PERCEPTION OF
FIRST-TIME VOTERS ON CLIMATE EDUCATION IN INDIA

asar

CMSR Consultants
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Perception of First-Time Voters on **Climate Education in India**

Acronyms

CO2	Carbon Dioxide
EV	Electric Vehicle
EVS	Environmental Science
GEP	Global Education Monitoring
GEP	Global Education Monitoring
IPCC	Intergovernmental Panel on Climate Change
MNC	Multi National Company
NEP	National Education Policy
NPTEL	National Program on Technology Enhanced Learning
N2O	Nitrous Oxide
SDG	Sustainable Development Goal
UNEP	United Nations Environment Programme
UNFCCC	UN Framework Convention on Climate Change
UNSECO	United Nations Educational, Scientific and Cultural Organization

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Executive Summary

A. Context, Objectives & Methodology

This executive summary presents findings from a comprehensive study aimed at understanding the perceptions of first-time voters regarding climate education. Climate change is recognized as a global challenge with profound implications for ecosystems, economies, and societies worldwide, driven primarily by human activities such as the combustion of fossil fuels and deforestation. In India, with its vast population and diverse socio-economic landscape, climate change education is crucial for fostering sustainable development. Understanding the perceptions of first-time voters on climate education is critical for shaping effective policies and initiatives to address climate change in India.

The current study delves into the perception of climate education among first-time voters in selected cities. The research aims to assess the awareness, importance, satisfaction levels, and expectations regarding climate education among first-time voters through a survey conducted across seven cities in four states.

The study employed a mixed-method approach, combining quantitative surveys and qualitative focus group discussions. A total of 1600 first-time voters from seven cities across four states in India participated in the survey, ensuring representation across diverse demographics such as gender, age, education, and income levels. Data collection procedures adhered to ethical standards, ensuring voluntary participation, informed consent, confidentiality, and data protection.

B. Demographic Profile

The study maintained a relatively equitable gender distribution across locations, with variations in age, educational status, and household income. Respondents were predominantly aged 18 to 22 years old, with a mix of educational backgrounds ranging from Intermediate/Sr. Secondary education to Bachelor's Degree. Household income profiles varied across states, with a majority falling within middle-income brackets.

C. Key Findings

Quality of Environmental Education in Schools/Colleges: Responses varied across different regions. In Delhi, the prevailing sentiment among respondents (58%) was that the quality of environmental education is 'average', with 25% considering it 'poor'. Conversely, in Maharashtra and West Bengal, a majority of respondents (47% and 58% respectively) rated environmental education as 'good'. In Tamil Nadu, 39% of respondents perceived their environmental education positively as 'good', while another 25% described it as 'average'.

Coverage of Climate Change Topics: Across locations, topics like global warming, greenhouse gas emissions, renewable energy, and biodiversity loss were commonly addressed in school curriculum. However, majority of the participants expressed dissatisfaction with the lack of depth and solution-oriented approach. Despite some detailed discussions on specific aspects like greenhouse gases and mitigation strategies, there was a common sentiment of inadequate coverage or in-depth discussions about climate change and no practical solutions to address environmental challenges. Participants

also emphasized the need for practical solutions in climate education, and topics like sustainable development goals and waste segregation to be integrated into the curriculum.

Participants called for climate education to be free from political bias and made mandatory, suggesting adjustments to the credit scoring system to reflect its importance. There was a notable lack of awareness about climate change causes and consequences, highlighting the need for more knowledge dissemination. Need for comprehensive and in-depth coverage on topics like global warming, medical waste management, acid rain and ozone depletion were emphasized. There were suggestions for a deeper exploration and analysis of the hazardous nature of industrial pollution and including detailed information on how climate change can be mitigated and reversed within the curriculum. Educating students about various mitigation measures such as reducing greenhouse gas emissions, transitioning to renewable energy sources, implementing sustainable land-use practices, and enhancing resilience to climate impacts.

Adequacy of Information: While a significant portion of respondents felt adequately informed about the causes and consequences of climate change through their education, qualitative findings revealed that many felt the knowledge imparted was insufficient.

New Learning About Climate Change: In Maharashtra, West Bengal, and Tamil Nadu, a significant majority of respondents, comprising 93%, 89%, and 82% respectively, reported learning new and significant aspects of climate change in school. However, in Delhi, only 23% of respondents stated the same. During the FGDs, participants mentioned learning about different environments, biodiversity, along with concepts like the greenhouse effect and endangered species. There were learnings on the impacts of human activities on nature, such as deforestation, factory emissions and excessive farming using chemical fertilizers and pesticides leading to rising temperatures and the importance of conserving resources for future generations. Across the locations participants stated being educated on the importance of the three Rs: Reduce, Reuse, and Recycle and promoting sustainable practices for environmental conservation.

Confidence in Understanding Climate Change: A majority of respondents from Delhi (67%), Tamil Nadu (61%), West Bengal (57%), and Maharashtra (44%) expressed some confidence in their understanding of climate change. However, there is room for improvement, indicating a need for more education and awareness efforts. Participants from Coimbatore observed that climate education tends to emphasize facts over critical thinking, leading to under confidence in understanding climate change and mitigation strategies. They also highlighted the superficial inclusion of Environmental Studies in college, rather than genuine environmental awareness. Similarly, participants from Kolkata mentioned being introduced to basic concepts like Global Warming and Pollution but lacked comprehensive understanding.

Integration of Climate Change Knowledge into Daily Life: Around 63% to 95% of respondents adopted climate knowledge into daily lives. Higher education attainment correlated with increased adoption. Qualitative discussions showed various adoption practices, including reliance on public transport and college initiatives like banning single-use plastic, embracing solar energy, avoided wasting water, segregating the waste at household level using reusable tote bags, carrying reusable water bottles to

minimize plastic waste, switching to bamboo toothbrushes. Participants also engaged in tree planting and plastic reduction.

Emotional Responses to Climate Change Education: Feelings of hopelessness, fear, and anxiety were prevalent among respondents, indicating the need for education that not only imparts knowledge but also addresses emotional responses and fosters resilience.

Significance of Incorporating Climate Education into Learning Systems: Majority of the respondents from West Bengal (89%) and Delhi – (86%) and more than half of the sample respondents from Tamil Nadu and West Bengal considered it extremely important or very important to incorporate climate awareness into climate education. In focus groups, there was emphasis on early exposure to climate education, as it will increase environmental awareness and empowering future decision-makers. Participants also pointed out that climate education will create sensitivity and awareness in students, potentially reducing activities contributing to climate change and adopting sustainable practices.

Key Benefits of Climate Education in the Curriculum: Respondents highlighted several benefits of integrating climate education into the curriculum, including empowering students to understand and address climate challenges, promoting sustainable practices, fostering global citizenship, and shaping environmentally conscious individuals capable of making informed decisions and contributing to a healthier future.

Contextualizing the Climate Crisis: Respondents expressed varying levels of concern regarding different crises across regions. While economic and public health crises received widespread attention, the climate crisis garnered significant recognition, particularly in West Bengal and Delhi. Views on responsibility for the climate crisis differed, with some attributing it to individual citizens, governments, industries, or a combination thereof.

Effective Strategies to Tackle the Climate Crisis by Government: Respondents suggested various strategies for the government to effectively tackle the climate crisis. The top strategy mentioned by respondents of West Bengal (87%), and Delhi (74%), were enhancing sustainable transportation infrastructure. Likewise, 80% and 72% respondents from West Bengal and Delhi respectively suggested implementing stricter regulations on carbon emissions to tackle climate crisis. Maximum respondents from Tamil Nadu (55%) and Maharashtra (52%) believed that an effective strategy would be to conduct climate education and awareness programs. Prioritizing the development and utilization of renewable energy sources was suggested by 80% respondents from West Bengal followed by 70%, 50% and 45% respondents from Delhi, Tamil Nadu and Maharashtra respectively.

The Importance of Tackling the Climate Crisis as a Shared Global Responsibility: A consensus emerged among respondents regarding the necessity of addressing the climate crisis as a shared global responsibility, with the majority expressing agreement that collaborative efforts are essential for finding solutions. In particular, 95% of respondents from Delhi, 94% from West Bengal, 72% from Tamil Nadu, and 71% from Maharashtra either strongly agreed or agreed with the notion that finding solutions to the climate crisis should be a collective effort on a global scale.

Expectations from Political Candidates and Parties: While a notable majority of respondents from Maharashtra expressed confidence in the government's efforts to tackle climate change (83%), a considerable proportion from other states, such as West Bengal (66%), Tamil Nadu (62%), and Delhi

(60%), shared similar sentiments. Nevertheless, qualitative discussions unveil a more critical outlook, highlighting perceived governmental deficiencies and the pressing demand for more decisive action. These qualitative insights highlighted a range of issues, covering political parties' lack of accountability, the need for enhanced collaboration, and the urgency for more effective measures to combat climate change. From these discussions, a multitude of recommendations surfaced, spanning diverse strategies aimed at mitigating the impacts of climate change and fostering sustainable practices.

Engaging Students in Climate-related Initiatives and Awareness Programs: Suggestions for fostering environmental stewardship among youth included integrating climate initiatives with existing campaigns, promoting practical engagement through fieldwork and internships, mandating community service, organizing workshops and meetings, facilitating hands-on activities like plantation drives, and incentivizing student participation in environmental initiatives.

Political and Personal Power Sentiments: Respondents from different regions were asked to evaluate statements regarding political and personal power. In West Bengal, Tamil Nadu, and Maharashtra, a significant portion of respondents felt they could make themselves heard by decision-makers. However, in Delhi, the majority disagreed with this sentiment, indicating a lack of confidence in influencing decision-makers. Similarly, while a notable percentage of respondents in West Bengal and Tamil Nadu believed their voices were heard in their communities, a majority in Delhi disagreed. Despite these disparities, respondents across all regions generally believed in their power to effect change in matters important to them and expressed confidence in their ability to control their career and professional development. Additionally, a considerable proportion of respondents from West Bengal and Maharashtra believed they could influence decisions impacting their communities, while fewer respondents from Tamil Nadu and Delhi shared this sentiment.

Political Engagement, Optimism, and Nostalgia: The survey also examined sentiments regarding political engagement, optimism, and nostalgia. While a significant portion of respondents from West Bengal and Maharashtra felt they had disengaged from the present political system, half of those from Tamil Nadu and less from Delhi disagreed with this notion. Additionally, a substantial majority from West Bengal, Delhi, and Maharashtra believed the past was better than the present, contrasting sharply with respondents from Tamil Nadu. Despite this, respondents from West Bengal, Delhi, and Maharashtra expressed optimism about solving societal crises, while a lower percentage in Tamil Nadu shared this view. Furthermore, respondents from West Bengal, Delhi, and Maharashtra were confident that their children would have a better life, a sentiment not as widely shared in Tamil Nadu. Finally, a majority from West Bengal, Delhi, and Maharashtra wished for simpler times, while a smaller proportion from Tamil Nadu endorsed this sentiment.

D. Conclusions

The findings of study offered valuable insights into the perceptions of first-time voters regarding climate education in India. It is evident that while there is a recognition of the importance of climate education among respondents, there are notable disparities in the quality and depth of education across different regions. Key areas for improvement include enhancing the depth of coverage, integrating practical solutions, and ensuring cultural relevance in curriculum content. Moreover, there was a strong consensus among respondents regarding the necessity of incorporating climate

education into formal learning systems from an early age, with emphasis on practical knowledge and interdisciplinary perspectives. Participants also stressed the importance of political commitment to addressing climate change issues, indicating a growing awareness among voters regarding environmental sustainability and its influence on political decisions. Efforts to engage students in climate-related initiatives and awareness programs were deemed crucial for fostering environmental stewardship among youth. Additionally, the study highlighted the need for empowering individuals to believe in their capacity to effect change, both personally and politically.

01
Introduction

1.1 Climate change as a global challenge

Climate change poses one of the most pressing challenges of the 21st century, with far-reaching implications for ecosystems, economies, and human societies worldwide. While natural factors like volcanic eruptions and variations in solar radiation have influenced climate throughout Earth's history, the current pace and scale of climate change are primarily driven by human activities, particularly the emission of greenhouse gases such as carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O). The Intergovernmental Panel on Climate Change (IPCC), in its 2007 report, stated unequivocally that humans are contributing to climate change. People's actions are intensifying the climate's natural variability, and contributing to Earth's temperature rise.

The combustion of fossil fuels for energy, industrial processes, deforestation, agriculture, and other human activities have significantly increased atmospheric concentrations of greenhouse gases since the Industrial Revolution. These gases trap heat in the Earth's atmosphere, leading to a phenomenon known as the greenhouse effect. As a result, global average temperatures have risen, leading to widespread impacts such as Extreme Weather Events; Rising Sea Levels; Shifts in Ecosystems; Impacts on Human Health; Economic Disruptions, etc.

The effects of climate change continue to be seen and felt around the world. Intense summer heatwaves, severe flooding and damaging storms are becoming ever more common. The fear is that future generations will have to pick up the pieces if concerted global action isn't taken before it is too late. According to United Nations Environment Programme (UNEP), the world is in a state of climate emergency, and we need to shift to emergency gear. Humanity's burning of fossil fuels has emitted enough greenhouse gases to significantly alter the composition of the atmosphere and average world temperature has risen between 1.1 to 1.2˚C.

According to a UNESCO (2019) report, 95% of the 194 reporting countries are identifying some aspect of climate change education as part of their national action on climate change. [1]The climate crisis continues unabated as the global community shies away from the full commitment required for its reversal. 2010 – 2019 was the warmest decade ever recorded, bringing with it massive wildfires, hurricanes, droughts, floods and other climate disasters across continents. Between 2010 and 2020, highly vulnerable regions, home to approximately 3.3–3.6 billion people, experienced 15 x higher human mortality rates from floods, droughts and storms compared to regions with very low vulnerability.

[1] Climate Change - United Nations Sustainable Development

1.2 Importance of educating youth on climate change for sustainable development

Climate change poses significant challenges to the sustainable development of nations worldwide, and India is no exception. With its large population, diverse geography, and complex socio-economic dynamics, India faces unique vulnerabilities to the impacts of climate change. Children are the least responsible for climate change, yet they will suffer its consequences the most, and for the longest time. Education is a critical agent in addressing the issue of climate change. Recognizing the critical role of education in fostering awareness, understanding, and action, it becomes imperative to prioritize the education of youth on climate change for sustainable development. By building awareness, fostering sustainable behaviours, empowering youth as agents of change, and strengthening resilience, climate change education lays the foundation for a more sustainable and resilient future for India and the planet as a whole.

The UN Framework Convention on Climate Change (UNFCCC) assigns responsibility to Parties of the Convention to undertake educational and public awareness campaigns on climate change, and to ensure public participation in programmes and information access on the issue. Many believe that putting climate change-related subjects on school curriculum will help young people cope better with the reality of global warming, both practically and psychologically. Education can encourage people to change their attitudes and behaviour; it also helps them to make informed decisions. In the classroom, young people can be taught the impact of global warming and learn how to adapt to climate change. Education empowers all people, but especially motivates the young to take action.

As per the Global Education Monitoring (GEM) report by UNESCO, climate change is not yet sufficiently integrated into the education framework, and only 50 percent of the countries emphasise the subject in their national-level laws, policies or teaching plans. The idea is to provide an education that will empower people to achieve sustainable development in its three dimensions: economical, environmental and societal through educational framework.

In the year 2013, Indonesia updated its National Curriculum which includes climate as core competence, mainly for primary school students as part of the attributes, skills and knowledge that students should achieve. Also, the Ministry of Education and Culture organizes climate change events, such as the regular Climate Change, Education Forum & Expo, which focuses on climate change education topics and provides networking spaces for school and educators[2].

Given the current state of the climate, The National Education Policy (NEP) 2020 underscores the importance of making environmental education an integral part of school curricula at all stages. In order to address climate change in India, the Ministry of Education strongly believes in the role that education can play in resolving impacts of climate change.

