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Research Article

Perceptions, Practices and Priorities: Exploring Environmental Concerns and Engagement among Government College Students in Dhaka City

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Abstract

Bangladesh is highly susceptible to environmental problems, and the involvement and concerns of its sizable young population can significantly influence sustainability initiatives and future solutions. This study investigates the most pressing environmental issues, youths' prevalent practices, and perceptions regarding the governmental and personal roles in addressing environmental challenges. In this study, 382 students from three government institutions in Dhaka were surveyed, following a quantitative method with a semi-structured questionnaire. The study locations were chosen purposively, while a stratified random sampling technique ensured proportionate representation across institutions, academic disciplines, and genders. Results illustrate that climate change, deforestation, waste management, air pollution, and water pollution are the major concerns. Students predominantly practice energy and water conservation, food-waste reduction, and basic waste disposal, which can be described as routine, low-effort environmental behaviors. However, participation in higher and collective efforts requiring practices like waste segregation, sustainable consumption, composting, public transport use, and community participation is less prevalent. Results also demonstrate that students strongly believe that their individual actions can significantly shape the environmental landscape, and they are not content with government efforts. Finally, they overwhelmingly support the enforcement of strict environmental policy, mandatory environmental education, and college-led environmental campaign participation. The findings underscore the need for strict and practicable environmental laws, increased government investment in renewable energy, and strengthened environmental education and habitat conservation facilities via well-planned initiatives.

I. INTRODUCTION

These days, environmental issues dominate our everyday conversations. All life on Earth, from the tiniest microbes to the biggest mammals, is intimately connected to its surroundings. Being a component of nature, humans rely on thriving ecosystems to survive (Sultana *et al.,* 2017). Natural resource depletion is getting worse due to global population growth and economic expansion, which raises a number of environmental issues. The broad spectrum of identified environmental challenges are climate change, resource scarcity, multiple forms of pollution, deforestation, biodiversity loss, and the degradation of both terrestrial and marine ecosystems (Thieme *et al.,* 2015). Several studies illustrate that human activity is the primary cause of major environmental challenges (Ahmed *et al.,* 2022b; Fairbrother, 2013; Haq & Ahmed, 2020; Pampel, 2014; Rasool & Ogunbode, 2015).There is significant variation in environmental issues inside and between countries (Saha *et al.,* 2023). According to scholarly research, the effects of environmental deterioration vary significantly amongst nations. Environmental hazards are made worse in Asia's emerging nations by growing urbanization, industry, and transportation (Saha *et al.,* 2025). Bangladesh is one of the most populated developing countries in Asia, which suffers serious environmental problems for its geographic characteristics and dense population. According to United Nations (2024) estimates, Bangladesh's population would increase from over 172.5 million in 2024 to about 218.2 million by 2054. The nation, which is crisscrossed by many rivers, faces sea level rise, harsh weather, saline intrusion, riverbank erosion, drought, and changing climatic patterns

are just a few of the environmental issues (Sarker *et al.,* 2025). According to Paul and Kaimal (2022), there are water shortages in 80% of the world's countries, and over a billion people consume contaminated water. Hence, the nation of Bangladesh is especially at risk from the negative effects of the changing climate since low-lying deltaic areas and wetlands make up around 80% of its territory (Amin, 2021). The Worldwide Index for Climate Risk ranked Bangladesh at the seventh position among the countries most affected by climate risks for experiencing 185 catastrophic weather occurrences between 2000 and 2019, leading to an estimated economic loss of $3.72 billion (Saha *et al.,* 2025; Germanwatch, 2021). Moreover, 90 million individuals (56% of the population) live in climate-vulnerable areas, including 53 million exposed to extremely high levels of risk (UNICEF, 2021).

