengal

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Abstract: Environmental concern among school students is vital for promoting sustainable development and responsible environmental behaviour. The present study assesses the level of basic environmental concern among high school students in Koch Bihar district, West Bengal. Primary data were collected from 150 students from urban and rural schools using a simple survey method based on three fundamental statements related to environmental awareness, causes of environmental degradation, and intergenerational responsibility. Descriptive statistics such as mean and standard deviation were used to assess overall concern, while an independent sample t-test was applied to compare urban and rural students. The results indicate a high level of basic environmental concern among students, with environmental protection for future generations receiving the highest agreement. Urban students showed slightly higher mean scores than rural students, and the difference was statistically significant. The study highlights the effectiveness of environmental education at the school level and suggests strengthening awareness programmes, especially in rural areas. The findings are useful for educators, curriculum planners, and policymakers.

Keywords: Environmental Concern, Environmental Awareness, Sustainable Development.

1. Introduction

Environmental degradation caused by pollution, climate change, deforestation, and unsustainable resource use has emerged as a major global challenge. Addressing these issues requires not only technological and policy solutions but also a change in public attitudes and values.

Environmental concern refers to the degree of awareness, understanding, and sensitivity individuals have toward environmental problems and their consequences.

High school students form an important section of society, as adolescence is a critical period for the development of attitudes and values. In

India, environmental education has been incorporated into school curricula; however, the level of awareness and concern differs across regions and socio-economic settings. Koch Bihar district of West Bengal, with its mix of urban and rural areas, faces environmental challenges such as flooding, waste management problems, and pressure on agricultural land. Despite this, limited empirical research has focused on the basic level of environmental concern among school students in this district.

The present study attempts to fill this gap by examining the level of basic environmental concern among high school students in Koch Bihar district using simple indicators and basic statistical tools suitable for new researchers.

2. Review of Literature

Environmental concern has been widely studied in relation to attitudes and behavior.

Dunlap and Van Liere (1978) introduced the concept of environmental concern and emphasized its importance in understanding public support for environmental protection. **Kollmuss and Agyeman (2002)** highlighted that environmental knowledge and concern are key predictors of pro-environmental behavior. **Chawla (2007)** found that early exposure to environmental issues influences lifelong environmental responsibility.

In the Indian context, **Singh and Gupta (2015)** reported moderate to high levels of environmental awareness among school students, with urban students generally showing higher concern. **Sharma (2018)** observed that students were highly concerned about environmental protection for future generations. **Das and Bose (2020)** identified significant differences in environmental concern between urban and rural students in eastern India. **Pal**

and Roy (2022) emphasized the role of schools in strengthening environmental attitudes through experiential learning. **UNESCO (2023)** stressed that youth environmental awareness is essential for achieving sustainable development goals.

These studies suggest growing environmental concern among students but highlight the need for region-specific research, particularly in districts like Koch Bihar.

3. Objectives of the Study

1. To assess the level of basic environmental concern among high school students in Koch Bihar district.
2. To compare environmental concern between urban and rural students.
3. To examine students' awareness of environmental problems and responsibility toward future generations.

4. Materials and Methods

Research Design

The study follows a cross-sectional descriptive survey design.

Source of Data

The study is based on primary data collected directly from students using a structured questionnaire.

Sample Size and Sampling Technique

A total of 150 high school students were selected from urban and rural schools of Koch Bihar district. The sample included 75 urban and 75 rural students. Convenience sampling was used due to accessibility and time constraints.

Tool for Data Collection

Environmental concern was measured using three basic statements:

- I am aware of major environmental problems such as pollution and climate change.
- Human activities are the main cause of environmental degradation.
- Environmental protection is essential for future generations.

Responses were recorded on a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Statistical Analysis

Descriptive statistics (mean and standard deviation) were used to assess the level of environmental concern. An independent sample t-test was applied to examine differences between urban and rural students.

5. Results and Discussion

The present study examined the level of environmental concern among high school students in Koch Bihar district using three fundamental indicators of awareness, perception of causation, and intergenerational responsibility. The findings reveal a consistently high level of environmental concern among the respondents, with relatively low variability, suggesting a shared understanding across the sample.

Overall Environmental Concern

The descriptive statistics indicate that students exhibit a strong orientation toward environmental issues. The mean score for overall environmental concern is **4.35**, with a standard deviation of **0.60**, reflecting a high level of agreement with the statements included in the study. This suggests that environmental awareness is not superficial but reasonably well internalized among high school students.