[2] unesdoc.unesco.org/ark:/48223/pf0000379591/PDF/379591eng.pdf.multi

1.3 Significance of Understanding Climate Change Perceptions Among India's Youth

Understanding the perception of climate change among India's burgeoning young population is imperative for shaping the future of environmental stewardship. There are three primary reasons why studying the youth's perception is crucial.

Firstly, it offers insights into their awareness and comprehension of climate change issues, aiding both academics and policymakers in assessing the effectiveness of current environmental and climate education initiatives and identifying areas requiring attention.

Secondly, it serves as a yardstick for evaluating the efficacy of climate change communication strategies, which rely not only on conveying facts but also on providing context. This understanding enables communicators to tailor their messages to resonate more deeply with young audiences, fostering greater engagement and prompting actionable responses.

Thirdly, effective dissemination of climate information helps mitigate a significant pitfall of climate action: the sense of doom and helplessness. By equipping youth with not just knowledge about climate change but also actionable plans for addressing it, we empower them to channel their concerns into meaningful and constructive action

02
The Perception Survey

2.1 Objectives of the Survey

The survey aimed to achieve the following objectives:

- Assess the awareness level of first-time voters regarding government initiatives and policies on climate education.
- Understand the importance that first-time voters attribute to enhanced climate education in academic curricula.
- Evaluate the satisfaction levels of first-time voters with the government's efforts in improving climate education.
- Explore the expectations of first-time voters from political candidates and parties concerning decisive climate action, including the need for improved climate education programs.
- Identify specific areas for improvement in government actions to incorporate climate education into the curriculum, as perceived by first-time voters.

2.2 Target Population Overview

The survey targeted first-time voters in India, specifically in 8 cities across four states: Delhi, Maharashtra (Pune & Mumbai), Tamil Nadu (Chennai & Coimbatore), and West Bengal (Kolkata and Asansol). The stakeholder group comprised individuals aged 18-22, with attention to diverse demographics including gender, education, and income levels to ensure a comprehensive range of perspectives.

2.3 Methodology

- **Survey design:** The survey employed a mixed-method approach, combining quantitative (structured questionnaire) and qualitative (focus group discussions) data collection methods. The structured questionnaire covered multiple-choice questions, rating scales, and open-ended questions, addressing objectives such as awareness about climate change, importance, satisfaction levels, expectations, and areas for improvement. Focus group discussions utilized a guided approach to delve deeper into the youth perception of climate change education in their educational institutions.
- **Sampling strategy:** A sample size of 1600 respondents, with 400 from each state, was achieved to ensure statistical robustness, using a 95% confidence level with a 5% margin of error and accounting for a 10% potential non-response rate. Stratified random sampling was employed to ensure representation across demographic variables. Sampling was conducted in colleges within each city/town selected for the study, considering the age group of 18-22 years.

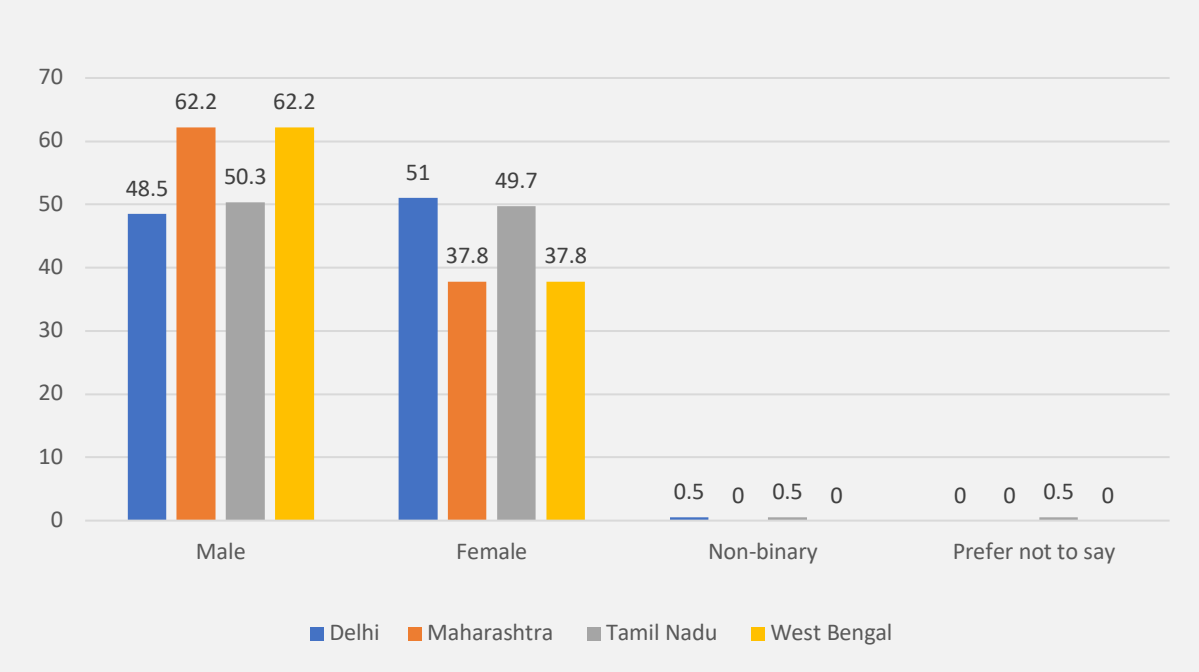
- In addition to the above quantitative survey, 16 focus group discussions were also conducted across the four states, with four discussions per state. In Maharashtra, Tamil Nadu, and West Bengal, the discussions were equally distributed across two cities within each state. Participant selection was randomized and diverse, considering factors such as gender and socioeconomic status.
- **Data collection procedures:** Data collection was firstly completed in Delhi and was treated as a pilot survey to refine the data collection process, with learnings applied to subsequent states. Trained local surveyors administered the questionnaire offline, with each location employing a team of five enumerators and one supervisor. Qualitative discussions were facilitated by locally hired researchers/moderators.
- **Ethical considerations:** Participants were provided clear information about the survey's purpose and their voluntary consent was taken for audio recording and note-taking (in case of FGDs). Data confidentiality and anonymity were assured to promote candid responses.
- **Data Analysis:** Quantitative data analysis was conducted using STRATA software, while thematic analysis was employed for open-ended responses. Integration of quantitative and qualitative findings provided a comprehensive understanding of first-time voters' perceptions regarding climate education.

03
Demographic Profile of Participants

3.1 Gender

The study maintained a relatively equitable gender distribution across different locations. In Delhi, females slightly outnumbered males, comprising 51% of the participants compared to 49% males. In Tamil Nadu, there was a near balance with 50% male and 50% female representation. Maharashtra exhibited a higher proportion of males, accounting for 62% of participants, while females comprised 38%. Similarly, West Bengal mirrored Maharashtra's trend, with males constituting 62% and females 38% of the sample.

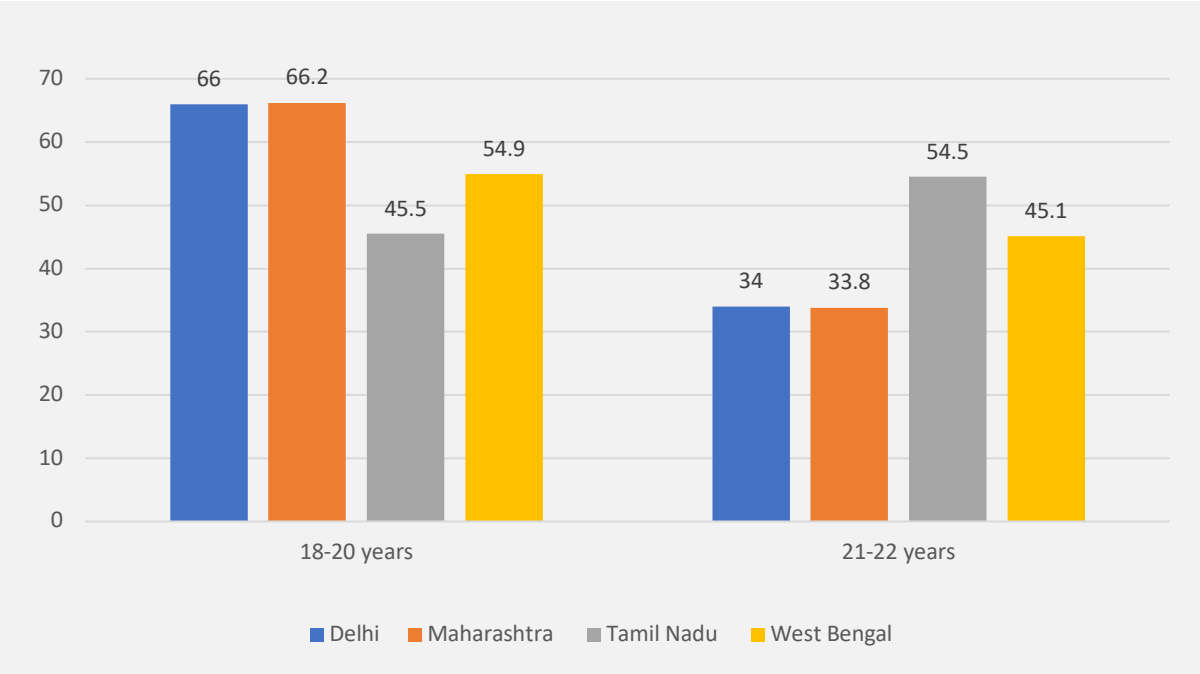
Fig 1: Percentage distribution of respondents by gender



3.2 Age-group

The survey targeted individuals aged between 18 to 22 years. In Delhi, Maharashtra, and West Bengal, a substantial portion of respondents fell within the 18-20 age bracket, whereas Tamil Nadu exhibited a slightly higher percentage of respondents in the 21-22 age range.

Fig 2: Percentage distribution of respondents by age-group



3.3 Educational status

The educational status of respondents varied across locations, with the largest proportion having completed Intermediate/Sr. Secondary education, followed by Bachelor's Degree.

3.4 Income status of the households

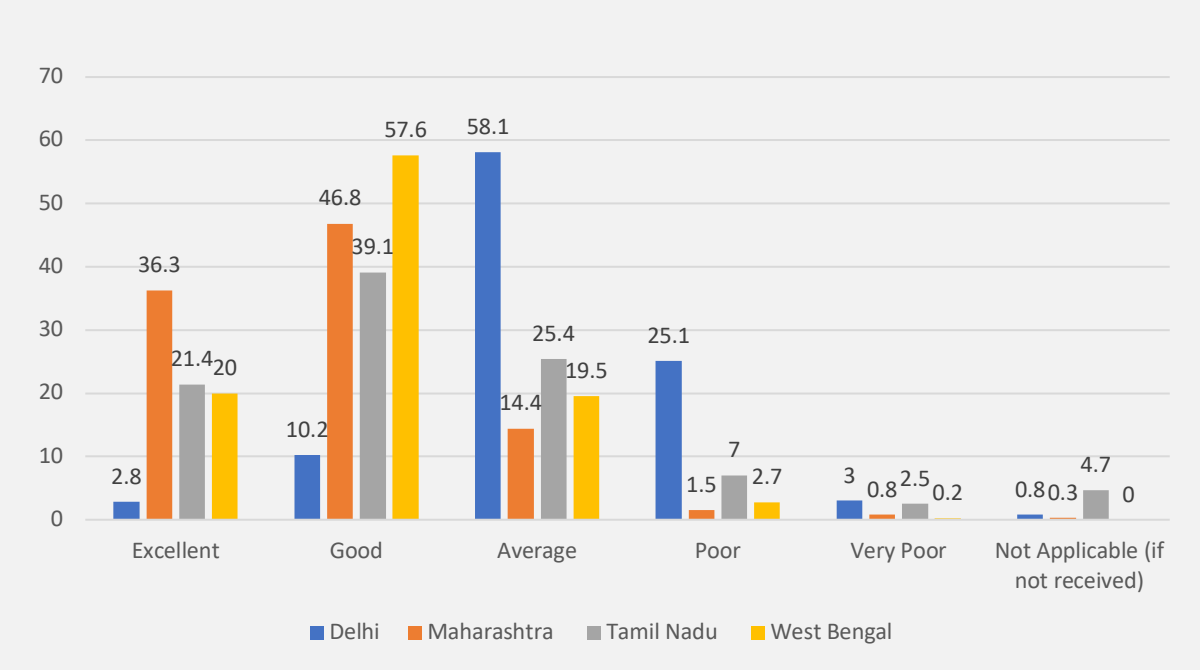
- Majority of respondents in Delhi were from households with incomes between INR 3 lakh to INR 10 lakh, with the highest percentage in the INR 6 lakh to INR 10 lakh bracket (39%). This indicated a middle-income representation in the survey.
- West Bengal had a more evenly distributed income profile compared to other locations.
- Most households fell in the income range of INR 3 lakh to INR 6 lakh (54%), followed by INR 6 lakh to INR 10 lakh (24%).
- The majority of households in Tamil Nadu had income up to INR 3 lakh or income in the range of INR 3 lakh to INR 6 lakh.

04
Perception of Environmental Education

4.1 Quality of environmental education received in school/college

The quality of environmental education received in school/college varied. In Delhi, the majority of respondents (58%) rated the quality as 'average', while 25% deemed it 'poor'. On the contrary, in Maharashtra and West Bengal, a majority of respondents (47% and 58% respectively) rated the quality of environmental education as 'good'. In Tamil Nadu, 39% of respondents found the environmental education they received to be good, while another 25% rated it as 'average'.

Fig 3: Percentage of Respondents' Feedback on the Quality of Environmental Education Received in School/College



4.2 Aspects of climate change covered in school/college

The majority of respondents across all locations identified 'global warming' as a primary topic addressed in their school or college curriculum (Maharashtra-53%, Tamil Nadu- 59%, and West Bengal-87%). Other significant topics mentioned by participants encompassed extreme weather events (such as droughts, cyclones, floods, wildfires, etc.), greenhouse gas emissions, biodiversity loss, renewable energy, and the impact of climate change on agriculture.

Table 1: Percentage of respondents stating specific aspects of climate change covered in school/college

Aspect	Maharashtra	Tamil Nadu	West Bengal
Global warming	52.5	58.5	87.2
Greenhouse gas emissions	31.6	39.1	73.3
Renewable energy	30.6	44.0	66.5
Biodiversity loss	35.3	34.6	68.0
Adaptation and Mitigation Strategies	26.6	18.7	45.8
International efforts to address climate issues	26.9	17.7	67.0
Extreme weather events (Drought, Cyclone, Flood, Wildfires, etc.)	26.4	32.6	86.3
Rise in sea level	22.9	25.1	65.1
Ozone layer depletion	24.1	34.8	60.5
Impact on Agriculture	16.7	30.3	75.2
Others	0.0	0.7	0.7

This was as an open-ended question for Delhi but was subsequently rephrased into closed-ended questions for Maharashtra, Tamil Nadu, and West Bengal.

During the focus groups, participants mentioned a diverse range of topics covered in the curriculum, including the scientific basis of climate change, effects on biodiversity, global warming, greenhouse gases, extreme weather events, ozone layer depletion, pollution, and sustainable practices. Many noted that the education primarily covered basics and general concepts, without exploring newer aspects or proposing solutions to the climate crisis.

FGD participants from **Delhi** also mentioned that there were discussions in schools on the changing climate patterns in Kashmir. Specifically, about the occurrence of snowfall in Kashmir in January and December, but in recent years the snowfall extending into February, accompanied by a notable decrease in snowfall levels. "***In the face of global warming, the extinction of marine life becomes a looming concern. While humans have the luxury of air conditioners and heaters, what about the animals? How will they endure?" –*** FGD participants, Delhi

Some students recalled detailed discussions on specific aspects such as greenhouse gas roles, sea level rise, and mitigation strategies. Greta Thunberg and coexistence with nature were also mentioned as

subjects of focus. "***I recall learning in school about the impact of human activities on nature, such as deforestation for construction purposes, leading to consequences like rising temperatures, global warming, and pollution. This understanding was reinforced during my 10th-grade when the movie "2012" was released, depicting the potential devastation caused by global warming and drastic changes in climatic conditions. The film sparked extensive discussions in school, serving as a significant introduction for many of us to the concept of climate change and its significance"*** - FGD participants, Mumbai

"In our school curriculum, we were taught about the detrimental effects of human activities on the environment. This included learning about the impact of deforestation, the harmful emissions resulting from burning fossil fuels, the disposal of industrial waste, and the pollution of water bodies like the Ganges. Additionally, we were introduced to the concept of the three Rs - Reduce, Reuse, and Recycle" – FGD participants Pune

Respondents mentioned studying about renewable sources of energy like solar energy and wind energy that can be used as alternatives to traditional fossil fuels like coal, oil, and natural gas.

