chintan
environmental research and action group

NEW DELHI || 2024

PARYAVARAN SAATHI: YOUNG LEADERS FOR CLIMATE ACTION

BASELINE ASSESSMENT REPORT:ASSESSING IMPACT & BUILDING CLIMATE RESILIENCE IN BHALSWA AND BHOPURA

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About Chintan Environmental Research and Action Group

Chintan is a non-profit organization that works in the areas of circularity and waste, air pollution and climate change. Using collaborations with diverse stakeholders and evidence-based action, Chintan applies its Lives-Livelihoods-Leadership framework to seek environmental solutions that simultaneously address inequity and poverty, especially for women and children, who are at the centre of its work.

About this Report

This baseline report presents findings from a structured assessment conducted prior to the rollout of CHINTAN's climate education program with students across its Learning Centres in Bhalswa and Bhopura, Delhi NCR. Designed to evaluate students' initial knowledge, attitudes, and practices (KAP) related to environmental and climate issues, the survey aimed to understand the level of climate literacy among children and youth in these communities. .The data was collected through close-ended questionnaires administered in December 2023, with the support of trained facilitators and educators. The baseline findings not only highlighted critical learning gaps but also informed the design of context-specific, age-appropriate lesson plans for the year-long intervention. This report serves as a foundation for measuring change over time and tailoring climate education to the lived realities of children from waste picker communities facing systemic environmental risks.

Team

Ashima Gulati, Bharati Chaturvedi

Acknowledgements

We extend our sincere appreciation to the students and families of Bhalswa and Bhopura for their participation in this baseline assessment. Their insights provided a critical foundation for designing a responsive climate education program. We thank the dedicated teachers and learning centre staff for supporting the research process, and the nine trained interviewers whose efforts ensured rigorous and ethical data collection. Finally, we acknowledge our partners and donors whose support made this assessment possible and will continue to guide impactful implementation.

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Executive Summary

Climate change is one of the most pressing global challenges of the 21st century, with **disproportionate impacts on marginalized and vulnerable communities**. In urban slum environments like **Bhalswa and Bhopura**, where communities live in close proximity to landfills and work as waste-pickers, exposure to environmental hazards and climate-induced disasters is a daily reality. **Poor air quality, waste accumulation, and limited access to clean water and sanitation** further exacerbate health and livelihood challenges. Despite these risks, **awareness and understanding of climate change remain low** among children and young people in these areas, leaving them unprepared to navigate its impacts.

Recognizing this gap, Chintan Environmental Research and Action Group (**CHINTAN**) launched **Paryavaran Saathi: Young Leaders for Climate Action**, a climate change education initiative designed to equip young learners with the knowledge, skills, and agency to address environmental challenges and to build their adaptive capacity and resilience to the adverse impacts of climate change. As a preparatory step for program implementation, a **baseline assessment** was conducted to evaluate students' existing **knowledge, attitudes, and practices (KAP) related to climate change**. This assessment serves as a critical reference point for measuring progress and identifying areas for targeted intervention.

The primary objective of this baseline assessment was to understand the level of climate literacy among children and youth in these communities. Specifically, the study aimed to assess students' awareness of climate change, their understanding of its causes and impacts, their perceptions of responsibility, and their willingness and ability to take action. Additionally, the assessment sought to identify barriers preventing young people and their families from adopting climate-resilient solutions.

The study was conducted across CHINTAN-affiliated learning centers in Bhalswa and Bhopura, targeting children and adolescents between the ages of **10 and 18 years**. A total of **457 students** participated in the survey, which was conducted between **November 17 and November 24, 2023**. The data collected through this assessment provides a foundational understanding of students' climate awareness and engagement, offering insights to shape the educational interventions planned as part of **Paryavaran Saathi: Young Leaders for Climate Action**.

Methodology

The study adopted a **pre-post research design**, allowing for a **direct comparison between students' knowledge, attitudes, and behaviours before and after the program**. The **Knowledge, Attitudes, and Practices (KAP) questionnaire** was developed as the primary data collection tool and was designed to capture both quantitative and qualitative insights. The baseline assessment was conducted **before the intervention**, serving as a **reference point for students' initial climate awareness, engagement, and misconceptions**. An **endline assessment** will be conducted at the conclusion of the program to measure **progress and behavioural change** over time.

A total of **457 students participated** in the **baseline assessment**, conducted across **CHINTAN-affiliated learning centers in Bhalswa and Bhopura** between **November 17 and 24, 2023**. The assessment included **students aged 10 to 18 years**, selected based on their enrollment in CHINTAN programs, ensuring that the sample represented children and adolescents from waste picker communities who are most vulnerable to climate-related risks.

To ensure **a robust and unbiased data collection process**, **structured one-on-one interviews** were conducted using the standardized KAP questionnaire. The survey was administered by **nine trained interviewers**, who were already familiar with the students and their communities. This enhanced data accuracy by ensuring that respondents felt comfortable and supported while answering climate-related questions.

Data Collection and Ethical Considerations

To ensure a **safe and comfortable environment** for students, all **interviews were conducted in CHINTAN learning centers**, familiar spaces where respondents could freely express their views. The data collection process was designed to be efficient and accurate, with responses **recorded digitally using Google Forms on smartphones**, enabling **real-time data entry and minimizing transcription errors**. This digital approach improved efficiency and ensured the accuracy of responses, reducing the likelihood of data loss or inconsistencies. The study adhered to **strict ethical guidelines**, prioritizing **voluntary participation, informed consent, and data confidentiality**. All respondents and their guardians were informed about the purpose of the assessment, and

participation was **entirely voluntary**. To protect students' privacy, personal data was anonymized, and access to raw data was restricted to authorized personnel only.

To maintain the **integrity of the data collection process**, all interviewers underwent **comprehensive training** in **neutral questioning techniques**. This ensured that students' responses were not influenced by interviewer biases or leading questions. By following these ethical and methodological safeguards, the assessment aimed to capture **students' genuine understanding and perceptions of climate change**, providing a reliable foundation for evaluating climate literacy and engagement in landfill communities.

Limitations

While every effort was made to ensure the **accuracy and reliability of findings**, certain **limitations** must be acknowledged. These factors may have influenced the results and should be considered when interpreting the baseline assessment data:

a. **Self-Reported Data Bias:** The assessment relied on **students' self-reported responses**, which may have been influenced by **social desirability bias** or **misinterpretation of questions**. Some students may have provided answers they believed to be correct rather than reflecting their actual knowledge, attitudes, or behaviours.

b. Variability in Prior Climate Knowledge: The students surveyed came from **diverse climate educational backgrounds**, with **some having prior exposure to environmental education** while others had little to no understanding of climate issues. This variation in baseline knowledge may have affected the depth of responses, particularly for open-ended questions.

c. Occasional **connectivity issues** during data collection led to disruptions in real-time data entry, requiring re-entry of responses in some cases.

Key Findings

The baseline assessment highlights **significant gaps in climate literacy, attitudes, and engagement among students in Bhalswa and Bhopura**, underscoring the need for structured climate education and community engagement. The findings reveal low awareness of climate change, gaps about its impacts, limited engagement in climate action, and a lack of access to reliable climate-related information.

a. **Low Awareness and Understanding of Climate Change**: The assessment found that **58.21% of students had no knowledge of climate change**, and **78.34% were unaware of its causes**. **Only 8.97% of students could clearly explain climate change**, indicating a **significant gap in foundational climate literacy**.

   When asked about **the causes of climate change**, **78.34% of students stated they did not know anything about it**, while **only 6.12% were well-informed and able to explain it**. Additionally, **40.92% of students correctly identified human activities as a driver of climate change**, but **24.29% believed it was caused only by natural factors**, highlighting widespread gaps in climate awarenesses.

   Understanding of **climate change impacts was also low**, with **80.74% of students unable to explain how climate change affects their communities**. **Only 5.26% of students were confident in describing its effects**, while **14.00% had heard about it but could not explain further**. These gaps suggest that while students may observe **environmental changes**, they **struggle to connect them to climate change**.

b. **Attitudes towards Climate Change**: While **54.92% of students believed that climate change was affecting their community**, **29.10% were unsure**, and **15.98% stated that it was not affecting them**. These findings indicate that although **s**ome students recognize climate change as a local issue, a significant proportion either do not associate it with their surroundings or are uncertain about its relevance. Students demonstrated limited awareness of how climate change impacts vulnerable groups, particularly women and youth. While **66.52% of students recognized that climate change affects their mothers**, **only 9.2% acknowledged that women are disproportionately impacted by climate change**. Additionally, **77.24% of students believed that young children are or will be more affected by climate change**, yet a sizeable proportion remained unaware of its disproportionate impact on women and marginalized communities.

Moreover, students' attitudes toward their own role in climate action were mixed. **47% believed they were too young to take climate action**, reflecting low self-efficacy and a sense of helplessness in contributing to climate solutions. These findings suggest a need for interventions that empower students with agency and confidence to engage in climate action. However, the baseline assessment revealed a strong desire among students to learn about climate change, with **78.56% expressing interest in gaining more knowledge**. Additionally, **96.28% stated that they wanted to be informed about climate change and environmental issues**, indicating a widespread willingness to engage with climate education. The motivations driving students to take climate action were diverse but largely underdeveloped. **32.17% of students cited problem-solving as their main reason for engaging in climate action**, while **21.66% were motivated by a love for the environment and ecosystems**. Other motivations included **personal reasons (7.22%) and potential economic opportunities (3.72%)**, but **35.23% of students reported having no motivation at all to take action**, indicating a significant gap in awareness, engagement, and perceived personal agency.

c. **Limited Engagement in Climate Action**: Despite daily exposure to environmental hazards, student engagement in climate action was minimal. **58.64% of students reported that neither they nor their families had taken any steps to address climate change**, while only **20.57% stated that they or their families had taken action**. Additionally, **20.79% were uncertain** about whether their families had done anything to mitigate climate change.

   When asked about **individual steps to reduce climate change**, **50.98% of students identified tree planting**, while **47.05% recognized waste reduction as an effective measure**. However, knowledge of **other climate actions** was **much lower**, with **only 29.98% identifying water conservation, 17.29% recognizing energy efficiency, and 9.63% mentioning renewable energy sources**. **26.26% of students selected "Don't Know"**, indicating that many students were unaware of practical climate solutions.

d. **Awareness and Engagement in Climate Adaptation**: Students exhibited **very low awareness of climate adaptation strategies**, with **84.90% stating that they had no knowledge of adaptation measures**. Only **4.82% of students were able to explain adaptation strategies**, demonstrating that students are largely unaware of how to protect themselves from climate impacts. When asked about **specific adaptation strategies**, **only 15.75% of students linked climate change to changing rainfall patterns, 15.54% identified flooding as a risk, and 6.56% recognized droughts as an issue**. The majority **(54.49%) stated that they did not know about climate adaptation at all**.

   The assessment also revealed critical gaps in household disaster preparedness, with **70.02% of students reporting that their families did not have an emergency kit**, making them **highly vulnerable to climate-induced disasters**. Additionally, **only 17.07% of students were aware of the types of disasters that could impact their communities**, indicating an urgent need for disaster preparedness education.

e. **Sources of Climate Information and Education Gaps**: The baseline findings reveal that **students have limited access to reliable climate information**. **43.33% of students had never received climate-related education through any medium**, and **71.77% had never searched for climate-related content online**.

   While **59.30% of students had been exposed to climate discussions in school**, a **substantial 40.70% had no exposure to climate change topics in their education**, highlighting gaps in formal school-based climate learning. Additionally, **only 7.88% of students relied on social media for climate-related information**, indicating that digital engagement with climate issues remains low.

   Students also reported difficulties in accessing and understanding climate information. **29.10% found the information too technical or difficult to understand**, and **18.38% felt that there was not enough information provided**. **20.57% stated that climate change was not taught at their school**, while **4.60% relied on community meetings as their primary source of information**.

f. **Emotional Distress and Climate Anxiety**: Climate change has a significant emotional impact on students, with **22.32% reporting feelings of sadness, 15.10% experiencing fear and anxiety, and 33.70% stating that they lacked enough information to process their emotions**. Additionally, **6.13% of students expressed indifference**, while **4.81% reported feelings of hope**.

   These responses suggest that while many students feel deeply affected by climate issues, they lack the necessary tools to channel these emotions into constructive action. Furthermore, a lack of accessible

information and discussions about climate change may contribute to emotional distress, reinforcing the need for climate education programs that incorporate emotional resilience and agency-building strategies.

Recommendations

The findings from the **baseline assessment** highlight **critical gaps in climate awareness, perceptions, and practices** among students living in **landfill communities**. To address these gaps, the **Paryavaran Saathi: Young Leaders for Climate Action** program must implement **targeted interventions** that **enhance climate literacy, build adaptive capacity, and foster proactive engagement in climate action**. The following recommendations focus on strengthening climate education, increasing student agency, and promoting climate-resilient behaviours:

1. **Strengthening Climate Change Education**: The baseline findings reveal that **58.21% of students had no knowledge of climate change**, and **78.34% were unaware of its causes**. Many students **struggled to explain the impacts of climate change**, with **80.74% unable to describe how it affects their local community**. To bridge these knowledge gaps, the program should:

    - **Develop localized, experiential learning modules** that connect climate change concepts to students' daily experiences, such as rising temperatures, pollution, and waste burning in their communities.
    - **Incorporate interactive learning methods,** such as storytelling, role-playing, climate models, and simulations**,** to help students grasp complex scientific concepts in a practical, engaging way.
    - Provide **age-appropriate and visual educational resources**, ensuring that all students, regardless of their literacy level, can understand and relate to climate science.

2. **Enhancing Climate Action and Household Resilience**: Despite their high exposure to climate risks, **58.64% of students reported that neither they nor their families had taken any steps to address climate change**. To enhance engagement at the household and community level, the program must:

    - **Introduce hands-on, solution-oriented activities,** such as waste segregation campaigns, water conservation projects, and community awareness drives, reinforcing the importance of individual and collective action.
    - **Encourage students to** document household energy use, water consumption, and waste generation to foster a data-driven approach to adaptation, allowing families to identify small but impactful changes that reduce their vulnerability to climate-related hazards.
    - Develop **incentive-based adaptation challenges**, where families compete to implement climate-resilient solutions, such as rainwater harvesting, clean cooking, and disaster preparedness planning**.**
    - **Organize community awareness campaigns** and engage local leaders and families to foster a culture of sustainability beyond the learning centre.

3. **Strengthening Disaster Preparedness and Community Resilience:** The baseline assessment revealed that **70.02% of students' families did not have an emergency kit**, and **only 17.07% were aware of the types of climate-related disasters that could impact their communities**. To enhance disaster preparedness, the program should:

    - **Introduce disaster risk reduction education**, equipping students with knowledge about heatwaves, flooding, air pollution-related illnesses, and fire hazards**.**
    - **Train students and families in emergency preparedness**, teaching them how to assemble and maintain emergency kits with essential supplies such as safe drinking water, masks, first-aid materials, and flashlights**.**
    - **Organize disaster response drills**, in collaboration with local emergency services, ensuring that students and families are prepared for extreme weather events.

4. **Fostering Student Leadership and Advocacy:** The baseline assessment found that **47% of students believed they were too young to take climate action**, and **20.57% lacked motivation to engage in environmental initiatives**. To cultivate leadership and advocacy skills, the program should:

    - **Establish Youth Climate Action Clubs**, where students design awareness campaigns, conduct surveys, and lead local initiatives on waste reduction, tree planting, and air quality monitoring.

- **Conduct student-led policy dialogues**, allowing students to present climate action recommendations to local authorities, decision-makers, and school administrators.
- **Introduce mentorship programs**, pairing students with climate professionals, environmental activists, and policymakers, providing them with role models and real-world exposure.
- **Organize climate debates, storytelling contests, and youth parliaments** to encourage critical thinking, public speaking, and policy engagement on environmental issues.

5. **Integrating Gender and Social Inclusion in Climate Programs**: The baseline assessment found that **66.52% of students recognized that climate change affects their mothers**, yet only **9.2% acknowledged that women are disproportionately impacted** by environmental challenges. To address gender disparities and promote inclusivity, the program must:

    - **Develop gender-responsive climate education modules,** highlighting how environmental issues uniquely affect women, children, and marginalized communities.
    - **Provide leadership training for girls,** ensuring that young women feel empowered to engage in climate decision-making spaces.
    - **Facilitate household awareness sessions,** challenging gender norms and promoting shared responsibility for climate adaptation and environmental protection.

6. **Increasing Access to Diverse and Reliable Information Sources**: The baseline assessment found that **43.33% of students had never received climate-related education through any medium**, and **71.77% had never searched for climate-related content online**. To improve climate literacy, the program must:

    - **Develop digital and offline learning resources**, such as animated videos, and illustrated booklets, to make climate science accessible to students with limited internet access.
    - **Establish Mobile Climate Information Hubs**, where students can access books, interactive materials, and expert-led sessions on climate action.
    - **Conduct digital literacy workshops**, teaching students how to critically evaluate online climate information, identify misinformation, and use credible sources for research.
    - **Promote climate awareness through community storytelling**, encouraging students to document and share their families' experiences with climate change through videos, blogs, or spoken-word performances.

7. **Enhance climate change awareness with proper information to address emotional concerns:** The baseline assessment revealed that **climate change has a significant emotional impact on students**, with **22.32% reporting feelings of sadness, 15.10% experiencing fear and anxiety, and 33.70% stating that they lacked enough information to process their emotions**. While students are **aware of environmental challenges**, many feel **overwhelmed and powerless** to take action. Without proper guidance, these emotions can lead to climate despair, reducing students' motivation to engage in climate solutions. To address these concerns, the program should:

    - **Incorporate emotional resilience strategies into climate education**, creating safe spaces where students can express their concerns and fears about climate change while receiving guidance on how to navigate them.
    - **Introduce agency-building exercises**, emphasizing positive climate action stories and youth-led initiatives, helping students move from fear to empowerment by showcasing how young people can contribute to change.
    - **Integrate mental health support**, using **m**indfulness, creative expression, and community dialogue sessions to help students process emotions constructively and maintain a sense of hope and control over climate challenges.
    - **Promote a solutions-focused approach to climate education**, teaching students that small, tangible actions can create a meaningful impact, fostering a sense of purpose and engagement.

8. **Establish a Robust Monitoring and Evaluation Framework**: To measure progress and refine interventions, the program must implement **continuous monitoring and evaluation mechanisms** that assess:
    - **Mid-term surveys**, gathering real-time feedback from students, teachers, and community members to identify emerging challenges, refine interventions, and adjust strategies as needed.

- **Ongoing feedback loops**, facilitating regular reflection sessions where students share their learning experiences, challenges, and suggestions to further enhance the program.
- **Teacher and community input mechanisms**, allowing educators and families to provide structured feedback on how climate strategies are being implemented at home and in schools, ensuring wider integration of climate action into daily life.

Next Steps

An **endline assessment** will be conducted after the program's implementation to **evaluate its impact on students' climate awareness, attitudes, and practices**. By comparing **baseline and endline data**, the program can assess progress, refine intervention strategies, and ensure long-term sustainability.

The **Paryavaran Saathi: Young Leaders for Climate Action** program aims not only to **educate students about climate change** but also to **empower them as leaders who can drive meaningful environmental action** in their communities. This baseline assessment serves as a **crucial starting point**, reinforcing the need for continued investment in climate education to build resilience and ensure a sustainable future**.**

Chapter 1: Introduction and Research Methodology

1. Introduction

The **Paryavaran Saathi: Young Leaders for Climate Action** program was conceptualized by **Chintan Environmental Research and Action Group (CHINTAN)** to address critical gaps in climate awareness among children and adolescents living in landfill communities such as **Bhalswa and Bhopura**. These areas, home to waste-picking families and informal workers, experience disproportionate environmental challenges, including air pollution, poor sanitation, and extreme weather conditions exacerbated by climate change. Despite these vulnerabilities, climate literacy remains **low**, and opportunities for youth engagement in climate action are **limited**. To establish a **baseline understanding** of students' knowledge, attitudes, and practices (KAP) regarding climate change before implementing the program, this study was conducted across **CHINTAN-affiliated learning centers** in Bhalswa and Bhopura. The **primary objectives** of the baseline assessment were to:

- **Measure existing awareness** of climate change, its causes, and its impacts.
- **Analyze students' perceptions** of climate responsibility, including their roles and those of the community and government.
- **Assess behavioural patterns** related to environmental actions at individual and household levels.
- **Identify key barriers** preventing students from engaging in sustainable practices.
- **Examine sources of climate information** and the extent of formal climate education received.

The study adopted a **pre-post evaluation design**, with this **baseline assessment** serving as the **first phase** before program implementation, followed by an **endline assessment** to measure progress. A structured KAP survey was conducted among **457 students aged 10-18 years**, with data collected through **in-person structured interviews** between **November 17 and 24, 2023**.

The findings from this assessment serve as a **foundational reference** for designing targeted climate education interventions under the program. By identifying key **knowledge gaps, behavioural patterns, and systemic barriers**, the study will inform strategies to enhance climate literacy and foster proactive environmental action among students in these vulnerable communities.

2. Research Design

This study employed a **pre-post assessment design**, where the **baseline assessment** was conducted before the intervention and will be followed by an **endline assessment** after program completion. This approach allows for a comparative analysis of students' knowledge, attitudes, and practices over time, enabling a systematic evaluation of the program's impact.

A structured **Knowledge, Attitudes, and Practices (KAP) survey** was used as the primary data collection tool, designed to capture **both quantitative and qualitative insights**. The survey focused on the following key themes:

- **Socio-economic and demographic background** of students.
- **General awareness of climate change** and environmental issues.
- **Understanding of the causes and impacts of climate change**, both locally and globally.
- **Perceptions of climate responsibility**, including individual, community, and government roles.
- **Personal and household-level climate action**, including sustainable practices and barriers to action.
- **Climate-related concerns and anxieties**, including students' perceptions of climate risks and their emotional responses to environmental challenge
- **Interests and motivation for climate action**, assessing students' willingness to engage in environmental initiatives and the factors influencing their participation.
- **Sources of climate-related information**, such as school education, media, and digital platforms.

The survey was administered through **structured, one-on-one interviews**, conducted in **Hindi** language to ensure comprehension. The use of **digital data collection tools (Google Forms on smartphones)** facilitated real-time data entry, minimizing transcription errors and enabling prompt quality control.

3. Research Questions

The baseline assessment was guided by the following research questions:

- **RQ1:** What is the level of knowledge, attitudes, and practices of students regarding climate change?
- **RQ2:** How do students perceive the impact of climate change on their local community, and what actions are they taking to address these impacts?
- **RQ3:** What are students' concerns and emotional reactions to climate change, and how motivated are they to take action?
- **RQ4:** What sources of information do students rely on to learn about climate change?

4. Participant Selection

The respondents for this baseline assessment were selected based on specific criteria to ensure relevance and representation. Participants were **aged between 10 to 18 years**, resided in the **landfill communities of Bhalswa and Bhopura**, and were **enrolled/registered with CHINTAN** through one of its on-going interventions, such as learning centres or skill development programs. These criteria ensured that the respondents were not only familiar with CHINTAN's work but also part of communities directly impacted by the program's focus areas. A total of **457 children meeting these criteria** were included in the assessment.

5. Methodology

For the baseline assessment, data was collected by **9 trained interviewers** who carried out interviews with identified respondents by using the standardized KAP questionnaire and recording each respondent's responses using digital tools such as google forms on their smartphones.

A. KAP Questionnaire Design

The online KAP questionnaire was developed collaboratively with the CHINTAN's program team. The questionnaire (refer Annexure) was structured to include sections on biographical and socio-economic contexts, it also included sections on knowledge, attitudes, practices, and sources of information about climate change. While primarily focused on collecting quantitative data for descriptive analysis, it featured one open-ended question to capture qualitative insights. Similar or recurring responses to this qualitative question were grouped into categories, enabling their representation in a quantitative format for easier interpretation and comparison. Each question was meticulously designed to be clear, concise, and culturally relevant, ensuring that it could be easily understood by both interviewers and respondents.

B. Training of Interviewers

To ensure quality and reliability of data collection, interviewers were selected from among CHINTAN's employees. These interviewees were already well-acquainted with the landfill communities and had established trust with the children and their families. A comprehensive training session was conducted for these interviewees, covering the following aspects:

- Familiarization with the online questionnaire and its objectives;
- Effective interview techniques, including age-appropriate communication and question framing;
- Ethical guidelines, including obtaining consent and handling sensitive topics; and
- Accurately recording responses in the online form, with emphasis on maintaining neutrality and avoiding leading questions.