According to Salick *et al.* (2009) and Turner *et al.* (2009), people are thought to be excellent natural observers of their surroundings. Several studies show that environmental conditions are a major source of concern for people in many developing nations, and the public's awareness of environmental concerns has increased over the last few decades as a result of both expanding environmental challenges and scientific achievements (Dunlap *et al.,* 1993). Previous studies conducted in Bangladesh have examined views of climate change across a variety of groups, including secondary school students (Rahman *et al.,* 2014), indigenous communities (Huda, 2013; Kabir *et al.,* 2016), and household-level respondents (Haq & Ahmed, 2017). As far as we know, a variety of social factors related to Bangladeshi university students have been studied (Ferdows & Ahmed, 2015; Islam *et al.,* 2017). Similar findings were also reported by Kabir *et al*. (2018) and Munshi *et al.* (2018), as well as Shahiduzzaman *et al.* (2017), but not their attitudes about climate change. Furthermore, the influence of socioeconomic elements on farmers' climate response plans and their perceptions regarding environmental degradation was investigated by Anzum *et al.* (2023). Significant sociodemographic differences were found when similar research on climate-related attitudes and adaptation techniques has been done (Rahman *et al.,* 2011; Anik & Khan, 2012).

Perceptions of climate change are influenced by people's attitudes and beliefs and are placed locally (Bunce *et al.,* 2010; Carlton & Jacobson, 2013; Speranza *et al.,* 2010). Research has concentrated more on determining the fundamental causes of ecological problems and examining the variables that affect how people act in the environment in recent decades. Sociodemographic factors have been thoroughly examined as one of the important indicators of environmental concern (Kollmuss & Agyeman, 2002). Existing studies suggest that a range of factors, including gender, educational background, environmental awareness, and engagement in related activities, play a significant role in shaping environmental issues (Ahmed *et al.,* 2021; Ahmed *et al.,* 2022a; Cordano *et al.,* 2010; Levine & Strube, 2012; Ogunbode & Arnold, 2012).Environmental deterioration has coincided with the fast industrialization, high rates of economic expansion, and the development of Asian nations. To guarantee the sustainable growth of every nation on the Asian continent, new policies must be put into place, and the current Sustainable Growth Goals recommended by the UN should be included in national plans for sustainable development (Herath *et al.,* 2021). A key instrument for raising public knowledge and fostering favorable attitudes toward ecological issues is education about the environment. Since they train the next generation of leaders and decision-makers who will be involved in many aspects of society, schools are crucial in educating the public about environmental challenges. To protect the natural world and its riches for next generations, students who get an education that cultivates positive attitudes about the environment will actively engage in their protection (Sultana *et al.,* 2017).

Two modules called "Introduction to Environment: Science" and "Introduction to Environment: Social Science" are used in Bangladesh to teach environmental education to third-grade primary school students (National Curriculum and Textbook Board [NCTB], 2003). Learners with commerce and humanities backgrounds learn topics related to the environment and make up over 75% of all secondary students who are registered in the general studies unit (BANBEIS, 2006). The main goal of environmental education is to develop learners' values and dispositions that support environmental protection and enhancement while also giving them the skills necessary to effectively address and resolve ecological issues. This goes beyond simply imparting environmental knowledge. Reading about the environment, seeing nature on TV, and having conversations about the environment at home all contributed to students' good views about the environment (Eagles & Demare, 1999). Students that participated in nature-related activities demonstrated a greater degree of environmental attitude, according to Tikka *et al.* (2000). Additionally, environmental behavior is greatly influenced by environmental education (Barr, 2007), and those who get it are more likely to take important steps to reduce their own use of certain things, such as meat and water (Kim & Moon, 2012).

People have been inspired to behave in a way that is ecologically responsible by studying environmental literature (Mobley *et al.,* 2010). According to Simpson *et al.* (2021), gender is a crucial component in environmental literacy, but education is the most important element. Research from many settings, such as that conducted in China by Xiao and Hong (2010) and Ogunbode and Arnold (2012), supports the idea that more participation in environmental activities is correlated with higher levels of education and environmental knowledge. Although Cordano *et al.* (2010) show business students in Chile with the United States, Chilean students showed greater levels of environmental altruism and peer pressure to adopt pro-environmental practices.