However, a common theme across responses is a sense of insufficient coverage, with students expressing dissatisfaction about the lack of depth in the syllabus. "***The syllabus content in both schools and college lacked in depth information of climate change and failed to provide comprehensive coverage regarding the causes and consequences of climate change and mitigation strategies*** – FGD participants, Chennai

Several respondents across locations highlighted that education primarily focused on basic concepts such as the effects and types of pollution, as well as the overall impact of pollution, without delving into newer aspects or presenting solutions to address the pressing climate crisis. ***"The topics like global warming and deforestation were discussed in the curriculum without truly probing into the depth of knowledge that should be imparted through academic channels" –*** FGD participants Pune

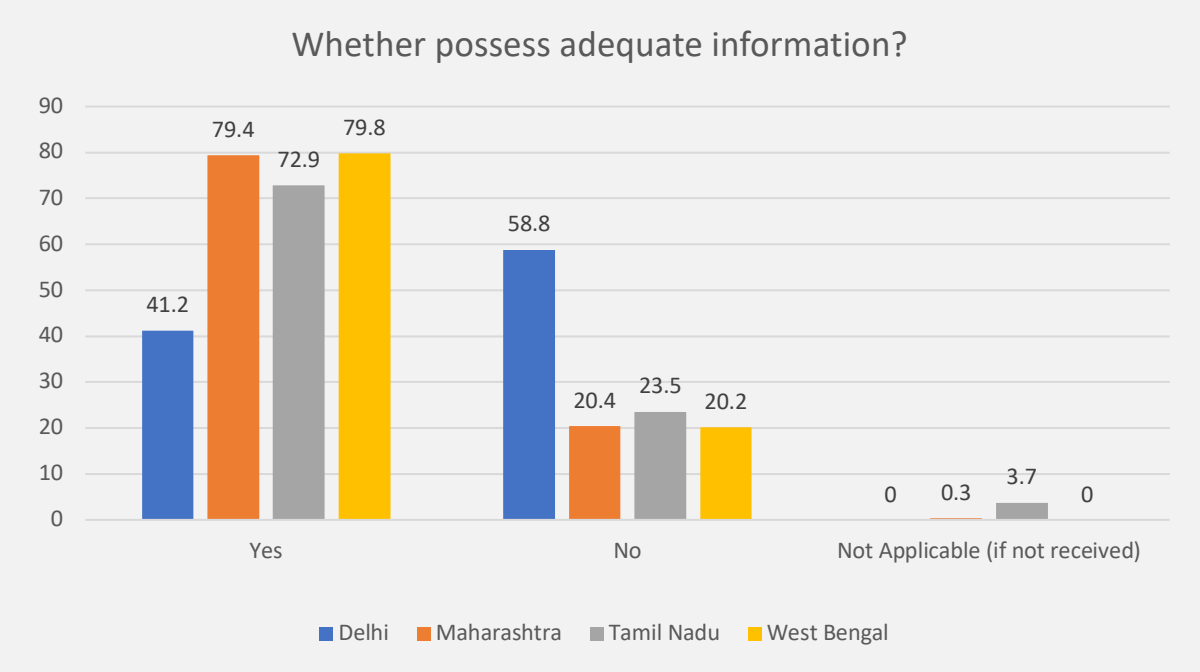
Majority of the students stated that while there was a breadth of coverage on climate change topics, they expressed a desire for more in-depth discussions and a focus on practical solutions to address environmental challenges ***"In school, we had a chapter dedicated to global warming. However, the curriculum primarily focused on providing us with basic knowledge on the topic. While we understood that global warming is occurring, the depth of our understanding regarding its underlying causes was limited"*** – FGD participants, Asansol, WB

Asansol participants pointed out that the syllabus in school covered the environmental impacts related to industrial pollution in India, particularly concerning the Taj Mahal. "***The teacher discussed about the fading of the Taj Mahal's marble due to pollution, specifically nitrogen oxides released from nearby refineries, highlighting the consequences of air pollution on cultural heritage sites and the environment" -*** FGD participants, Asansol

4.3 Adequate information about causes and consequences of climate change through education

A significant portion of the respondents across all locations (except Delhi) felt adequately informed about the causes and consequences of climate change through their education. On the contrary, FGD participants across the locations were of the view that the knowledge imparted in schools were not sufficient to understand climate change in detail.

Fig 4: Percentage distribution of respondents indicating sufficient awareness about the causes and consequences of climate change through education



The findings of FGDs reveals several key insights about the state of climate change education and awareness among participants.

I. **Lack of Comprehensive Education**: Participants from Mumbai and Pune expressed dissatisfaction with the level of education they received on climate change during their school years. Despite its inclusion in the curriculum, the topic was not adequately covered. Teachers often failed to delve into environmental education, leaving students to study the subject independently.

II. **Inadequate Emphasis**: In Asansol, environmental education is perceived as a secondary subject, with little emphasis placed on it even in college. The fact that environmental topics are typically taught by teachers specializing in mathematics or science further underscores the lack of dedicated instruction in this area. This implies a need for specialized educators who can provide comprehensive and in-depth teaching on environmental issues. "***There is a need for a dedicated teacher who holds specialisation on environment and climate education***" – FGD participants, Pune

III. **Limited Coverage of Climate Change**: Across all locations, participants noted a lack of in-depth coverage of climate change during their school years. While there were some activities related

to nature conservation, they were insufficient for a thorough understanding of the concept. Participants emphasized the need for dedicated teachers with specialization in environmental and climate education to address this gap.

IV. **Knowledge Disparity Between School and College**: In Delhi, participants reported receiving adequate knowledge about climate change during their school years but found a lack of focus on the topic in college. Environmental Studies (EVS) courses were often limited to one semester, providing only basic knowledge. This suggests a disconnect between school and college curricula, leading to gaps in understanding and awareness among students.

V. **Alternative Sources of Awareness**: Despite shortcomings in formal education, participants across locations demonstrated awareness of climate change through social media, magazines, and articles. They identified causes of pollution such as burning fossil fuels, deforestation, and industrial waste, indicating a broader understanding of environmental issues beyond formal education.

VI. **Regional Environmental Challenges**: Participants highlighted region-specific environmental challenges, such as pollution from factories along the Ganges and irregular monsoon patterns affecting farming. These examples underscore the importance of addressing localized environmental issues alongside broader climate change education.

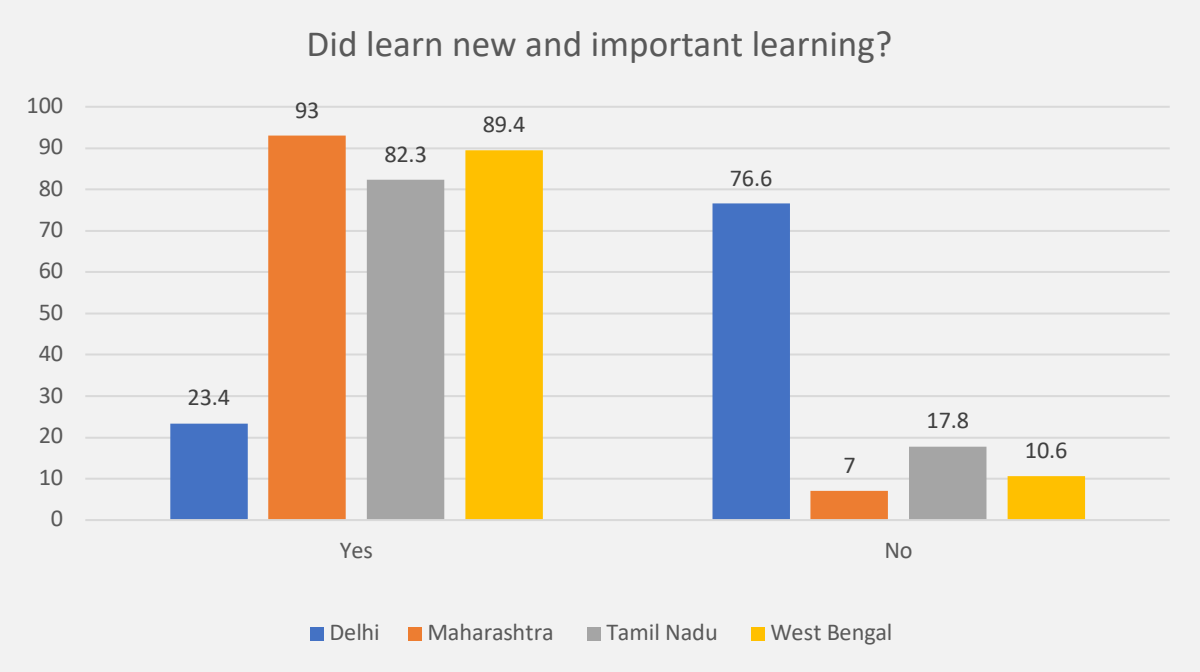
VII. **Concerns about Consequences**: Participants expressed concerns about the consequences of climate change, including depletion of the ozone layer, melting glaciers leading to rising sea levels, and the potential impact on coastal cities like Kolkata and Patna. This highlights the need for proactive measures to mitigate the effects of climate change on vulnerable regions and communities.

In a nutshell, the above analysis suggests a need for comprehensive and dedicated climate change education in schools and colleges, with specialized teachers, updated curricula, and greater emphasis on practical learning and awareness-building. Additionally, addressing region-specific environmental challenges and promoting proactive measures to mitigate the consequences of climate change are essential for fostering environmental stewardship and resilience in communities.

4.4 New and Important Learning about climate change in school

In Maharashtra, West Bengal, and Tamil Nadu, a significant majority of respondents, comprising 93%, 89%, and 82% respectively, reported learning something new and significant about climate change in school that they were previously unaware of. However, in Delhi, only a mere 23% of respondents stated the same.

Fig 5: Percentage distribution of respondents by new and important learning about climate change in school/college



In Delhi, few respondents stated that they learnt about sustainable development in school, emphasizing the importance of conserving resources for future generations. Others mentioned specific concepts like the greenhouse effect, global warming, the negative impacts of human activities, such as factory emissions and excessive farming and ways to overcome environmental challenges. Apart from school, respondents also mentioned learning about climate change online and by participation in eco clubs. Respondents mentioned learning about reducing waste, controlling pollution, and the importance of plantation. The comments also touched on various aspects like weather changes, and the harmful effects of plastic on the environment. On the contrary, some respondents expressed limited knowledge or learning about climate-related topics. ***"I did not learn a lot about climate change in school"*** indicating a limited exposure to climate education, and a gap in their understanding of environmental issues.

In Maharashtra, the majority of respondents (53%) were acquainted with the Greenhouse effect and its pivotal role in climate change. Following closely behind were awareness levels regarding Global warming and its ensuing consequences (45%), as well as familiarity with effective strategies to mitigate and adapt to climate change and advocacy for the reduction of industrial emissions (35% each).

In Tamil Nadu, a notable percentage of respondents (46%) gained knowledge about Global warming and its associated consequences during their schooling or college years. Subsequent areas of awareness included understanding the Greenhouse effect and its role in climate change (39%), and recognizing the impact of climate change on agriculture (34%).

In West Bengal, a significant majority (76%) were educated about the Greenhouse effect and its significance in driving climate change. Additionally, substantial awareness was evident regarding Global warming and its consequential effects (71%), as well as initiatives promoting reduced plastic usage and addressing plastic pollution (66%). Furthermore, considerable attention was drawn to

advocacy efforts aimed at reducing industrial emissions (65%), along with understanding the impact of climate change on agriculture (64%).

Table 2: Percentage distribution of respondents by type of new and important learning about climate change in school/college

What did you learn new about climate change?	Maharashtra	Tamil Nadu	West Bengal
Greenhouse effect and its role in climate change	53.2	39.3	76.1
Global warming and its consequences	44.5	46.0	71.3
Effective strategies to mitigate and adapt to climate change	35.6	23.9	58.3
Advocacy for reducing industrial emissions	35.1	24.1	65.3
Impact of climate change on agriculture	28.9	34.1	63.6
Causes and effects of climate change	27.4	25.9	60.7
Promotion of reduced plastic usage and addressing plastic pollution	29.4	28.9	66.0
Understanding the ozone layer's crucial role in climate regulation	23.9	23.9	46.0
Strategies for pollution control and its influence on weather patterns	22.6	22.1	56.1
Knowledge about the atmosphere and addressing waste-related concerns	19.9	18.7	50.1
Understanding and learning how to participate in garbage recycling initiatives	8.0	18.9	53.0

This was as an open-ended question for Delhi but was subsequently rephrased into closed-ended questions for Maharashtra, Tamil Nadu, and West Bengal.

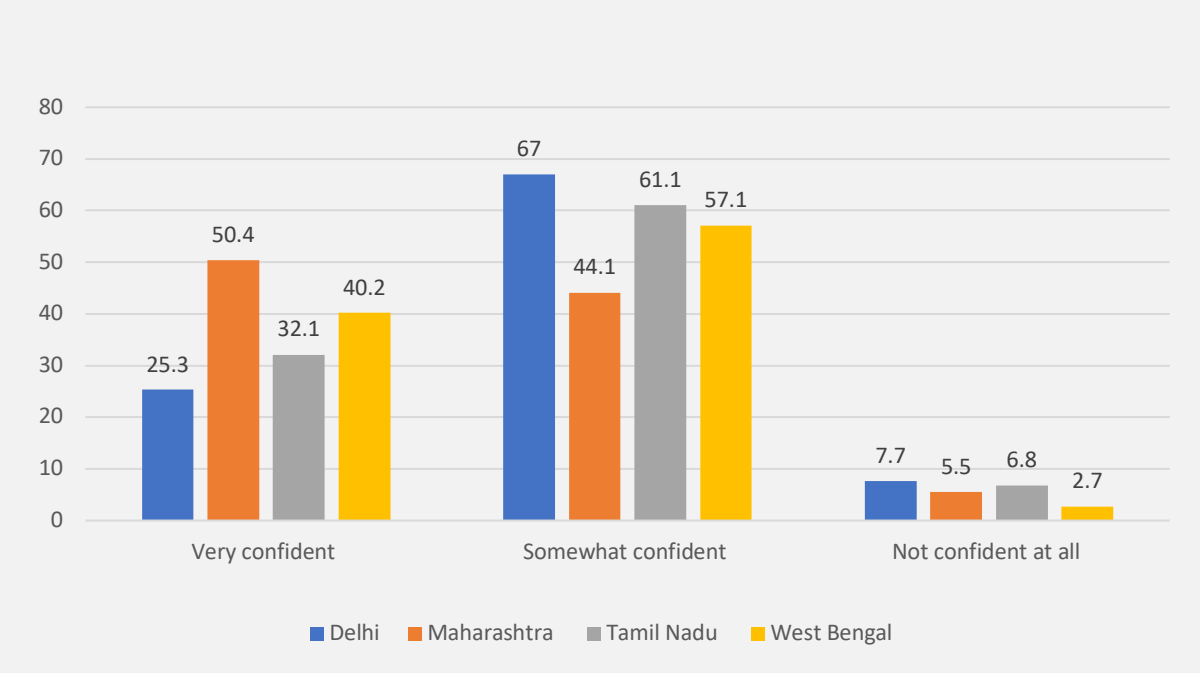
The qualitative findings revealed the following:

- Most participants stated that from grades 6th to 8th, they learnt about different environments and biodiversity, along with concepts like the greenhouse effect and endangered species.
- Majority mentioned studying about the impacts of human activities on nature, such as deforestation, factory emissions and excessive farming using chemical fertilizers and pesticides. leading to rising temperatures, global warming, and pollution. Additionally, discussions on the food chain, dangers of global warming and types of pollution were prevalent in environmental education classes.
- Some participants recalled learning through activities like plastic cleanup drives and discussions on the hazards of disposable pens
- The relevance of climate change was emphasized by cultural references, such as the movie "2012" encouraging discussions on global warming's consequences. In particular, concerns about the ozone layer's depletion were prominent, with rumours even linking its effects to the discoloration of the Taj Mahal.
- Some participants stated that they learnt about sustainable development in school, emphasizing the importance of conserving resources for future generations.
- Participants mentioned that there were discussions on pollution, emphasizing the harmful effects of gases, smoke, and chemicals released by industries contaminating rivers. Additionally, the curriculum covered topics such as industrial waste management and pollution in major water bodies like the Ganges.
- Across the locations participants stated that they were educated on the importance of the three Rs: Reduce, Reuse, and Recycle and promoting sustainable practices for environmental conservation.