C. Data Collection Process

Following the training, the interviews conducted one-on-one interviews with each respondent. The interviews were carried out in settings where children felt comfortable and safe, typically within their local community/learning centre. The process involved:

- Building rapport with the respondents to create a safe and supportive environment;
- Asking questions from the online form in a conversational and age-appropriate manner; and
- Recoding responses in real-time using digital devices, ensuring data accuracy and minimizing transcription errors.

D. Quality Control

To maintain high data quality and ensure a smooth data collection process, several quality control measures were implemented. The program supervisor accompanies interviewees during approximately 15% of the interviews to monitor the progress and provide on-the-spot support. Daily debriefing sessions were conducted between the interviewees and the supervisor to review progress and address issues such as non-responses or rescheduling. A WhatsApp group was established between all interviewers, program supervisor and program lead to facilitate real-time communication, resolve issues promptly, and share updates. The interviewers and the program supervisor submitted daily progress reports, highlighting the status of interviews and re-scheduling needs. Significant issues were escalated to the program lead for immediate action, ensuring consistency and reliability throughout the data collection process.

6. Ethical Considerations

The study adhered to strict ethical standards throughout the assessment to ensure the privacy, confidentiality, and well-being of all participants. The participation in the assessment was voluntary, and informed consent was obtained from all participants and their guardians before data collection. Personal data collected through the online form included details necessary for the study but was handled with the utmost care. The responses were accessible only to authorized personnel directly involved in the data analysis and program management and were not shared with any third party(ies). To maintain privacy, all responses were anonymized during analysis by removing personally identifiable information. Lastly, interviewers were trained to handle sensitive topics such as climate anxiety with empathy and care.

7. Limitations

While every effort was made to ensure the reliability and validity of the date, the following limitations were acknowledged:

a. **Self-Reported Data Bias:** The assessment relied on students' self-reported responses, which may have been influenced by **social desirability bias** or **misinterpretation of questions**. Some students may have provided answers they believed to be correct rather than reflecting their actual knowledge, attitudes, or behaviours**.**

b. **Variability in Prior Climate Knowledge:** The students surveyed came from diverse climate educational backgrounds, with some having prior exposure to environmental education while others had little to no understanding of climate issues. This variation in baseline knowledge may have affected the depth of responses, particularly for open-ended questions.

c. Occasional **connectivity issues** during data collection led to disruptions in real-time data entry, requiring re-entry of responses in some cases.

8. Data Analysis

Upon completion of the data collection, the responses were reviewed, cleaned, and analyzed to identify the socio-economic and demographic mark-up of the target group, level of awareness, knowledge, and attitudes towards climate change and action, common concerns about climate change, and key sources of climate-related information.

Findings from this baseline assessment provide a critical foundation for designing and implementing the 41-week long **Paryavaran Saathi: Young Leaders for Climate Action** program. By identifying existing knowledge gaps, behavioural patterns, and barriers to action, the **program will be tailored to meet the specific needs** of these students, equipping them with the tools to become informed and proactive climate advocates.

Chapter 2: Findings

2.1 Socio-Economic and Demographic Profile

1. Location of Respondents

The survey covered a total of 457 respondents, all of whom reside in two key landfill communities where CHINTAN operates: Bhalswa and Bhopura. **Of the total participants, 225 students (49.23%) were from Bhalswa, while 232 students (50.77%) were from Bhopura.** These locations were chosen due to their significant waste-related challenges and the presence of on-going interventions by CHINTAN. The nearly equal distribution of respondents across these two locations ensures that the findings represent the diverse socio-economic and environmental conditions faced by the students living in these landfill communities. This geographic spread provides critical insights into the similarities and differences in the respondents' experiences and challenges across the two areas.

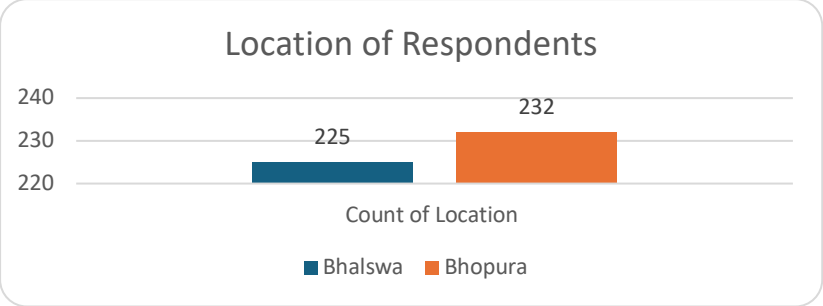

Figure 1: Location of the Respondents

Among the 225 students surveyed in Bhalswa, **108 students (48%) reported living close to the landfill**. These children experience the direct impacts of living near such a hazardous area, with the landfill often visible from their homes. Notably, while most students responded to this question, one student did not provide information about their house's proximity to the landfill. This missing response highlights the possibility of non-disclosure or confusion during the survey process. This analysis underscores the relevance of addressing the specific challenges faced by children residing in close proximity to the landfill.

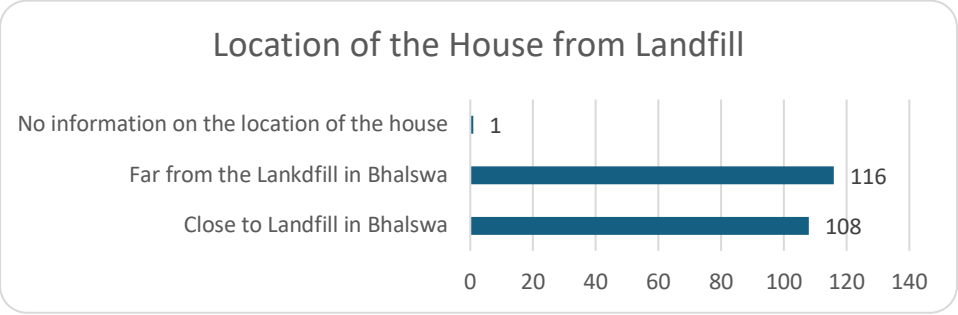

Figure 2: Location of the House from Landfill in Bhalswa

2. Age of Respondents

The age distribution of the respondents reveals that a majority, **88.83% (406 students), fall within the age group of 10-14 years, while the remaining 11.17% (51 students) belong to the 15-18 years age group**. This distribution highlights that the survey primarily engaged younger students, which aligns with the program's focus on fostering environmental awareness and climate education among young children.

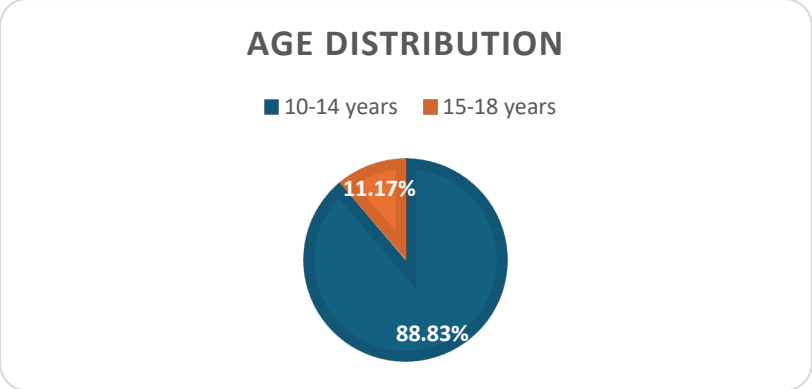

Figure 3: Age of the Respondents

3. Gender of Respondents

The gender distribution of the respondents indicates that the majority, **67.83% (310 students), are female, while 32.17% (147 students) are male**. This reflects a significant female representation in the survey, highlighting their active participation in CHINTAN's programs within the targeted communities.

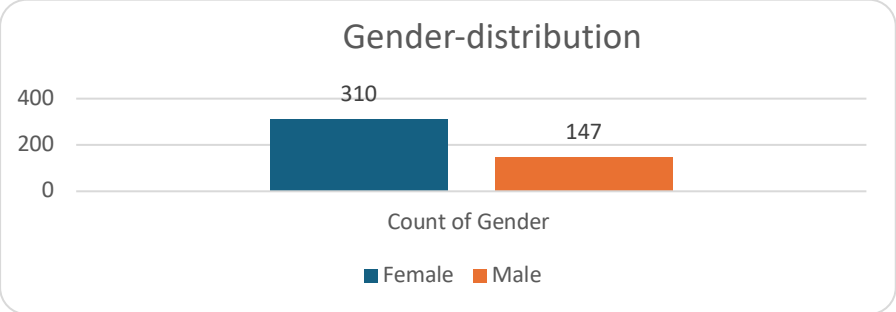

Figure 4: Gender Distribution of the Respondents

4. Education Status of Respondents

The survey findings reveal that the majority of respondents, **456 students (99.78%), are currently enrolled in school, while one student has completed their education, having passed the 12th grade**. Among the students attending school, the grades/classes range from 2nd to 12th. This distribution highlights the program's engagement with a diverse group of students.

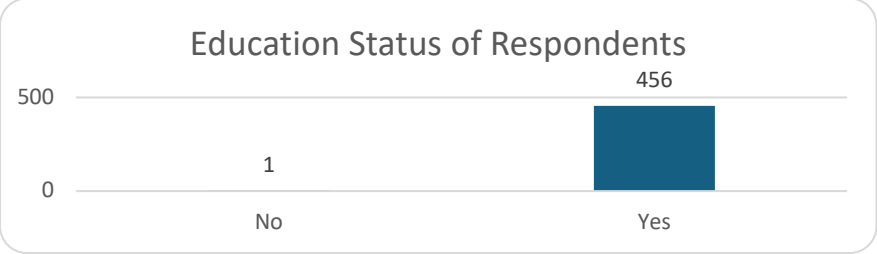

Figure 5: Education Status of the Respondents

5. Occupation Status of Parents

A. Father's Occupation:

The survey findings reveal distinct patterns in the occupation roles of the parents of the respondents. Among fathers, a significant majority, **70.46% (322 fathers), are engaged in waste management work**, reflecting the prevalent economic activity in the landfill communities. Additionally, 2**4.73% (113 fathers) are involved in other jobs, while 3.06% (14 fathers) indicated 'not applicable'**, suggesting absence of fathers. A small proportion, 1**.53% (7 fathers), do not work, and 0.23% (1 father) is reported to be a homemaker**.

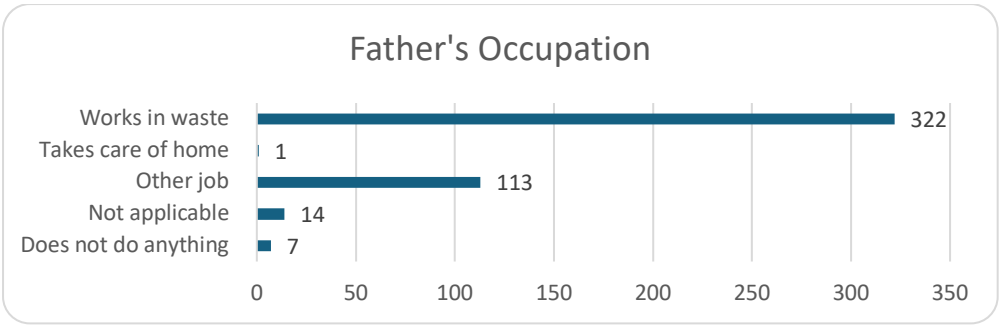

Figure 6: Father's Occupation of the Respondents

B. Mother's Occupation:

For mothers, the occupational distribution highlights a dual role within the household and workforce. The majority, **62.36% (285 mothers), primarily take care of the home**, emphasizing their role as homemakers. However, **24.51% (112 mothers) contribute economically by working in waste management, and 11.82% (54 mothers) are engaged in other jobs**. A small percentage **0.88% (4 mothers) reported 'not applicable', and 0.44% (2 mothers) are not employed**.

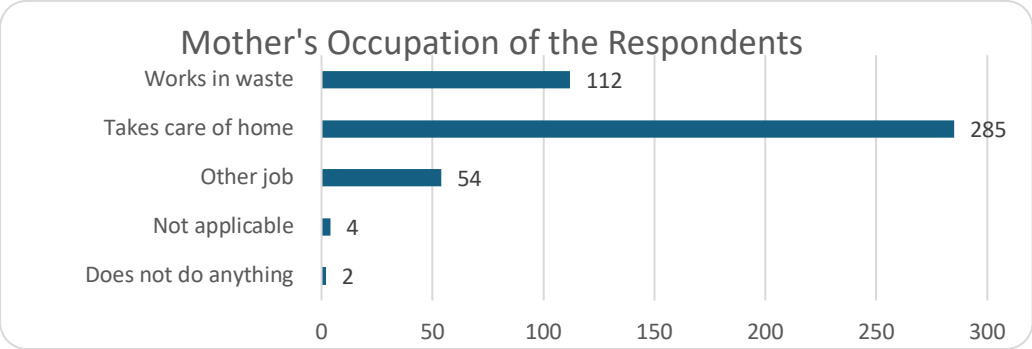

Figure 7: Mother's Occupation of the Respondents

6. Involvement of Respondents in Waste-related Work

The survey responses reveal varied practices regarding the collection of waste by family members for segregation and selling. A significant proportion, **42.66% (195 respondents), reported that their family members never bring waste at home**, indicating no direct involvement in this activity. Additionally, **23.41% (107 respondents), marked 'not applicable'**, suggesting that waste collection is not part of their family's routine. Conversely, **22.97% (105 respondents) stated that their family members sometimes bring waste home, while 10.94% (50 respondents) indicated that this is a regular practice**, with family members always engaging in waste-related activities. These findings highlight the differing degrees of reliance on waste management practices across households in the surveyed communities.

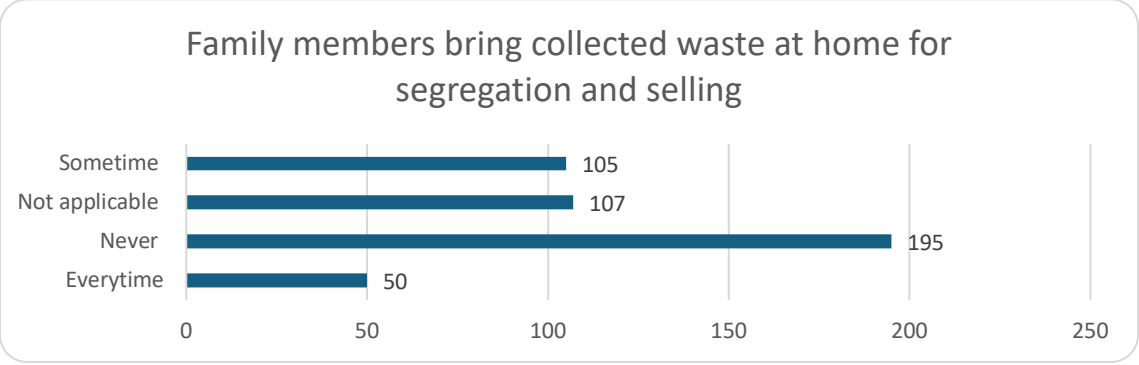

Figure 8: Family Members Bringing Collected Waste at Home for Segregation and Selling

The survey responses also indicate varied levels of involvement by children in assisting their families with waste-related tasks. While **33.70% (154 respondents) reported that they never help** their family members with waste-related work, a similar proportion - **33.04% (151 respondents)- stated that they sometimes assist**. Additionally, **26.70% (122 respondents) marked 'not applicable'**, likely reflecting families not engaged in waste-related

activities. A smaller group, **6.56% (30 respondents), indicated that they always help their family members with waste**. This data highlights the diverse roles children play in supporting family waste management practices.

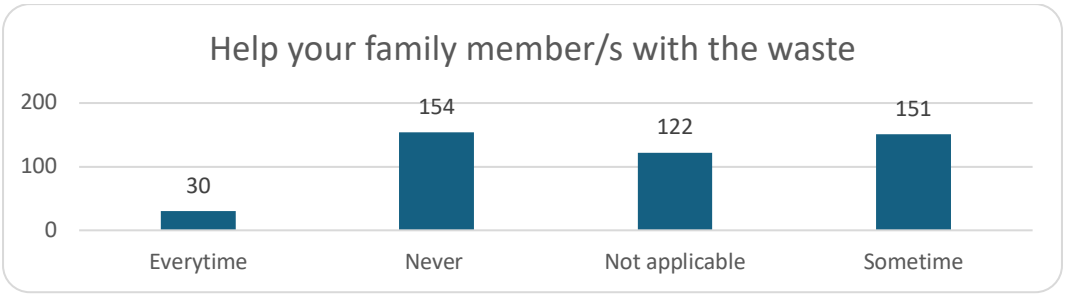

Figure 9: Involvement of Children in Waste-related Work

7. Household Infrastructure and Assets

a. <u>Housing Type:</u>

The survey reveals that the majority of respondents, **78.77% (360 respondents), live in pucca (permanent) houses**, indicating relatively stable housing conditions. However, **21.23% (97 respondents) reside in kaccha (temporary) houses**, highlighting the vulnerability of a significant portion of the population to environmental and structural challenges. This data underscores the diverse living conditions among the respondents.

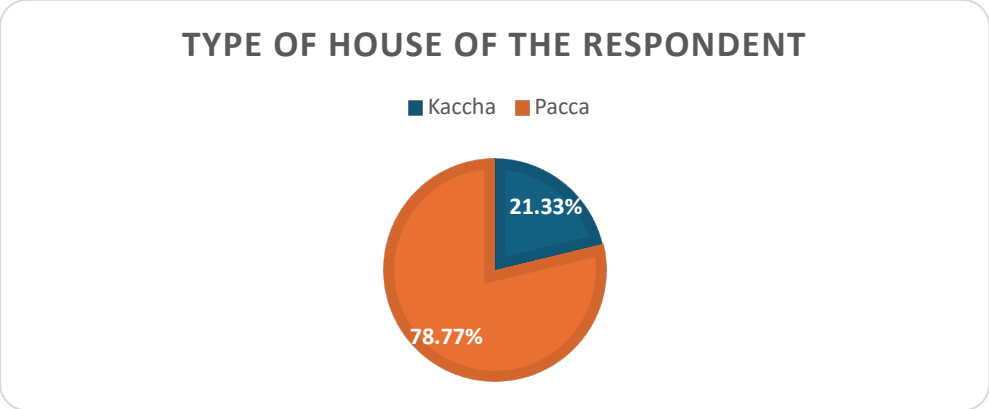

Figure 10: Type of House of the respondents

b. <u>Housing Space:</u>

The survey indicates that the majority of respondents live in houses with limited space. **42.01% (192 respondents) reported having only 1 room in their house**, while **36.11% (165 respondents) have 2 rooms**. A smaller proportion, **21.88% (100 respondents), reported living in houses with more than 2 rooms**. These findings highlight the constrained living conditions faced by many families of the respondents.

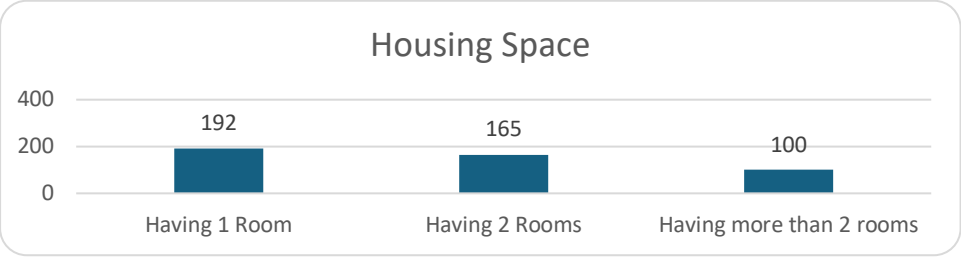

Figure 11: Housing Space of the respondents

c. <u>No. of people staying in the house</u>

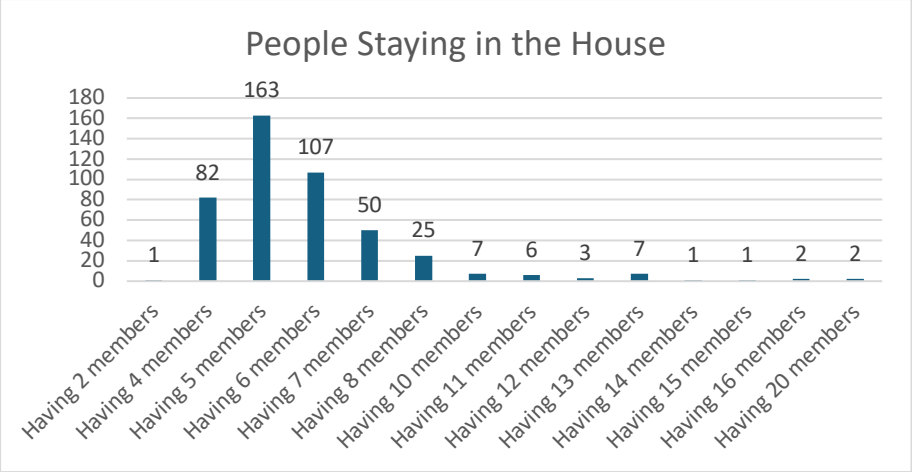

Figure 12: Number of People Stay in the House

The most commonly reported household size was **five members, with 163 students (35.67%) living in such homes**. This was followed by four-member households, comprising 82 students (17.94%), and six-member households, accounting for 107 students (23.41%). Additionally, 50 students (10.94%) lived in seven-member households, while 25 students (5.47%) reported living in eight-member households. Smaller households were rare, with only one student (0.22%) living in a two-member household. In contrast, larger family sizes were relatively common, with seven students (1.53%) in thirteen-member households, six students (1.31%) in eleven-member households, and three students (0.66%) in twelve-member households. An even smaller proportion of students came from very large extended families, with one student (0.22%) in a fourteen-member home, one student (0.22%) in a fifteen-member home, two students (0.44%) in sixteen-member households, and two students (0.44%) in twenty-member households.

d. <u>Household Amenities:</u>

The survey reveals a range of household amenities that reflects a diverse socio-economic profile among respondents. A significant majority **(426 households, 93.22%) have access to cooking gas or LPG**, indicating improved living conditions and reduced reliance on traditional cooking methods that pose health risks. **Ceiling fans (422 households, 92.34%), smartphones (391 households, 85.56%), and attached bathrooms (414 households, 90.59%) are widely present**, indicating a foundation of improved living standards. However, traditional cooking equipment such as **chulhas (195 households, 42.67%)** is also widely present. Ownership of semi-luxury items such as **television (267 households, 58.42%), and fridge (245 households, 53.61%)** suggests a moderate economic status. However, advanced amenities like **water purifiers (29 households, 6.35%) and air conditioners (10 households, 2.19%)** are rare, underscoring affordability challenges and economic constraints faced by many households of the respondents.

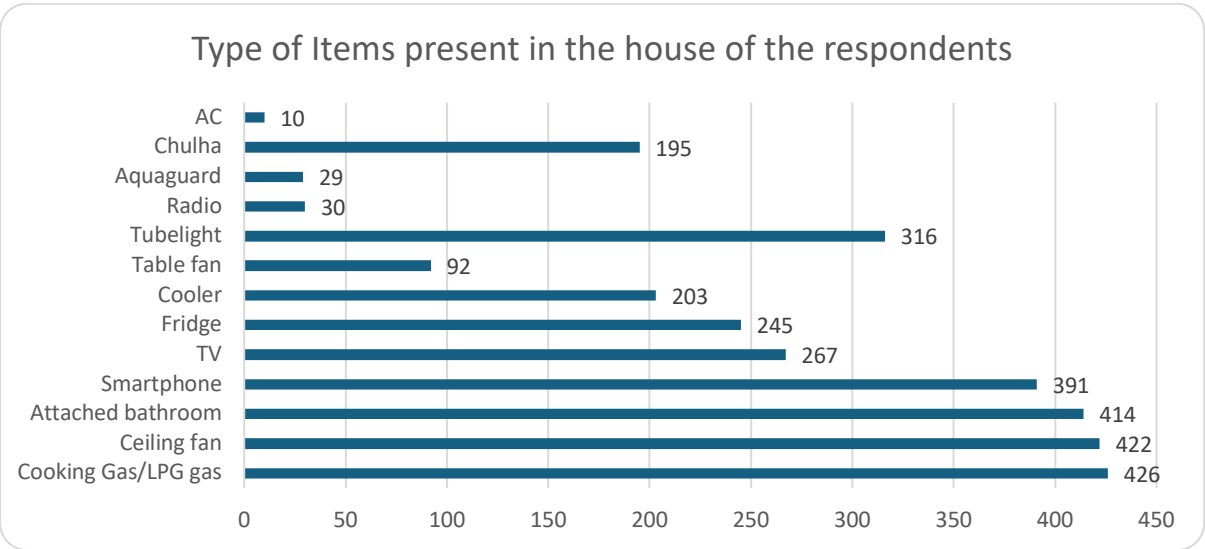

Figure 13: Items Present in the Respondent's House

e. Sources of Water Supply:

The survey reveals diverse sources of water supply among respondents' households, with a significant reliance on purchased water. A majority of respondents, **67.83% (310 households), reported purchasing water from shops**, reflecting a strong dependency on external sources for daily water needs. **Tap water** is accessed by **21.66% (99 households)**, indicating that only a fraction of respondents has direct access to a piped water supply. Additionally, **municipal tank**s serve as a water source for **4.38% (20 households)**, while **3.50% (16 households) rely on water pumps** for their supply. A small percentage of respondents, 1**.31% (6 households), were unsure** about their primary water source, reflecting a gap in awareness regarding household water accessibility. Another 1**.31% (6 households) reported using a combination of sources**, such as taps, municipal tanks, or purchased water, demonstrating mixed reliance on multiple supply options.