Additionally, psychological factors like self-identity, perceived consumer effectiveness, and environmental concern have a significant impact on consumers' intentions to make green purchases (Diddimani, 2025). This supports the idea that attitudes toward the environment are influenced by educational background and disciplinary past. As reported by Al-Maliki *et al.,* channels of mass communication exerted a stronger influence on the environmental consciousness of students in Iraq than formal higher education, underscoring the pivotal role played by mechanisms of information dissemination.

Therefore, yet, a thorough investigation of environmental concerns and engagement of college-going youth in Bangladesh remain lacking. Given Bangladesh's susceptibility to environmental problems and climate change, it is essential to comprehend the environmental concerns of its young people. Young individuals in the Global South are especially susceptible to environmental shifts, which will influence their interests and viewpoints as they get older. Youth, who make up a sizable fraction of the population, are essential to the advancement of environmentally friendly development and the accomplishment of the Sustainable Development Goals. Their involvement with environmental concerns has the power to influence sustainability initiatives and future solutions to environmental problems. Additionally, young people frequently have special indigenous and local expertise that is crucial for designing context-specific environmental interventions. In this context, the present study concentrates on students enrolled in public colleges located in Dhaka City, with the primary aim of investigating their environmental concerns, behaviors, and perceptions.

The specific objectives of the study are as follows:

1. To identify the most concerning environmental issues to the Government College students.
2. To examine students' prevalent environmental practices and behavioral patterns.
3. To explore students' perceptions of the government's role and their own capacity to address environmental challenges.
4. To determine students' views on effective strategies for solving environmental problems.

II. METHODOLOGY

This research employed a quantitative research method with a descriptive survey design, as it allowed the investigators to collect and convert data into numerical form to make statistical calculations and draw conclusions. A total of 382 samples were proportionately selected from diverse institutions, academic disciplines (science, business studies, arts, and social sciences), and genders using a stratified random sampling technique (Table I).Government Titumir College, Government Bangla College, and Kabi Nazrul Government College were selected purposively as the study location, considering their co-educational environment, offering degrees in a variety of academic disciplines such as science, business studies, arts, and social sciences. Furthermore, compared to other institutions, the large student body ensures a rational participation of both genders, and the crucial geographical location enhances the possibility of selecting it as the study location.

TABLE I RESPONDENT NUMBER BASED ON INSTITUTION, FACULTY AND GENDER

Institution	Faculty	Female	Male	Total
Government Titumir College	Science	24	28	52
Government Titumir College	Business studies	22	25	47
Government Titumir College	Arts and Social Science	38	42	80
Government Bangla College	Science	11	12	23
Government Bangla College	Business studies	11	13	24
Government Bangla College	Arts and Social Science	14	16	30
Kabi Nazrul Government College	Science	15	17	32
Kabi Nazrul Government College	Business studies	16	18	34
Kabi Nazrul Government College	Arts and Social Science	29	31	60
Total	Total	180	202	382

The information was gathered via a semi-structured questionnaire, and both English and Bengali versions were developed to ensure clarity and accessibility for all respondents. Data were collected physically by a data collection team of 8 members, and, prior to the field work, they were provided hands-on training and the necessary information regarding the project. The corresponding author led the team and was responsible for maintaining the quality of the data. Thirty students participated in a preliminary study before the main survey to evaluate the instrument's clarity and reliability. Based on their input, the instrument was then improved. After the survey was finished, the corresponding author thoroughly checked and coded the data into numerical form for statistical analysis.

To find important trends in the dataset, descriptive statistics, cross-tabulations, and chi-square assessments were used in the analysis of the data using SPSS. All participants were

approached for their consent and given information about the study before it began. Additionally, the anonymity and confidentiality of the data were strictly maintained by erasing personal data from the data set. Although the study includes three colleges, it has certain drawbacks that may make it inapplicable to all public college students in Bangladesh, including the potential influence of socially influenced response distortion, as well as the constraints associated with a single-time-point study design.