4.5 Confidence in Understanding Climate Change

A majority of respondents from Delhi (67%), Tamil Nadu (61%), West Bengal (57%) and Maharashtra (44%) expressed being somewhat confident in their understanding of climate change. This suggests that while a considerable number have confidence in their knowledge, there is still room for improvement in boosting confidence levels.

Fig 6: Percentage distribution of respondents by their level of confidence in understanding climate change



FGD participants from **Coimbatore** expressed the sentiment that climate education often focuses on imparting facts rather than encouraging critical thinking. According to a majority of the participants, the subject of climate education in academics did not address the current issues adequately. Therefore, they stated feeling under confident about their comprehension about climate change especially the mitigation strategies.

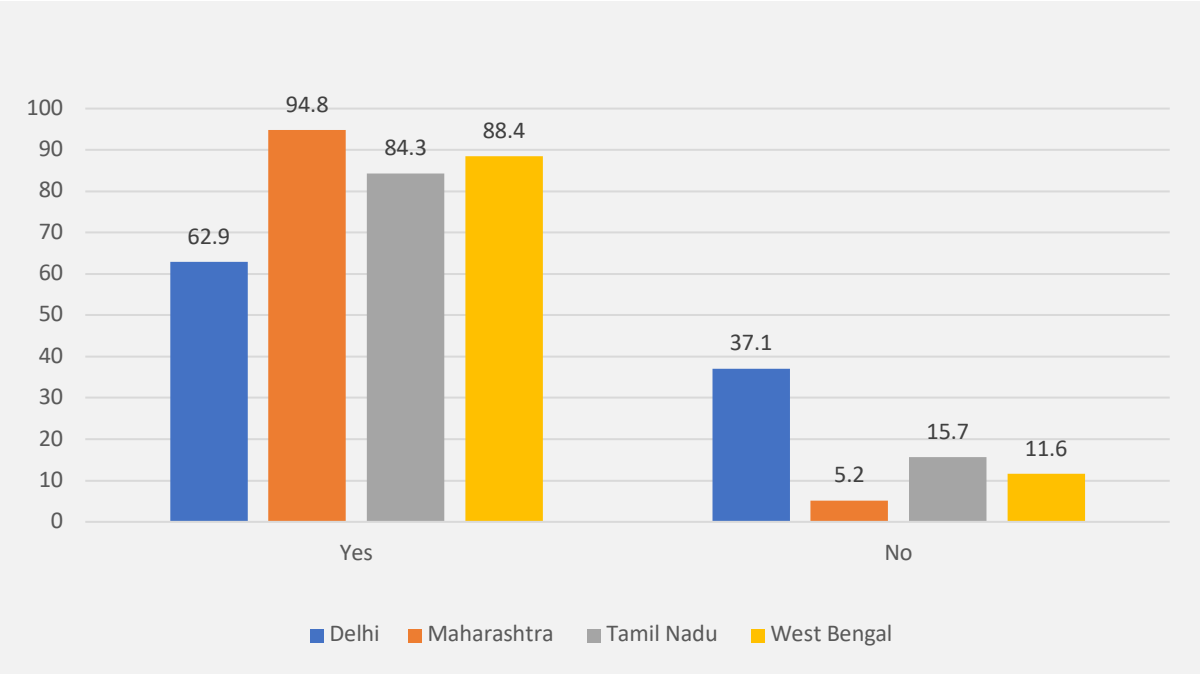
"In college Environmental Studies is included merely for name sake, while awareness about environmental and climate issues is limited to certain clubs. In general, efforts to collect plastic and other environmental actions is about winning awards than actually helping the environment – FGD participants Coimbatore

Participants from Kolkata pointed out that they have only been introduced to basic concepts like Global Warming and Pollution, lacking a comprehensive understanding of their underlying causes and effects. The depth of coverage also depended on the specific courses and curriculum focus. It was learnt that there was no standardized and consistent approach to integrating climate change education in the school curriculum. ***"If I assess my understanding based on my exposure to the subject, I only have a rudimentary understanding of climate change and environmental topics."***

4.6 Integration of Climate Change Knowledge into Daily Life

A positive trend was observed, with approximately 63% to 95% of respondents reporting the integration of climate change education into their daily lives. State-wise analysis revealed that the highest percentage of respondents who adopted climate knowledge were from Maharashtra (95%), followed by West Bengal (88%) and Tamil Nadu (84%).

Fig 7: Percentage distribution of respondents indicating the integration of climate change education in their daily lives



When analyzed by education level, a correlation between higher education attainment and adoption of climate change knowledge emerged. Specifically, 70% and 77% of respondents with less than high school and up to secondary school education respectively mentioned adopting climate change knowledge in their daily lives, compared to a higher percentage of respondents with up to intermediate (91%) or graduate level education (92%). However, only 86% of postgraduate participants claimed to adopt the knowledge they acquired.

During the qualitative discussions, majority of the participants across the sample locations mentioned that they had adopted several things that they learnt in their daily lives. However, it was quite evident that while many FGD participants claimed to integrate climate education into their daily routines, their efforts predominantly aligned with environmental education rather than specifically climate education. These efforts included activities like tree planting, reducing plastic use, promoting cleanliness, using reusable water bottles to curb plastic waste, and discouraging littering. The terms "climate education" and "environmental education" were used interchangeably by participants.

Participants from **Delhi** mentioned that they significantly increased their reliance on public transport, avoided wasting water and also adopted the use of reusable tote bags as a part of their efforts to protect the environment from air pollution that ultimately leads to climate change.

"I've pledged to plant a tree every year on my birthday as a commitment to protect the environment" – FGD participant, Delhi

FGD participants from **Chennai** expressed that both individuals and colleges have taken initiatives to integrate climate change knowledge in their daily lives. According to them, several colleges has banned

the use of single use plastic within the premises of the institute. Some others stated that they have started segregating the waste at household level.

"I encouraged my mother to stop buying plastic kitchen items, resulting in the adoption of steel utensils in our kitchen" – FGD participant, Chennai

Participants from **Coimbatore** discussed about the steps taken by them towards environmental sustainability through practical actions such as embracing solar energy by installing solar panels, carrying their own cloth bags when shopping, conserving energy by switching off fans and lights when they're not in use, recognizing the importance of such small yet effective practices. A participant whose family were into farming stated using natural manure instead of chemical fertilizers, influenced by an educational content, a video by Nammazhvar advocating for the use of human waste in agriculture to enrich soil fertility and improve crop yields.

Few participants from **Asansol** stated adopting environmentally friendly practices such as planting trees, reducing plastic usage, promoting cleanliness, carrying reusable water bottles to minimize plastic waste and encouraging others to refrain from littering and dispose garbage properly. Some of them pointed out that they were involved in community initiatives like NSS, where they plant trees and clean public spaces. "We've switched to bamboo toothbrushes in our family, ensuring that even if discarded, they'll degrade unlike plastic alternatives" – FGD participant Asansol

Pune and Mumbai participants mentioned adopted practices like walking short distances and utilizing public transport instead of own vehicles, responsibly disposing plastic bottles, encouraging friends and family to do the same and using eco-friendly products. According to a **Mumbai** participant whose family were involved in farming, ***"when we worked in the field, during winter seasons, we used to have bonfires where we burned various waste materials including plastic, papers, polythene, and cow dung. However, after I learnt about the environmental and health risks associated with burning plastic and polythene, I have refrained from burning them".***

4.7 Emotional Responses to Climate Change Education

The emotional reactions to learning about climate change vary widely. Across different locations, only 21% to 39% of respondents reported feelings of hope or optimism, while a significant majority expressed emotions like hopelessness, fear, anger, or anxiety. In Maharashtra, the highest percentage of respondents (30%) reported feeling hopeless, while fear was most prevalent (29%). Similarly, in West Bengal, the highest number of respondents (34%) expressed feelings of anxiety upon learning about climate change.

Table 3: Percentage distribution of respondents by emotional responses to climate change education

	Delhi	Maharashtra	Tamil Nadu	West Bengal
Hopelessness	14.9	30.2	18.5	1.9
Fear	15.5	28.7	23.0	19.3

Anger	9.0	10.7	13.8	6.0
Anxiety	21.6	9.7	12.3	34.2
Hope	34.8	11.0	20.9	20.0
Optimism	3.9	9.7	9.1	18.6
Others	0.3	NA	2.4	NA

4.8 Areas of climate education that need improvement

- Several participants emphasized the need for practical solutions and actions, including sustainable development goals, waste segregation, and more emphasis on how individual actions can be taken combat climate change in the curriculum. "***While many topics were covered in the academic curriculum, certain issues deserve greater priority and emphasis. Topics such as acid rain and ozone depletion should be covered extensively in the syllabus. While there is a mention of such issues in the curriculum, it is important to move beyond theoretical discussions and adopt a practical approach to addressing them effectively" -*** FGD participants, Chennai

- Cultural relevance and global perspectives were also suggested, reflecting the importance of considering local contexts and international dimensions in climate education. "***Students should be made aware that numerous other nations have successfully decreased pollution levels. The syllabus should include the specific measures implemented by these countries in their efforts to combat environmental pollution" -*** FGD participants, Delhi

- Some respondents expressed the desire for climate education to be free from political bias and focus on practical, real-world applications.

- Participants from **Delhi** advocated for making environmental and climate change education mandatory rather than optional, along with potential adjustments to the credit scoring system to reflect the importance of these subjects. They also emphasized on practical knowledge alongside theoretical learning, such as through tree planting initiatives and assigning students individual plants to care for. Additionally, there was a call for incorporating case studies highlighting successful efforts to combat climate change and pollution, as well as educating students about strategies employed by other countries. There was also a mention of increasing attention to topics like deforestation was as crucial components of comprehensive climate education.

- The lack of awareness about climate change and its consequences was evident in several responses, indicating a need for more knowledge dissemination. Respondents from **Kolkata, West Bengal** expressed that while they were familiar with the concept of industrial pollution, there is a need to explore its hazardous nature in depth. Despite its significant impact on the environment and human health, they believed that most students lacked detailed knowledge about it. "***The curriculum covered the broad impact of industrial pollution on both the environment and individuals. But the information about industrial waste and contaminants has been lacking in detail. Without clear information, it is difficult to take meaningful action. Also, the hazardous***

nature of these pollutants should be effectively communicated to the public by industries and governments".

- espondents across the locations were of the opinion that although they received education about climate change, but there was a general lack of guidance on the specific steps and measures needed to address the issue of climate change. They were of the view that the syllabus should focus on initiatives to help implement mitigation measures so that students will be equipped with the necessary knowledge and resources to take meaningful action. Majority of the participants were of the view that merely acquiring information without subsequent action makes it pointless".

- There was a notable emphasis on integrating climate topics across subjects, fostering critical thinking, and addressing climate scepticism. "***Although environmental education has been incorporated in the school academics primarily through geography and EVS classes, the exposure and depth of knowledge provided were limited. Environmental education often receives insufficient emphasis compared to other subjects. Enhancing environmental education across all levels of schooling should integrate environmental concepts and promote hands-on learning experiences, and encourage critical thinking and problem-solving skills related to environmental challenges so that students can become informed and responsible about the environment" –*** FGD participants Mumbai, Maharashtra.

- The importance of interdisciplinary perspectives, addressing long-term effects, and exploring ways to reverse climate change was highlighted in the responses.

- Suggestions included incorporating climate education from an early age, making it part of the regular curriculum, and focusing on laws and regulations.

- According to respondents from **Coimbatore, Tamil Nadu,** the curriculum had introduced the hazards of medical waste. However, they pointed out that while those in the medical sector may be well-versed in the proper disposal of syringes and other medical waste, for many outside this field, extensive coverage on this topic is crucial because most of the population lack awareness about its proper management and disposal methods.

05
Importance of Climate Education

5.1 Topics Climate Education Should Address

Across all surveyed locations, a consistent trend emerged as the majority of the respondents emphasized the importance of addressing climate awareness into climate education. Location-wise analysis revealed that maximum respondents from West Bengal (95%) were in favour of including climate awareness into climate education followed by Tamil Nadu (71%), Maharashtra (60%), and Delhi (27%). Addressing climate action was suggested by 78% respondents from West Bengal followed by 38%, 37% and 20% respondents from Tamil Nadu, Maharashtra and Delhi respectively.

Table 4: Percentage distribution of respondents' perspectives on topics climate education should address

Topics	Delhi	Maharashtra	Tamil Nadu	West Bengal
Climate awareness	26.67	60.2	71.4	95.2
Climate justice	15.02	47.3	34.1	65.8
Climate adaptation	18.02	41.0	40.5	75.4
Climate action	20.15	36.6	38.3	77.8
Climate mitigation	19.71	22.9	27.6	58.3
Others	0.44	NA	0.2	NA

During the focus groups, majority of the participants across the locations were of the opinion that it is important to expand climate education beyond educational institutions. Many of them mentioned that their insufficient knowledge and understanding of the concept is hindering their ability to specify the topics that should be addressed.

Participants from **Delhi** highlighted that people who are working in industries have more access to resources to better network and make a difference so it should not be limited just to schools or any particular age groups.

"***The government can implement a standard operating procedure (SoP) or protocol to ensure that teachers incorporate climate related topics into their curriculum. Additionally, there should be a greater emphasis on practical knowledge, as theory alone may not suffice. Simply instructing people not to harm plants and trees may not be effective; what's needed is action. Taking practical steps such as participating in clean-up drives and tree plantations is crucial"*** – FGD participant, Delhi

Chennai participants pointed out that the current educational system is centered around explaining the origins of climate change rather than providing guidance on measures to control it. Therefore, they emphasized that the primary focus of climate education should be on strategies to mitigate or reverse climate change.

Few participants from **Coimbatore** suggested that rather than offering generic awareness about environment and climate change through academics, it would be more effective to educate students about specific regional climatic issues and ways to mitigate it.

Many participants from **Pune** expressed the need for a dedicated chapter on maximizing the utilization of solar or wind energy within the broader topic of climate change. They noted that currently, there is insufficient information available on this aspect of renewable energy.

Participants from **Kolkata** were of the opinion that less common topics related to climate change such as the harmful effects of chemical pesticide use should be addressed as it reduces soil fertility. Therefore, more emphasis should be given to educating students about lesser-known aspects of climate change beyond just pollution and global warming.

5.2 Significance of incorporating climate education into learning systems

A significant portion of the respondents from West Bengal (89%) and Delhi (86%) considered incorporating climatic education into the learning system as "extremely important" or "very important". Likewise, more than half of the sample respondents from Tamil Nadu and West Bengal also emphasized the importance of including climate education in the curriculum. Overall, only less than 10% respondents were of the opinion that it is not important at all to incorporate climate education into learning systems.