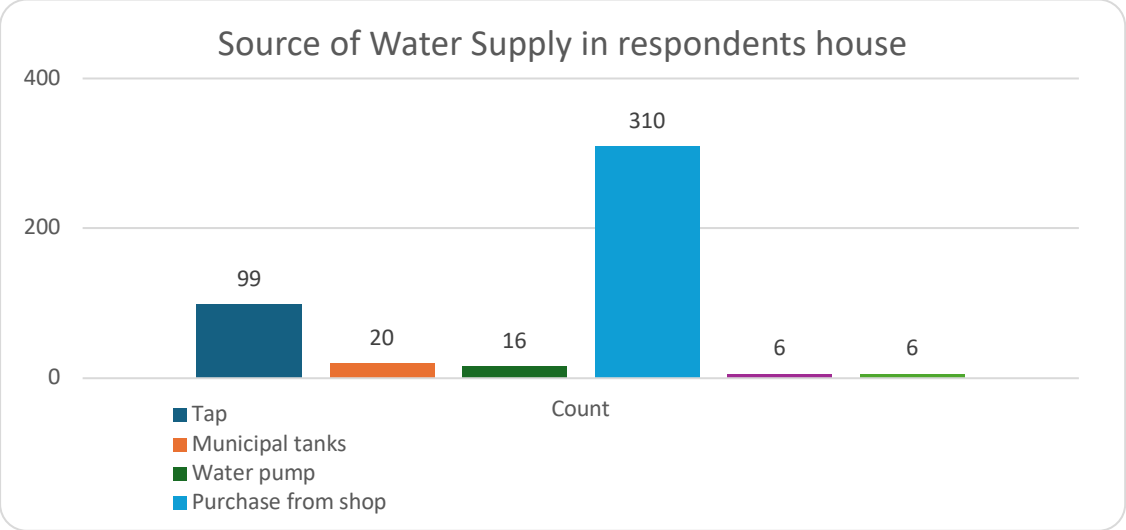

Figure 14: Sources of Water Supply

f. Water Quality:

The survey reveals that a majority of respondents, **79.43% (363 respondents)**, perceive the quality of water in their homes as **good**, indicating a generally satisfactory level of access to potable water, However, a significant proportion, **20.57% (94 respondents)**, reported that their water quality is **bad**, reflecting potential challenges related to contamination or inconsistent supply.

Figure 15: Quality of Water

g. Availability of Emergency Kits:

The survey reveals that the majority of respondents, **70.02% (320 respondents), do not have an emergency kit** with essential supplies to prepare for disasters, A smaller proportion, **15.10% (69 respondents), reported having an emergency kit**, while **14.88% (68 respondents) were uncertain** about presence of such a kit in their homes. These findings highlight a significant gap in disaster preparedness with the surveyed communities, emphasizing the need for awareness and resources to equip households with essential emergency supplies.

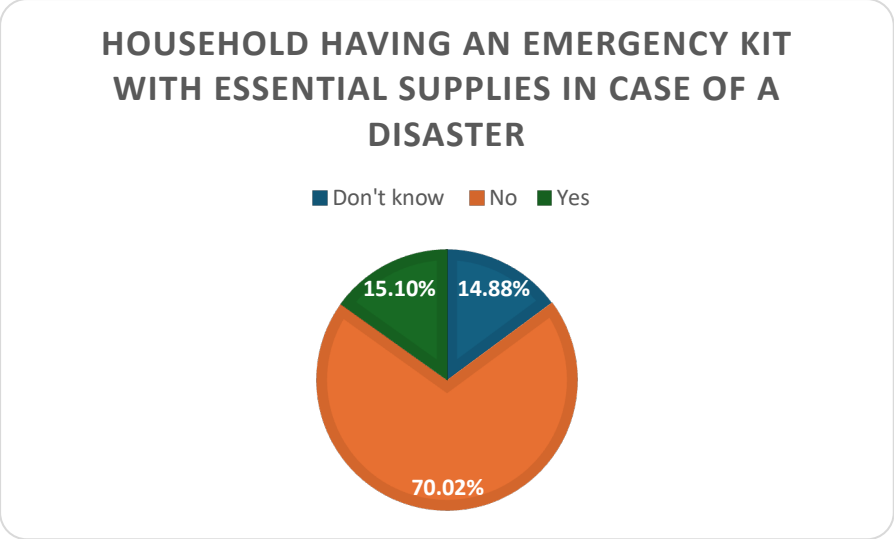

Figure 16: Households having Emergency Kit

8. Prior Training on Climate Change and Environmental Issues

The survey reveals that the majority of respondents, **66.96% (306 individuals), have not received any training** on climate change and environmental issues. However, a notable **33.04% (151 individuals) reported having received training** in these areas. This highlights a significant gap in awareness and education on climate-related topics within the community, emphasizing the need for targeted training programs.

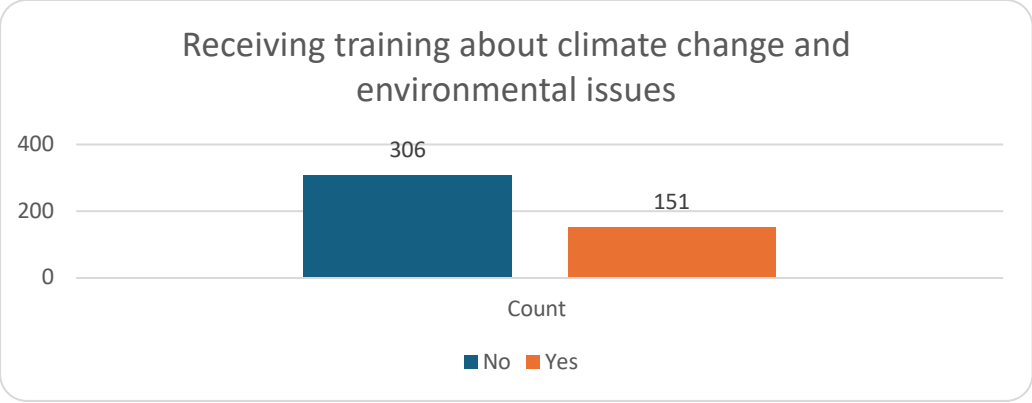

Figure 17: Prior Training on Climate Change and Environmental Issue

2. 2 General Awareness and Perceptions about Climate Change

1. Perceived Serious Threats in New Delhi

The survey highlights the top concerns perceived by respondents regarding serious issues in New Delhi. The most frequently mentioned problem is **air pollution, identified by 322 respondents (70.46%)**, underscoring widespread awareness of its adverse health and environmental impacts. **Water scarcity** ranks as the second most serious issue, with **182 respondents (39.82%)** citing it as a critical challenge, reflecting the growing concerns over access to clean and adequate water resources. The third most mentioned issue is poverty and hunger, identified by 110 respondents (24.07%), pointing to the socio-economic struggles faced by many in the city. Notably, **climate change was identified as a serious problem only by 38 respondents (8.32%)**, indicating some level of recognition of its impact but also highlighting the need for increased awareness about its broader implications.

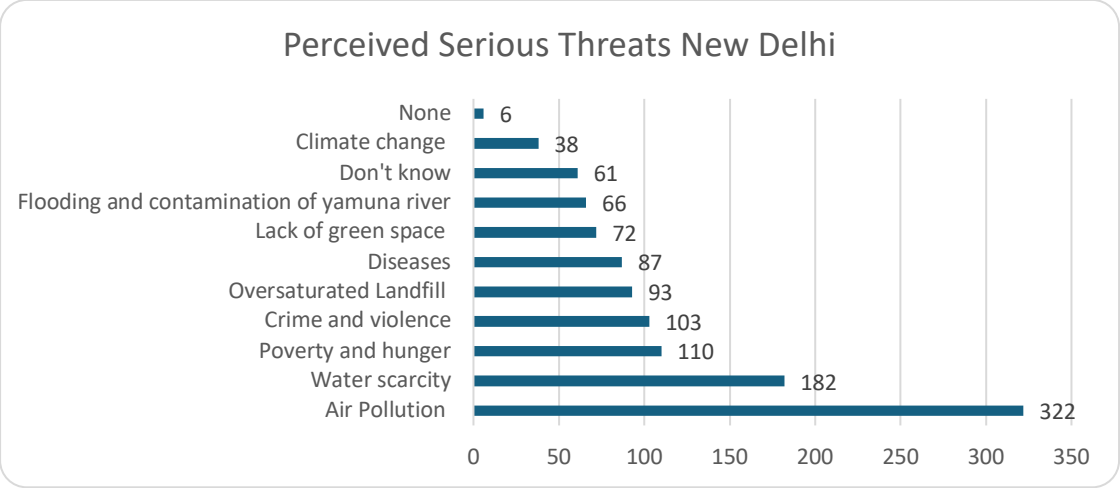

Figure 18: Perceived Serious Threats in New Delhi

2. Importance of the Environment for Sustaining Life

The survey highlights that the majority of respondents, **76.81% (351 individuals), consider the environment and natural ecosystems to be very important** for sustaining life, reflecting a strong awareness of their significance. A small proportion, **16.19% (74 individuals), view the environment as only a little important**, while **7.00% (32 individuals) believe it is not important at all**. These findings suggest that there is substantial recognition of the environment's critical role. There remains a need to further educate and engage a segment of the population to build a deeper understanding of its importance.

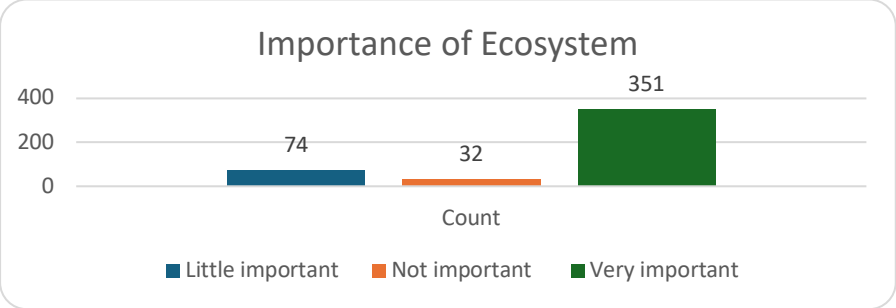

Figure 19: Importance of Environment for Sustaining Life

3. General Understanding of Climate Change

The survey reveals that the majority of respondents, **58.21% (266 individuals), reported having no knowledge** about climate change. Another **32.82% (150 individuals)** stated that they **heard about climate change but cannot explain it**. A small proportion, 8.**97% (41 individuals), mentioned that they have heard about it extensively and can explain it well**. These findings highlight a significant gap in general awareness of climate change among the respondents.

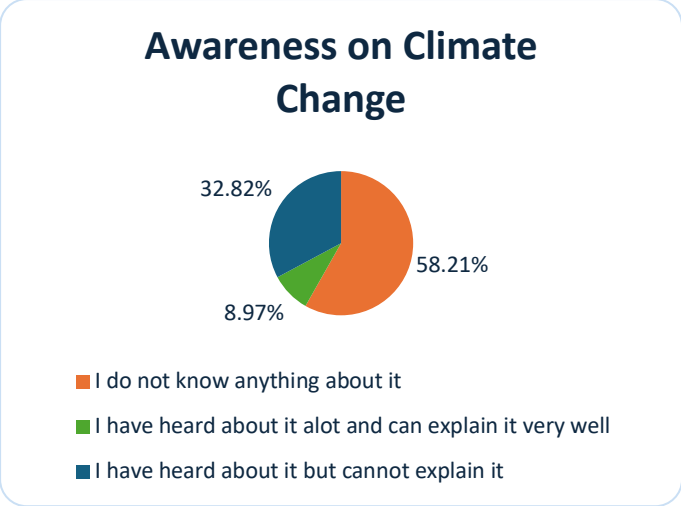

Figure 20: General Understanding of Climate Change

4. Awareness of Causes of Climate Change

When asked about the causes of climate change, **78.34% (358 individuals) said they do not know** anything about it. A smaller group, **15.54% (71 individuals), reported having heard about the causes but could not explain** them. Only **6.12% (28 individuals) said they are well-informed and can explain the causes clearly**, this indicates a pressing need to improve knowledge about the factors driving climate change.

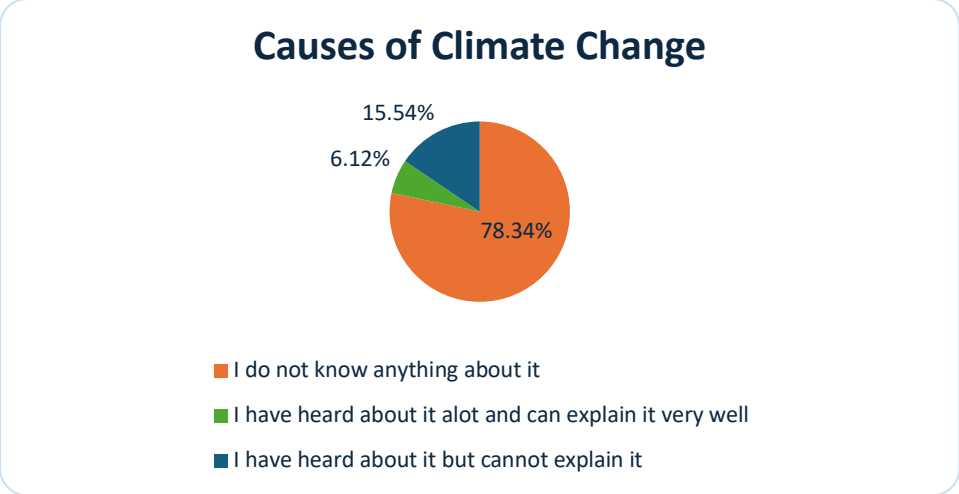

Figure 21: Awareness of Causes of Climate Change

5. Awareness of Climate Change Impact on Local Communities

Regarding the impact of climate change on local communities, **80.74% (369 individuals) admitted to having no knowledge** about this topic. Another **14.00% (64 individuals) said they have heard about it but could not explain** it, while **5.26% (24 individuals) stated that they are well-informed and capable of explaining** its impacts. This lack of awareness emphasizes the importance of localized education on how climate change affects their immediate surroundings.

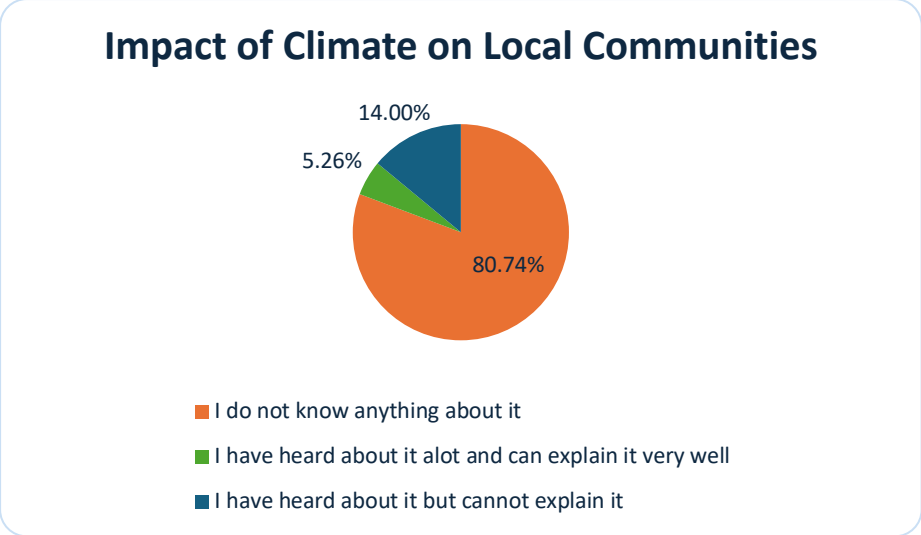

Figure 22: Awareness of Climate Change Impact on Local Communities

6. Awareness of Practices to Reduce Causes of Climate Change

The survey found that **80.31% (367 individuals) were unaware of practices** that can be adopted to reduce the causes of climate change. A smaller proportion, **13.35% (61 individuals), had heard about such practices but could not explain them**, while **6.34% (29 individuals) said they are well-informed on the topics**. These findings underscore the need for practical knowledge dissemination to encourage sustainable practices.

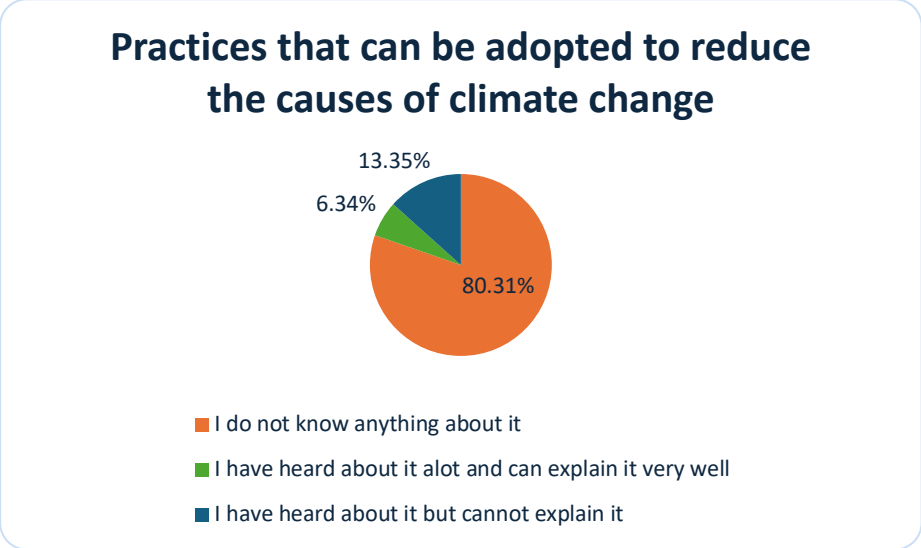

Figure 23: Awareness of Practices to reduce causes of Climate Change

7. Awareness of Measures to Prevent/Reduce Impacts of Climate Change

On the topic of measures to prevent or reduce the impacts of climate change, **84.90% (388 individuals) reported no knowledge**, while **10.28% (47 individuals) mentioned having heard about it but could not explain it**, only **4.82% (22 individuals) stated they are well-informed and can clearly articulate such measures**. This highlights the critical need for targeted interventions to build resilience and preparedness among communities.

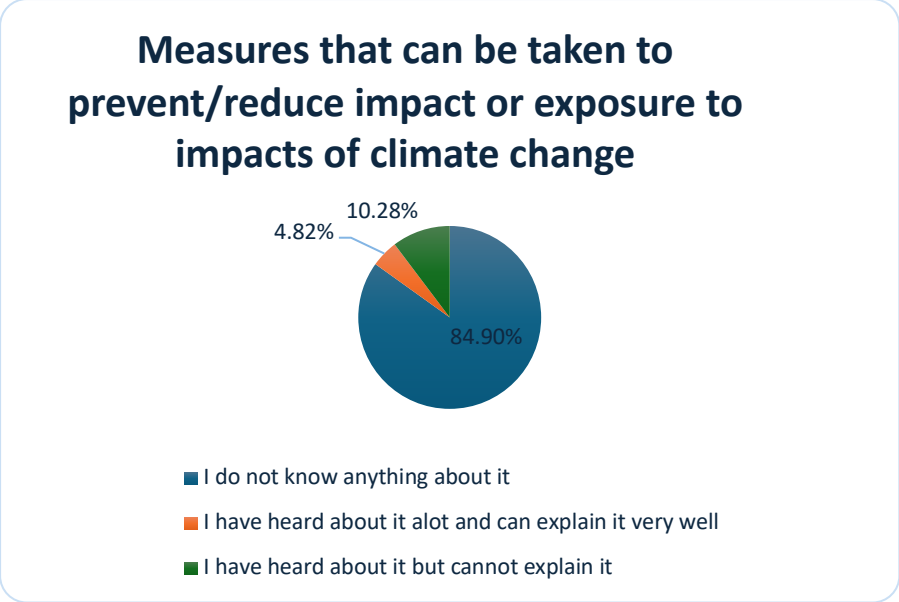

Figure 24: Awareness of Measures to Prevent/Reduce Impacts of Climate Change

8. Observed Changes in Phenomena Over the Last Five Years

The baseline assessment reveals significant variations in respondents' observations of environmental changes over the past five years. A significant proportion of respondents reported an increase in heatwaves (39.39%), cold waves (42.89%), air pollution (65.65%), and temperature rise (35.01%). Conversely, 65.21% observed a decline in green cover, while 39.61% noted a decrease in rainfall and 31.51% reported reduced water supply. Extreme weather patterns showed mixed trends. While 30.85% were unsure about changes in flooding, 22.10% observed an increase and 19.91% a decrease. Drought patterns also had high uncertainty (45.51%), with equal proportions (10.94%) noting either an increase or decrease. Similarly, storms showed uncertainty (37.64%), while 33.92% saw no change and 7.00% observed an increase. Fires in landfills were a concern, with 24.07% reporting an increase and 31.07% unsure about changes. Health impacts were widely recognized, with 69.15% of respondents reporting an increase in diseases such as dengue, malaria, diarrhoea, and asthma. Meanwhile, 12.25% noticed a decrease in air pollution, while 9.19% reported no change. Water supply trends were divided, with 19.04% observing an increase, while nearly 30% saw no change.

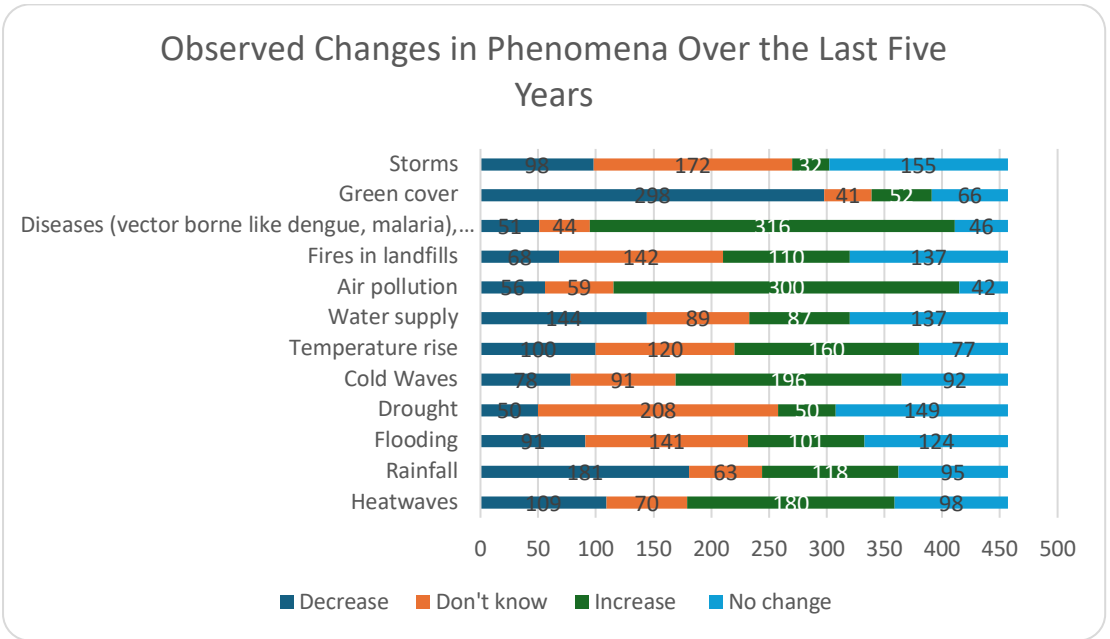

Figure 25: Observed Changes in Phenomena Over the Last Five Years

9. Climate Change Perceptions

The survey highlights diverse perceptions about climate change among respondents. A majority, **282 respondents (61.7%), agreed with the statement 'Climate Change should be taught in schools'**, emphasizing the importance of education. However, **215 respondents (47.0%) expressed a sense of helplessness, agreeing with 'I am too young to do anything about climate change'**. Notably respondents also included 81 respondents (17.7%) who believed that 'Only Government and rich people can do anything about climate change', and 68 respondents (14.87%) who felt that 'We should only focus on air pollution'. Skepticism about climate change was evident among **64 respondents (14.0%), who agreed with 'Climate Change is not a real thing'**, while 52 respondents (11.4%) attributed it to divine will, agreeing with 'Climate change is God's will'. Social and community-based perceptions also emerged, with 50 respondents (10.94%) stating that 'Our communities have not caused/contributed towards climate change' and **47 respondents (10.28%) feeling that 'Climate change does not affect my community or my family**. Additionally, **42 respondents (9.2%) recognized the disproportionate impact on women, agreeing that 'Women are more impacted by climate change and other environmental issues**. A sense of resignation was observed among **25 students ((7.7%), who agreed with 'It's too late to do anything now'**. These findings underscore the importance of targeted interventions to address misconceptions, empower communities, and emphasizes collective responsibility for climate action.