III. RESULTS

A. Demographic Traits of the Respondents

TABLE II DEMOGRAPHIC TRAITS OF THE RESPONDENTS

Demographic Characteristics	**Frequency**	**Marginal percentage (%)**
Respondent's Institution	Respondent's Institution	Respondent's Institution
Titumir College	179	46.9
Bangla College	77	20.1
Kabi Nazrul College	126	33.0
Respondent's Age	Respondent's Age	Respondent's Age
<20	77	20.2
20-22	190	49.7
>22	115	30.1
Respondent's Gender	Respondent's Gender	Respondent's Gender
Female	180	47.1
Male	202	52.9
Respondent's Study Year	Respondent's Study Year	Respondent's Study Year
1st Year	93	24.3
2nd Year	120	31.4
3rd Year	91	23.8
4th Year	71	18.6
Masters	7	1.8
Respondent's Study Field	Respondent's Study Field	Respondent's Study Field
Science	107	28.0
Business studies	105	27.5
Arts and Social Science	170	44.5
Respondent's Residential Status	Respondent's Residential Status	Respondent's Residential Status
Hostel	59	15.4
Mass	107	28.0
With Family	214	56.0
Relatives	2	.5
Respondent's Origin	Respondent's Origin	Respondent's Origin
Urban	144	37.7
Semi Urban	44	11.5
Rural	194	50.8
Respondent's Family Income	Respondent's Family Income	Respondent's Family Income
<20000	128	33.5
20000-40000	137	35.9
40000-60000	89	23.3
>60000	28	7.3

Descriptive statistics analysis in Table II highlights the socio-demographic profile and economic standing of the participants. Analysis illustrates that more than two-fifths (46.9%) of the respondents are currently enrolled at Govt.

Titumir College, almost one-third (33.0%) are at Kabi Nazrul College, and the least (20.1%) are at Bangla College. In terms of their age, almost half of the total population (49.7%) falls in the 20-22 age category, while 30.1% are over 22 years old and 20.2% are under 20 years old, which is a clear indication of the early twenties participants. In addition, male respondents were slightly higher (52.9%) than the female respondents (47.1%). Regarding their academic year, nearly one third (31.4%) are in the 2nd year of their undergrad study, followed by 1st year (24.3%), 3rd year (23.8%), 4th year (18.6%), and master's level (1.8%). When participants were grouped by field of study, the Arts and Social Science stream had the highest percentage (44.5%), followed by Science (28.0%) and Business Studies (27.5%), which means the maximum number of students are doing their undergrad in the Arts and Social Science faculty. More than half of them (56.0%) live with their family, 28% live in mass housing, followed by 15.4% in college hostels, and 0.6% live in relatives' houses. Whereas 50.8% belong to rural areas, 37.7% and 11.5% are from urban and semi-urban areas, respectively. The monthly income of the respondent family revealed that only 7.3% had a family income over 60,000 BDT, whereas 35.9% had a family income between 20,000 and 40,000 BDT, 33.5% had an income below 20,000 BDT, and 23.3% had an income between 40,000 and 60,000 BDT.

B. Most Concerning Environmental Problems

TABLE III MOST CONCERNING ENVIRONMENTAL PROBLEMS TO THE RESPONDENTS

Most Concerning Environmental Problems to the Respondent	N	Percent
Climate Change	226	24.3%
Air Pollution	163	17.5%
Water Pollution	117	12.6%
Deforestation	175	18.8%
Waste Management	166	17.8%
Loss of Biodiversity	77	8.3%
CFC Gas Increase	1	0.1%
Noise Pollution	2	0.2%
Floods	1	0.1%
Plastics	1	0.1%
Sound pollution	2	0.2%
Total	931	100.0%

As shown in Table III, the findings revealed that 24.3% of respondents marked climate change as the most concerning environmental issue, and deforestation is the second biggest issue, as concerned by 18.8% of the respondents. Following climate change and deforestation, waste management, air pollution, and water pollution are also significant issues pointed out by 17.8%, 17.5%, and 12.6% of people, respectively. While issues like loss of biodiversity (8.3%) demonstrate a moderate concern, noise pollution (0.2%), sound pollution (0.2%), CFC gas increase (0.1%), floods (0.1%), and plastics (0.1%) have minimal concern. Finally, the chi-square test demonstrates no significant relation between the most concerning environmental issues and respondents' demographic traits.