Table 5: percentage distribution of respondents expressing the importance of integrating climate education into learning systems

Level of importance	Delhi	Maharashtra	Tamil Nadu	West Bengal
Not important at all	2.3	6.0	9.0	0.7
Somewhat important	2.6	19.2	21.9	4.8
Moderately important	3.3	20.2	17.7	5.3
Very important	48.8	37.6	27.1	23.4
Extremely important	43.0	17.2	24.4	65.8

In the focus groups, the perspectives of the participants varied in terms of the importance of incorporating climate education in educational institutions. Some participants emphasized that introducing climate education at an early age, will help the students to learn about the importance of

environment and climate. According to participants from **Asansol**, ***"today's children are tomorrow's decision-makers. By educating them about climate change, its causes, consequences, and mitigation strategies, we empower them to make informed decisions in the future.".***

They emphasized that such education would foster a deeper understanding among students, enabling them to relate to environmental issues on a personal level. This, in turn, would instill a sense of responsibility toward their local environment.

In Mumbai, participants voiced the belief that educating and raising awareness about climate change and the environment would cultivate sensitivity among individuals. This heightened awareness would, in turn, contribute to the reduction of human activities identified as major contributors to climate change.

On the other hand, few participants from Delhi were of the opinion that incorporating climate education in curriculum may primarily benefit those who have the opportunity to attend educational institutions. Moreover, by adding it to the curriculum will not be impactful because all schools are different and different studies, different teachers. **"I don't think it can impact the entire society but the government can take initiatives to impact larger population".**

5.3 Key benefits of having climate education in the curriculum

A large majority of respondents from West Bengal (90%), Tamil Nadu (56%) and Maharashtra (53%) believed that including climate education in the curriculum would empowers students to understand and address climate challenges. Likewise, 74%, 48% and 46% respondents from West Bengal, Tamil Nadu and Maharashtra opined that climate education would encourage sustainable practices, fostering a sense of global citizenship.

Table 6: Percentage distribution of respondents highlighting key advantages of integrating climate education into the curriculum

Benefits	Maharashtra	Tamil Nadu	West Bengal
Empowers students to understand and address climate challenges.	52.5	56.2	89.9
Encourages sustainable practices, fostering a sense of global citizenship.	45.8	48.3	74.0
Cultivates Sensitivity Towards the Environment:	42.3	37.3	60.2
Enhances Global Awareness and Action:	33.1	42.8	55.2
Raises awareness of climate change effects, transforming our outlook.	37.1	39.3	75.9
Motivates individuals to adopt sustainable living practices.	30.6	39.8	56.6
Motivate collective action to address climate issues	23.6	31.3	58.6

Benefits	Maharashtra	Tamil Nadu	West Bengal
Prepares Future Policymakers:	24.6	27.6	50.4
Builds Resilience and Crisis Preparedness:	17.7	23.6	40.7
Enhances understanding of the interconnectedness of climate factors.	9.7	25.4	47.7
Others	0.0	0.0	0.0

This was as an open-ended question for Delhi but was subsequently rephrased into closed-ended questions for Maharashtra, Tamil Nadu, and West Bengal.

Majority of the respondents from **Delhi** were of the opinion that climate education has a vital role to play in shaping environmentally conscious and responsible individuals. The key benefits identified include promoting environmental literacy, fostering sustainable practices, and instilling a sense of global citizenship. The curriculum was seen as a tool for preparing students to address current and future climate challenges, making informed decisions, and developing a transformative outlook towards the environment. There was a strong emphasis on empowering the next generation to be proactive in tackling climate issues. It was reiterated that including climate education in the curriculum would help create more aware, resilient, and environmentally responsible citizens capable of contributing to sustainable and healthier future.

06
Contextualizing the Climate Crisis

6.1 Crisis that the respondents were mostly worried about

Delhi: The public health crisis was consistently ranked as the most important, with a relatively high level of consensus among respondents. The other crises exhibited varying degrees of importance and consensus, with the climate crisis and youth employment following closely behind. Gender inequality and inflation appeared to be more divisive topics, with respondents holding diverse opinions on their importance.

Table 7: Crisis that the respondents of Delhi were mostly worried about

Crisis	1 - Most important	2	3	4	5	6	7	8 - Least important
Economic crisis	23.0	19.4	13.8	11.5	8.4	6.7	5.1	12.0
Public health crisis	26.3	30.4	16.1	7.7	6.7	3.8	5.1	3.8
Climate crisis	23.3	19.7	22.3	13.0	5.6	6.7	5.6	3.8
Youth employment	10.5	10.2	13.3	13.3	13.3	23.3	10.2	5.9
Social divide	3.6	6.4	11.8	21.5	23.3	13.6	9.5	10.5
Gender inequality	4.9	3.3	4.4	7.4	12.0	17.9	29.9	20.2
Inflation	5.9	4.6	6.4	9.5	8.2	9.0	22.0	34.5
Social inequality	2.6	5.9	12.0	16.1	22.5	19.2	12.5	9.2

Maharashtra: Overall, the analysis suggests varying levels of concern among respondents for different crises, with economic, inflation and public health crises generally being perceived as the most important, while issues like climate crisis, social divide, social inequality and youth unemployment were considered less critical or given less importance by the respondents of Maharashtra.

Table 8: Crisis that the respondents of Maharashtra were mostly worried about

Crisis	1 - Most important	2	3	4	5	6	7	8 - Least important
Economic crisis	23.38	17.66	10.7	8.71	9.95	7.46	10.45	11.69
Public health crisis	15.67	16.17	16.17	13.93	6.72	11.94	12.69	6.72
Climate crisis	6.97	13.68	20.9	11.44	13.68	19.15	8.71	5.47
Social divide	6.22	7.46	9.2	23.63	20.9	9.95	12.19	10.45
Social inequality	8.46	6.97	10.95	18.16	22.39	12.44	8.21	12.44
Youth unemployment	7.21	12.44	17.91	9.2	10.45	22.89	11.94	7.96
Gender inequality	11.44	13.93	6.97	9.45	7.46	10.95	23.13	16.67
Inflation	20.65	11.69	7.21	5.47	8.46	5.22	12.69	28.61

Tamil Nadu: Respondents ranked the economic crisis in the top position in terms of perceived importance, with a notable percentage ranking it as most critical, public health crisis closely followed suit. While the data highlights that only a relatively small percentage of respondents identified the climate crisis as the most important concern, it is crucial to note that a significant portion still recognized its severity, with a considerable percentage ranking it within the top three levels of importance. Inflation was consistently ranked as the least important issue compared to others, with a sizable percentage of respondents placing it at the lowest level of priority.

Table 9: Crisis that the respondents of Tamil Nadu were mostly worried about

Crisis	1 - Most important	2	3	4	5	6	7	8 - Least important
Economic crisis	23.13	14.68	12.44	14.18	15.42	7.46	5.22	7.46
Public health crisis	21.14	25.87	14.68	11.44	8.46	6.72	6.72	4.98
Climate crisis	11.69	14.43	25.62	12.19	12.19	10.45	8.71	4.73
Social divide	7.21	9.45	14.43	20.4	11.69	12.94	13.18	10.7

Crisis	1 - Most important	2	3	4	5	6	7	8 - Least important
Social inequality	5.22	8.96	7.71	13.18	24.88	17.16	12.44	10.45
Youth unemployment	15.67	14.18	10.7	12.19	8.96	21.14	8.21	8.96
Gender inequality	9.95	7.71	4.73	8.71	10.95	12.44	27.11	18.41
Inflation	5.97	4.73	9.7	7.71	7.46	11.69	18.41	34.33

West Bengal: The respondents of West Bengal overwhelmingly identified economic crisis as the most critical issue, garnering the highest percentage of respondents ranking it at the top priority level. Additionally, youth unemployment emerged as another major concern, with a substantial portion of respondents ranking it as a top priority. Public health and climate crises also received considerable attention, with respondents acknowledging their importance, although to a slightly lesser extent compared to economic and youth unemployment issues. However, the lesser emphasis on social issues such as social divide, gender inequality and social inequality suggests that these concerns may not be perceived as immediate priorities by the respondents or may not be as prominent in their everyday experiences.

Table 10: Crisis that the respondents of West Bengal were mostly worried about

Crisis	1 - Most important	2	3	4	5	6	7	8 - Least important
Economic crisis	27.71	27.95	22.41	12.05	4.58	2.65	0.96	1.69
Public health crisis	12.05	17.83	19.76	16.63	14.94	9.4	5.54	3.86
Climate crisis	17.35	22.17	21.45	17.11	10.6	4.82	2.17	4.34
Social divide	4.1	4.82	5.06	8.92	12.53	25.3	18.07	21.2
Social inequality	2.41	3.13	4.34	8.92	12.53	19.52	31.81	17.35
Youth unemployment	28.19	10.84	14.22	21.2	9.88	7.71	4.58	3.37
Gender inequality	0.72	4.1	3.61	5.3	12.77	18.55	21.45	33.49
Inflation	7.47	9.16	9.16	9.88	22.17	12.05	15.42	14.7

6.2 Responsibility for the Climate Crisis

In surveys conducted in Delhi, West Bengal, Tamil Nadu, and Maharashtra, various perceptions regarding the responsibility for the climate crisis emerged. Notably, in Delhi and West Bengal, 44% of respondents each attributed responsibility to individual citizens. Conversely, in Tamil Nadu, 37% of respondents identified the central government as significantly responsible, a similar view shared by 21% of respondents from Delhi and West Bengal.

In Maharashtra, the majority of respondents (26%) placed primary responsibility on industries, closely followed by West Bengal (22%). Additionally, 18% of respondents from Maharashtra and 15% from Tamil Nadu held the state government responsible for the climate crisis.

Table 11: Percentage distribution of respondents by perceived responsibility for the climate crisis

Responsibility	Delhi	Maharashtra	Tamil Nadu	West Bengal
Central Government	21.0	16.9	37.3	20.5
State Government	11.2	18.4	14.9	6.0
Industries	8.9	26.1	15.2	22.2
International agencies	3.1	13.4	6.2	6.3
Individual citizen	44.0	24.9	24.4	43.6
Others	11.8	NA	0.8	1.5
No body		0.3	1.2	NA

Qualitative discussions revealed diverse perspectives with participants stating both the central and state government, individual citizens, corporates and industries responsible for the climate crisis. Several participants from **Delhi** highlighted the lack of proactive measures and initiatives taken by governments to address the issue. Additionally, multinational corporations (MNCs) were identified as equally culpable, particularly due to their contribution to pollution through coal factories, facilitated by government licenses. Few participants mentioned about the oversight of the impacts of such industrial activities. Furthermore, industrial waste was identified as a significant factor, with concerns raised about the ease of acquiring licenses for new industries in India. A large majority of the participants held individual citizens accountable for exploiting the environment.

"***The responsibility for climate change rests on the entire human species. With our intellectual capacity and ability to comprehend our impact on the environment, every individual bears equal responsibility. Regardless of differences, all humans share accountability for addressing climate change"*** **–** FGD participants Delhi.

Most FGD participants from **Mumbai** and **Pune** believed that both the government and individual citizens are equally to blame for the crisis. They pointed out to the fact that the government has a regulatory role, with responsibility for ensuring proper waste management and environmental protection. However, the failure of government regulation was identified as a contributing factor to climate change issues and pollution. Some of them also pointed to corporates and factories as major contributors to pollution and climate change, highlighting that it is the consumer demand drives their existence.

Several participants from **Chennai** expressed that the government bears responsibility for addressing environmental issues. They highlighted that while laws exist to address various concerns, such as pollution and climate change, enforcement is lacking, thereby limiting their effectiveness. The same sentiments were also echoed by participants from **Coimbatore** as they held the government responsible for deforestation. "The government's construction of National Highways often leads to deforestation. For instance, the road from Thanjavur to Vaduvur was previously lined with trees, but these were cleared by highway authorities to extend the road. Despite advancements in transportation, the area now lacks trees".

However, few of them felt that it is the individual citizens who are responsible. They were of the view that while the government and conservationists can only make policies, it ultimately falls on individuals to avoid littering and properly dispose of both biodegradable and non-biodegradable waste. "***Without individual effort, no initiatives will lead to progress".***

In both **Asansol and Kolkata,** participants held differing opinions regarding who is responsible for the climate crisis. Some attributed responsibility to the government and politicians, while others placed the blame on the citizens. Few also believed that the fundamental issue was due to gap in knowledge about environment. They pointed out that most people are unaware of the severity of the situation and adopt a mindset of indifference, thinking that they can address it later on.

6.3 Effective strategies to tackle the climate crisis by government

Respondents suggested various strategies for the government to effectively tackle the climate crisis. The top strategy mentioned by respondents of West Bengal (87%), and Delhi (74%), were enhancing sustainable transportation infrastructure. Likewise, 80% and 72% respondents from West Bengal and Delhi respectively suggested implementing stricter regulations on carbon emissions to tackle climate crisis. Maximum respondents from Tamil Nadu (55%) and Maharashtra (52%) believed that an effective strategy would be to conduct climate education and awareness programs. Prioritizing the development and utilization of renewable energy sources was suggested by 80% respondents from West Bengal followed by 70%, 50% and 45% respondents from Delhi, Tamil Nadu and Maharashtra respectively.

Table 12: Respondents perception of effective government strategies to address the climate crisis (% Response)

Strategies	Delhi	Maharashtra	Tamil Nadu	West Bengal
Enhancing sustainable transportation infrastructure	74.3	51.5	51.7	86.7
Prioritizing the development and utilization of renewable energy sources	69.8	45.0	50.0	79.5
Emphasizing climate education and awareness programs	64.0	52.2	55.2	85.3
Implementing stricter regulations on carbon emissions	72.2	42.8	46.0	80.0
Encouraging community-led initiatives for environmental conservation	65.6	35.3	41.8	71.1
Implementing policies to protect and restore ecosystems	37.5	29.1	37.1	55.7
Others	2.4	0.2		0.7

6.4 The Importance of tackling the climate crisis as a shared global responsibility

A vast majority of respondents across different regions expressed a consensus on the necessity of addressing the climate crisis as a shared global responsibility. In particular, 95% of respondents from Delhi, 94% from West Bengal, 72% from Tamil Nadu, and 71% from Maharashtra either strongly agreed or agreed with the notion that finding solutions to the climate crisis should be a collective effort on a global scale.

Table 13: Percentage distribution of respondents by their stance on whether tackling the climate crisis should be considered a shared global responsibility

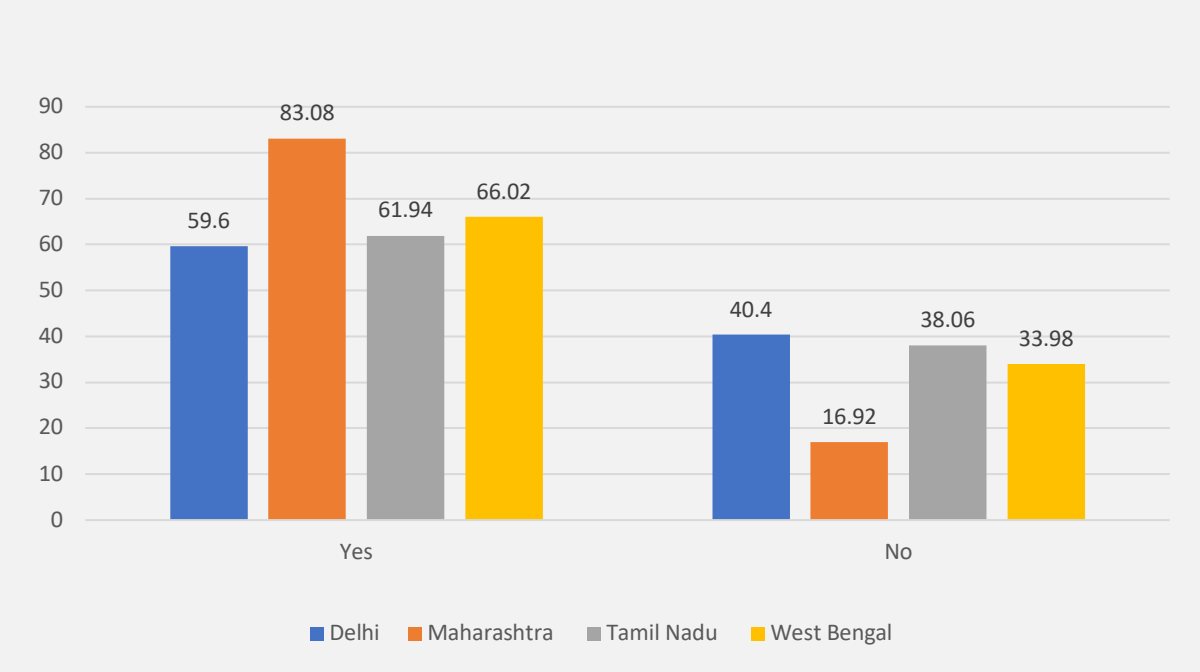
Agreement/Disagreement	Delhi	Maharashtra	Tamil Nadu	West Bengal
Strongly Agree	61.4	32.3	37.3	68.7
Agree	34.4	48.5	35.1	24.3
Neutral	1.3	14.2	21.6	5.3
Disagree	0.3	3.7	4.7	0.7
Strongly Disagree	2.6	1.2	1.2	1.0

07
Expectations from Political Candidates and Parties

7.1 Government's Adequacy in Addressing Climate Change Concerns

The analysis of respondents' perceptions regarding the government's efficacy in addressing climate change concerns reveals a stark contrast between quantitative and qualitative data. While a substantial majority of respondents from Maharashtra believe that the government is adequately addressing climate change (83%), a significant portion from other states, including West Bengal (66%), Tamil Nadu (62%), and Delhi (60%), expressed similar sentiments. However, qualitative discussions shed light on a more critical perspective, emphasizing perceived government shortcomings and the urgent need for more robust action.