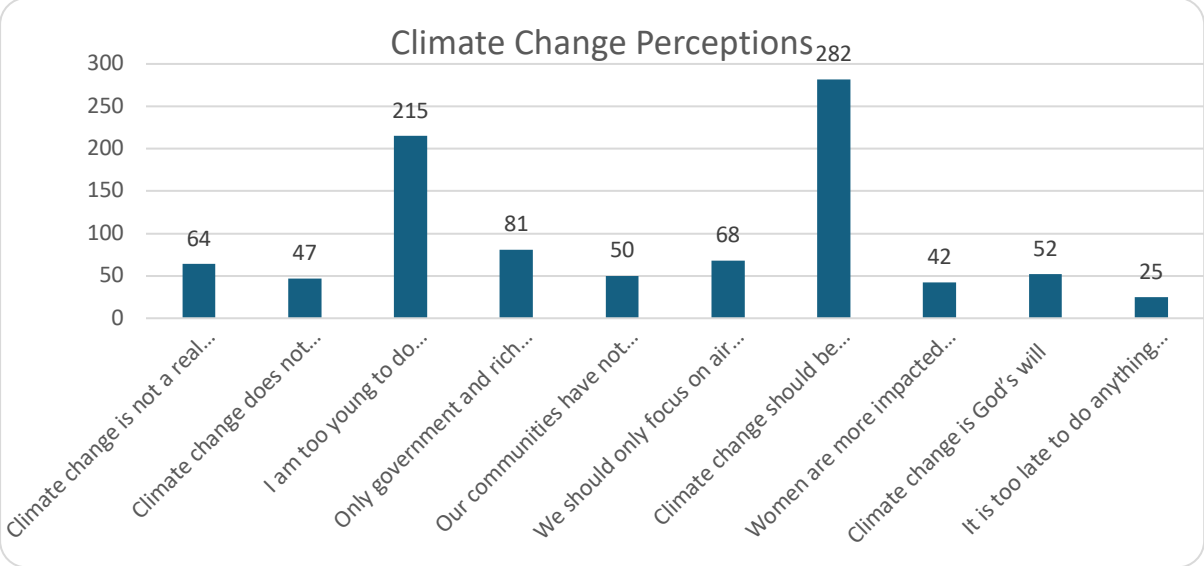

Figure 26: Climate Change Perceptions among the respondents

10. Disasters in community

The survey reveals a significant gap in awareness about the types of disasters that can impact the community. **379 respondents (82.93%) reported that they are not aware of the types of disasters**, while **78 respondents (17.07%) indicated that they are aware**. This suggests a strong need for disaster preparedness education and awareness programs, as a large portion of the community is currently unaware of potential risks.

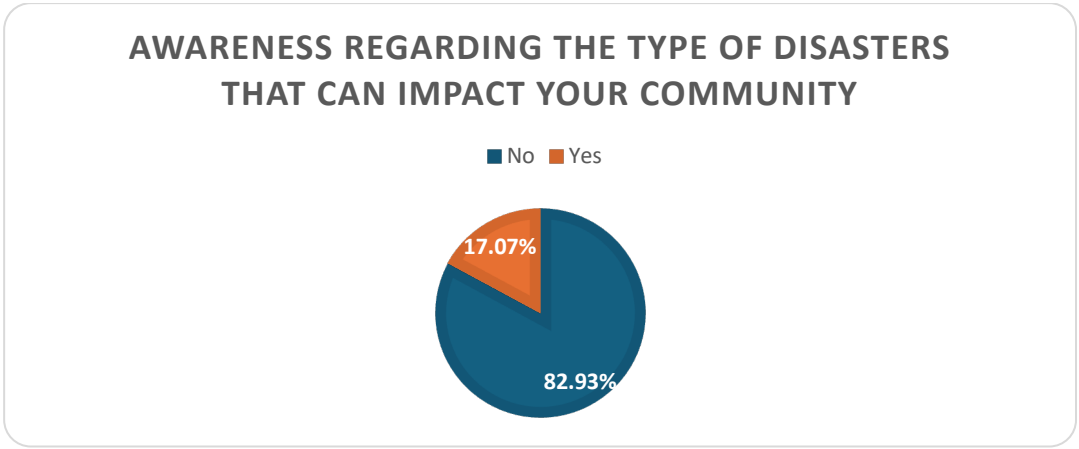

Figure 27: Awareness Regarding the Types of Disasters

2.3 Causes and Impacts of Climate Change

1. Causes of Climate Change

A. Understanding the General Causes of Climate Change

The survey highlights varying levels of understanding among respondents about the causes of climate change. A significant proportion, **187 respondents (40.92%), correctly identified that 'Climate Change is caused by human activities'**, indicating some awareness of the anthropogenic drivers of climate change. Among **114 respondents (24.95%) believed that 'Climate change is caused by both humans and natural factors'**, demonstrating advanced understanding of the interplay between human actions and natural processes. However, **111 respondents (24.29%) attributed climate change exclusively to natural factors**, reflecting a gap in understanding of human contributions. Furthermore **106 respondents (23.19%) stated that 'There is no change in climate'**, suggesting skepticism or lack of awareness of the ongoing changes in climate. These findings emphasize the importance of strengthening educational initiatives to improve understanding of the human-driven causes of climate and dispel misconceptions about its causes.

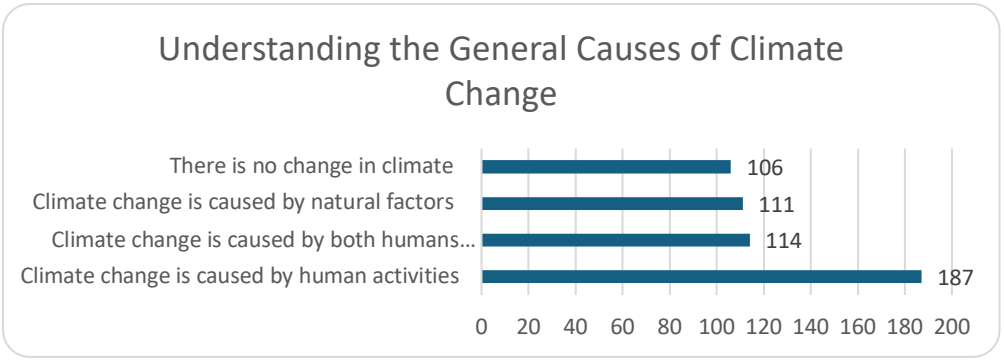

Figure 28: Understanding the General Causes of Climate Change

B. Causes of Climate Change

The survey reveals varied levels of understanding among respondents about the causes of climate change. The **most commonly identified cause was burning of waste, selected by 189 respondents (41.36%)**, followed by transportation and traffic, cited by 146 respondents (31.95%). Notably, **144 respondents (31.51%) indicated 'Don't know', highlighting a gap in awareness**. Other causes included industries (132 respondents, 28.88%), cutting down of trees and forests (107 respondents, 23.41%), and energy for cooking and heating using chulhas (70 respondents, 15.32%). Less frequently mentioned causes were construction (34 respondents, 7.44%) and electricity (24 respondents, 5.25%). A small number of respondents (9 individuals, 1.97%) selected 'None', including skepticism or lack of understanding. These findings emphasize the need for focused educational efforts to address gaps in knowledge and foster a comprehensive understanding of the contributors to climate exchange.

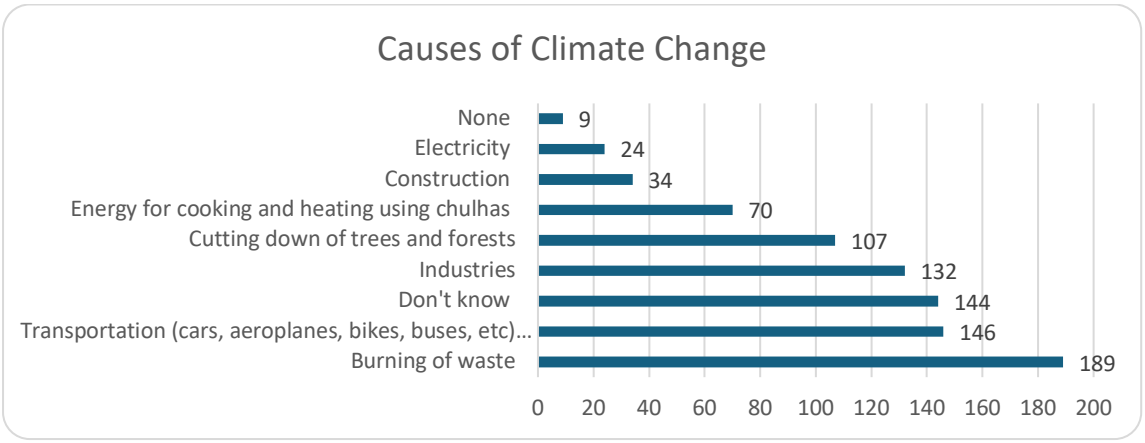

Figure 29: Causes of Climate Change

C. Energy Sources at Home Releasing Smoke

The survey reveals significant reliance on energy sources that release smoke during household heating and cooking. The most commonly identified sources were **waste, cited by 277 respondents (60.61%)**, and firewood, mentioned by 275 respondents (60.18%). Coal was the next most common, selected by 114 respondents (24.95%).

Modern energy sources such as gas were reported by 30 respondents (6.56%) as releasing smoke, likely reflecting cases of improper combustion. Electric plates and solar plates, which are generally considered clean energy sources, were identified by 12 respondents (2.63%) and 3 respondents (0.66%), respectively. These findings highlight the widespread use of traditional smoke-emitting energy sources in households, underscoring the need for cleaners and more sustainable alternatives to reduce indoor air pollution and its associated health risks.

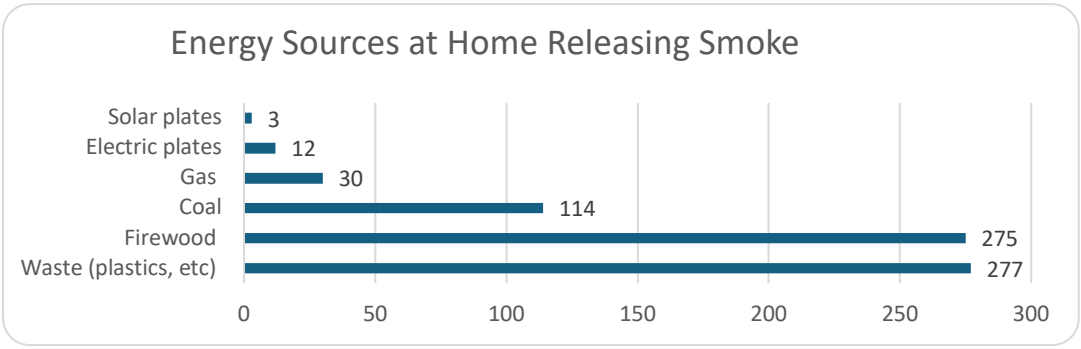

Figure 30: Energy Sources at Home Releasing Smoke

2. Impact of climate change

A. Climate Change's Impact on Communities

The survey reveals that a majority of respondents, **251 individuals (54.92%), believe that climate change is affecting their community**, indicating a significant awareness of its local impacts. However, a substantial proportion, **133 respondents (29.10%), stated that they don't know if climate change is impacting their community**, reflecting gaps in understanding of its effects. Additionally, **73 respondents (15.98%) felt that climate change is not affecting their community**. These findings highlight the need for localized awareness programs to bridge knowledge gaps and emphasize the tangible impacts of climate change on communities.

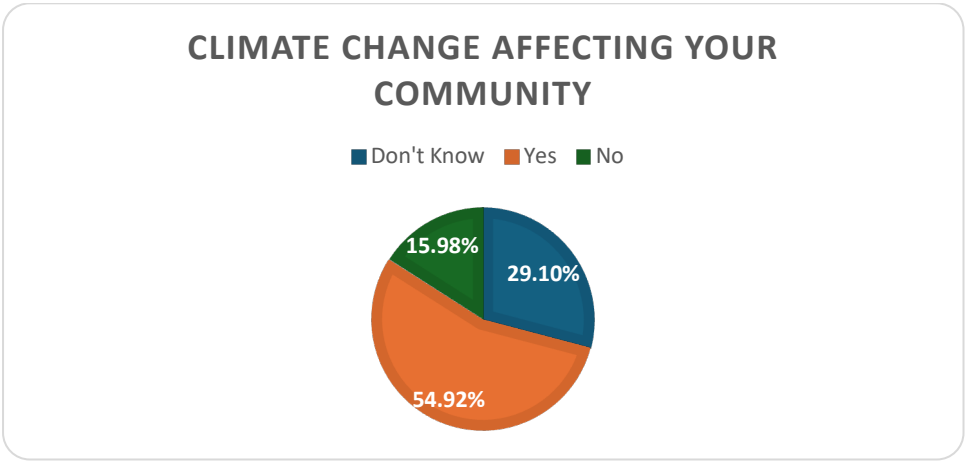

Figure 31: Impact of Climate Change in the Community

B. Effects of Climate Change on the Environment

The survey highlights significant variations in respondents' awareness of the environmental impacts of climate change. A majority, **249 respondents (54.49%), selected 'Don't know'**, indicating a substantial gap in understanding. Among those who identified specific effects, the most frequently mentioned were loss of animals and plants (112 respondents, 24.51%), rise in temperature (99 respondents, 21.66%), change in rainfall pattern (72 respondents, 15.75%), flooding (71 respondents, 15.54%), and melting of ice-capped mountains (54 respondents, 11.82%). Less commonly mentioned effects included rising sea levels (39 respondents, 8.53%), droughts (30 respondents, 6.56%), and **heatwaves (28 respondents, 6.13%)**. A small number of respondents, 5 individuals (1.09%), selected 'None', reflecting skepticism or lack of awareness. These findings underscore the need for targeted educational initiatives to enhance understanding of the diverse and interconnected impacts of climate change on the environment and natural systems.

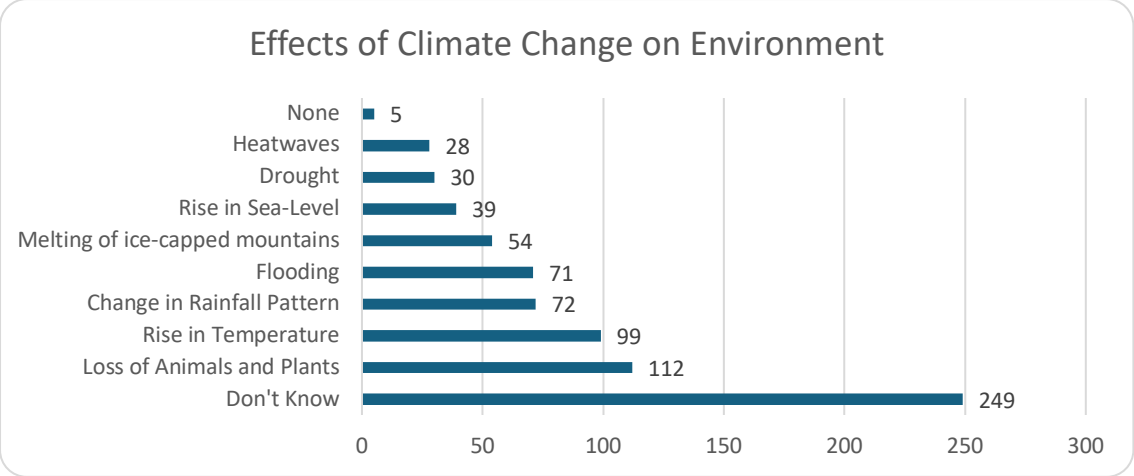

Figure 32: Effects of Climate Change on the Environment

C. Climate Change's Affect on Lives

The survey reveals a range of perspectives on how climate change impacts individual's lives. A notable **150 respondents (32.82%) believe that climate change affects their lives in a positive manner**, while **129 respondents (28.23%) perceive its impact as negative**. However, a significant proportion, **122 respondents (26.70%), selected 'Don't know'**, reflecting uncertainty or limited awareness. Additionally, **56 respondents (12.25%) stated that climate change does not affect their lives**. These findings highlight the need to address the varied perceptions of climate change impacts, focusing on clarifying misconceptions and building awareness of its broader implications on daily life.

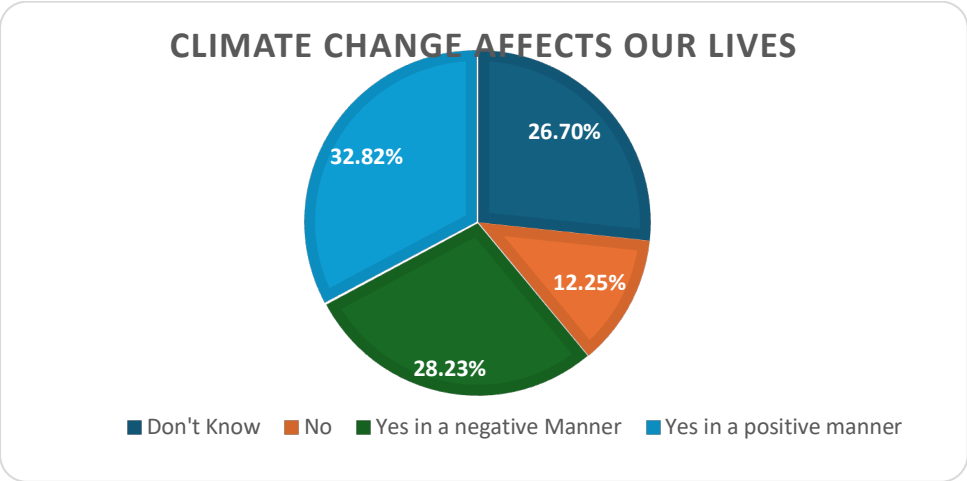

Figure 33: Climate Change's Affect on Lives

D. Effects of Climate Change on the Human System

The survey highlights a range of perceived effects of climate change on the human system. The most commonly identified effects include **increase in diseases, mentioned by 178 respondents (38.95%)**, and water scarcity, cited by 150 respondents (32.82%). Additionally, 129 respondents (28.23%) noted the rise in the price of vegetables, and 123 respondents (26.91%) linked climate change to inflation. However, a significant portion of respondents, **161 individuals (35.23%), selected 'Don't know'**, indicating a lack of clarity or awareness about the human impacts of climate change. Other effects such as loss of jobs (63 respondents, 13.79%) and 'None' (10 respondents, 2.19%) were less commonly mentioned, suggesting either skepticism or limited understanding of the broader social impacts. These findings underscore the need for enhanced education and awareness efforts to address knowledge gaps and help individuals recognize the diverse ways in which climate change affects human systems.

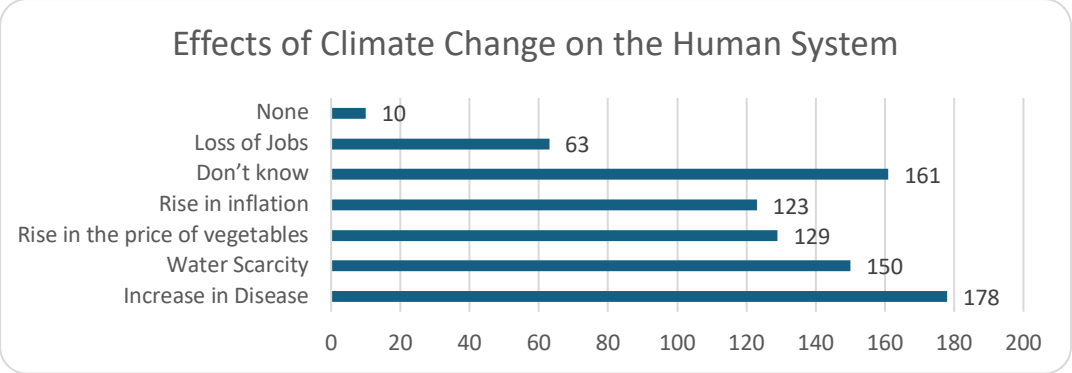

Figure 34: Effects of Climate Change on Human System

E. Effect of Climate Change on Mothers

The survey reveals that **304 respondents (66.52%) believe that climate change and other environmental issues affect their mothers**, indicating a significant awareness of the impacts on women. However, **85 respondents (18.60%) stated that climate change does not affect their mothers**, and **68 respondents (14.88%) were unsure**, selecting 'Don't Know'. These findings highlight a strong recognition of climate change's impacts on women, but also underscore the need for further education to address uncertainty and skepticism around the issue.

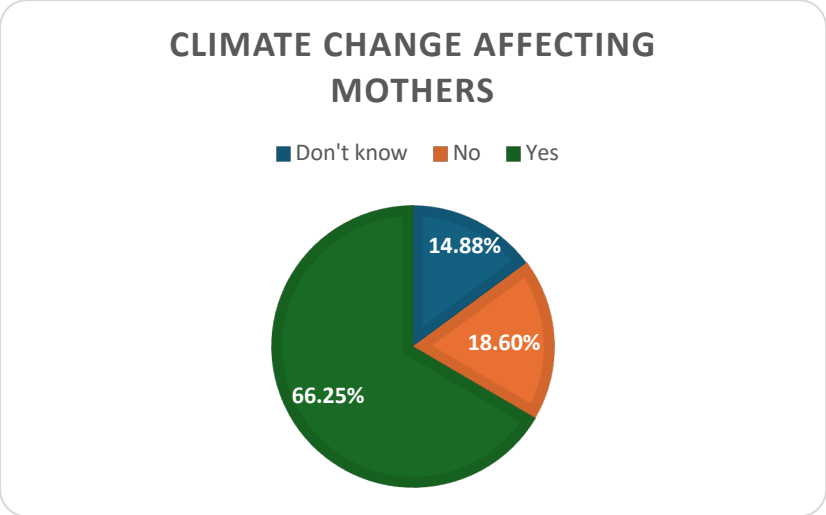

Figure 35: Climate Change Affecting Mothers

F. Effect of Climate Change on Young Children

The survey reveals strong recognition of the potential impact of climate change and environmental concerns on young children. **353 respondents (77.24%) believe that young children are or will be more impacted by climate change** and other environmental issues like air pollution. In contrast, **61 respondents (13.35%) disagreed**, stating that young children are not more affected. Additionally, **43 respondents (9.41%) selected 'Don't Know'**, reflecting uncertainty or lack of awareness. These findings emphasize the widespread concerns about the vulnerability of young children to environmental challenges, underscoring the importance of addressing these issues through targeted education and policy interventions.

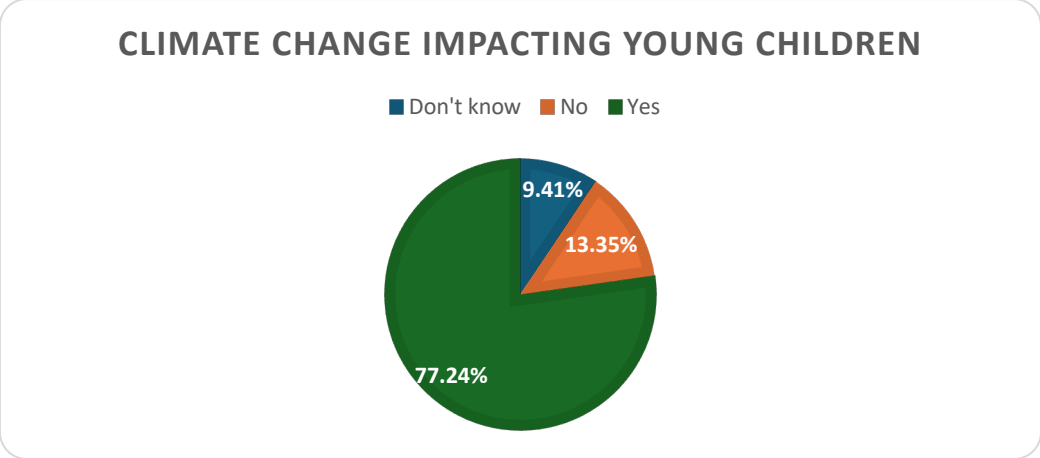

Figure 36: Climate Change Impacting Young Children

2.4 Climate Action

1. Activities to Reduce the Factors Contributing to Climate Change

The survey indicates that respondents are generally aware of various activities that can help mitigate the cause of climate change. The most commonly cited activities include **planting more trees and forests (233 respondents, 50.98%)**, waste reduction/recycling (215 respondents, 47.05%), and smart use of water (137 respondents, 29.98%). Additionally, walking and cycling as eco-friendly transportation methods were noted by 124 respondents (27.13%). Other activities that were frequently mentioned include proper waste disposal and management (107 respondents, 23.41%), use of LPG gas for cooking/heating (80 respondents, 17.51%), and rational use of electricity (79 respondents, 17.29%). Respondents also recognized the importance of using public transit (62 respondents, 13.57%) and using solar and other renewable sources of energy (44 respondents, 9.63%). However, a considerable portion of respondents, **120 individuals (26.26%), selected 'Don't know'**, indicating a gap in knowledge about effective climate action. Furthermore, a small number 3 respondents (0.66%), stated that no activity could help reduce the impact of climate change.