C. Students' Prevalent Environmental Practices and Behavioral Patterns

As shown in Table IV, Likert scale analysis revealed the students' prevalent environmental practices and behavioral patterns in terms of environmental issues. The data reveal that 75.4% of respondents always ensure that electrical equipment and lights are switched off when not in operation, 74.3% always turn off the tap while brushing teeth, 72.5% always make an effort to reduce food waste at home, and 67.0% always use a dustbin. Following this, 48.4% take shorter showers and fix leaks; 39.3% always segregate their waste at home, where 24.9% often do so; and 39.5% often use eco-friendly products, with 27.2% using them sometimes. 40.3% always use a bicycle or walk instead of driving for short distances, and 32.5% often do so.

In the meantime, 34.8% often participate in or support initiatives to plant trees; 33.5% often avoid using single-use plastics whenever possible; 31.9% often support and buy from businesses that practice sustainability; 34.6% often purchase locally produced goods; 36.9% often minimize paper use by opting for digital alternatives; and 32.5% often prefer buying second-hand items over new ones. In terms of encouraging friends and family to adopt sustainable practices and recycle and manage waste properly, more than 60% always and often do so.

TABLE IV STUDENTS' PREVALENT ENVIRONMENTAL PRACTICES AND BEHAVIORAL PATTERNS

Variable Name	Always	Often	Sometimes	Rarely	Never
Do you practice waste segregation at home (separating recyclables from non-recyclables)?	39.3%	24.9%	16.8%	12.6%	6.5%
How often do you use eco-friendly products (e.g., reusable bags, biodegradable items)?	14.7%	39.5%	27.2%	16.0%	2.6%
Do you use public transportation or carpool to reduce your carbon footprint?	28.3%	22.8%	16.5%	14.7%	17.8%
Do you practice water conservation (e.g., taking shorter showers, fixing leaks)?	48.4%	28.8%	13.4%	7.6%	1.8%
How often do you turn off lights and electrical appliances when not in use?	75.4%	14.4%	4.7%	4.5%	1.0%
How often do you participate in or support initiatives to plant trees?	17.3%	34.8%	22.5%	18.1%	7.3%
Do you avoid using single-use plastics whenever possible?	14.9%	33.5%	28.3%	19.9%	3.4%
Do you support and buy from businesses that practice sustainability?	23.8%	31.9%	27.0%	13.4%	3.9%
Do you compost organic waste at home?	13.6%	17.3%	16.5%	21.5%	31.2%
Are you used to writing on the class bench and the wall?	6.5%	9.9%	8.4%	21.5%	53.7%
How well do you use the dustbin?	67.0%	25.9%	4.5%	2.4%	0.3%
Do you use a bicycle or walk instead of driving for short distances?	40.3%	32.5%	12.0%	6.0%	9.2%
Do you purchase locally produced goods to reduce your carbon footprint?	10.5%	34.6%	30.1%	17.3%	7.6%
Do you minimize paper use by opting for digital alternatives (e.g., e-bills, e-books)?	18.1%	36.9%	23.0%	14.9%	7.1%
Do you make an effort to reduce food waste at home?	72.5%	18.8%	5.2%	2.9%	0.5%
Do you prefer buying second-hand items over new ones to promote reuse?	19.9%	32.5%	25.9%	13.1%	8.6%
Do you turn off the tap while brushing your teeth to save water?	74.3%	14.4%	5.0%	4.2%	2.1%
Do you encourage your friends and family to adopt sustainable practices?	33.2%	35.1%	19.9%	9.4%	2.4%
Do you encourage others to recycle and manage waste properly?	38.7%	35.1%	17.8%	6.3%	2.1%
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Do you believe that your individual actions can make a significant impact on the environment?	23.2%	54.2%	18.9%	2.9%	0.8%

