THE FUTURE WE WANT

INCLUDING CHILDREN'S PERSPECTIVE IN THE CLIMATE CHANGE DISCOURSE

NOVEMBER 2024

chintan
environmental research and action group

ABOUT CHINTAN ENVIRONMENTAL RESEARCH AND ACTION GROUP

Chintan is a non-profit **Circular Society Do-Tank** that **improves the lives, livelihoods, and leadership** of the people who contribute the least to environmental pollution and climate change while combating the excessive and inequitable consumption that causes it.

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Executive Summary

THE IMPACT of climate change is being felt in all regions of the world, with growing experiences of food and water insecurity, increased incidence of diseases and disasters, and livelihood loss, among other ramifications on human and planetary well-being. Climate change poses a serious threat to human health, but it disproportionately impacts children and youth, and these impacts are not widely studied or documented.

The ramifications will continue to increase if drastic cuts in greenhouse gas emissions are further delayed, affecting the lives of children much more than that of adults.

Even as all children and youth are impacted globally, those in developing countries are at a higher risk, particularly if they belong to low-income communities.

The needs of children need much more attention, as they suffer disproportionately. Some of these hazards can have long-lasting physical and mental health impacts if not addressed at the right time. In a changing climate, health, education, nutrition, leisure, and other emotional needs of children need to be addressed urgently through convergence of programmes and innovations in policies.[1]

Children in India are particularly vulnerable to climate change and its impacts, as India is ranked 26th on the global index of the most climate-risk-prone countries for children.[2] They are exposed to a range of climate change consequences, including heatwaves, droughts, floods, and air pollution, leaving them homeless, hungry, and with no or minimal access to healthcare and water. Further, 51% of children in India are exposed to the combined impact of climate change and poverty, making their experience of climate change even more severe and dangerous.[3]

Recognising the importance of children and youth as agents of change as well as actors for a climate resilient future, Chintan conducted a one-of-its-kind survey to understand perceptions on climate change and its impacts, as well as the understanding of the issue of climate change, among children and youth across Delhi and the National Capital Region (NCR), given the region's increased vulnerability to air pollution and other environmental pollution.

This study includes 423 school-going children from low-income, and middle- and high-income households in Delhi-NCR. They are aged between 10 and 15 years. For the purposes of the study, children and youth are categorised as 'schoolchildren from middle- and high-income households' (239 participants) and 'schoolchildren from low-income households' (184 participants from wastepicker communities). 53% of the respondents are female students. This study used the term children to imply children and youth (for more details of the study, read Methodology in Chapter 1 Introduction).

The study revealed that gender was important in studying children's responses. It was found that more male students (87%) as compared to female students (77%) felt the need for stronger and everyday action to fight climate change.

The key insights from this study are:

1. Asymmetry in awareness about climate change between socio-economic groups: 87% of all schoolchildren surveyed knew about the term 'climate change'. However, asymmetry in the knowledge exists amongst socio-economic categories — 25.5% schoolchildren in the low-income category hadn't heard the term at all, as compared to only 2% schoolchildren in the middle-and

high-income categories. Similarly, while 95% schoolchildren from middle- and high-income households believed that climate change is currently occurring, 68% schoolchildren from low-income households believed the same. This limits the capacity of the most vulnerable to understand and act on climate change and build on their vulnerability.

2. Fewer sources of information for schoolchildren from low-income households: Schoolchildren from middle- and high-income households have diverse sources of information for climate change, which is not the case for low-income schoolchildren, found the study. 77% of low-income schoolchildren relied on non-governmental organisations (NGOs) working in their communities on environmental issues, while only 17% relied on schools and 1% on parents to learn about climate change. None of them relied on social media or the internet.

In contrast, 69% of middle- and high-income schoolchildren learned about climate change from schools, 25% from parents, and 24% from social media or the internet. This suggests that middle-and high-income schoolchildren have better access to resources like the internet and a comparatively more supportive learning environment at home and school. Bridging the digital divide as well as diversifying sources of information and knowledge are important foundational steps to build climate resilience amongst children and youth.

3. High incidence of climate change-related stress amongst schoolchildren: 89% schoolchildren across socio-economic categories are worried about climate change to varying degrees. However, more middle- and high-income schoolchildren (98%) are worried about climate change, as compared to 76% low-income school children. It is to be noted that 14% of low-income schoolchildren expressed that they didn't know enough on the subject to have an opinion while no middle-and high-income schoolchildren reported so.

4. Schoolchildren reject tokenism in addressing climate change and want stronger action: 89% of schoolchildren expressed concern about climate change and their consequent future. The majority of middle- and high-income schoolchildren (97%) find merely celebrating World Environment Day and Earth Day inadequate to fight climate change and feel much stronger and everyday action is required. 62.5% low-income schoolchildren also report the same opinion. This indicates asymmetry in the proportion of schoolchildren worried about climate change amongst

socio-economic groups. This is possible because low-income schoolchildren do not have as many avenues to learn about climate change as compared to middle- and high-income schoolchildren.