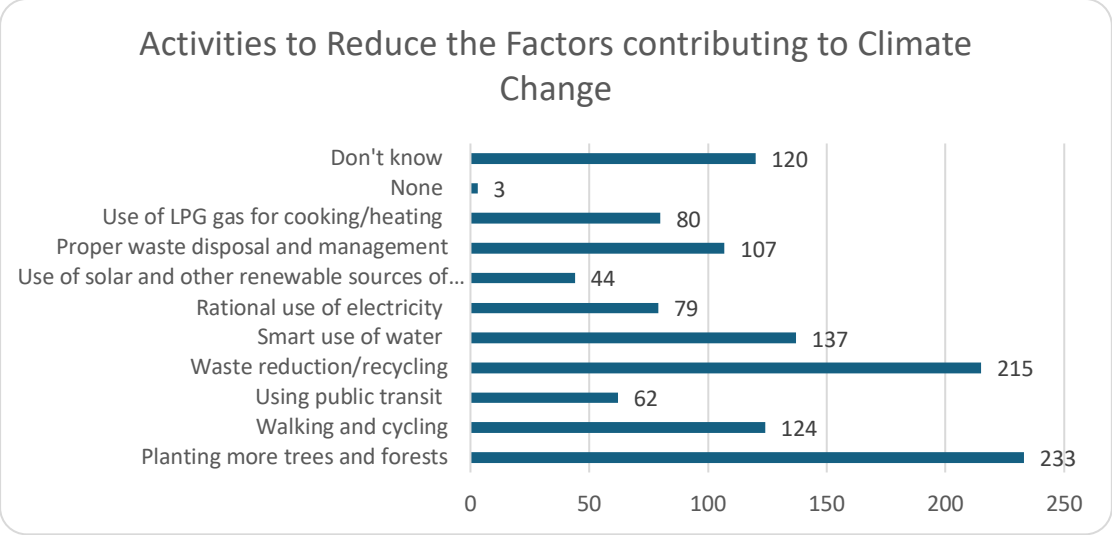

Figure 37:Activities to Reduce the Factors contributing to Climate Change

2. Perceptions of Respondents

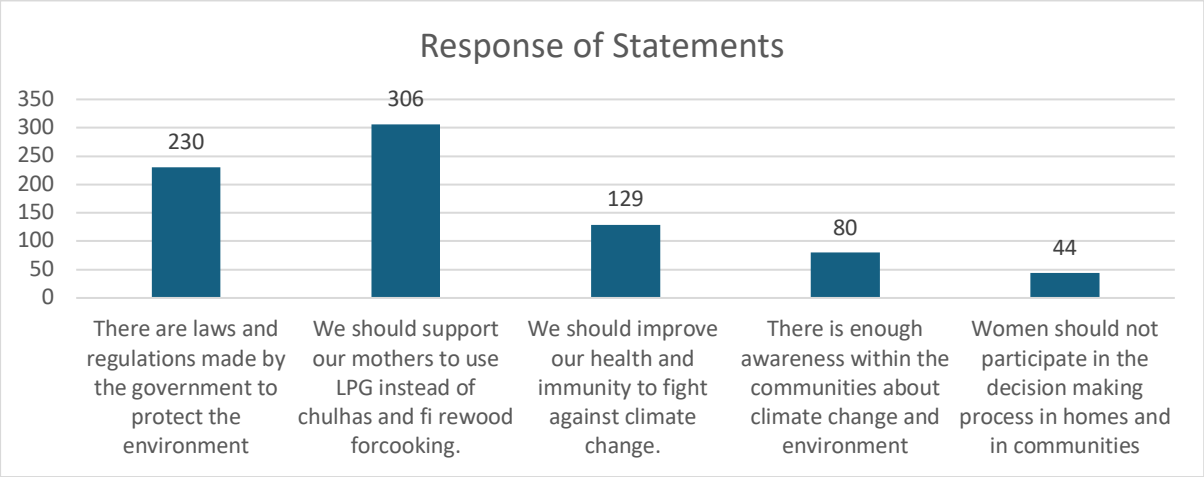

Figure 38: Perception of students

The baseline assessment provides insights into students' perceptions regarding environmental laws, sustainable practices, climate resilience, and social participation. **230 respondents (50.33%) acknowledged the existence of laws and regulations made by the government to protect the environment**, indicating a moderate level of awareness but highlighting the need for further education and enforcement. A majority of **306 respondents (66.96%) expressed support for using LPG instead of chulhas and firewood for cooking**, demonstrating a willingness to transition toward cleaner energy sources. Only 129 respondents (28.23%) recognized the

importance of improving health and immunity to fight against climate change, suggesting a limited understanding of the direct links between climate change and health risks. Furthermore, only **80 respondents (17.51%) believed that there was enough awareness about climate change within their communities**, highlighting a significant gap in climate education and the need for targeted awareness programs. Encouragingly, only 44 respondents (9.63%) agreed that women should not participate in decision-making processes at home and in communities.

3. Responsibility for Addressing Climate Change and Environmental Impacts

The survey revealed diverse opinions on who is responsible for addressing climate change and its impacts. A significant portion of respondents attributed responsibility to **communities like ours (129 respondents, 28.23%)** and **individuals like you and me (103 respondents, 22.54%)**, reflecting a strong sense of individual and community accountability. The **government** was also frequently cited as responsible by **119 respondents (26.04%)**, alongside businesses/industries (96 respondents, 21.01%) and the rich and powerful (49 respondents, 10.72%). An increasing number of respondents believed that developed countries like the USA and UK (32 respondents, 7.00%) should take on the responsibility. Additionally, 41 respondents (8.97%) agreed that all of the above entities share responsibility. However, **94 respondents (20.57%) were unsure**, and a small group of 6 respondents (1.31%) stated that no one is responsible. These findings highlight that, while there is a general acknowledgment of collective responsibility, there is still uncertainty about the specific roles various stakeholders should play in combating climate change.

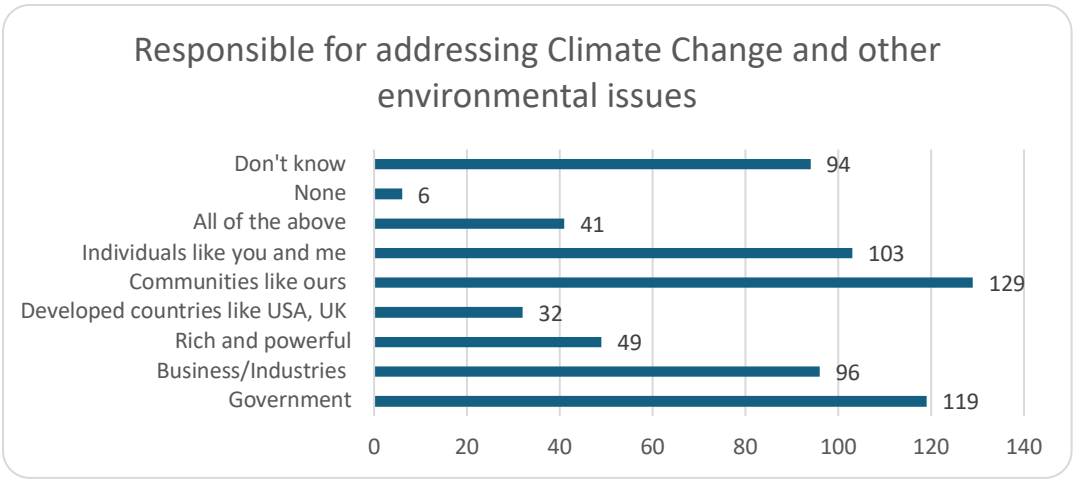

Figure 39: Responsible for addressing Climate Change and other environmental issues

4. Government Actions to Address Climate Change and Environmental Issues

The survey results show varying opinions about the government's efforts to address climate change and other environmental issues. A majority of **228 respondents (49.89%) believe that the government is taking action**, while **133 respondents (29.10%) think that the government is not doing enough**. Additionally, **96 respondents (21.01%) were unsure** and selected 'Don't know', indicating lack of clarity or awareness regarding government initiatives. These findings suggest that while there is a considerable level of belief in government action, there is also a significant portion of respondents who are skeptical or unsure about the effectiveness of these efforts.

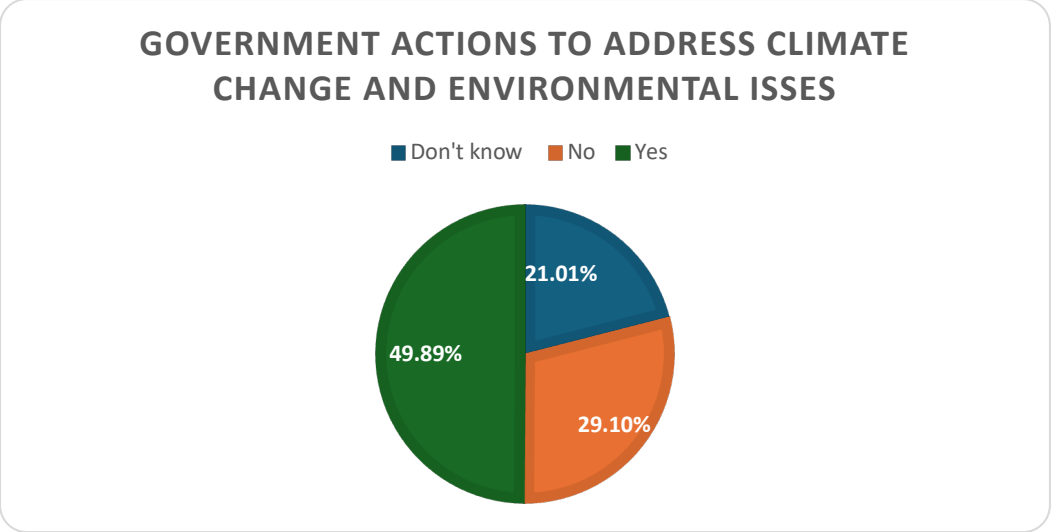

Figure 40:Government Actions to Address Climate Change and Environmental Issues

The survey revealed various actions that respondents believe that the government should take to address climate change and other environmental concerns. The most frequently mentioned actions were **planting more trees/forests (215 respondents, 47.05%)** and **fining individuals who are polluting or contributing more to environmental damage (213 respondents, 46.61%)**. Other significant responses included ensuring proper waste disposal and management (137 respondents, 29.98%) and reducing the use of fossil fuels for energy (55 respondents, 12.04%). However, a considerable portion of respondents (130 respondents, 28.45%) selected 'Don't Know', indicating uncertainty about what actions the government should take. A smaller percentage, 39 respondents (8.53%), felt that the government had already done enough, while 11 respondents (2.41%) believed that nothing could be done by the government. A very small group of respondents, 1 respondent (0.22%) selected 'None', suggesting that they do not believe government intervention is necessary. These findings underscore the general support for government action on issues like waste management, pollution control, while also highlighting areas of uncertainty and differing opinions on the effectiveness of current measures.

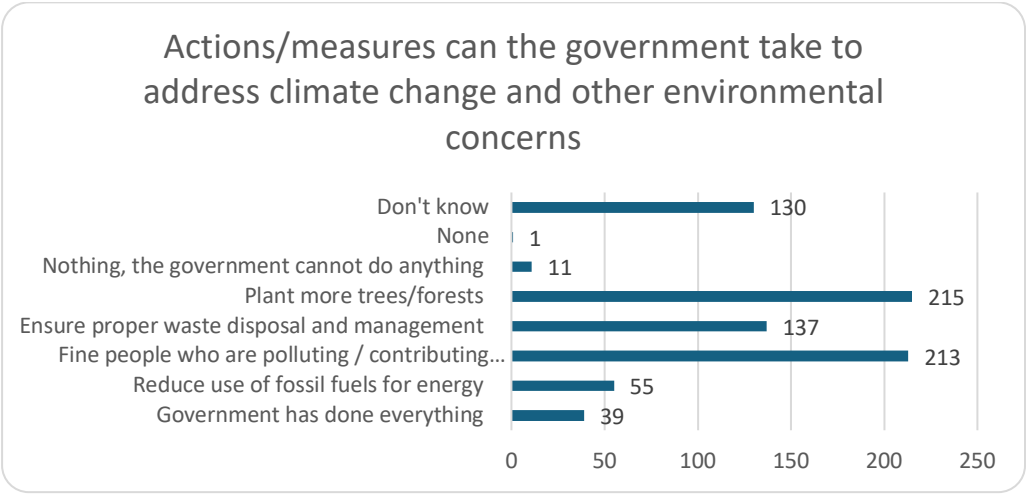

Figure 41:Actions/Measures can the government take to address climate change and other environmental concerns

5. Personal Steps to Reduce/Prevent the Impacts of Climate Change and Other Environmental Issues

The survey revealed the actions that respondents believe can be taken by individuals, families, and communities to reduce or prevent the impacts of climate change and other environmental issues. The most frequently cited steps include **not burning waste in open areas (254 respondents, 55.58%)**, followed by not cutting trees/plants or planting new trees (219 respondents, 47.92%). Other commonly mentioned actions include properly disposing and managing waste (125 respondents, 27.35%), saving water (119 respondents, 26.04%), and raising awareness within communities to adopt sustainable practices (66 respondents, 14.44%). In addition, saving energy (47 respondents, 10.28%) and preparing emergency plans for disaster management (32 respondents, 7.00%) were also highlighted as important steps. However, 107 respondents (23.41%) selected 'Don't know', indicating uncertainty about what actions can be taken, while a small group, 6 respondents (1.31%) stated 'None' as a response. These

results emphasize a broad understanding of actions like waste management and tree planting, but also reflect a need for more education and awareness on effective climate action.

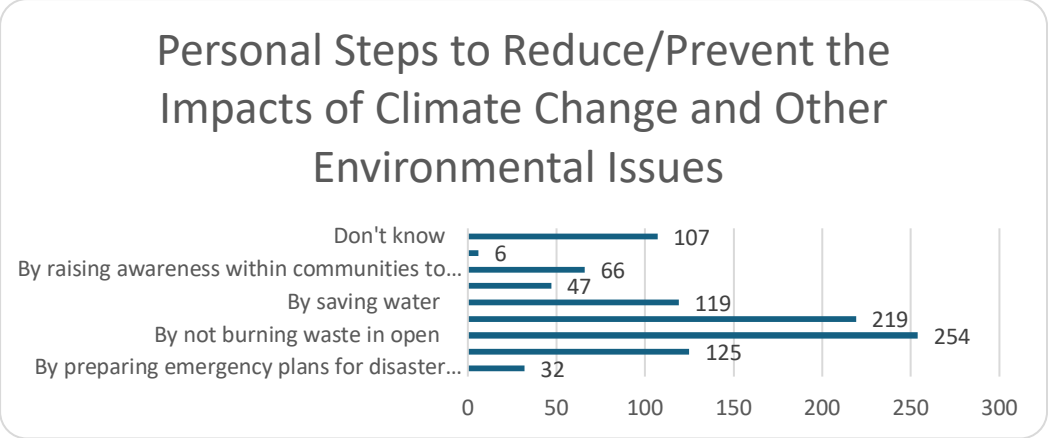

Figure 42:Personal Steps to Reduce/Prevent the Impacts of Climate Change and Other Environmental Issues

The survey shows that a significant proportion of respondents indicated that neither they nor their family members have taken steps to address climate change. Specifically, **268 respondents (58.64%) answered 'No', suggesting that no actions have been taken**. However, **94 respondents (20.57%) reported that they or their family members have indeed taken steps to address climate change**, while **95 respondents (20.79%) expressed uncertainty, selecting 'Don't know'**. These results suggest that while a portion of the community is taking action, a larger group either has not yet taken steps or is unsure about what actions can be taken to address climate change. This indicates a need to create awareness and guidance on how individuals and families can contribute to climate action.

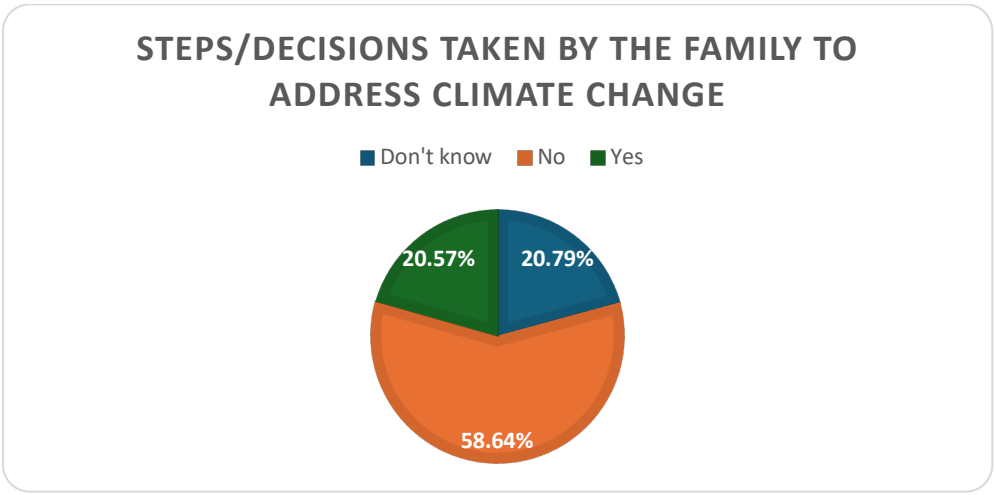

Figure 43:Steps/Decisions taken by the family to address climate change

6. Motivations to Learn about Climate Change and Engage in Climate Action

The survey shows that the majority of respondents are motivated and willing to learn about climate change and engage in environmental action. **359 respondents (78.56%) expressed a positive interest** by answering 'Yes', indicating a strong desire to learn and participate in environmental initiatives, On the other hand, **98 respondents (21.44%) stated that they are 'No'**, suggesting a lack of motivation or willingness to engage in such activities. These findings suggest a high level of motivation and interest in climate change education and action, with a need to focus efforts on further engaging the smaller group that is currently not interested.

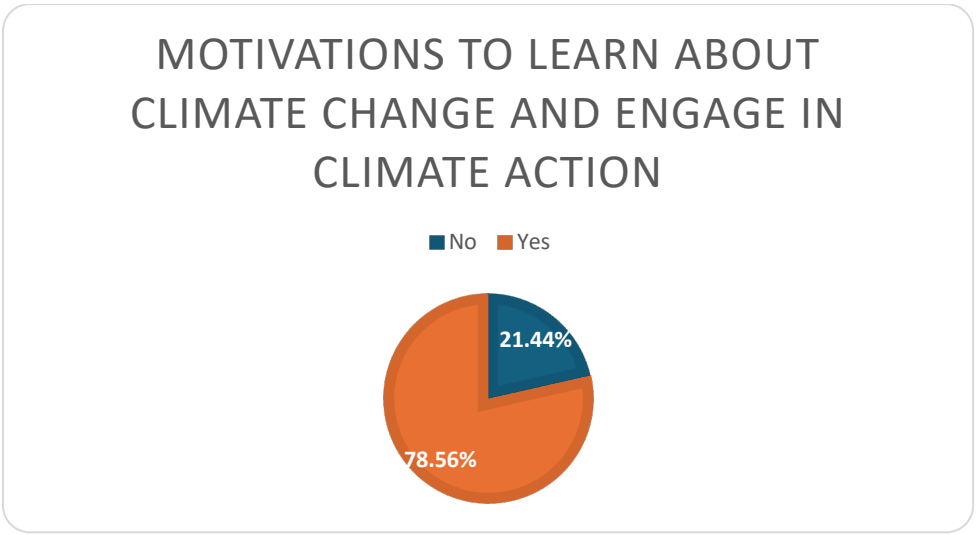

Figure 44:Motivations to Learn about Climate Change and Engage in Climate Action

7. Motivations to Take Steps to Address Climate Change and Environmental Issues

The survey highlights a range of motivations for taking action to address climate change and environmental concerns. The most common motivation was '**None' (161 respondents, 35.23%),** indicating a lack of motivation among a significant portion of the respondents However, many respondents were motivated by a sense of responsibility, with 147 respondents (32.17%) stating that they are driven 'To solve a problem'. Additionally, 99 respondents (21.66%) were motivated by their 'Love for the environment and natural ecosystems', suggesting a strong connection to nature. Other motivations included 'Personal reasons (33 respondents, 7.22%) and the potential for 'New earning opportunities' (17 respondents, 3.72%). These findings reflect that while respondents are motivated by problem-solving and a deep appreciation for the environment, there is also a notable portion who report no motivation, highlighting the need for more education and outreach to engage those individuals and inspire climate action.

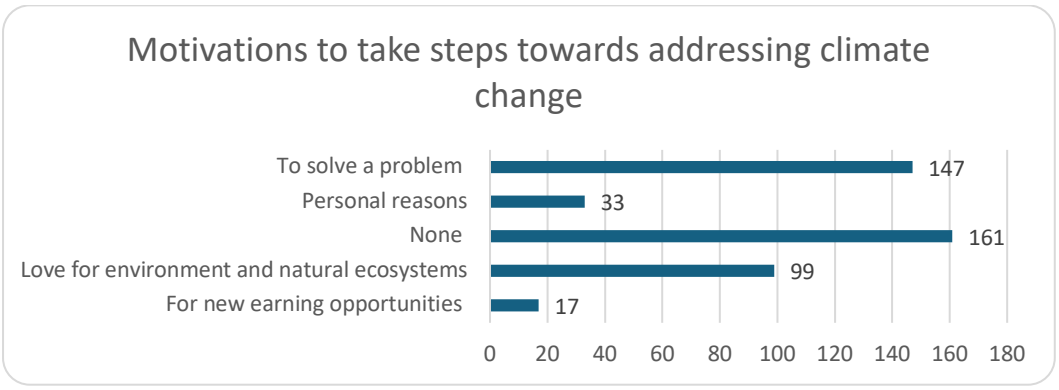

Figure 45:Motivations to take steps towards addressing Climate Change

2.5 Climate Concerns and Anxiety

1. Concerns About Climate Change

The survey reveals that **192 respondents (42.01%) are 'Very concerned'** about climate change, while **189 respondents (41.36%) are 'Somewhat concerned'**. A smaller proportion, **76 respondents (16.63%)**, indicated that they are **'Not concerned'** about climate change. These findings show a strong level of concern regarding climate change, with the majority of respondents acknowledging its significance. The data underscores the need for continued education and action to address climate change and its impacts on communities.

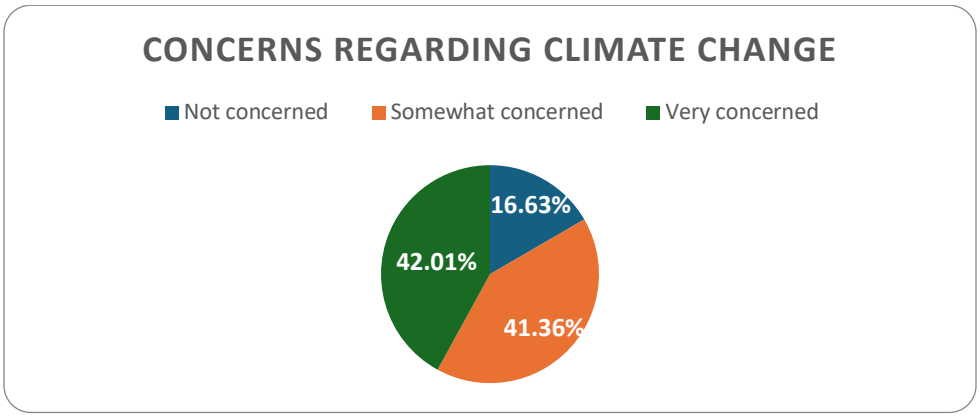

Figure 46: Concerns Regarding Climate Change

2. How do you feel about Climate Change?

The survey reveals a diverse range of emotional responses to climate change. The largest group of respondents, **154 individuals (33.70%), expressed that they do not have enough information** about climate change suggesting a need for increased awareness and education on the issues. The next most common feelings were **sadness (102 respondents, 22.32%) and fear/anxiety (69 respondents, 15.10%)**, indicating significant emotional concern about the problem. Other responses included **confusion (38 respondents, 8.32%)** and a sense of indifference (28 respondents, 6.13%), where some respondents reported that they did not care or had no strong feelings about climate change. A smaller number of respondents expressed feelings of hope (22 respondents, 4.81%) and hopelessness (19 respondents, 4.16%) while anger was reported by 17 respondents (3.72%). A small proportion, 8 respondents (1.74%), denied the existence of climate altogether, reflecting a significant level of skepticism. These findings suggest a need for targeted education to address knowledge gaps, alleviate fears, and provide hope through actionable steps for climate change mitigation and adaptation.