On the other hand, 17.8% never use public transport and 31.2% never compost organic waste at home. Notably, 65.4% of respondents do not participate in local community gardens or farming initiatives.As shown in Table V, another interesting fact is that more than 75% of students believe their individual actions can significantly impact the environment, although 18.9% remain neutral, which is a clear indication of their knowledge regarding their impact on the environment. Moreover, 59.9% completely disagree with the statement that the government is doing enough to address environmental issues. However, overwhelmingly 97.9% of students support the strict and proper execution of environmental laws, and 95.5% of students advocate that environmental education should be mandatorily included in college curricula. Furthermore, 74.1% of students show their willingness to participate in college-organized campaigns for enhancing environmental awareness.

TABLE V STUDENTS' PERCEPTIONS OF ENVIRONMENTAL RESPONSIBILITY AND PARTICIPATION

Variable	No	Yes	Not sure
Do you think the government is doing enough to address environmental issues?	59.9%	23.6%	16.5%
Would you support the better implementation of environmental rules and regulations?	1.3%	97.9%	0.8%
Do you believe that education on environmental issues should be made a mandatory part of the college curriculum?	2.1%	95.5%	2.4%
Would you be willing to participate in college-organized environmental awareness campaigns?	7.9%	74.1%	18.1%
Do you participate in local community gardens or 1 farming initiatives?	65.4	34.6	None
Do you use public libraries or digital media to reduce personal book purchases?	35.3	64.7	None

D. Students' Thoughts on Solving Environmental Problems

TABLE VI POLICIES OR ACTIONS THAT THE GOVERNMENT SHOULD IMPLEMENT

Policies or actions that the government should implement	N	Percent
Stricter pollution control regulations	243	25.1%
Increased funding for renewable energy projects	210	21.7%
Expansion of public transportation	94	9.7%
Enhanced recycling programs	122	12.6%
Conservation of natural habitats	147	15.2%
Environmental education initiatives	151	15.6%
Total	967	100.0%

As shown in Tables VI, VII, and VIII findings regarding solving environmental problems, 21.7% emphasize increasing government funding for renewable energy projects, 25.1% want more strict and usable laws for controlling environmental pollution, where more than 15% highlights on prioritizing environmental education initiatives and natural habitats conservation. While 12.6% prioritize the enhancement of recycling programs, and 9.7% said to expand the public transportation system. Moreover, respondents highlight that public colleges can contribute to diminishing the environmental degradation by taking some initiatives such as organizing regular environmental awareness events (26.0%), arranging a campus-wide recycling program (24.4%), building sustainable infrastructure(19.0%), and collaborating with environmental organizations(18.4%). Furthermore, result demonstrates that organizing more events for hands-on training for students (31.7%), providing incentives for participating in environmentally friendly activities (29.8%), and enhancing sustainable resources on campus can significantly enhance students' participation towards ensuring a sustainable environment.

TABLE VII PUBLIC COLLEGE CONTRIBUTIONS TO SOLVING ENVIRONMENTAL PROBLEMS

Public college contribution way to solve environmental problems	N	Percent
Implementing a campus-wide recycling program	223	24.4%
Organizing regular environmental awareness events	238	26.0%
Introducing sustainability practices on campus (e.g., energy-efficient buildings)	174	19.0%
Collaborating with environmental organizations	168	18.4%
Including environmental topics in the curriculum	111	12.1%
Total	914	100.0%

TABLE VIII STUDENTS' PREFERENCE FOR SOLUTIONS

Students thinking to solving Environmental problems	N	Percent
Organize more hands-on activities for students to participate in	236	31.7%
Partner with local communities for joint environmental projects	154	20.7%
Provide incentives for students to engage in environmentally friendly practices	222	29.8%
Increase availability of resources on campus to support sustainable practices	128	17.2%
Government Action	5	0.7%
Total	745	100.0%

IV. DISCUSSION

The results highlight the environmental consciousness, habits, and perceptions of Bangladeshi public college students, identify the critical gap, and propose a solution by examining the insights through a critical lens. As Bangladesh is currently at a pivotal developmental point, environmental challenges ranging from rising sea levels to rapid urbanization are being intensely grappled with.