Fig 8: Percentage distribution of respondents by their opinion on the adequacy of government action regarding climate change issues



The qualitative insights highlighted various concerns and recommendations regarding government action on climate change including the lack of accountability among political parties, the necessity for greater collaboration, and the need for more effective measures to address climate change. Several recommendations emerged from these discussions, covering diverse strategies aimed at mitigating climate change impacts and promoting sustainable practices.

The opinions expressed by respondents regarding governmental action on climate change are diverse and comprehensive as outlined below:

- Government should promote traditional cultures, such as the tribes who protected forests. However, government interference should be balanced, acknowledging the indigenous knowledge and efforts of these communities. While they may not use scientific terms, they are aware of climate change and adapt accordingly. The government should support their practices while providing alternative options. For instance, promoting organic farming without abruptly halting chemical fertilizer use, as immediate stopping could lead to financial losses. Learning from Sri Lanka's experience, the government should offer viable alternatives to prevent economic crises. **Furthermore, when addressing climate change, environmental priorities should take precedence over development.**
- The government could release a "fact of the day" for both schools and industries. These facts could focus on climate change and related topics. By integrating this into daily routines, it will become a regular part of people's lives, sparking interest and prompting further research and questions.
- Introducing a stream of environmental science in the education curriculum to provide students with comprehensive knowledge and awareness about environmental issues.
- Increased funding should be allocated to agencies dedicated to climate change and environmental issues. Such funding would enable research organizations to delve into the causes of climate change and develop strategies to mitigate its impact. This approach will effectively spread information and encourages action toward addressing climate change.
- Implementing stricter licensing regulations for multinational corporations (MNCs), enforcing laws rigorously to monitor pollution levels from companies
- Encouraging the adoption of electric vehicles (EVs), and investing in infrastructure such as charging stations.
- Setting specific targets to phase out petrol vehicles while recognizing the continued necessity of diesel for certain purposes like tractors.
- By enhancing public transportation services, the government can promote and incentivize the use of public transport among the population. Implementing incentives such as free public transport rides, similar to what many other countries have introduced, to encourage the use of public transportation.
- Providing rewards or incentives for individuals, cities, or localities that excel in areas such as waste management or environmental conservation to motivate people to take initiatives to maintain cleanliness.
- The government should organize awareness programs for employees and workers in industries and factories to educate them about the harmful effects of poisonous gases and possible solutions to reduce them.
- Making it mandatory for companies to follow sustainable development goals (SDGs) and spreading awareness on a larger scale and encouraging companies to develop innovative solutions to address climate change.

- Stricter laws or interventions to compel companies to adopt eco-friendly measures and prioritize environmental healing over economic growth.
- Embracing eco-friendly technologies, particularly renewable energy. Instead of relying solely on coal, more focus on transition to renewable energy sources.
- Involving unemployed labour in waste management activities could be a potential solution
- Need for stricter penal laws to stop climate degradation. Law enforcement agencies must take greater responsibility in this regard, ensuring that punishments and penalties are severe enough to deter harmful actions".
- Government should restrict control over chemical usage, restrictions on waste disposal amounts, and clear processes for waste disposal in industries are imperative. Government regulations must be established to enforce these measures effectively. By implementing proper regulations, large-scale pollution and waste can be significantly reduced and managed.
- Conducting workshops, organizing field visits, and facilitating student travel to provide practical environmental education.
- Appointing ministers and government officials with genuine knowledge about the environment to ensure effective leadership in critical roles.
- Encouraging students to join NGOs and civil societies for practical knowledge rather than mandating NPTEL courses.
- Giving significant importance to students' creative ideas for replacing plastics and implementing these ideas to address environmental challenges effectively.
- Emphasizing strict enforcement of policies and laws, particularly regarding the ban on plastic usage, to ensure effective implementation.
- Prioritizing efforts to control vehicular emissions, given the significant pollution they contribute, and investing in research for sustainable alternatives.
- Drawing inspiration from successful case studies in other countries that have effectively controlled emissions, to inform and guide policy decisions

7.2 Government's adequacy in addressing environmental sustainability

Delhi: While there was strong agreement that the government is effectively promoting sustainable transport methods, with over 80% expressing agreement, other areas receive more mixed responses. Development and promotion of renewable energy sources and implementation of measures for climate resilience both receive moderate levels of agreement, indicating some acknowledgment of government efforts in these areas. However, there was less consensus on the integration of climate education into public awareness initiatives and enforcement of stricter regulations on carbon emissions, with a significant portion expressing neutrality or disagreement. Similarly, support for community-led environmental conservation initiatives and policies to protect and restore ecosystems

was also mixed, suggesting gaps in governmental action in these domains. Overall, while the government appears to be making strides in certain areas such as sustainable transport, there are areas where perceptions of effectiveness are lower, highlighting potential areas for improvement or increased public engagement.

Table 14: Percentage distribution of respondents from Delhi based on their perspective regarding the adequacy of government actions towards environmental sustainability

Environmental sustainability	1 - Strongly Agree	2	3	4	5 - Strongly Disagree
Development and promotion of renewable energy sources	15.6	26.3	21.0	20.0	17.2
Integration of climate education into public awareness initiatives	5.6	23.0	21.7	33.0	16.7
Implementation of measures for climate resilience	11.0	25.1	32.0	24.6	7.4
Enforcement of stricter regulations on carbon emissions	12.8	29.7	25.6	20.5	11.5
Support for community-led initiatives focused on environmental conservation	12.5	14.1	34.8	27.7	11.0
Implementation of policies to protect and restore ecosystems	13.3	30.7	20.0	27.1	9.0
Promotion of sustainable transport methods	50.4	31.5	7.2	6.1	4.9

Maharashtra: Although there was some level of acknowledgment for each issue, including development of renewable energy sources, integration of climate education, implementation of climate resilience measures, enforcement of carbon emission regulations, support for community-led initiatives, implementation of policies for ecosystem protection, and promotion of sustainable transport methods, none of these issues received significant support from the respondents. This suggests that there may be room for improvement in government actions related to climate change across all these fronts, as perceptions are somewhat lukewarm or neutral.

Table 15: Percentage distribution of respondents from Maharashtra based on their perspective regarding the adequacy of government actions towards environmental sustainability

Environmental sustainability	1 - Strongly Agree	2	3	4	5 - Strongly Disagree
Development and promotion of renewable energy sources	10.95	21.64	24.13	26.12	17.16
Integration of climate education into public awareness initiatives	11.94	17.66	25.37	24.38	20.65
Implementation of measures for climate resilience	13.18	16.67	20.9	30.6	18.66
Enforcement of stricter regulations on carbon emissions	11.44	21.89	20.4	24.88	21.39
Support for community-led initiatives focused on environmental conservation	12.94	15.17	24.88	25.87	21.14
Implementation of policies to protect and restore ecosystems	9.7	20.15	23.38	25.12	21.64
Promotion of sustainable transport methods	15.67	23.88	18.66	23.63	18.16

Tamil Nadu: Government's efforts for development and promotion of renewable energy sources, integration of climate education into public awareness initiatives, and support for community-led environmental conservation initiatives received relatively high levels of agreement, indicating effectiveness of the initiatives in these areas. Similarly, implementation of measures for climate resilience and policies to protect and restore ecosystems also received moderate agreement, suggesting acknowledgment of governmental efforts in these domains. However, enforcement of stricter regulations on carbon emissions showed lower levels of agreement, indicating potential scepticism or dissatisfaction with the government's actions in this regard. Despite this, promotion of sustainable transport methods received relatively high levels of agreement.

Table 16: Percentage distribution of respondents from Tamil Nadu based on their perspective regarding the adequacy of government actions towards environmental sustainability

Environmental sustainability	1 - Strongly Agree	2	3	4	5 - Strongly Disagree
Development and promotion of renewable energy sources	21.64	30.1	32.84	12.19	3.23
Integration of climate education into public awareness initiatives	27.36	26.62	30.1	11.44	4.48
Implementation of measures for climate resilience	18.91	28.36	30.1	18.16	4.48
Enforcement of stricter regulations on carbon emissions	18.41	23.63	32.59	15.92	9.45
Support for community-led initiatives focused on environmental conservation	21.14	28.36	31.09	15.17	4.23
Implementation of policies to protect and restore ecosystems	25.12	24.63	28.61	16.92	4.73
Promotion of sustainable transport methods	24.63	31.09	29.1	10.2	4.98

West Bengal: The data indicates that the promotion of sustainable transport methods received the highest level of agreement from the respondents, suggesting strong support for the government's efforts in this area. Similarly, there is notable agreement on the enforcement of stricter regulations on carbon emissions and development and promotion of renewable energy sources. However, integration of climate education into public awareness initiatives, implementation of measures for climate resilience, support for community-led environmental conservation initiatives, and implementation of policies to protect and restore ecosystems received more mixed responses. While there is some agreement, there are also significant proportions expressing disagreement or neutrality suggesting potential areas for improvement or further engagement by the government in these aspects of climate action.

Table 17: Percentage distribution of respondents from West Bengal based on their perspective regarding the adequacy of government actions towards environmental sustainability

Environmental sustainability	1 - Strongly Agree	2	3	4	5 - Strongly Disagree
Development and promotion of renewable energy sources	25.3	33.25	18.55	18.55	4.34
Integration of climate education into public awareness initiatives	18.55	37.83	23.61	15.18	4.82
Implementation of measures for climate resilience	16.14	37.59	24.1	16.39	5.78
Enforcement of stricter regulations on carbon emissions	26.02	32.05	17.35	18.31	6.27
Support for community-led initiatives focused on environmental conservation	13.73	40.24	22.89	17.59	5.54
Implementation of policies to protect and restore ecosystems	14.46	35.42	26.75	16.63	6.75
Promotion of sustainable transport methods	34.94	25.54	14.46	20.72	4.34

7.3 Key factors impacting choice of political candidates or parties

Across the survey locations, more than 50% respondents indicated that one of the factors impacting their choice of political candidates or parties would be those committed to addressing climate change issues indicating a growing awareness of environmental sustainability among the respondents.

Table 18: Percentage of respondents' perspectives on factors influencing their choice of political candidates or parties

Factors	Delhi	Maharashtra	Tamil Nadu	West Bengal
Emphasis on addressing economic crises	49.9	53.2	50.2	85.8
Prioritizing solutions for public health crises	57.2	37.6	52.2	76.4
Commitment to addressing climate change issues	50.4	52.2	52.2	79.3
Strategies to bridge social divides	30.7	44.8	48.3	58.6
Dedication to reducing social inequality	36.7	30.8	43.5	47.2
Plans for addressing youth unemployment	62.2	37.3	48.8	86.5
Commitment to tackling gender inequality	19.9	17.4	31.6	34.2
Others	2.6	0.2	NA	0.2

During the focus groups, most participants expressed doubts regarding whether political parties would prioritize environmental and climate change issues. They noted the absence of such topics in political party manifestos, indicating a lack of attention to these crucial issues within political agendas.

"I have never seen any political party who talk about environment and climate change in their manifesto – FGD participant, Delhi

Few of them also were of the view that all issues, whether economic crises or climate change, are interconnected, therefore they felt that it is important to recognize that these issues are intertwined and cannot be addressed in isolation. ***"Focusing solely on one issue while ignoring others may lead to incomplete solutions"***

According to the participants from **Pune**, there are political parties who express concerns about environmental issues, yet these concerns often fail to translate into actions. They specifically talked about a report in The Times of India wherein it was reported that **climate change and environmental issues are among the least discussed topics in the Rajya Sabha.**

FGD participants from **Mumbai** believed that political candidates should take up the issue of climate change seriously because as future political leaders, they will have significant power to shape policies and decisions. Their actions will have a direct impact on fund allocation and policy making. Therefore, it is essential that they be well-informed about these issues and work towards reversing the damage done in the past.

Few participants from **Coimbatore** questioned whether political candidates are truly aware of environmental issues before campaigning and expressed skepticism about political promises

regarding environmental issues. ***In the delta region of Tamil Nadu, improved canal irrigation accessibility was promised during canvassing, but its fulfilment remains uncertain post-elections.***

Most participants were of the view that all the political candidates should have basic knowledge of the environmental issues. Majority of the participants stated that none of the candidates addressed environmental issues during the elections. "***Political parties need to grasp the severity of the climate crisis to initiate effective solutions. Climate issues must be integrated into their manifestos. Additionally, since parties formulate policies and control funding, candidates must be well-versed in climate matters to allocate resources for research and mitigation efforts".***

Participants also felt that parties exploit trendy problems to enhance their vote bank without addressing core environmental concerns.

Engaging students in climate-related initiatives and awareness programs

The participants suggested a range of multifaceted approach for fostering environmental stewardship among the youth. Engaging students in climate-related initiatives and awareness programs will cultivate a generation of environmentally conscious citizens poised to address pressing global challenges. The following strategies emerge from the discussion:

a. **Integration with Existing Campaigns**: Suggestions include involving students in initiatives like the Swachh Bharat campaign and empowering them to conduct awareness programs in villages about climate change. This aligns with existing national efforts and maximizes outreach.

b. **Practical Engagement**: Rather than limiting students to theoretical projects, there is a call for practical fieldwork. Collaborating with NGOs provides a platform for hands-on experiences, enabling students to grasp real-world issues and solutions effectively.

c. **Community Service Mandate**: Proposals to mandate community service hours for all students offer a structured approach to engagement. By making it a requirement, schools ensure widespread participation and foster a culture of civic responsibility.

d. **Government Internships**: Encouraging students to pursue internships in Government-funded part-time positions serves a dual purpose. It not only raises awareness but also provides valuable employment opportunities, enhancing the impact of educational initiatives.

e. **Workshops and Meetings**: Participation in workshops and meetings focusing on environmental issues supplements classroom learning. These platforms facilitate dialogue, knowledge exchange, and networking, enriching students' understanding and commitment to environmental causes.

f. **Hands-on Activities**: Engaging students in hands-on plantation activities directly involves them in environmental conservation efforts. This practical approach instills a sense of ownership and empowers students to make tangible contributions to sustainability.