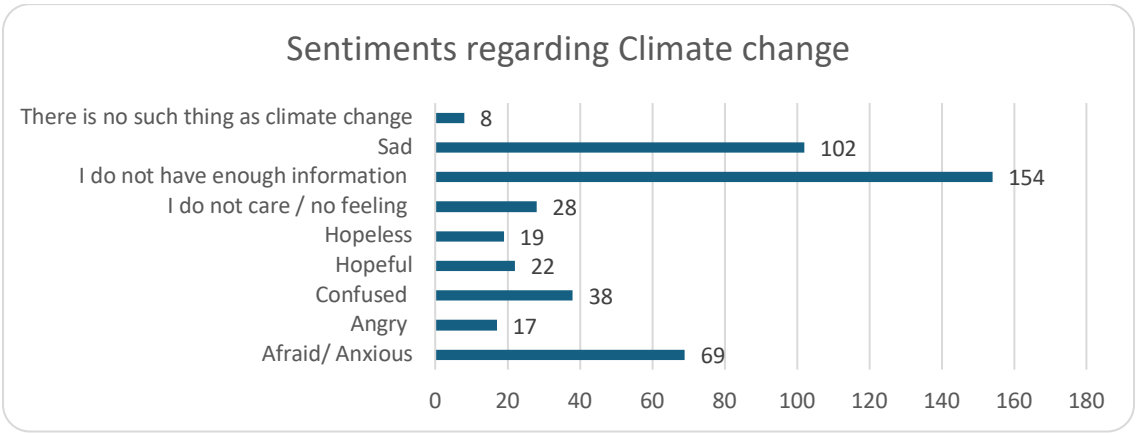

Figure 47: Sentiments Regarding Climate Change

2.6 Sources of Climate-related Information

1. Exposure to Climate Change in School

The survey shows that **271 respondents (59.30%) have read or heard about climate change at school**, indicating that a majority of respondents have had some exposure to climate change education. On the other hand, **186 respondents (40.70%) have not encountered climate change topics in their school** education, highlighting an area where educational outreach could be improved. These findings suggest the need for further integration of climate change education in schools to ensure that all students are informed about climate change.

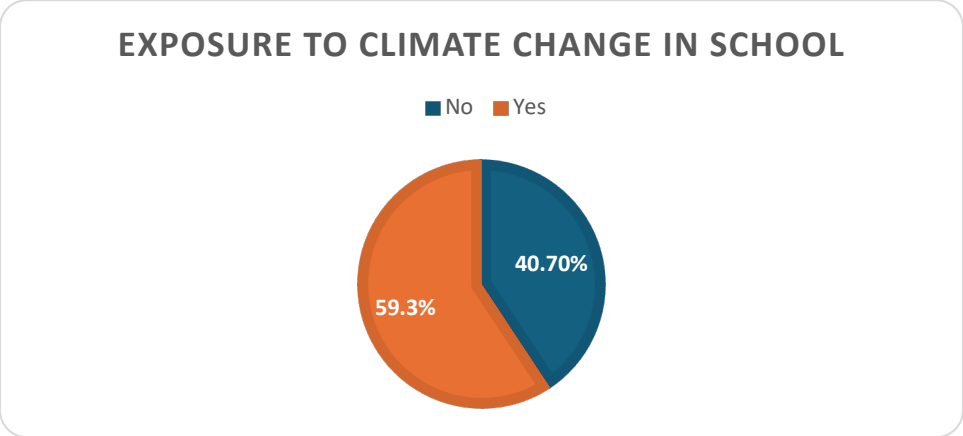

Figure 48: Exposure to Climate Change in School

2. Difficulties in Using Climate Change Information Taught at School

The survey highlights several challenges faced by respondents in utilizing information about climate change taught at school/ The most common response, reported by 1**42 respondents (31.07%), was that there were no difficulties in using the information**. However, a significant portion, **133 respondents (29.10%), found the information to be too technical or difficult to understand**. Additionally, **94 respondents (20.56%) indicated that climate change information was not taught at school,** and **84 respondents (18.38%) felt that there was not enough information provided**. A small number, 4 respondents (0.88%), stated that the information taught was not appropriate for their community. These findings suggest a need for simplification of the curriculum, broader coverage of climate change topics in schools, and more relevant, community-specific educational materials to address these challenges.

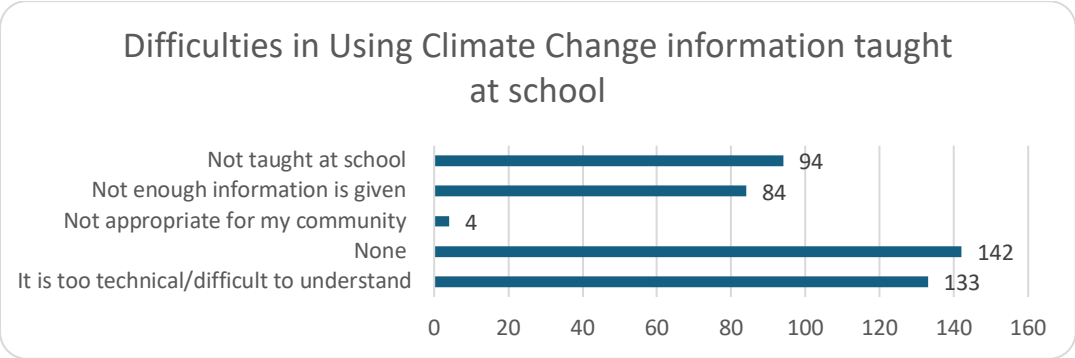

Figure 49: Difficulties in Using Climate Change Information Taught at School

3. Sources of Information About Climate Change

The survey highlights various sources through which respondents have heard or read about climate change. A significant proportion of **198 respondents (43.33%) indicated that they have not accessed information through any specific medium**. For those who did report sources, the most common was TV, mentioned by 55 respondents (12.04%), followed by news with 37 respondents (8.10%). Social media/internet was cited by 36 respondents (7.88%), and friends and family were mentioned by 36 respondents (7.88%). Additionally, 21 respondents (4.60%) reported community meetings or discussions as a source, while 82 respondents (17.94%) relied on a combination of multiple sources. These findings suggest that while TV remains a key source of information, other channels like news, social media, and interpersonal discussions also play a role.

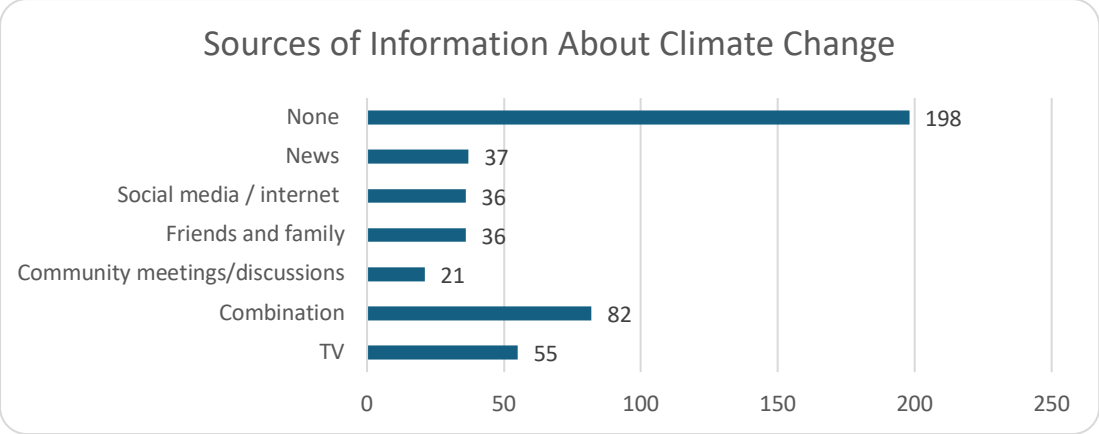

Figure 50: Sources of Information About Climate Change

4. Internet Use for Climate Change Information

The survey indicates that a majority of respondents, **328 individuals (71.77%), have never used the internet to search for information on climate change**. A smaller proportion, **113 respondents (24.73%), have actively used the internet for this purpose**. Additionally, **8 respondents (1.75%) reported that they don't know** how to use a smartphone, and another **8 respondents (1.75%) mentioned they don't have access to a smartphone**, which may limit their ability to search for climate change information online. These findings suggest a significant barrier to accessing climate change information through the internet, highlighting the need for alternative sources of information for those without internet access or digital literacy.

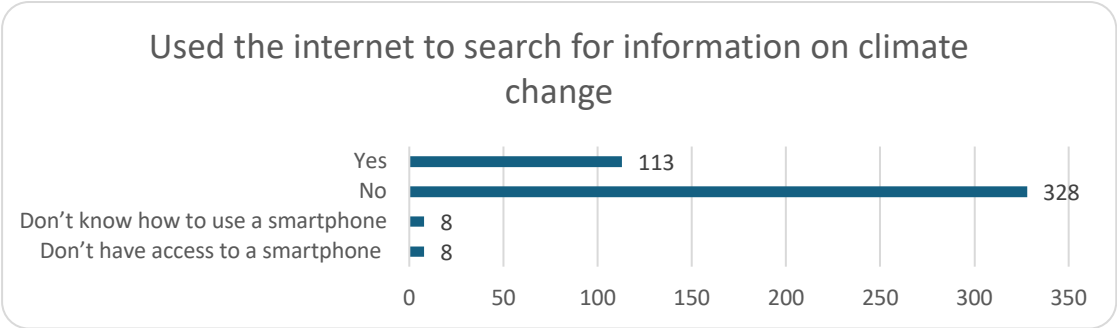

Figure 51: Usage of Internet on Climate Change

5. Do you want to be aware/informed about climate change and other environmental issues?

The survey indicates a strong desire among respondents to be informed about climate change and other environmental issues. **440 respondents (96.28%) expressed a desire to be aware and informed**, while **17 respondents (3.72%) indicated that they do not want to be informed**. These findings highlight a widespread interest in gaining knowledge about climate change and environmental issues, suggesting a strong potential for educational programs and awareness campaigns to engage and inform the community.

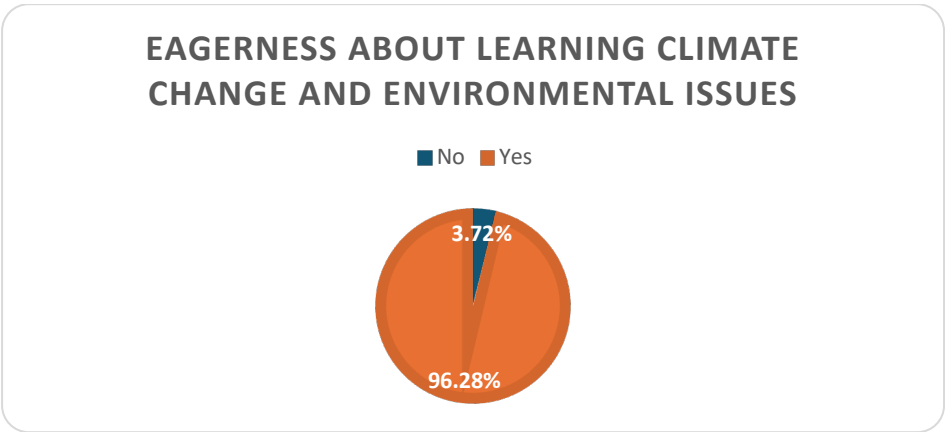

Figure 52: Eagerness About Learning Climate Change

Chapter 3: Discussions and Recommendations

3.1 Discussions on Findings

This chapter interprets the key findings from the baseline assessment, aligning them with the research questions posed at the outset of the study. The assessment aimed to explore knowledge, attitudes, and practices of students regarding climate change, focusing on their perceptions of its impacts on their local communities, their motivations to take action, and the sources from which they derive information. The insights gathered from this survey will inform and help to design and implement the climate change education program.

RQ 1: What is the level of knowledge, attitudes, and practices of students regarding climate change?

The baseline assessment provides insight into students' initial knowledge, attitudes, and practices regarding climate change the design of the program intervention. The findings reveal limited awareness, significant misconceptions, and low engagement in climate action, highlighting the need for structured climate education to build foundational knowledge and encourage behaviour change.

1. Knowledge about Climate Change

At the time of the baseline assessment, a majority of students had little to no knowledge about climate change. **58.21% of students reported having no knowledge of the topic**, while **32.82% had heard about climate change but could not explain it**. Only a **small proportion, 8.97%, stated they could explain climate change well**, demonstrating a significant gap in foundational climate knowledge.

Similarly, students struggled to identify the causes of climate change. **78.34% had no knowledge of climate change causes**, and only **6.12% were able to explain the causes clearly**. The remaining **15.54% had heard about the causes but could not explain them**, indicating limited exposure without deeper comprehension. When asked about specific human-driven causes, **only 41.36% of students identified waste burning**, **31.95% cited transportation and traffic**, and **28.88% mentioned industries**. Additionally, **40.92% of students believed that climate change was solely caused by human activities**, while **24.29% attributed it entirely to natural causes**, showing **limited knowledge about the role of human influence**. Another **31.51% were uncertain and selected "Don't Know"**, reinforcing the widespread lack of understanding of climate science.

2. Attitudes towards Climate Chang

At the baseline, **54.92% of students believed that climate change was affecting their community**, but **15.98% stated that it was not affecting them, and 29.10% were uncertain**. Additionally, **54.49% of students stated that they did not know about the impacts of climate change**, while **21.66% linked climate change to rising temperatures, 15.75% to changes in rainfall patterns, 23.41% to biodiversity loss, and 15.54% to flooding**. These findings suggest that students lacked a clear understanding of how climate change impacts their environment and daily lives, reinforcing the need for localized climate education that makes these issues more tangible.

There was also a low awareness of climate justice issues at the baseline. Only **9.2% of students acknowledged that women are disproportionately affected by climate change**, and **66.52% recognized that climate change directly affects their mothers**. Similarly, **77.24% believed that young children are or will be more affected by climate change**, but a sizable proportion remained unaware of the disproportionate impact on vulnerable communities.

3. Climate Action Strategies and Practices

Beyond limited recognition of climate change and its impacts, students also demonstrated low awareness of climate action strategies. The proportion of students who could **explain practices to reduce climate change causes** was **only 6.34%**, while **4.82% could explain measures to prevent or reduce climate change impacts**. Meanwhile, **80.31% of students had no knowledge of mitigation strategies**, and **84.90% were unaware of adaptation strategies**.

Awareness of specific climate actions was also limited. While **50.98% of students recognized tree planting as a solution**, fewer students identified **proper waste disposal (23.41%), water conservation (29.98%), or rational electricity use (17.29%)** as meaningful actions. Additionally, **26.26% of students selected "Don't Know"** when asked about climate solutions, showing that many students were unfamiliar with actions they could take to reduce climate change.

These findings highlight the urgent need for structured climate education to build foundational knowledge, correct misconceptions, and help students develop a clear understanding of climate causes, impacts, and solutions.

RQ2: How do students perceive the impact of climate change on their local community, and what actions are they taking to address these impacts?

At the baseline, **54.92% of students believed that climate change was affecting their community**, while **15.98% stated that it was not affecting them, and 29.10% were uncertain**. These responses suggest that while some students recognized climate change as a local issue, a significant proportion were either unaware of its impacts or did not associate them with their immediate surroundings. When asked to explain how climate change affects their community, **only 5.26% of students could confidently describe its impact**, while **14.00% had some awareness but could not fully explain it**. Most notably, **80.74% of students had no knowledge of how climate change affects their local community**, reinforcing a major gap in climate change awareness.

Students' awareness of specific environmental impacts was also limited. A **majority, 54.49%, stated that they did not know about the effects of climate change on the environment**. Among those who identified specific impacts, **21.66% linked climate change to rising temperatures, 15.75% to changing rainfall patterns, and 23.41% to biodiversity loss**. **Only 15.54% recognized flooding as a climate-related impact, and just 11.82% mentioned melting ice-capped mountains**. Awareness of **extreme weather events** such as **droughts (6.56%) and heatwaves (6.13%)** was particularly low, demonstrating that students had minimal exposure to discussions about climate-related disasters. These findings suggest that while students may have observed environmental changes, they did not necessarily connect them to climate change.

Students' perceptions of the effects of climate change on human systems were also underdeveloped. In the baseline, **28.23% of students believed that climate change negatively impacted their lives**, while **32.82% thought it had a positive impact**. Meanwhile, **26.70% were uncertain, and 12.25% believed that climate change did not affect them at all**. When asked about specific **human-related consequences**, **38.95% of students identified an increase in diseases as a climate change impact**, while **32.82% linked it to water scarcity**. Fewer students associated **climate change with economic challenges**, with **28.23% recognizing its role in rising food prices and 26.91% linking it to inflation**. A much **smaller proportion, 13.79%, believed climate change contributed to job losses**, and **35.23% responded with "Don't Know"**. These findings highlight a critical gap in understanding how climate change affects economic stability, public health, and daily life.

At the baseline, engagement in climate action was minimal, with many students and their families not taking proactive steps to address climate change. When asked about **activities to reduce climate change impacts**, **50.98% of students mentioned tree planting, 47.05% identified waste reduction or recycling, and 29.98% reported practicing smart water use**. Awareness of energy conservation was also low, with **only 17.29% of students identifying it as an action to reduce climate change**. Notably, **26.26% of students responded with "Don't Know,"** suggesting that **many were unaware of climate actions they could take**, while **0.66% stated that no activity could reduce climate change impacts**.

When asked whether they or their families had taken action to address climate change, **58.64% of students reported that neither they nor their families had taken any steps**, while **only 20.57% stated that they or their families had taken action**. Another **20.79% of students were uncertain** about whether their families had done anything to address climate change. These findings indicate that climate action at the household level was largely absent and that many students lacked clear guidance on how to engage in climate solutions.

Another key finding from the baseline assessment was the lack of household preparedness for climate-related disasters. When asked about **emergency preparedness**, **70.02% of students reported that their families did not have an emergency kit at home**, while **only 15.10% stated that they had one**. Meanwhile, **14.88% of students were unsure** whether their families were prepared for disasters. These findings indicate that most students and their families were not equipped to handle climate-related risks, reinforcing the need for disaster preparedness education.

Overall, the baseline findings reveal that students had limited awareness of climate change impacts on their local community and minimal engagement in climate action.

RQ3: What are students' concerns and emotional reactions to climate change, and how motivated are they to take action?

At the baseline, **42.01% of students were very concerned about climate change**, while **41.36% were somewhat concerned**. Meanwhile, **16.63% of students reported not being concerned about climate change at all**, indicating that while a majority of students acknowledged climate change as an issue, a significant proportion remained indifferent or unaware of its urgency. These findings highlight a moderate level of awareness at the baseline but also a need for greater emphasis on the severity of climate-related threats in students' communities.

The perception of serious environmental threats in New Delhi varied among students. The most frequently cited concern was **air pollution, identified by 70.46% of students**, reflecting a widespread awareness of its direct health and environmental effects. **Water scarcity was the second most recognized issue, with 39.82% of students** identifying it as a major challenge. However, **only 8.32% of students considered climate change itself to be a critical issue**, showing that many students did not yet connect climate change with their daily environmental concerns. Additionally, **poverty and hunger were mentioned by 24.07% of students, while landfill overuse and waste mismanagement were cited by only 9.56%**, indicating limited awareness of broader environmental sustainability challenges.

Students' emotional responses to climate change at the baseline revealed a mix of indifference, concern, and uncertainty. **33.70% of students stated that they did not have enough information about climate change** to feel strongly about it. Among those who did express an emotion, **22.32% reported feeling sad about climate change**, while **15.10% reported fear or anxiety**. Other emotional responses included **confusion (8.32%), indifference (6.13%), and anger (3.72%)**, indicating that **while some students felt deeply affected by climate issues, others were either unaware or disengaged from the conversation**. **A small proportion (4.81%) reported feeling hopeful about climate action**, while **7.7% believed it was too late to take action**, suggesting pessimism about their ability to contribute to climate solutions.

At the baseline, students expressed varying levels of motivation to learn about climate change and engage in environmental action. **78.56% of students expressed a desire to learn more about climate change**, while **21.44% stated that they were not interested**. The proportion of students who believed that **climate change should be taught in schools** was **61.7%**, showing that while many students supported climate education, **a notable portion (38.3%) remained neutral or uncertain about its importance**. Meanwhile, **96.28% of students stated that they wanted to be informed about climate change**, but this interest had not yet translated into meaningful engagement or action at the baseline stage.

Students' motivation to take action was significantly lower at baseline, with **only 20.57% of students reporting that they had taken or would take action** to address climate change. In contrast, **58.64% of students stated that neither they nor their families had taken any action**, while **20.79% were uncertain about whether their families had done anything**. These findings indicate low initial levels of climate action engagement, with many students lacking the awareness, confidence, or opportunities to participate in environmental initiatives.

The motivations driving students to take action were largely underdeveloped at the baseline. **35.23% of students reported having no motivation to take action on climate change**, indicating a widespread sense of disinterest or uncertainty. Among those who expressed motivation, **32.17% stated that their primary motivation was to solve a problem**, while **21.66% cited their love for nature and ecosystems as their reason for acting**. A smaller proportion of students were motivated by **personal reasons (7.22%) or the potential for economic opportunities (3.72%)**, suggesting that few students connected climate action to long-term benefits for their well-being or future livelihoods.

Students' expectations regarding systemic action on climate change were also unclear at baseline. **26.04% of students believed that only the government was responsible for addressing climate change**, while **28.23% attributed responsibility to communities like theirs, and 22.54% believed individuals had a role to play**. Meanwhile, **10.72% of students stated that only the rich and powerful should take action**, and **7.00% assigned responsibility to developed countries**. Additionally, **20.57% of students were uncertain about who should take responsibility**, indicating a lack of clarity on shared responsibility for climate action.

At the baseline, students' perception of government action on climate change was **mixed**. **49.89% of students believed that the government was taking steps to address climate issues**, while **29.10% stated that the government was not doing enough**. Meanwhile, **21.01% of students were unsure**, suggesting **a gap in awareness about climate policies and government interventions**. Students were also asked **what actions they wanted the government to take**, with **47.05% supporting tree planting, 46.61% advocating for fines against polluters, and 29.98% emphasizing proper waste management**. However, **12.04% of students supported**

reducing fossil fuel use, showing that at the baseline, alternate energy source was not widely recognized as a climate solution.

Another key baseline finding was the perception of youth agency in climate action. **47.0% of students stated that they were too young to do anything about climate change**, indicating a lack of empowerment or belief in their ability to contribute to solutions. These findings suggest that students at the baseline did not yet see themselves as active participants in addressing climate challenges, reinforcing the importance of education and engagement in fostering agency and confidence in climate action.

Overall, the baseline findings indicate a moderate level of concern about climate change, with varying levels of emotional engagement and motivation to act, though many students lacked clarity on how to translate their motivation into meaningful action.

RQ4: What sources of information do students rely on to learn about climate change?

At the baseline, **43.76% of students reported having no specific source of climate change information**, indicating that nearly half of the students had not been exposed to structured discussions on climate change. This suggests a significant gap in access to climate knowledge, reinforcing the need for targeted education.

Among students who had been exposed to climate change discussions, **television was the most commonly cited source, mentioned by 24.73% of students**. News was another major source of information, with **15.54% of students reporting that they had learned about climate change through newspapers or news broadcasts**. Meanwhile, **15.97% of students reported using social media or the internet to access climate-related content**, demonstrating a limited but existing digital engagement with environmental issues.

Personal networks played a role in climate awareness, but to a lesser extent. **Friends and family were mentioned as a source of climate change information by 14.88% of students**, while **10.07% reported learning about climate change through community meetings or discussions**. These findings suggest that while some students gained climate knowledge through personal interactions, structured or science-based climate education remained largely absent in their daily lives.