A. Environmental Concerns: Awareness Amid Unequal Exposure

The recognition of the most urgent environmental problems among students, which are handling waste, forest destruction, and the changing climate, underscores an emerging consciousness aligned with the environmental crises Bangladesh is currently facing. For a long time, Bangladesh has been counted as a frontline state for facing the global climate crisis and is highly vulnerable to climate-induced natural adversities involving severe cyclones, the

deterioration of riverbanks, and increasing salinization. It is therefore promising that young people are realizing how serious forest destruction and changes in the climate are, especially those who are from outside elite urban institutions.

These findings echo earlier research by Majumder (2017), which found that Bangladeshi university students identified global warming and depletion of natural resources as the two of the world's most significant concerns regarding the environment, but in Bangladesh, lead pollution in groundwater and depletion of natural resources have been identified as major environmental problems. Similarly, Uddin *et al.* (2018) reported that global warming is the major environmental issue globally, and natural disaster is the most serious environmental problem in Bangladesh, which highlights a recurring theme of worry that is present across many educational settings and geographical areas.

However, a deeper investigation demonstrates that emissions of chlorofluorocarbons (CFCs), plastic debris, and high levels of ambient noise remain the least concerning ecological issues, which is worrying for their slow impact, although they significantly threaten public health and ecological stability. Therefore, the lower priority on such critical issues reflects formal environmental education and public discourse gaps, whereas sensational climate events are often focused on media and curricula rather than structural environmental degradation. Additionally, students may lose awareness of the cumulative impact caused by air pollutants and plastic pollution because these issues are frequently overlooked in crowded metropolitan settings.Furthermore, the insignificant relation of environmental concerns and demographic traits indicates that environmental awareness has become a general concern in Bangladesh, which is widespread across gender, geography, and academic disciplines. Therefore, the democratization of this concern, though encouraging, still requires a more nuanced understanding and a broader range of environmental education.

B. Environmental Practices and Behavior: Enthusiasm Meets Structural Barriers

A notable finding was that resource conservation behaviors such as turning off lights, conserving water, and reducing food waste are highly practiced by students, which may not only stem from environmental consciousness but also reflect the socio-economic realities of the country. In Bangladesh, many students of the public college belong to the middle and lower classes, particularly from lower-income households, where conservation in using electricity and water is often practiced as a necessity rather than an ideology. Thus, this conserving behavior may not always be consciously motivated by sustainability principles, although it is environmentally friendly. This is consistent with findings by Alam & Zakaria (2021) in Sylhet City that demonstrate that environmental awareness is positively influenced by higher income and education levels, suggesting that conservation behavior practiced by lower-income groups may be done for economic necessity rather than environmental concern. Additionally, socio-economic conditions, such as inadequate facilities and a lack of high-standard educational opportunities, significantly hinder the promotion of sustainable practices, which emphasizes that targeted environmental education can foster genuine environmental consciousness in lower-income communities (Iqbal & bin Ahsan, 2024).

Additionally, behaviors such as waste segregation, composting, and public transport use, which are mostly complex and system-dependent, had lower participation. This identifies a disconnection between environmental intention and infrastructure. Waste segregation, for instance, is rarely practiced by Bangladeshi municipalities, and there is a lack of color-coded bins or composting facilities on college campuses. Furthermore, although public transport is widely available, it is often overcrowded, unreliable, or unsafe for students, particularly for female students. A significant portion of students never compost their waste, and their use of public transport is a reflection of systematic barriers rather than apathy.