5. Schoolchildren are able to link climate change and adverse impacts on health and well-being: Overall, 83% schoolchildren across socioeconomic categories were able to relate that climate change adversely impacts human health and well-being. 78% schoolchildren reported this from low-income households as opposed to 87% schoolchildren from middle- and high-income households, indicating a better understanding of the climate change-health impact link amongst the latter category.

The recommendations based on the findings are as follows:

1. Inclusion of a Comprehensive Practice-based Climate Education Module in all Schools

While the Central Board of Secondary Education (CBSE) has incorporated the concept of climate change in textbooks, there remains a gap in such knowledge transfer to the children. As the study revealed, there is a lack of information that can be addressed by introducing practice-based modules on climate education. All education boards should include practical modules that will also address children's concern about tokenist actions. These lessons should be introduced both in private and public schools. This is especially relevant for public schools with a higher asymmetry of information about climate change. In addition to practical modules, special awareness sessions should be introduced to mainstream the impact of climate change in education. This can help bridge the information gap on climate change identified among low-income schoolchildren.

2. Teacher's Capacity Building

It is widely accepted that an instructor's ability to teach is key to learning in a classroom. Therefore, equipping teachers with adequate knowledge and resources, especially in schools in remote areas and outside the CBSE curriculum, will enable climate change-sensitive discussions in class.

3. Climate Education for Parents

The study revealed that children are often unable to discuss climate change at home; therefore, increasing awareness among parents would be essential. This can be achieved via school-led awareness campaigns and during parent-teacher meetings via informed discussions. Empowering adults will enable them to have informed discussions with children, creating a more supportive learning environment at home. This would be especially relevant in lower-income communities where climate change may not be a part of daily discussions. Parents from such communities could be empowered via special informational sessions.

4. Awareness about the Impact of Climate Change on Mental Health

The study reveals that children are worried and anxious about the impact of climate change, which could have ramifications on their mental wellbeing. Therefore, it is essential to acknowledge the impact on mental health and equip counsellors (in schools) and mental health professionals with new research and experiences about the impact of climate change on children and youth.

5. Positive Climate Action Stories to Mitigate Anxiety

To address the rising levels of climate anxiety among children, educational initiatives should incorporate stories of successful climate action and solutions. This can help schoolchildren feel

hopeful and motivated rather than overwhelmed by the scale of the crisis. A focus on solutions and innovations to fight climate change will help reduce anxiety about the future and motivate action. Such practices can be promoted via competitions at the school, regional, or national level. Students and their parents will be compelled to engage with a solution-oriented approach via creative storytelling, and craft projects.

6. Healthcare Engagement in Climate Education

Healthcare professionals, particularly paediatricians, must have the option and opportunity to learn about climate change and its impacts on children. This will help them link health conditions (physical and mental) with climate change effectively and develop and suggest treatment pathways.

7. Representation and Leadership of Children and Youth in Climate Networks

Children from low-income backgrounds, particularly those with leadership potential, must be trained in public speaking and advocacy. These schoolchildren must be given opportunities to voice their concerns and perspectives in regional, national, and international youth climate networks, fostering inclusivity in climate discourse. This will forge "youth leadership" and empower young people to lead and bring their perspectives to the mainstream discourse on climate change.

Some ways to do this include:

i. Collaborations with international organisations and civil society organisations to ensure reach to low-income schoolchildren and schools. Moreover, promoting young leaders in schools via skilling modules and practical sessions.

ii. Government driven and aided networks with a focus on the representation of voices from diverse socio-economic groups.

8. Social Protection for Children

It may be pertinent to include climate change as a category for social protection. This is necessary for adults in cases of extreme weather such as floods and heat waves. Protection of adults in a household extends itself to their children. Moreover, it is essential to acknowledge the unique vulnerability of children and youth to the adverse effects of climate change, warranting their inclusion under social protection schemes. This is relevant in the case of midday meals during summer vacations. While there is a significant rise in temperature exposing children to hotter summers, the lack of meals due to summer vacation in schools should be addressed. One of the central tenets of social protection is increasing resilience. Therefore, making it relevant and necessary for children and youth to have protection for increasing resilience and mitigating risks of climate change.

1 INTRODUCTION

THE IMPACT of climate change is being felt in all regions of the world, with growing experiences of food and water insecurity, increased incidence of diseases and disasters, and livelihood loss, among other ramifications on human and planetary well-being. Climate change poses a serious threat to human health, but it disproportionately impacts children and youth, and these impacts are not widely studied or documented.