The **baseline assessment also highlights limited internet use for climate awareness**. A **majority of students (71.77%) reported that they had never used the internet to search for climate change information**, suggesting a significant digital divide in environmental education. In contrast, **only 24.73% of students actively used the internet to search for climate change-related topics**, indicating that access to online resources was still relatively low. Additionally, **1.75% of students reported that they did not know how to use a smartphone**, while another **1.75% stated that they did not have access to a smartphone**, underscoring barriers to internet-based climate learning.

Despite the lack of structured exposure, many students expressed a strong desire to learn more about climate change. At the baseline, **96.28% of students stated that they wanted to be informed about climate change and environmental issues**, demonstrating a high level of interest in learning, despite the lack of access to reliable sources.

Exposure to climate education in schools was moderate at the baseline. **59.30% of students reported having read or heard about climate change in school**, suggesting that while school-based climate education existed, it was not yet universally available. However, **40.70% of students stated that they had not encountered climate change topics in school**, highlighting gaps in formal education on environmental issues.

Students also reported difficulties in using climate change information taught at school. A **significant proportion (29.10%) found the information too technical or difficult to understand**, indicating that **even when climate topics were covered, they were not always accessible or engaging for students**. Additionally, **20.57% of students stated that climate change was not taught at their school**, while **18.38% felt that there was not enough information provided**. The most common response, reported by **31.07% of students**, was that they faced **no difficulties in understanding the information**. Whereas, a **small proportion (0.88%) stated that the information taught was not appropriate for their community**, reinforcing concerns about the relevance of school-based climate education.

Overall, the baseline findings indicate that many students lacked exposure to structured climate education, with television, news, and personal networks serving as their primary sources of information.

3.2 Recommendations

The findings from the baseline assessment highlight key gaps in climate awareness, perceptions, and practices among students living in landfill communities. To address these gaps, the **Paryavaran Saathi: Young Leaders for Climate Action** program must incorporate **targeted interventions** that enhance climate literacy, build adaptive capacity, and foster proactive engagement in climate action. The following recommendations are proposed to strengthen climate education and encourage sustained behavioural change among student:

A. **Strengthen the foundation of climate change education:** The baseline findings revealed that **58.21% of students had no knowledge of climate change**, and **78.34% were unaware of its causes**. Many students lacked an understanding of how climate change affects their communities, with **80.74% unable to explain local impacts**. To address these gaps, the program must focus on **building strong conceptual foundations**. The **program** should aim to provide comprehensive education that explains the **interconnectedness between human activities, ecosystems, and environment**. Teaching materials should incorporate **real-life, local examples to demonstrate how climate change is affecting their communities.** This could include highlighting local impacts such as rising temperatures or frequent heat waves. Teaching materials should incorporate **age-appropriate, localized content** that explains **the science behind climate change, its causes, and real-life examples** of environmental changes in Delhi. **Incorporate visual and experiential learning methods**, such as interactive storytelling, climate models, and hands-on experiments, to simplify complex topics and enhance comprehension. By making climate change feel more immediate and personal, students will better understand its relevance to their lives.

B. **Focus on specific, relevant actionable climate solutions:** While **50.98% of students recognized tree planting** as a solution to climate change, many were **unaware of broader mitigation and adaptation measures**. **26.26% were uncertain about what actions they could take**, and **84.90% had no knowledge of adaptation strategies**. To **bridge this gap**, the program should integrate **practical action-based learning** where students actively participate in **waste segregation drives, water conservation projects, and school-led sustainability initiatives**. By directly participating in these projects, students can apply their knowledge in real-world contexts and see the tangible benefits of their actions. Active participation in these projects also fosters a sense of responsibility and ownership, as students take charge of solving problems in their own communities. Moreover, these practical projects encourage collaboration, leadership, and the development of problem-solving skills that students can carry with them throughout their lives.

C. **Encourage Community and Household-Level Climate Action:** The baseline assessment found that **58.64% of students and their families had not taken any concrete steps** to address climate change, despite being among the most vulnerable to its impacts. While these communities **contribute minimally to climate change**, they experience its **harshest consequences**, including rising temperatures, poor air quality, and extreme weather events. Additionally, **55.58% of students identified waste burning as a key environmental issue**, yet lacked structured guidance on how to mitigate its effects. To enhance **climate resilience at the household and community level**, the program must focus on **adaptation solutions** that equip families with practical strategies to cope with and minimize climate risks. Organizing **awareness campaigns** on sustainable waste management and alternative energy solutions can help reduce exposure to air pollution. Encouraging students to **document household energy use, water consumption, and waste generation** will foster a **data-driven approach to adaptation**, allowing families to identify small but impactful changes that reduce their vulnerability to climate-related hazards. Additionally, the program should introduce **incentive-based adaptation challenges**, where families adopt **climate-resilient practices** such as improving home ventilation to cope with rising temperatures, implementing water-saving techniques, and transitioning to cleaner cooking fuels. Further, organize **community awareness campaigns** and engage local leaders and families to foster a culture of sustainability beyond the learning centre. By embedding these strategies into **everyday household routines**, the program will empower these communities to build resilience**,** protect their health, and reduce their exposure to climate-related risks, ensuring that adaptation is both practical and sustainable.

D. **Enhancing Disaster Preparedness and Resilience**: The baseline assessment revealed **critical gaps in disaster preparedness**, with **70.02% of students reporting that their families do not have an emergency kit** and **only 17.07% aware of the types of climate-related disasters that could impact their communities**. Given the vulnerability of landfill communities to extreme weather events, air pollution, and fire hazards from waste burning, it is essential to strengthen disaster preparedness measures to build resilience and minimize risks. To address this, the program should introduce **basic disaster risk reduction education**, equipping students with knowledge on heatwaves, flooding, air pollution-related illnesses, and fire hazards. This will help them understand how climate-related disasters affect their communities and what precautions they can take. Additionally, students and their families should be trained in **emergency preparedness**, including how to

assemble and maintain emergency kits with essential supplies such as safe drinking water, masks, first-aid materials, flashlights, and non-perishable food items. Beyond individual preparedness, **community-wide disaster response strategies** should also be strengthened. Organizing **disaster response drills in neighbourhoods**, in collaboration with local emergency services, can ensure that students and families know how to respond effectively during emergencies. These efforts will not only reduce vulnerability but also empower communities to take proactive steps toward resilience in the face of increasing climate-related hazards.

E. **Provide platforms for students to advocate and represent their voices:** The baseline assessment revealed a significant gap in student agency, with **47% of students believing they were too young to take climate action** and **20.57% lacking motivation** to engage in environmental initiatives. This highlights the need to **empower students as climate leaders**, ensuring they not only understand climate challenges but also feel confident in advocating for solutions within their communities. To cultivate **leadership and advocacy skills**, the program should establish Youth Climate Action Clubs, where students can design awareness campaigns, conduct community surveys, and lead local environmental initiatives. These clubs will serve as platforms for students to discuss climate issues, develop solutions, and mobilize their peers for collective action. Additionally, **student-led policy dialogues** should be organized, enabling participants to present climate action recommendations to local authorities and decision-makers. Encouraging public speaking, advocacy training, and campaign development will equip students with the skills needed to raise environmental concerns effectively. Competitions such as **climate debates, environmental storytelling contests, and youth parliaments** will further sharpen their critical thinking and communication skills, ensuring that students can confidently articulate their perspectives on climate change. To provide deeper engagement, the program should facilitate **mentorship opportunities with environmental professionals, climate scientists, and activists**, allowing students to interact with experts, gain practical insights, and build networks in the climate space. By fostering youth leadership and advocacy, the program will transform students from passive learners into active change-makers, ensuring that they play a central role in shaping climate action within their communities.

F. **Integrating Gender and Social Inclusion in Climate Program**: The baseline assessment highlighted **gender disparities in climate awareness**, with **66.52% of students recognizing that climate change affects their mothers**, yet only **9.2% acknowledging that women are disproportionately impacted** by environmental challenges. This gap in understanding underscores the **need for gender-sensitive climate education**, as women, particularly in low-income communities, often bear the greatest burden of climate-related hardships, including increased health risks, water scarcity, and livelihood disruptions. To address these disparities and promote inclusive climate action, the program must incorporate **gender-responsive climate education modules** that examine how environmental issues uniquely affect women, children, and other marginalized groups. By integrating these perspectives into climate discussions, students will develop a deeper understanding of social and economic inequalities in climate vulnerability. Additionally, the program should provide **leadership training for girls**, equipping them with the skills and confidence to participate in climate decision-making spaces, advocate for sustainable practices, and take on active roles in their communities. Beyond classroom education, **household awareness sessions** should be conducted to challenge gender norms and promote shared responsibility for climate resilience. These sessions should encourage equal participation of men and women in climate adaptation efforts, including waste management, water conservation, and disaster preparedness. By fostering gender-inclusive approaches, the program will help build more equitable and sustainable community-led climate action initiatives, ensuring that all members, regardless of gender, are empowered to contribute to resilience-building efforts.

G. **Increase access to diverse information sources:** The baseline assessment revealed a significant gap in access to climate education, with **43.33% of students never having received climate-related information** and **71.77% never searching for climate content online**. Additionally, **40.7% of students had no exposure to climate change discussions in school**, limiting their ability to understand and engage with environmental issues. To address this, the program must focus on **expanding access to climate knowledge through diverse, engaging, and reliable sources**. Developing **simplified, multilingual educational materials**, such as posters, comics, and short films, will ensure that students, especially those with limited digital access, can grasp key climate concepts in a relatable way. Establishing **mobile climate information hubs** in learning centers will further provide students with books, videos, and interactive content, allowing them to explore environmental topics in a hands-on manner. Additionally, **teacher and parent training programs** should be implemented to help integrate climate discussions into classrooms, homes, and everyday conversations. The assessment also highlighted that **only 7.88% of students relied on social media for climate-related information**, while **24.73% accessed news through television**. However, misinformation and a lack of critical thinking skills make it difficult for students to differentiate between reliable sources and false narratives. To address this, the program should incorporate **digital literacy workshops** that train students to critically evaluate online climate content,

fact-check environmental claims, and engage with credible scientific sources. Additionally, **media and storytelling workshops** can encourage students to express their climate perspectives through videos, blogs, and social media campaigns, helping them become active contributors to climate discourse rather than passive consumers of information. To ensure **climate education reaches all students**, regardless of their digital access, the program must broaden the sources of information available. Incorporating **community-based workshops, printed educational materials, and interactive classroom discussions** will make climate knowledge more accessible.

H. **Enhance climate change awareness with proper information to address emotional concerns:** The baseline assessment revealed that **many students experience emotional distress related to climate change**, with **22.32% reporting feelings of sadness** and **15.10% experiencing fear or anxiety** when thinking about environmental challenges. Additionally, **33.70% of students stated that they did not have enough information about climate change**, indicating that confusion and lack of understanding may be contributing to these emotions. Given that emotional distress can sometimes hinder students' ability to engage in climate action, it is essential to integrate **emotional support mechanisms into climate education** to ensure that students feel informed, empowered, and capable of taking meaningful action. To address these concerns, climate education programs must include **structured discussion spaces** where students can **express their climate-related fears, anxieties, and frustrations** in a supportive environment. Facilitators should guide these discussions toward **constructive problem-solving and action-oriented thinking**, helping students move from fear to empowerment by highlighting ways they can contribute to climate solutions. Additionally, incorporating **positive storytelling and showcasing youth-led climate action initiatives** can provide students with hope and a sense of agency, demonstrating that meaningful change is possible at both the community and global levels.

I. **Monitoring, Evaluating, and Adapting Climate Education Strategies**: To ensure the **effectiveness** of the program, it is essential to implement **continuous monitoring and evaluation mechanisms** that track **student learning, behavioural changes, and community engagement** over time. A comprehensive evaluation framework will help refine teaching strategies, address gaps in understanding, and ensure that climate education remains relevant and impactful for students in landfill communities. A **structured assessment process** should be introduced to measure improvements in climate literacy, behaviour change, and student engagement. Additionally, a **mid-term survey** should be conducted to gather insights on student progress, identify emerging challenges, and refine interventions as needed. These assessments should not only focus on individual learning outcomes but also evaluate the effectiveness of community-based activities and household-level climate actions introduced through the program. Beyond formal assessments, **ongoing feedback loops** must be established to incorporate insights from students, teachers, and community members. **Regular reflection sessions** should be conducted where students can share their learning experiences, express challenges, and suggest improvements for future climate education initiatives. Teachers should also **provide structured feedback** on the effectiveness of teaching materials and classroom engagement methods. Additionally, **community feedback mechanisms** should be introduced to understand how families are applying climate adaptation strategies at home and whether the program is creating a broader shift in environmental awareness and practices. By **adapting educational content and strategies** based on **real-time feedback and community-specific needs**, the program can ensure that its interventions remain effective, responsive, and transformative in fostering climate resilience among students and their families.

Chapter 4: Conclusion

The **baseline assessment** for the **Paryavaran Saathi: Young Leaders for Climate Action** program provides critical insights into the **knowledge, perceptions, and practices** of students regarding climate change. The findings highlight **significant gaps in climate literacy, misconceptions about causes and impacts, and low levels of engagement in climate action**, underscoring the urgent need for structured and accessible climate education in landfill communities like **Bhalswa and Bhopura**.

At the baseline stage, a **majority of students lacked fundamental knowledge** of climate change, with **58.21% unaware of the concept entirely**, and **78.34% unable to explain its causes**. Awareness of adaptation strategies was even lower, with **84.90% of students unfamiliar with measures to reduce the impacts of climate change**. Although there was **moderate concern about environmental issues**, many students **felt powerless to take action**, with **47% believing they were too young to contribute to climate solutions**. Household-level climate action was also **minimal**, with **58.64% of students reporting that neither they nor their families had taken any steps** to address climate change. Additionally, the **emotional burden of climate change** was evident, as many students expressed **anxiety, sadness, and fear**, further emphasizing the need for **holistic climate education that incorporates emotional resilience and agency-building**.

These findings establish a **strong foundation for designing targeted interventions** under the **Paryavaran Saathi** program. By **strengthening climate education, fostering leadership, promoting adaptation solutions, enhancing disaster preparedness, and ensuring gender and social inclusion**, the program can **empower students with the knowledge, confidence, and skills to take meaningful action**. As the program progresses, a **continuous monitoring and evaluation framework** will be essential to track improvements, refine teaching strategies, and ensure that students develop the necessary tools to **navigate the challenges of climate change, advocate for solutions, and become proactive leaders in their communities**.

An **endline assessment** will be conducted after the implementation of the climate change education program to **evaluate the impact of the educational interventions** and measure **changes in students' knowledge, attitudes, and practices over time**. By comparing **baseline and endline results**, the program will assess the **degree of progress made in addressing identified gaps** and refine strategies to ensure **long-term sustainability**. Additionally, the endline assessment will **gather feedback from students, teachers, and other relevant stakeholders**, allowing for continuous **program improvement** and strengthening its **overall impact on climate resilience within the community**.

The baseline assessment not only informs the program's direction but also reinforces the **importance of investing in climate education as a pathway to building resilience, fostering behavioural change, and ensuring a sustainable future for vulnerable communities**.

Annexure

Climate Sakhi - Group 1 - KAP Survey FORM

This form is only for students aged 10 to 18 years. Please fill this separately for each of the student that you interview.

Please follow the instructions shared with you during the Training Session. For convenience, please click here to access the instructions in details.

For any clarification, please reach out to Nikhil or Ashima on the Whatsapp Group.

[यह फॉर्म 10 से 18 वर्ष की आयु के छात्रों के लिए एकमात्र है। कृपया जिन विद्यार्थियों का आप साक्षात्कार लेंगे उनमें से प्रत्येक के लिए इसे अलग-अलग भरें।

कृपया प्रशिक्षण सत्र के दौरान आपके साथ साझा किए गए निर्देशों का पालन करें। सुविधा के लिए, कृपया विस्तृत निर्देशों तक पहुंचने के लिए यहां क्लिक करें।

किसी भी स्पष्टीकरण के लिए, कृपया व्हाट्सएप ग्रुप पर निखिल या आशिमा से संपर्क करें।]

* Indicates required question

1. Email *

OFFICIAL INFORMATION (आधिकारिक जानकारी)

Please fill this section by yourself.

[कृपया इस अनुभाग को स्वयं भरें।]

2. Your Name / आपका नाम *

3. Location (स्थान) *

Mark only one oval.

- ◯ Bhalswa
- ◯ Bhopura

4. Date of the interview / साक्षात्कार की तिथि *

_____

Example: January 7, 2019

GENERAL INFORMATION (सामान्य जानकारी)

5. Name of the Student (छात्र का नाम) *

_____

6. Age (उम्र) *

Mark only one oval.

- ◯ 10-14 years
- ◯ 15-18 years

7. Gender (लिंग) *

Mark only one oval.

- ◯ Male
- ◯ Female
- ◯ Prefer not to say

8. Do you study in a school? (क्या आप स्कूल में पढ़ते हैं?) *

Mark only one oval.

- Yes
- No

9. If yes, then which class and school? (यदि हाँ, तो किस कक्षा एवं स्कूल में पढ़ते हैं?) *

10. If no, then what do you do? (यदि नहीं, तो आप क्या करते हैं?) *

Mark only one oval.

- Work with parents in waste (परिवार के साथ वेस्ट में काम करते हैं)
- Do not do anything (कुछ भी नहीं करते हैं)
- Not applicable / लागू नहीं

11. What does your father do? (आपके पिता क्या करते हैं?) *

Mark only one oval.

- Works in waste (वेस्ट में काम करते हैंI)
- Takes care of home (घर का ध्यान रखते हैं)
- Does not do anything (कुछ कार्य नहीं करते है)
- Other job (अन्य)
- Not applicable / लागू नहीं

12. What does your mother do? (आपकी माता क्या करती हैं?) *

Mark only one oval.

- Works in waste (वेस्ट में काम करती हैंI)
- Takes care of home (घर का ध्यान रखती हैं)
- Does not do anything (कुछ कार्य नहीं करती हैं)
- Other job (अन्य)
- Not applicable / लागू नहीं

13. What kind of house do you live in? (आप किस प्रकार के घर में रहते हैं?) *

Mark only one oval.

- Kaccha
- Pacca

14. How many rooms are there in your house? (आपके घर में कितने कमरे हैं?) *

Mark only one oval.

- 1
- 2
- More than 2

15. Where is your house situated? आपका घर कहाँ स्थित है?

Only for Bhalswa community

Mark only one oval.

- Close to the landfill / लैंडफिल के पास
- Far from the landfill (is the landfill visible from the house) / लैंडफिल से दूर (क्या घर से लैंडफिल दिखाई देता है)

16. How many people live in your house? (आपके घर में कितने लोग रहते हैं?) *

(अंकों में लिखें)

_____

17. Select all what you have in your house / आपके घर में जो कुछ भी है उसे चुनें *

Check all that apply.

- [ ] Cooking Gas/LPG gas
- [ ] Chulha
- [ ] TV
- [ ] Radio
- [ ] Smartphone
- [ ] Tubelight
- [ ] Fridge
- [ ] Cooler
- [ ] Ceiling fan
- [ ] Table fan
- [ ] AC
- [ ] Attached bathroom
- [ ] Aquaguard

18. Do your family members bring collected waste at home for segregation and selling? / क्या आपके परिवार के सदस्य एकत्रित किया हुआ वेस्ट, पृथक्करण एवं विक्रय हेतु घर पर लाते हैं?

Mark only one oval.

- ◯ Everytime / हमेशा
- ◯ Sometime / कभी-कभी
- ◯ Never / नहीं
- ◯ Not applicable / लागू नहीं

19. Do you help your family member/s with the waste? / क्या आप अपने परिवार के सदस्य/यों की वेस्ट में मदद करते हैं?

Mark only one oval.

- Everytime / हमेशा
- Sometime / कभी-कभी
- Never / नहीं
- Not applicable / लागू नहीं

20. Is there a park/garden/green space near your house? / क्या आपके घर के पास कोई पार्क/बगीचा/ हरी जगह है?

Mark only one oval.

- Yes
- No

21. Is there open space available next to your house? / क्या आपके घर के पास कोई खुली जगह है? *

Mark only one oval.

- Yes
- No

22. Do you help your mother with her work at home? / क्या आप घर पर अपनी माता की सहायता करते ह

Mark only one oval.

- Everytime / हमेशा
- Sometime / कभी-कभी
- Never / नहीं

23. Have you received any training on climate change and environmental issues? / क्या आपको जलवायु परिवर्तन एवं पर्यावरणीय मुद्दों पर कोई प्रशिक्षण प्राप्त हुआ है?

Mark only one oval.

- ◯ Yes
- ◯ No

GENERAL AWARENESS / सामान्य जागरूकता

24. What do you think are 3 serious problems in New Delhi? / आपके विचार से नई दिल्ली की 3 गंभीर समस्याएँ क्या हैं?

Read out all the options to the student and ask him/her to select 3 answers / छात्र को सभी विकल्प पढ़कर सुनाएँ और उससे 3 उत्तर चुनने को कहें.

Check all that apply.

- ☐ Crime and violence / अपराध एवं हिंसा
- ☐ Poverty and hunger / गरीबी और भुखमरी
- ☐ Air Pollution / वायु प्रदूषण
- ☐ Water scarcity / पानी की कमी
- ☐ Diseases / स्वास्थ्य संकट
- ☐ Lack of green space / वनों की कटाई
- ☐ Climate change / जलवायु परिवर्तन
- ☐ Oversaturated Landfill / अतिप्रवाहित लैंडफिल
- ☐ flooding and contamination of yamuna river/ यमुना नदी में बाढ़ और प्रदूषण
- ☐ None / कोई नहीं
- ☐ Don't know / पता नहीं

25. How important do you think the environment/natural ecosystems are for sustaining a life? आपके विचार से जीवन को बनाये रखने के लिए पर्यावरण/ प्राकृतिक पारिस्थितिक तंत्र कितना ज़रूरी है?

Mark only one oval.

- ◯ Very important / बहुत ज़रूरी
- ◯ Little important / थोड़ा ज़रूरी
- ◯ Not important / बिलकुल भी ज़रूरी नहीं

26. Is your community clean? / क्या आपका समुदाय स्वच्छ है? *

Mark only one oval.

- ◯ Yes
- ◯ No

27. Is your community green? / क्या आपका समुदाय हरा-भरा है? *

Mark only one oval.

- ◯ Yes
- ◯ No

28. What is the source of water supply to your house? / आपके घर पर पीने के पानी की सप्लाई का स्त्रोत क्या है?

Check all that apply.

- ☐ Tap / नल
- ☐ Municipal tanks / म्युनिसिपल वैन
- ☐ Water pump / पानी का पम्प
- ☐ Purchase from shop / दुकान से खरीदो
- ☐ Don't know / पता नहीं

29. How informed are you about climate change? / (विस्तार से ना समझायें) *

Mark only one oval per row.

	I have heard about it alot and can explain it very well / मैंने इसके बारे में बहुत बार सुना है एवं मैं इसे अच्छी तरह समझा सकता/सकती हूँ	I have heard about it but cannot explain it / मैंने इसके बारे में सुना है, परन्तु समझा नहीं सकता/सकती हूँ	I do not know anything abou it / मुझे इसके बार में कुछ भी जानकार न
Climate Change / जलवायु परिवर्तन			
Causes of climate change / जलवायु परिवर्तन के कारण			
Impact of climate on the local communities / स्थानीय समुदायों पर जलवायु का प्रभाव			
Practices that can be adopted to reduce the causes of climate change / जलवायु परिवर्तन के कारणों को कम करने हेतु अपनाये जा सकने वाले तरीके			
Measures that can be taken to prevent/reduce impact or exposure to impacts of climate change /			

जलवायु परिवर्तन के प्रभावों से बचने/ कम करने हेतु उठाये गए कदम

KNOWLEDGE OF CLIMATE CHANGE AND ITS IMPACT ON NATURAL SYSTEMS AND HUMANS / जलवायु परिवर्तन एवं प्राकृतिक तंत्रों एवं मनुष्यों पर उसके प्रभाव का ज्ञान

30. What does climate change mean? / जलवायु परिवर्तन से क्या तात्पर्य है? *

31. Have you personally observed or heard any of the following phenomena changed in the last five years? /क्या पिछले पाँच सालों में आपने इन निम्नलिखित घटनाओं को स्वयं महसूस किया है अथवा सुना है?

Mark only one oval per row.