Table 1: Overall Environmental Concern

Statement	Mean	Standard Deviation
Awareness of environmental problems	4.32	0.61
Human activities as cause of degradation	4.25	0.66
Environmental protection for future generations	4.47	0.55
Overall Environmental Concern	4.35	0.60

Among the three indicators, the highest mean score (**4.47**) is observed for the statement “Environmental protection is essential for future generations.” This reflects a strong sense of responsibility toward sustainability and intergenerational equity. It indicates that students are not only aware of environmental problems but also recognize their long-term implications, aligning with the principles of sustainable development.

The mean score for awareness of environmental problems (**4.32**) also remains high, indicating that students are generally familiar with issues such as pollution and climate change. This may be attributed to the inclusion of environmental education in school curricula, as well as increasing exposure through media and public discourse.

Similarly, the perception that human activities are the main cause of environmental degradation records a mean of **4.25**, suggesting that most students correctly identify anthropogenic factors as the primary drivers of environmental problems. This reflects a basic level of environmental literacy and causal

understanding, which is essential for developing responsible behavior.

The relatively low standard deviations across all variables (ranging from 0.55 to 0.66) indicate that responses are clustered closely around the mean. This consistency suggests that environmental concern is widely shared among students, rather than being limited to a small group.

Urban–Rural Comparison

The comparison between urban and rural students reveals a modest difference in environmental concern. Urban students have a slightly higher mean score (4.42) compared to rural students (4.28). Although both groups demonstrate a high level of concern, the marginally higher score among urban students may reflect greater exposure to environmental information through better access to educational resources, digital media, and awareness campaigns.

Table 2: Urban–Rural Comparison

Area	Mean	Standard Deviation
Urban (n = 75)	4.42	0.56
Rural (n = 75)	4.28	0.63

(The calculated t-value is 2.01, which is significant at the 0.05 level. This indicates a statistically significant difference between urban and rural students, with urban students showing slightly higher environmental concern.)

Urban areas often experience visible environmental problems such as air pollution, waste accumulation, and water contamination, which may enhance students' sensitivity toward

these issues. In contrast, rural students, despite being closely connected to natural environments, may have comparatively limited access to formal environmental education resources and awareness programs.

However, the difference between the two groups is not substantial, indicating that environmental concern is relatively uniform across spatial contexts in Koch Bihar district. This suggests that environmental education initiatives have reached both urban and rural areas to a considerable extent.

6. Interpretation and Implications

The findings of the study highlight that high school students possess a foundational level of environmental concern, characterized by awareness, causal understanding, and a sense of responsibility. This is an encouraging outcome, as adolescence is a critical stage for shaping attitudes that influence long-term behavior.

At the same time, it is important to note that high levels of concern do not necessarily translate into environmentally responsible actions. The study focuses on basic attitudinal aspects and does not assess behavioral practices such as waste management, energy conservation, or participation in environmental activities. Therefore, there remains a gap between awareness and action that needs to be addressed through practical and experiential learning.

The slight urban–rural disparity also points to the need for strengthening environmental education in rural schools, particularly through community-based programs, field activities, and locally relevant environmental issues such as flooding, agricultural sustainability, and biodiversity conservation.

Overall, the study demonstrates that high school students in Koch Bihar district exhibit a strong

and consistent level of environmental concern. The findings reinforce the effectiveness of existing educational and awareness frameworks while also highlighting the need to move beyond awareness toward action-oriented environmental education. Strengthening participatory learning approaches and bridging minor spatial gaps can further enhance students' engagement with environmental sustainability.

7. Findings

- High school students show a high level of basic environmental concern.
- Students are most concerned about environmental protection for future generations.
- Urban students demonstrate marginally higher environmental concern than rural students.
- The urban–rural difference in environmental concern is statistically significant.

8. Conclusion

The study concludes that high school students in Koch Bihar district have a strong basic awareness and concern for environmental issues. This positive attitude provides a foundation for promoting sustainable behavior in the future. Strengthening environmental education through practical activities and community involvement, especially in rural schools, can further enhance environmental concern among students.

Limitations of the Study

- The study is based on a small sample size.
- Convenience sampling limits generalization of results.

- Only three statements were used to measure environmental concern.
- Responses were self-reported.

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