The ramifications will continue to increase if drastic cuts in greenhouse gas emissions are further delayed, affecting the lives of children much more than that of adults.

The climate crisis is overturning the lives of millions of children around the world. Almost every child (any person under 18) on Earth is now exposed to at least one major climate hazard, from floods and heatwaves to pollution and drought. The United Nations Children's Fund (UNICEF) estimates that 1 billion children, amounting to almost half of all children on Earth, are at 'extremely high risk' to climate impacts.[4]

Children's bodies and minds are particularly vulnerable to, and disproportionately affected by, the impacts of climate change effects such as pollution, heat, deadly diseases and extreme weather, with some estimates suggesting up to 88 percent of the global burden of disease falling upon children.[5] Children drink more water, eat more food, and breathe more air pound-for-pound of body weight compared to adults, putting them at a greater exposure risk. Hence, a combination of physiological vulnerability and the risk of exposure puts children at a higher risk as compared to adults.

Stress from extreme weather events is also found to contribute to neurodevelopmental and mental health problems in children. A child born in 2020 faces 6.8 times more heatwaves, 2.6 times more drought, 2.8 times more crop failure, and 2.8 times more river floods than a person born in 1960. According to the World Health Organization (WHO), in 2030, there could be an additional 77,000 – 131,000 deaths among children under 5 years of age, in the absence of mitigation strategies.[6]

Children are especially vulnerable to the impacts of climate change. For instance, over 730 million children are exposed to high or extremely high water scarcity, and 436 million children live in areas with high or extremely high water vulnerability.[7] Even as all children are impacted globally, children in developing countries are at particular risk, especially children from low-income communities.

Some 352 million children across India risk facing at least one climate event annually. India ranked 26th out of 163 countries in UNICEF's child-focussed Climate Risk Index (CCRI) of 2021, making it one of the countries where children face serious vulnerability to the consequences of climate change.[8]

Children are likely to suffer the most in terms of food and nutrition security, health, water and sanitation, well-being, and education. Apart from diseases due to nutritional deficiencies, there is a resurgence of vector-borne diseases like malaria, dengue, and zika due to changes in temperatures and humidity, especially affecting populations with weak immunity, such as young children. Further, 51% of children in India are exposed to the combined impact of climate change and poverty, making their experience of climate change even more severe and dangerous.[9]

The needs of children need much more attention, as they suffer disproportionately. Some of these

hazards can have long-lasting physical and mental health impacts if not addressed at the right time. In a changing climate, health, education, nutrition, leisure, and other emotional needs of children need to be addressed urgently through convergence of programmes and innovations in policies.

It must be noted that children are not a homogenous category as they are treated in the discourses on climate change by and large. Children from affluent urban homes will not suffer the ill-effects of heatwaves as their homes and sometimes even schools are air conditioned.

Yet, even as children and youth are acutely vulnerable to climate change, they have at the same time emerged as valuable contributors to climate action. They are agents of change and have the highest stakes in a safe future. As innovators and actors for their future, they can scale up their efforts and use their skills to accelerate climate action through education, science and technology. Youth are in a unique position to contribute, as their energy, creativity, and passion are a force for action, and youth are also more likely to view climate change as a crisis.

Children and youth can take climate action in several ways. For instance, Barefoot Warriors is a child-run startup collecting and repairing old and damaged sneakers to give the footwear a second life thereby diverting waste from landfills. These are then distributed amongst those who cannot afford quality footwear, such as outdoor workers, homeless persons, urban poor youth, and athletes.

Child environmental activist Licpriya Kanjugam has been advocating for climate action since she was six years old. Originally from Manipur, India, she now has a strong global voice and has represented the voice of children for climate action on international platforms at the United Nations Climate Change Conference. She is also the founder of 'Child Movement', a children's network raising awareness about the climate crises and urging world leaders to take strong and immediate action.[10]

Imparting appropriate, solution-oriented climate education with nudges and support for action promote everyday initiatives and unique innovations amongst children to build resilience and mitigate climate change. Empowering children and youth are important to enable them to meaningfully participate in developing just and equitable climate action, especially on decisions and actions that affect them.

Supporting Women: Another critical reason to ensure climate education and action by children is that it can support their mothers in the long run. This is particularly true for urban poor communities where the burden of caregiving still rests completely on the woman's shoulders, combined with a lack of access to decision-making and illiteracy.

A study by Chintan in 2023 found that 94% of women are primary caregivers in their family, which compromises on their hours of rest.[11] The women also confirmed that climate change and related illness and disasters increased their burden of caregiving as the family fell ill much more frequently. Further, 77% of the women recognised their husbands as the decision-makers in the family, and 79% of them had never gone to school. Making children aware of climate change could make them allies to their mothers, especially in terms of diagnosing the impacts of climate change in their households and locality and identifying solutions for the same.