	Increase / बढ़ोतरी	Decrease / घटती	No change / कोई परिवर्तन नहीं	Don't know / पता नहीं
Heatwaves / ताप की लहरें				
Rainfall / वर्षा				
Flooding / बाढ़				
Drought / सूखा/अकाल				
Cold Waves / ठंडी लहरें				
Temperature rise / तापमान में वृद्धि				
Water supply / जल-आपूर्ति				
Air pollution / वायु गुणवत्ता				
Fires in landfills / लैंडफिल में आग				
Diseases (vector borne like dengue, malaria), water-borne- diarrhoea, air pollution related- asthma), TB, etc / रोग (वेक्टर जनित रोग जैसे डेंगू, मलेरिया), पानी जनित रोग- अतिसार, वायु प्रदुषण से सम्बंधित- अस्थमा, टीबी, इत्यादि				
Green cover / पेड़ और जंगल				
Storms / तूफ़ान				

32. Which of the following statements do you agree with? / आप इनमे से किन निम्नलिखित कथनों से सहमत है?

Check all that apply.

- [ ] Climate change is caused by human activities / जलवायु परिवर्तन, मानव गतिविधियों की वजह से होते हैं
- [ ] Climate change is caused by natural factors / जलवायु परिवर्तन, प्राकृतिक कारकों की वजह से होते हैं.
- [ ] There is no change in climate / जलवायु में कोई बदलाव नहीं है
- [ ] Climate change is caused by both humans and natural factors / जलवायु परिवर्तन, मानव गतिविधिय एवं प्राकृतिक कारक दोनों की ही वजह से होते हैं.

33. Can you select what causes climate change? / क्या आप चुन सकते हैं कि जलवायु परिवर्तन का कारण क्या है?

Check all that apply.

- [ ] Transportation (cars, aeroplanes, bikes, buses, etc) and traffic / परिवहन (कारें, हवाईजहाज़, बाईकें, इत्यादि) एवं यातायात
- [ ] Industries / उद्योग
- [ ] Energy for cooking and heating using chulhas / ऊर्जा के लिए चूल्हों पर रसोई एवं गर्म करना
- [ ] Electricity / बिजली
- [ ] Construction / निर्माण कार्य
- [ ] Burning of waste / कूड़े को जलना
- [ ] Cutting down of trees and forests / पेड़ों एवं जंगलों को काटना
- [ ] None / कोई भी नहीं
- [ ] Don't know / पता नहीं

34. Out of the given sources of energy used in households for heating/cooking purposes, which release smoke? / गृह कार्यों में गर्म करने/रसोई के उदेश्यों से इस्तेमाल किये जाने वाले दिए गए ऊर्जा स्त्रोतों में से, कौनसा स्त्रोत धुँआ छोड़ता है?

Check all that apply.

- [ ] Coal / कोयला
- [ ] Firewood / जलाऊ लकड़ी
- [ ] Waste (plastics, etc) / कूड़ा (प्लास्टिक, इत्यादि)
- [ ] Gas / गैस
- [ ] Electric plates / बिजली की प्लेटें
- [ ] Solar plates / सौर प्लेट्स

35. Is climate change affecting your community? / क्या जलवायु परिवर्तन आपके समुदाय को प्रभावित कर रहा है?

Mark only one oval.

- ◯ Yes / हाँ
- ◯ No / नहीं
- ◯ Don't know / पता नहीं

36. Can you select 3 effects of climate change on the environment/natural systems? / क्या आप पर्यावरण/प्राकृतिक प्रणालियों पर जलवायु परिवर्तन के तीन प्रभावों का चयन कर सकते हैं?

Check all that apply.

- [ ] Rise in temperature / तापमान में वृद्धि
- [ ] Change in rainfall pattern / वर्षा के पैटर्न में बदलाव
- [ ] Melting of ice-capped mountains / बर्फ से ढँके हुए पर्वतों का पिघलना
- [ ] Rising levels of sea bodies / समुद्र के स्तर में वृद्धि
- [ ] Flooding / बाढ़
- [ ] Droughts / अकाल/सूखा
- [ ] Heatwaves / उष्ण लहरें
- [ ] Loss of animals and plants / विभिन्न प्रकार के जानवरों एवं पेडों की हानि
- [ ] None / कोई भी नहीं
- [ ] Don't know / पता नहीं

37. Do you think climate change affects our lives? / क्या आपको लगता है कि जलवायु परिवर्तन हमारी ज़िंदगियों को प्रभावित करता है?

Mark only one oval.

- ◯ No / नहीं
- ◯ Yes in a positive manner / हाँ, सकारात्मक तरीके से
- ◯ Yes in a negative manner / नहीं, नकारात्मक तरीके से
- ◯ Don't know / पता नहीं

38. Can you select 3 effects of climate change on the human system? / * क्या आप मानव प्रणाली पर जलवायु परिवर्तन के तीन प्रभावों का चयन कर सकते हैं?

Check all that apply.

- ☐ Increase in diseases / रोगों में वृद्धि
- ☐ Rise in price of vegetables / सब्ज़ियों की कीमत में बढ़ोतरी
- ☐ Loss of jobs / बेरोज़गारी
- ☐ Water scarcity / पानी की कमी
- ☐ Inflation / महँगाई
- ☐ None / कोई भी नहीं
- ☐ Don't know / पता नहीं

39. Do you know what air pollution is? / क्या आपको पता है कि वायु प्रदुषण क्या है? *

Mark only one oval.

- ◯ I do not know anything about it / मुझे इस बारे में कुछ भी नहीं पता है
- ◯ I have heard of it but cannot explain it / मैंने इसके बारे में सुना है, परन्तु समझा नहीं सकता/सकती हूँ
- ◯ I have heard about it alot and can explain it well / मैंने इसके बारे में बहुत बार सुना है एवं मैं इसे अच्छी तरह समझा सकता/सकती हूँ

40. Can you select the causes of air pollution? / क्या आप वायु प्रदूषण के कारणों का चयन कर सकते हैं? *

Check all that apply.

- [ ] Industrial releases / फ़ैक्टरी उत्सर्जन
- [ ] Vehicular emissions / वाहन उत्सर्जन
- [ ] Burning of waste in open / खुले में कूड़े को जलाना
- [ ] Cooking using Chulhas / चूल्हों का उपयोग करके रसोई पकाना
- [ ] Firecrackers / पटाख़े
- [ ] Cutting of trees / पेड़ों को काटना
- [ ] None / कोई भी नहीं
- [ ] Don't know / पता नहीं

41. How concerned are you about the issue of air pollution and its dangerous impact on your community? / वायु प्रदुषण की समस्या और आपके समुदाय पर इसके होने वाले खतरनाक प्रभाव से आप कितने चिंतित हैं?

Mark only one oval.

- ◯ Very concerned / बहुत चिंतित है
- ◯ Somewhat concerned / थोड़े चिंतित है
- ◯ Not concerned / बिलकुल भी चिंतित नहीं है

42. In case of bad air quality, what should you do? / ख़राब वायु गुणवत्ता की स्थिति में आपको क्या करना चाहिए?

Check all that apply.

- [ ] Cover mouth, nose and eyes / अपना मुँह, नाक एवं आँखें बंद करें
- [ ] Do not roam outside in open / खुले में बाहर ना घूमें
- [ ] Do not burn firecrackers / पटाख़े न जलाएं
- [ ] Do not burn waste in open / खुले में कूड़ा/कचरा न जलाएं
- [ ] None / कोई भी नहीं
- [ ] Don't know / पता नहीं

43. Do you throw garbage/litter openly on the ground? / क्या आप मैदान पर खुले में कचरा/गन्दगी फैकते हैं?

Mark only one oval.

- Yes / हाँ
- No / नहीं

44. What is the quality of the water at your house? / आपके घर पर पानी की गुणवत्ता कैसी है? *

Mark only one oval.

- Good / अच्छी
- Bad / ख़राब

45. How do you make the drinking water safe at home? / आप आपके घर पर पीने का पानी कैसे सुरक्षित बनाते हैं?

Check all that apply.

- [ ] By boiling / उबालकर
- [ ] By adding iodine / आयोडीन मिलाकर
- [ ] By adding chlorine / क्लोरीन मिलाकर
- [ ] Others / अन्य
- [ ] None / कोई भी नहीं
- [ ] Don't know / पता नहीं

ATTITUDE TOWARDS CLIMATE CHANGE AND OTHER ENVIRONMENTAL ISSUES / जलवायु परिवर्तन एवं अन्य पर्यावरण सम्बन्धी समस्याओं के प्रति रवैया

46. How concerned are you about climate change? / जलवायु परिवर्तन के बारे में आप कितने चिंतित हैं?

Mark only one oval.

- Very concerned / बहुत चिंतित है
- Somewhat concerned / थोड़े चिंतित है
- Not concerned / बिलकुल भी चिंतित नहीं है

47. How do you feel about climate change? / आप जलवायु परिवर्तन के प्रति कैसा महसूस करते हैं? *

Mark only one oval.

- Hopeful / आशाजनक
- Afraid/ Anxious / भयभीत/चिंतित
- Angry / क्रोधित
- Confused / व्याकुल
- Sad / दुखी
- Hopeless / आशाहीन
- I do not have enough information / मुझे ज्यादा जानकारी नहीं है
- I do not care / no feeling / मुझे फर्क नहीं पड़ता है/कुछ महसूस नहीं करता/करती हूँ
- There is no such thing as climate change / जलवायु परिवर्तन जैसी कोई चीज़ नहीं होती है

48. Which of the following statements do you agree with? / आप निम्नलिखित कथनों में से किस से सहमत है?

Check all that apply.

- [ ] Climate change is not a real thing / जलवायु परिवर्तन कोई वास्तविक चीज़ नहीं है.
- [ ] Climate change does not affect my community or my family / जलवायु परिवर्तन, मेरे समुदाय अथवा परिवार को प्रभावित नहीं करता है.
- [ ] I am too young to do anything about climate change / जलवायु परिवर्तन से सम्बंधित कुछ भी करने के लि मैं बहुत छोटा/छोटी हूँ.
- [ ] Only government and rich people can do anything about climate change / सिर्फ सरकार एवं अमीर लोग ही जलवायु परिवर्तन के लिए कुछ कर सकते हैं.
- [ ] Our communities have not caused/contributed towards climate change / हमारे समुदायों ने जलवा परिवर्तन के प्रति न ही कुछ किया है और न ही उसमें कोई योगदान दिया ह।
- [ ] We should only focus on air pollution / हमें सिर्फ वायु प्रदुषण पर ध्यान केंद्रित करना चाहिए।
- [ ] Climate change should be taught in schools / जलवायु परिवर्तन के विषय में विद्यालयों में सिखाया जाना चाहिए।
- [ ] Women are more impacted by climate change and other environmental issues / जलवायु परिव एवं पर्यावरणीय समस्याओं का प्रभाव सबसे ज्यादा महिलाओं पर होता है.
- [ ] Climate change is God's will / जलवायु परिवर्तन, भगवान की इच्छा है.
- [ ] It is too late to do anything now / इस विषय में कुछ भी करने हेतु अब बहुत देर हो चुकी है.

49. Select which activities can help us reduce the factors/causes contributing to climate change? / चुनें कि कौन सी गतिविधियाँ हमें जलवायु परिवर्तन में योगदान देने वाले कारकों/कारणों को कम करने में मदद कर सकती हैं?

Check all that apply.

- [ ] Planting more trees and forests / ज्यादा से ज्यादा पेड़ों और जंगलों को लगाएं
- [ ] Walking and cycling / पैदल चलें और साइकल चलाएं
- [ ] Using public transit / सार्वजनिक परिवहन का उपयोग
- [ ] Waste reduction/recycling / कूड़े-कचरे को कम/पुनरावर्तन करें
- [ ] Smart use of water / पानी का सही इस्तेमाल करें
- [ ] Rational use of electricity / बिजली का सोच-समझकर इस्तेमाल करें
- [ ] Use of solar and other renewable sources of energies / सौर एवं ऊर्जा के अन्य नवीकरणीय स्त्रोतों का उपयोग
- [ ] Proper waste disposal and management / कचरे का सही तरह से निपटान एवं प्रबंधन
- [ ] Use of LPG gas for cooking/heating / रसोई/गर्म करने के लिए एलपीजी गैस का उपयोग
- [ ] None / कोई भी नहीं
- [ ] Don't know / पता नहीं

50. Which of the following statements do you agree with? / आप निम्नलिखित कथनों में से किस से सहमत है?

Check all that apply.

- [ ] There are laws and regulations made by the government to protect the environment / पर्यावरण को बचाने के लिए सरकार द्वारा नियम एवं कानून बनाये गए हैं
- [ ] We should support our mothers to use LPG instead of chulhas and firewood for cooking. / हमारी माताओं को रसोई हेतु चूल्हे एवं लकड़ी के उपयोग के बजाये एलपीजी का उपयोग करने के लिए प्रेरित करना चाहिए
- [ ] We should improve our health and immunity to fight against climate change. / जलवायु परिवर्तन विरुद्ध लड़ने हेतु हमें हमारी सेहत और प्रतिरोधक क्षमता में सुधार करना चाहिए
- [ ] There is enough awareness within the communities about climate change and environment जलवायु परिवर्तन एवं पर्यावरण के सम्बन्ध में समुदायों में पर्याप्त जागरूकता है
- [ ] Women should not participate in the decision making process in homes and in communities घरों एवं समुदायों में निर्णय लेने की प्रक्रिया में महिलाओं को भाग नहीं लेना चाहिए

51. Select who all are responsible for addressing climate change and other environmental impacts? / चुनें कि जलवायु परिवर्तन और अन्य पर्यावरणीय प्रभावों को संबोधित करने के लिए कौन जिम्मेदार हैं

Check all that apply.

- [ ] Government / सरकार
- [ ] Business/Industries / व्यापार/उद्योग
- [ ] Rich and powerful / अमीर/शक्तिशाली
- [ ] Developed countries like USA, UK / विकसित देश
- [ ] Communities like ours / हमारे समुदायों की तरह
- [ ] Individuals like you and me / मेरी या तुम्हारी तरह कोई व्यक्ति
- [ ] All of the above / ऊपर दिए गए सभी विकल्प
- [ ] None / कोई भी नहीं
- [ ] Don't know / पता नहीं

52. Do you think that the government is doing anything to address climate change and other environmental issues like air pollution? / क्या आपको लगता है कि जलवायु परिवर्तन एवं अन्य पर्यावरण सम्बन्धी प्रभावों/समस्याओं जैसे कि वायु प्रदुषण के समाधान हेतु सरकार कुछ कर रही है?

Mark only one oval.

- Yes / हाँ
- No / नहीं
- Don't know / पता नहीं

53. How aware are you about the following government policies/programs? / निम्नलिखित सरकारी नीतियों/कार्यक्रमों से आप कितने अवगत हैं?

Mark only one oval per row.

	I have heard about it alot and can explain it very well / मैंने इसके बारे में बहुत बार सुना है एवं मैं इसे अच्छी तरह समझा सकता/सकती हूँ	I have heard about it but cannot explain it / मैंने इसके बारे में सुना है, परन्तु समझा नहीं सकता/सकती हूँ	I do not know anything about it / मुझे इसके बारे में कुछ भी जानकारी नहीं है.
Swachh Bharat Abhiyan / स्वच्छ भारत अभियान			
Mission LiFE / मिशन लाईफ			
Jal Jeevan Mission / जल जीवन मिशन			
Namami Gange / नमामि गंगे			
Pradhan Mantri Ujjwala Yojana / प्रधान मंत्री उज्जवला योजना			

54. Do you think climate change and other environmental issues affect your mothers? / क्या आपको लगता है कि जलवायु परिवर्तन एवं अन्य पर्यावरणीय समस्याएं आपकी माता को प्रभावित करती हैं?

Mark only one oval.

- Yes / हाँ
- No / नहीं
- Don't know / पता नहीं

55. Do you believe that young children are impacted/will be impacted more than others due to climate change and other environmental concerns like air pollution? / क्या आपको लगता है कि जलवायु परिवर्तन एवं अन्य पर्यावरणीय समस्याओं जैसे वायु प्रदुषण ने, दूसरों से ज़्यादा छोटे बच्चों को प्रभावित किया/ करने वाली है?

Mark only one oval.

- Yes / हाँ
- No / नहीं
- Don't know / पता नहीं

PRACTICES AND ROLE OF STAKEHOLDERS / हितधारकों की पद्धतियाँ एवं भूमिका

56. Which of the following steps can be taken by you/family/communities to reduce/prevent th impacts of climate change and other environmental issues? / जलवायु परिवर्तन और अन्य पर्यावरणीय मुद्दों के प्रभावों को कम करने/रोकने के लिए आपके/परिवार/समुदाय द्वारा निम्नलिखित में से कौन सा कदम उठाया जा सकता है?

Check all that apply.

- [ ] By preparing emergency plans for disaster management / आपदा प्रबंधन हेतु आपात योजनाएं तैयार करके
- [ ] By properly disposing and managing waste / कूड़े-कचरे का सही तरीके से निपटान एवं प्रबंधन करके
- [ ] By not burning waste in open / खुले में कूड़ा-कचरा ना जला कर
- [ ] By not cutting trees/plants OR planting new trees/plants / पेड़/पौधों को ना काटकर अथवा नए पेड़/पे लगाकर
- [ ] By saving water / पानी की बचत करके
- [ ] By saving energy / ऊर्जा बचाकर
- [ ] By raising awareness within communities to adopt sustainable practices / सतत कार्य करके समुदायों में जागरूकता फैलाना
- [ ] None / कोई भी नहीं
- [ ] Don't know / पता नहीं

57. What of the following actions/measures can the government take to address climate change and other environmental concerns? / जलवायु परिवर्तन और अन्य पर्यावरणीय चिंताओं को दूर करने के लिए सरकार निम्नलिखित में से कौन से कार्य/उपाय कर सकती है?

Check all that apply.

- [ ] Government has done everything / सरकार द्वारा सब कुछ किया जा चुका है.
- [ ] Reduce use of fossil fuels for energy / ऊर्जा के लिए जीवाश्म ईंधनों के उपयोग को कम करना
- [ ] Fine people who are polluting / contributing more / जो लोग प्रदूषण फैला रहे हैं/अधिक योगदान दे रहे ह पर आर्थिक जुर्माना लगाया जाएगा/
- [ ] Ensure proper waste disposal and management / सही तरह से कूड़े-कचरे के निपटान एवं प्रबंधन को सुनिश्चित करें।
- [ ] Plant more trees/forests / ज्यादा पेड़/पौधें लगाएं
- [ ] Nothing, the government cannot do anything / कुछ नहीं, सरकार कुछ नहीं कर सकती है
- [ ] None / कोई भी नहीं
- [ ] Don't know / पता नहीं

58. Have you or your family members taken any step/decision to address climate change? / जलवायु परिवर्तन से निपटने के लिए क्या आप अथवा आपके परिवार के सदस्यों ने कोई कदम उठाया/निर्णय लिया

Mark only one oval.

- Yes / हाँ
- No / नहीं
- Don't know / पता नहीं

59. Are you motivated/willing to learn about climate change and to engage in environmental action? / जलवायु परिवर्तन के विषय में जानने एवं पर्यावरण सम्बन्धी कदम उठाने के लिए आप प्रेरित/इच्छुक है?

Mark only one oval.

- Yes / हाँ
- No / नहीं

60. What motivates you to take steps to address climate change or other environmental issues? / जलवायु परिवर्तन अथवा अन्य पर्यावरण समस्याओं से निपटने हेतु कदम उठाने के लिए आपको क्या प्रेरित करता है?

Mark only one oval.

- Personal reasons / व्यक्तिगत कारण
- To solve a problem / समस्या सुलझाने के लिए
- For new earning opportunities / आय के नए अवसरों के लिए
- Love for environment and natural ecosystems / पर्यावरण एवं प्राकृतिक परिस्तिथिक तंत्र के लिए प्रेम
- None / कोई भी नहीं

61. Are you aware of the types of disasters that can impact your community? / क्या आप आपदाओं के प्रकारों के बारे में जानते है, जो आपके समुदाय को प्रभावित कर सकते हैं?

Mark only one oval.

- Yes / हाँ
- No / नहीं

62. Does your house have an emergency kit with essential supplies in case of a disaster? / किसी आपदा की स्थिति में क्या आपके पास घर पर ज़रूरी सामान की इमरजेंसी किट है?

Mark only one oval.

- Yes / हाँ
- No / नहीं
- Don't know / पता नहीं

INFORMATION SUPPLY / सूचना आपूर्ति

63. Have you read/heard about climate change at school? / क्या आपने स्कूल में जलवायु परिवर्तन के बारे में पढ़ा/सुना है?

Mark only one oval.

- Yes / हाँ
- No / नहीं

64. What difficulties do you experience in using information on climate change that is taught a school? / स्कूल में जलवायु परिवर्तन पर पढाई गई जानकारी का उपयोग करने में आपको क्या कठिनाइयां महसूस होती है?

Mark only one oval.

- ◯ It is too technical/difficult to understand / यह समझने के लिए बहुत ही तकनिकी/कठिन है
- ◯ Not enough information is given / पर्याप्त जानकारी नहीं दी गई
- ◯ Not appropriate for my community / मेरे समुदाय के लिए उचित नहीं है
- ◯ Not taught at school / स्कूल में नहीं सिखाया गया
- ◯ None / कोई भी नहीं

65. Is there any source/way from where you have heard/read about climate change? / क्या ऐसा कोई स्त्रोत/तरीका है जहाँ से आपने जलवायु परिवर्तन के बारे में सुना/पढ़ा है?

Check all that apply.

- ☐ TV
- ☐ Community meetings/discussions / समुदाय की मीटिंग/चर्चा
- ☐ Friends and family / परिवार मित्र
- ☐ Social media / internet सोशल मिडिया
- ☐ News / समाचार
- ☐ None / कोई भी नहीं

66. Have you ever used the internet to search for information on climate change? / जलवायु परिवर्तन से सम्बंधित जानकारी ढूंढने के लिए क्या आपने कभी इंटरनेट का उपयोग किया है?

Mark only one oval.

- ◯ Yes / हाँ
- ◯ No / नहीं
- ◯ Don't have access to a smartphone / स्मार्टफोन नहीं प्रयोग करते
- ◯ Don't know how to use a smartphone / स्मार्टफोन का उपयोग करना नहीं आता

67. What difficulties do you experience in using information on climate change that is available on the internet? / जलवायु परिवर्तन के सम्बन्ध में इंटरनेट पर उपलब्ध जानकारी का उपयोग करने में आपको क्या कठिनाइयां महसूस होती है?

Mark only one oval.

- ◯ It is too technical/difficult to understand / यह समझने के लिए बहुत ही तकनिकी/कठिन है
- ◯ Not enough information is given / पर्याप्त जानकारी नहीं दी गई
- ◯ Not appropriate for my community / मेरे समुदाय के लिए उचित नहीं है
- ◯ Did not use / search for any information / Not appropriate for my community / मेरे समुदाय के लिए उचित नहीं है
- ◯ None / कोई भी नहीं

68. Do you want to be aware/informed about climate change and other environmental issues? / क्या आप जलवायु परिवर्तन और अन्य पर्यावरणीय मुद्दों के बारे में जागरूक/सूचित होना चाहते हैं?

Mark only one oval.

- ◯ Yes / हाँ
- ◯ No / नहीं

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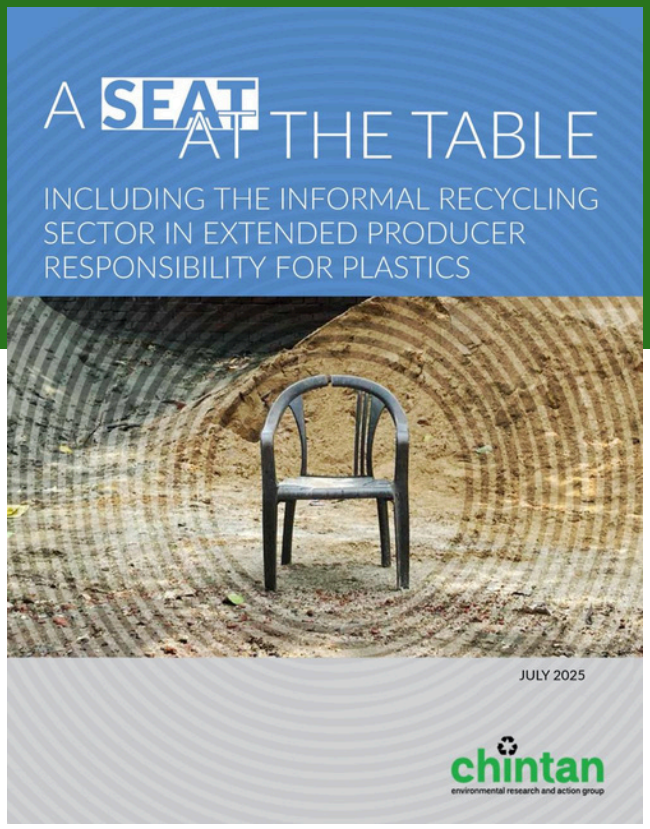

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