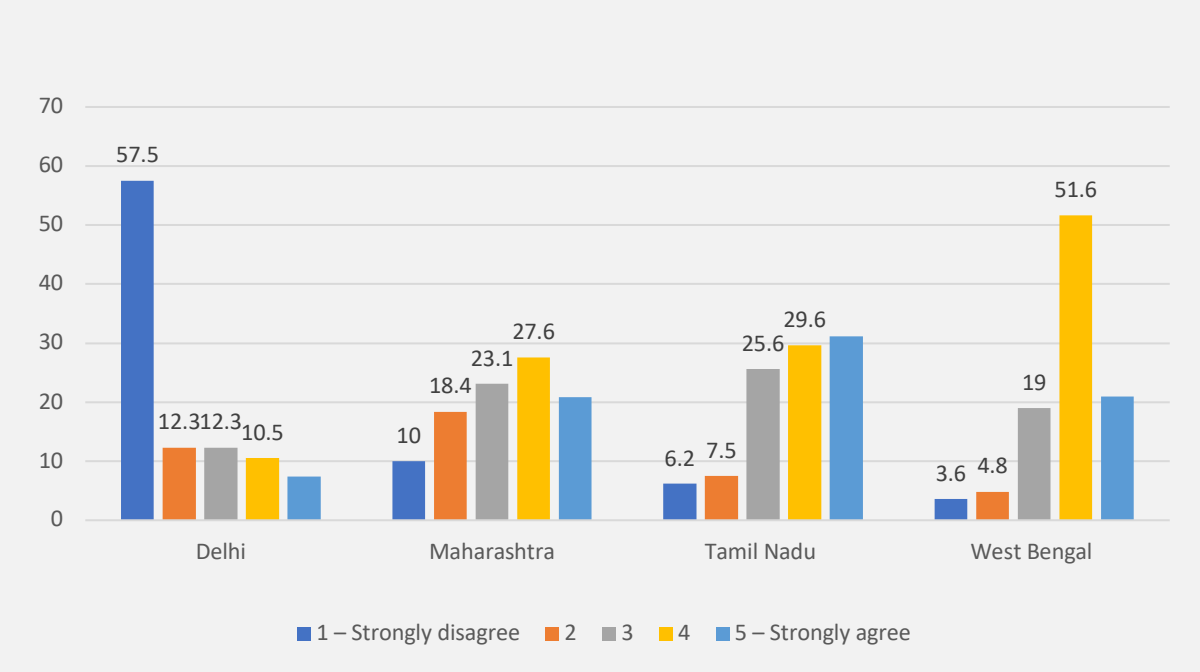
g. **Incentivizing Participation**: Recognizing and rewarding students' active involvement in environmental initiatives can significantly boost engagement. Offering incentives such as awards or certificates for activities like waste collection and tree planting fosters a sense of achievement and reinforces the value of environmental stewardship.

08
Evaluate Statements on Political and Personal Power: Agree or Disagree?

A set of five statements were presented to the respondents, who were then asked to indicate their level of agreement or disagreement, with a rating scale ranging from 1 for strongly disagree to 5 for strongly agree.

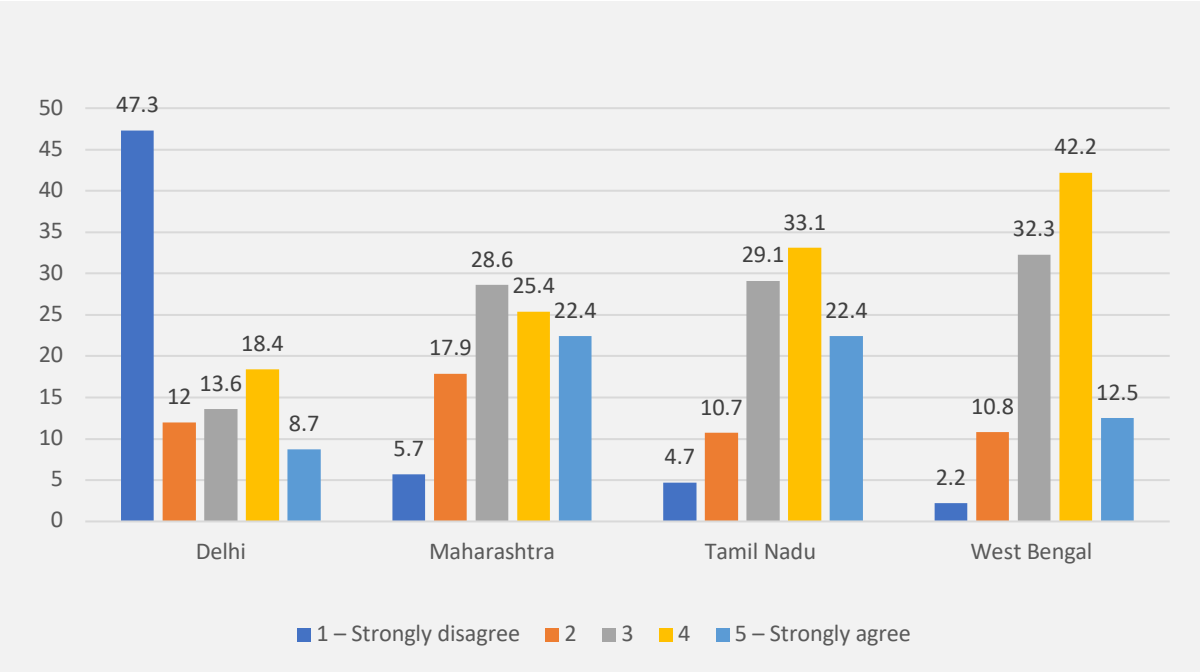
The majority of respondents from West Bengal (73%), Tamil Nadu (61%), and Maharashtra (49%) either strongly agreed or agreed with the statement "I can make myself heard so that decision-makers consider my opinion." However, in Delhi, nearly 69% of respondents disagreed with this sentiment, indicating a lack of optimism regarding their ability to influence decision-makers.

Fig 9: I can make myself heard so that decision-makers consider my opinion



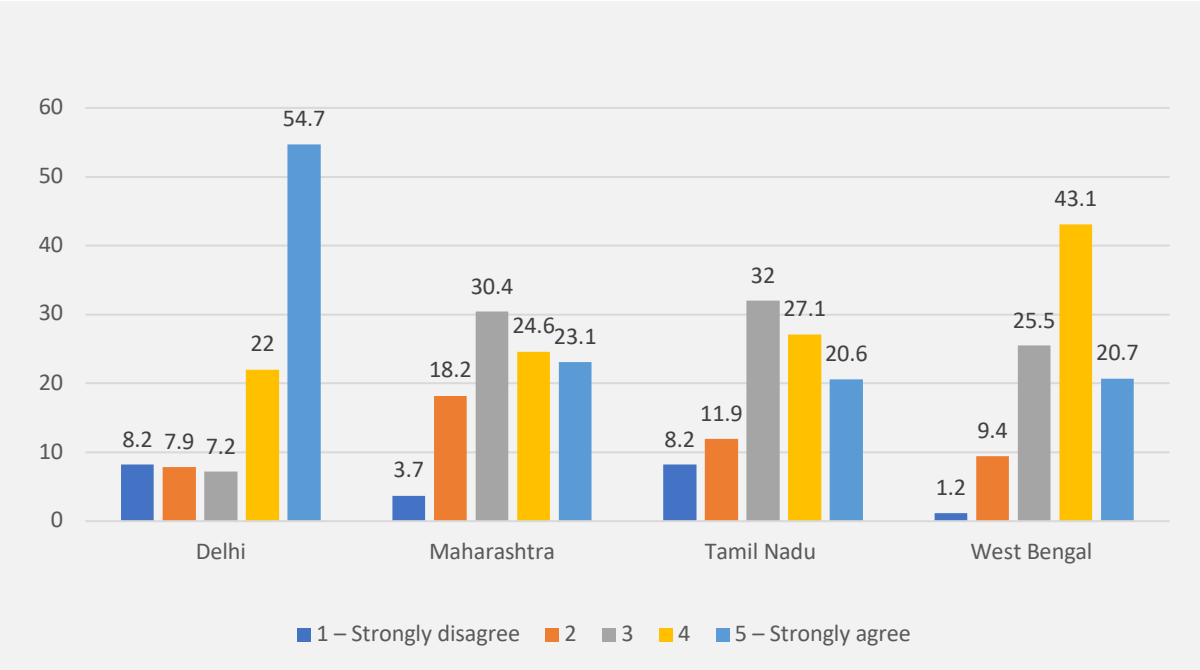
Approximately 55% of respondents each from West Bengal and Tamil Nadu, and 47% from Maharashtra, believed that their voices are heard in their community. However, the majority of respondents from Delhi disagreed with the statement "My voice is heard in my community."

Fig 10: Statement 2: My voice is heard in my community



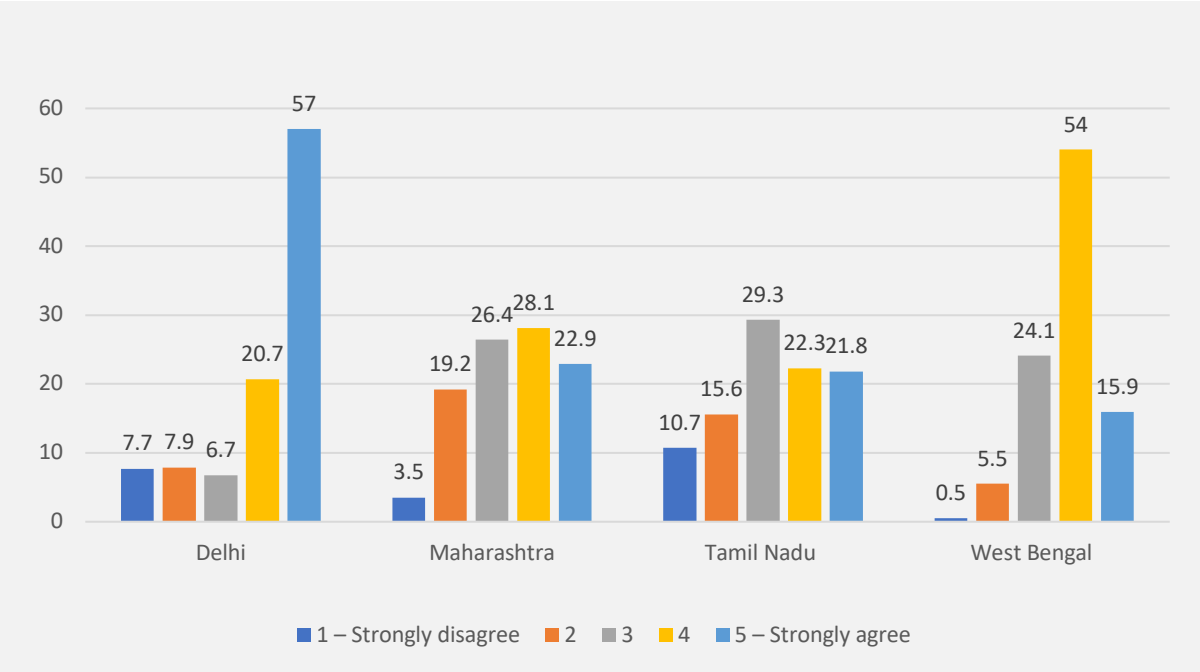
The prevailing sentiment across all survey locations was that respondents believed they had the power to effect change in matters important to them. A significant 77% of respondents from Delhi agreed with the statement "I have the power to change things that are important to me." Similarly, this sentiment was echoed by 64%, 48%, and 47% of respondents from West Bengal, Tamil Nadu, and Maharashtra, respectively.

Fig 11: Statement 3: I have the power to change things that are important to me



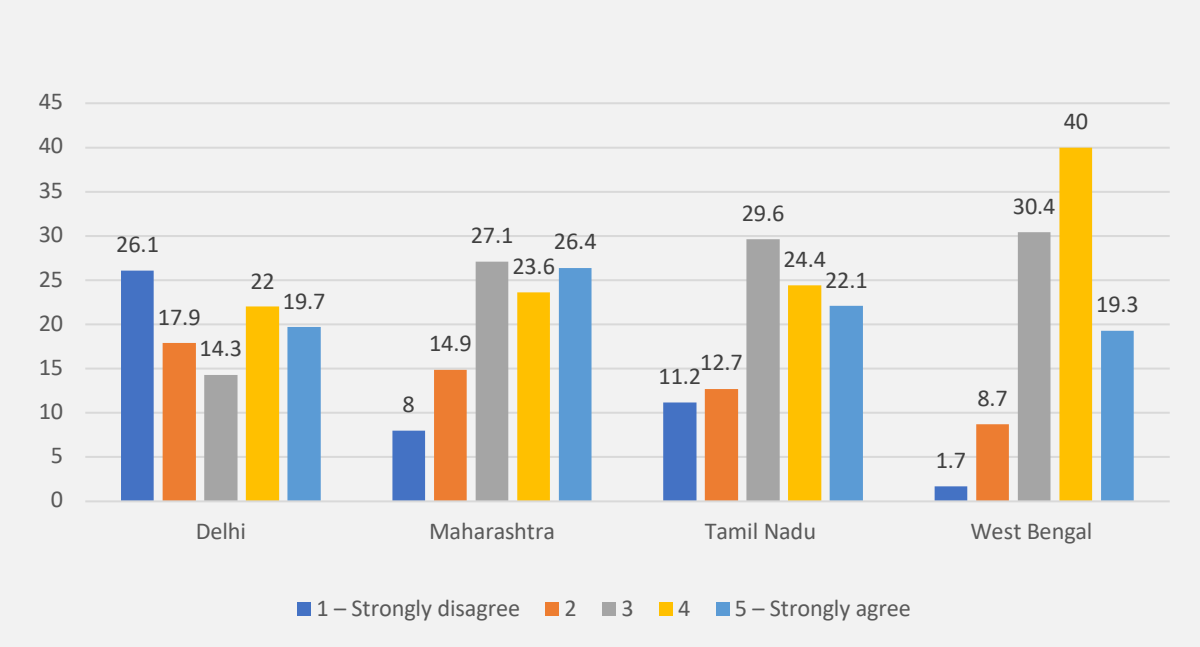
A notable percentage of respondents from Delhi expressed confidence in their ability to control their career and professional development. Likewise, the statement “I have control over my career and professional development” was endorsed by 70%, 51%, and 44% of respondents from West Bengal, Maharashtra, and Tamil Nadu, respectively.

Fig 12: Statement 4: I have control over my career and professional development



Roughly 59% and 50% of respondents from West Bengal and Maharashtra, respectively, believed they could influence decisions that impact their communities. In contrast, the proportion of respondents from Tamil Nadu and Delhi who agreed with the statement "I influence decisions that affect my community" was 46% and 42%, respectively.

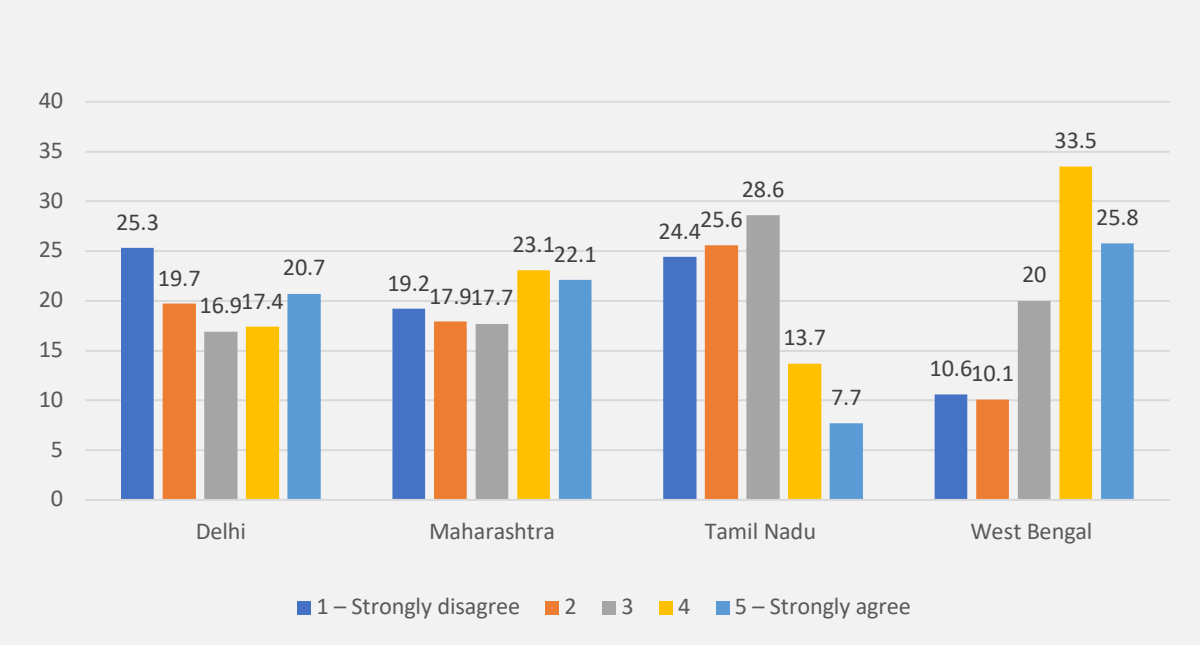
Fig 13: Statement 5: I influence decisions that affect my community



09
Political Engagement, Optimism and Nostalgia: Agree or Disagree?

The majority of respondents from West Bengal (62%) and 45% from Maharashtra strongly agreed or agreed with the statement "I have disengaged with the present political system." However, half of the respondents from Tamil Nadu and 45% from Delhi disagreed with the notion that they had disengaged from the political system.