It's also notable that student participation in community gardening or farming initiatives is the least. While this may seem to be the reflection of their disinterest, it likely results from the support shortage of the institution or the unavailability of spaces in urbanized environments. Similarly, inconsistent access to eco-friendly products and digital alternatives can limit their consistent behavioral adoption, though students support eco-friendly products and digital alternatives. This complexity underscores that students' behaviors towards the environment are not simply a matter of will but a complex functional combination of infrastructure, institutional leadership, and socio-economic context, where educational institutions are responsible for bridging this gap through campus-wide initiatives regarding sustainability.

C. Perceptions of Responsibility: Support for Change, Distrust in Governance

Regarding personal environmental responsibility, most students, more than 75%, believe that their actions can significantly impact the environment, which displays a strong sense of personal responsibility. This belief is vital for grassroots mobilization and indicates that environmentalism is not perceived as a distant or elite concern. However, such optimism coexists with deep skepticism about governmental commitment, where nearly 60% of students think that the government is doing inadequate work to tackle environmental degradation.This distrust is a consistent policy enactment, which is often undermined by weak enforcement and corruption. Despite the establishment of standardized processes by the state, such as the Bangladesh Climate Change Strategy and Action Plan (BCCSAP), these plans are perceived as theoretical exercises disconnected from real-life impact by many

citizens, particularly by youth. On top of that, an overwhelming vote for more strict, implacable environmental laws reflects a call for wide governmental accountability and governance reform. Moreover, almost everyone thinks that environmental education should be mandatorily taught in school and college, which is a reflection of long-term structural solutions. This finding significantly demonstrates the shortage of environmental content in non-science disciplines from which many of the students belong. Hence, college curricula must include interdisciplinary environmental topics, which could enhance the critical engagement of the student with the environment and help to develop a more environmentally developed student body.

D. Strategies for Solutions: Institutional and Youth-Led Possibilities

Therefore, students proposed a range of practical solutions for both the policy level and the institutional level to address environmental problems. They suggest introducing more strict and usable rules regarding environmental pollution, enhancing funding for the renewable energy sector, and developing more environmental education initiatives for solving the environmental issues, which mirrors the global sustainability priorities and students' compatibility with both local and global discourse. These results are consistent with Mbah *et al*. (2022), who emphasize the significance of community-based efforts, regulatory frameworks, and education as critical strategies for tackling climate change and resilience-building within South Asia. The current study corroborates and extends this perspective, revealing that students, even those who belong to under-resourced institutions, share the same priority in terms of their more privileged counterparts.Following the government priorities, public colleges can introduce and implement campus-wide recycling programs, give importance to building sustainable infrastructure, and host regular awareness events, which are particularly important for conserving the campus environment, which is a reflection of a proactive attitude. These recommendations also indicate students' desire for more visible and tangible engagement, which is significantly shaping the environmental leadership.

Finally, hands-on training opportunities and incentive-based participation regarding environmental conservation can be organized, which is suggested by a significant number of students. This echoes the need for experiential learning approaches that consist of hands-on activity and real-world problem-solving. The inadequacy of this component in the current education system of Bangladesh generally makes learning abstract and disconnected from lived reality. Therefore, incorporating more practical opportunities such as eco-clubs, sustainability internships, and peer-led awareness campaigns could significantly enhance students' participation and impact.

V. CONCLUSION

To conclude, analyzing through a critical lens, this study points out a nuanced picture of the environmental consciousness of public college students in Dhaka City. Students are conscious about major environmental threats, understand their own behaviors towards sustainability, and critique the government's actions. However, structural, educational, and infrastructural limitations often interrupt their efforts. Hence, a coordinated effort involving policy reform, institutional leadership, and education that empowers action is needed to fully harness the potential of these young environmental stewards. Youth engagement can either be a missed opportunity or a transformative force in the current critical intersectional stage of Bangladesh. The diverse student bodies and strategic urban locations can transform public colleges into incubators for sustainable change if only they get adequate tools, resources, and autonomy to do so.

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