Fig 14: Statement 1: I have disengaged with the present political system



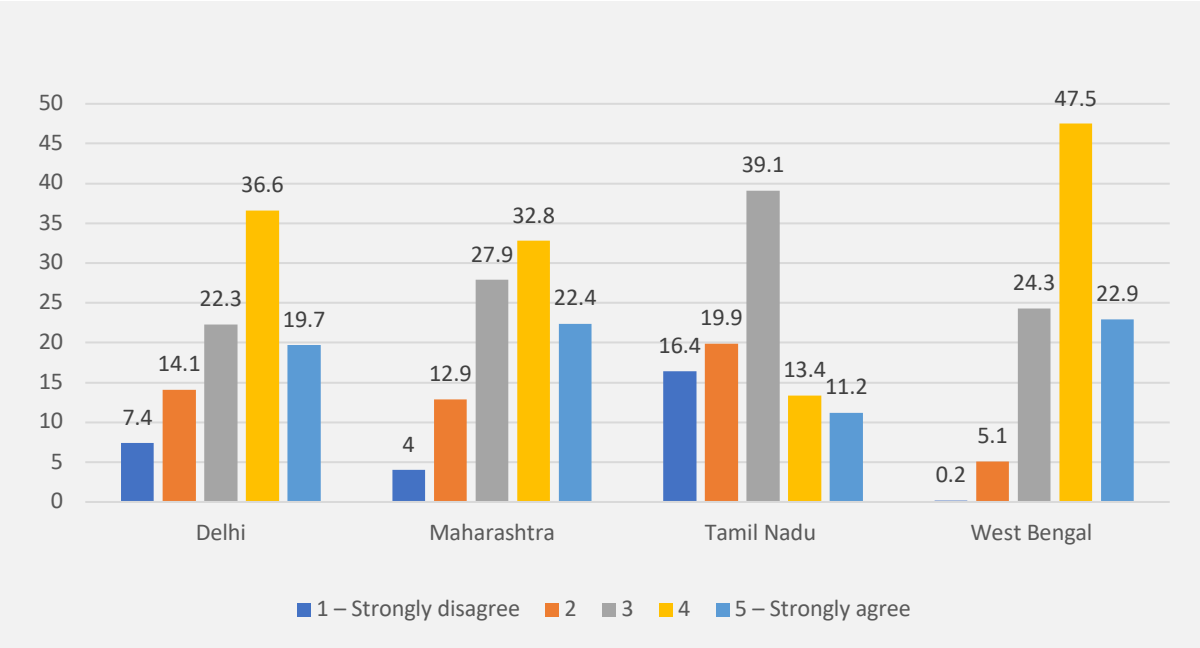
A substantial majority of respondents from West Bengal (75%), Delhi (57%), and Maharashtra (51%) held the view that the past was much better to the present times. In contrast, only 27% of respondents from Tamil Nadu shared this sentiment.

Table 19: Statement 2: The past was much better than today

Location	1 – Strongly disagree	2	3	4	5 – Strongly agree
Delhi	17.4	15.9	9.2	21.7	35.8
Maharashtra	5.2	17.4	22.9	23.1	31.3
Tamil Nadu	14.2	26.1	32.6	11.9	15.2
West Bengal	1.0	5.5	18.8	52.8	21.9

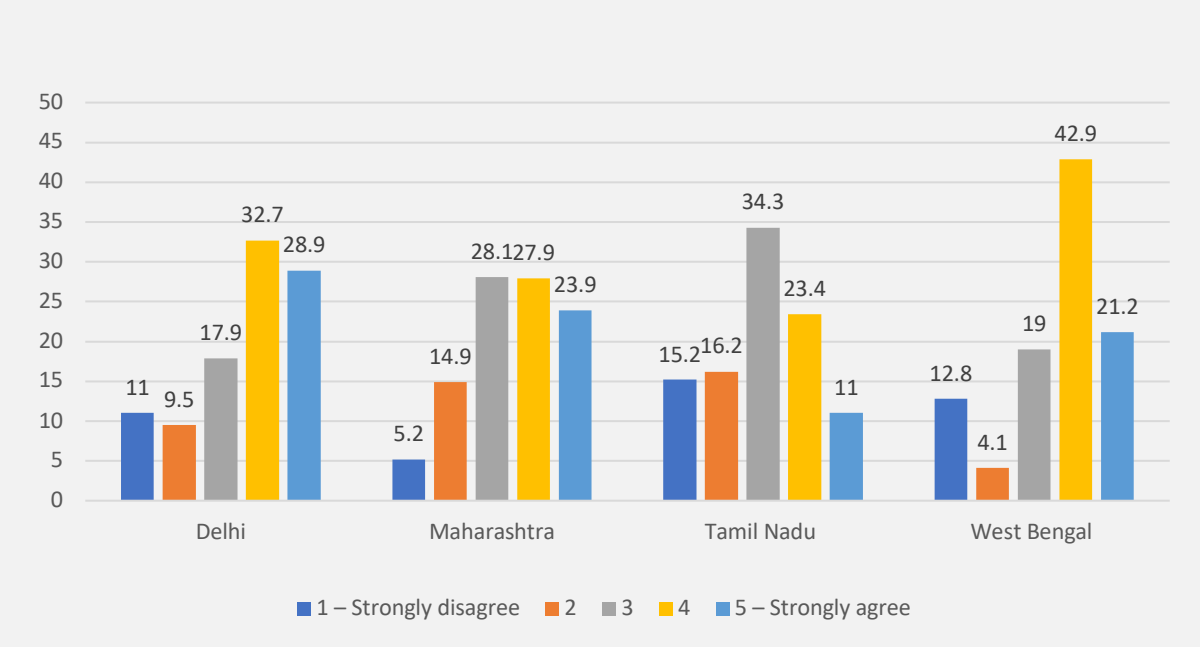
The majority of respondents from West Bengal (70%), Delhi (57%), and Maharashtra (55%) expressed optimism, agreeing with the statement "I think that we will soon solve most of the crises we face." In contrast, only 24% of respondents from Tamil Nadu shared this optimism, with approximately 39% remaining neutral on the matter.

Fig 15: Statement 3: I think that we will soon solve most of the crises we face



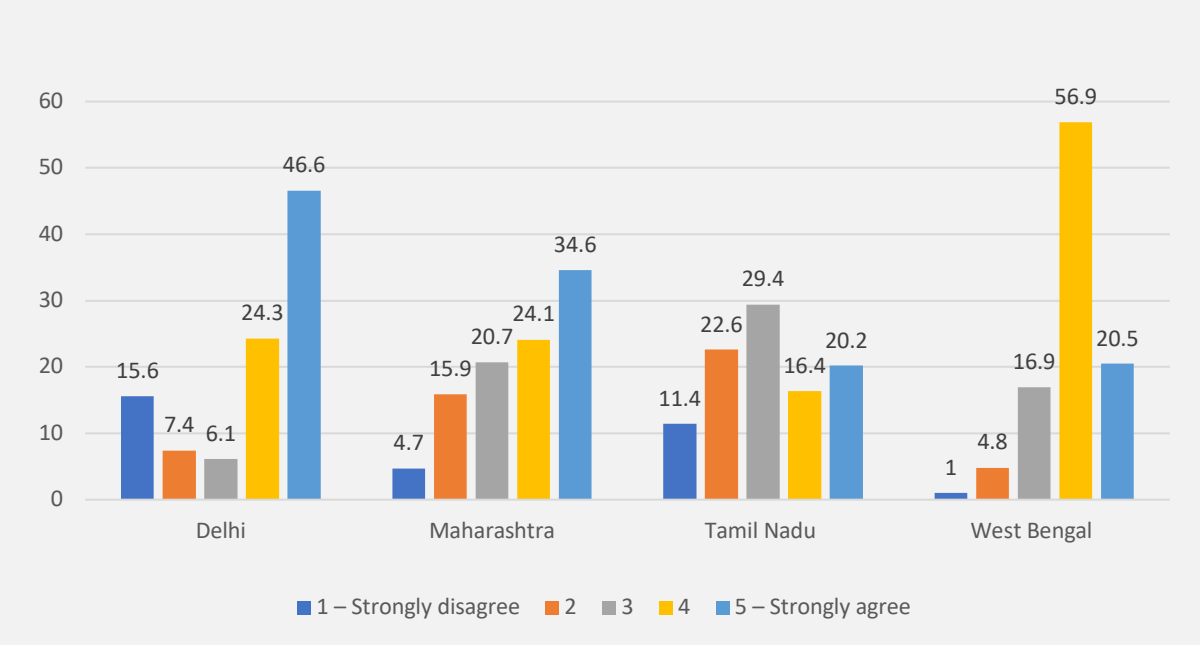
A significant proportion of respondents from West Bengal (64%), Delhi (62%), and Maharashtra (52%) expressed confidence that their children would have a better life than themselves. However, in Tamil Nadu, only 34% agreed with the statement "My children will have a better life than me."

Fig 16: Statement 4: My children will have a better life than me



The majority of respondents from West Bengal (77%), Delhi (71%), and Maharashtra (59%) expressed agreement with the sentiment "I wish we could return to simpler times." On the contrary, only 37% of respondents from Tamil Nadu endorsed the statement.

Fig 17: Statement 5: I wish we could go back to simpler times



10
Conclusions

The findings from this survey provide valuable insights into the perceptions, attitudes, and expectations of first-time voters regarding climate education. It is evident that while there is a baseline level of awareness about climate change among respondents, there are significant gaps and shortcomings in the quality, depth, and coverage of climate education in both schools and colleges across different regions of the country. Despite some positive initiatives and learning experiences reported by respondents, such as awareness about global warming, pollution, and sustainable practices, there remains a pressing need for improvement in various aspects of climate education.

Across various regions, there is a clear consensus on the importance of incorporating climate education into academic curricula, with respondents highlighting its role in empowering students, fostering sustainable practices, and promoting global citizenship. Furthermore, there is a notable recognition of the shared global responsibility in addressing the climate crisis, indicating a growing awareness among the youth about the interconnectedness of environmental issues and the need for collective action.

The survey also sheds light on the diverse perspectives regarding the causes of the climate crisis, with respondents attributing responsibility to individual citizens, governments, industries, and corporations. This highlights the complexity of the issue and the necessity for multi-faceted solutions involving both governmental action and individual responsibility.

Despite the acknowledgment of government efforts in certain areas, there are clear areas for improvement identified by respondents, including the integration of climate education into public awareness initiatives, stricter enforcement of regulations, and greater support for community-led environmental conservation initiatives.

11
Recommendations

1) **Strengthen Curriculum Content:** Education policymakers should review and revise existing curriculum frameworks to ensure comprehensive coverage of climate change topics. The curriculum in schools should provide in-depth information on climate change rather than solely focusing on basic concepts such as pollution effects and types, newer aspects of environmental science, including climate change dynamics, mitigation strategies, individual actions to combat climate change and sustainable practices should be incorporated. While existing topics like acid rain and ozone depletion are mentioned, there is a need to enhance coverage by moving beyond theoretical discussions to adopt a practical approach. Enriching the syllabus with detailed and up-to-date information on these critical issues, students can gain knowledge and understanding needed to address one of the most pressing challenges of our times.

   The curriculum could also incorporate successful international case studies related to climate action and mitigation strategies and policy decisions on emissions control and environmental protection. Learning about successful approaches from other nations will encourage critical thinking and foster a sense of global citizenship and empower students to contribute to environmental sustainability efforts.

2) **Integrate Climate Education Across Subjects:** Climate education should be integrated across various subjects rather than confined to environmental science classes. This interdisciplinary approach can help students recognize the interconnectedness of environmental issues with other societal challenges and foster a holistic understanding of climate change.

3) **Early Integration of Climate Education:** There is a pressing need to introduce climate education at an early age to instil environmental literacy and sustainable practices from childhood. Primary and secondary schools should incorporate age-appropriate climate education modules into their curriculum.

4) **Gradual Coverage of Climate Change Topics:** To ensure age-appropriate learning, the coverage of climate change topics should progressively increase as students advance through different grades. This approach allows students to build upon their understanding over time, grasping complex concepts at a pace suitable for their development.

5) **Promote Practical Engagement:** Schools and educational institutions should facilitate hands-on activities, fieldwork, internships, and community service projects related to climate change. Practical engagement can deepen students' understanding and commitment to addressing environmental challenges.

6) **Interactive and Experiential Learning:** Interactive and experiential learning approaches are essential to actively engage students in exploring climate change issues. Incorporating hands-on experiments, field trips, and case studies provides tangible experiences that deepen understanding and foster a sense of connection to environmental challenges.

7) **Student-led Environmental Sustainability Initiatives:** Establishing a student-led forum or club focused on environmental sustainability cultivates interdisciplinary collaboration and provides access to resources and support. Encouraging participation in events, competitions, and integrated curriculum activities fosters a culture of sustainability within the school community, empowering students to take proactive steps towards environmental stewardship.

8) **Group Projects and Debates:** Organizing group projects, debates, and discussions on climate-related topics enhances awareness and understanding of environmental issues among students. These activities provide opportunities to share knowledge, ideas, and concerns with peers, fostering empowerment and creating environmentally conscious citizens who are motivated to initiate positive change in their communities

9) **Awareness and Dissemination of Information:** There is a need for widespread dissemination of information about climate change and its consequences. Efforts should be made to raise awareness among students, educators, policymakers, and the general public through various channels, including schools, colleges, media, and community outreach programs.

10) **Policy Advocacy and Implementation:** Advocacy efforts should be made to make climate education mandatory in schools and colleges, with potential adjustments to the credit scoring system to reflect its importance. Moreover, there is a need for policy interventions to ensure the effective implementation of climate education initiatives at all levels of the education system.

11) **Political Commitment and Advocacy:** Political leaders and parties should prioritize climate change issues in their agendas/manifestos and demonstrate tangible commitments to environmental sustainability. Voters should advocate for policies and candidates that prioritize climate action and hold elected officials accountable for their environmental stewardship.

12) **Engage Youth in Climate Initiatives:** Governments, NGOs, and educational institutions should collaborate to provide platforms for youth engagement in climate-related initiatives and awareness programs. Activities such as workshops, meetings, plantation drives, and internships can empower young people to become active participants in environmental stewardship.

13) **Foster Confidence in Personal and Political Influence:** Efforts should be made to empower individuals, particularly youth, to believe in their capacity to effect change both personally and politically. Educational programs and community initiatives can help build confidence and skills for active citizenship and advocacy.

14) **Address Regional Disparities:** Recognize and address regional disparities in access to quality education and perceptions of influence. Tailored interventions may be necessary to ensure equitable access to climate education and opportunities for civic engagement across different regions of India.

15) **Continuous Assessment and Improvement:** Regular assessment and feedback mechanisms should be established to monitor the effectiveness of climate education programs and identify areas for improvement. This includes gathering input from students, educators, and stakeholders to ensure that climate education remains relevant and impactful.