Essentially, children will function as catalysts towards a gendered perception of climate change by empowering their mothers with information. This is likely to have a trickle down effect in mothers being able to make gendered decisions for the family, in turn educating and empowering a new generation of informed children.

At present, the world is home to an estimated 1.8 billion young people between the ages of 10-24, the largest generation of youth in history. In India, as of April 2024, 26% of the population is estimated to be between the age groups 10-24. A practical science and solution-oriented understanding of climate change and action can go a long way in propelling action amongst children to safeguard themselves and the planet. In doing so, special focus must be given to children in low-income

communities who face dual impacts of climate change and often lack the resources to learn and act.

ABOUT THIS STUDY

Chintan has conducted a one-of-its-kind study to understand perceptions on climate change and its impacts, as well as the understanding of the issue of climate change, among children and youth across Delhi and the National Capital Region (NCR). The study includes 423 school-going children from low-income, and middle- and high-income households in Delhi-NCR. All the low-income students (184) were from wastepicker communities. All the 423 schoolchildren are aged between 10 and 15 years. The study has mindfully included school-going children from low-income, and middle- and high-income households. For the purposes of the study, children are categorised as 'schoolchildren from middle- and high–income households' and 'schoolchildren from low-income households''.

METHODOLOGY

The study was conducted in Delhi NCR in the months of May, June, and July 2024 and included 423 school-going children.

The study comprised a survey, both face-to-face and online, with school-going children in Delhi NCR. Schoolchildren surveyed belonged to wastepicker communities (low-income households), middle- and higher-income households across Delhi NCR. The low-income household schoolchildren (184) go to government schools and are further supported by post-school tuitions and extracurricular learning. This set of students were surveyed face-to-face using a questionnaire.

Meanwhile, the same questionnaire was circulated virtually with three private schools in Delhi-NCR to cover school-going children from middle- and high-income households.

More schoolchildren in middle- and high-income households were surveyed given that they cover a larger range of economic categories as compared to low-income households.

A breakdown of the number of schoolchildren who participated in this study is provided in Table 1. About 13% more schoolchildren in middle- and high-income households were surveyed given that they cover a larger range of economic categories as compared to low-income households.

Table 1: Number of schoolchildren from low-income, and middle- and high-income households

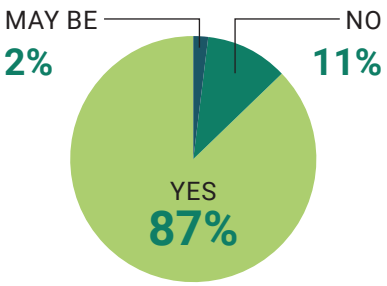
CATEGORY	MALE	FEMALE	TOTAL PARTICIPANTS
Low-income households	108	76	184
Middle- and high-income households	118	121	239
Grand Total	**226**	**197**	**423**

The data was collected and analysed based on socio-economic category and gender. Finally, as gender-wise responses were largely similar, the socio-economic category was retained for comparison while only significant gender-wise responses were retained. The recommendations were developed based on the conclusions of the study and Chintan's first-hand experience in working with children and pedagogy for over two decades.

2 CLIMATE CHANGE AWARENESS

THIS CHAPTER describes how schoolchildren understand climate change. It also points out the role of education, educated parents, and access to information by comparing the two distinct socio-economic groups covered under this study.

Figure 1: Awareness of the term 'climate change'



Climate Change Awareness: Figure 1 illustrates that there is a high level of awareness amongst schoolchildren about the term 'climate change'. Out of the 423 children who participated in this survey, 87% stated that they knew of the term 'climate change'. Only 11% of the schoolchildren who participated in this survey stated that they have not heard of the term 'climate change'.

This indicates awareness about climate change amongst schoolchildren aged 10-15 and an orientation towards it in their formative years itself. As part of the survey questionnaire, schoolchildren were specifically asked what they understood of the term 'climate change' – the Earth getting warmer, rising sea levels, melting glaciers, changing weather patterns, extreme weather, etc.

Figure 2: Awareness of the term 'climate change' amongst schoolchildren from low-income households vs schoolchildren from middle- and high-income households

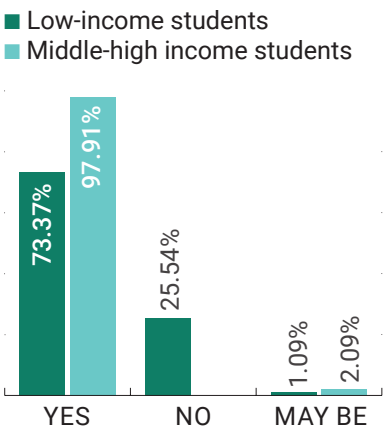
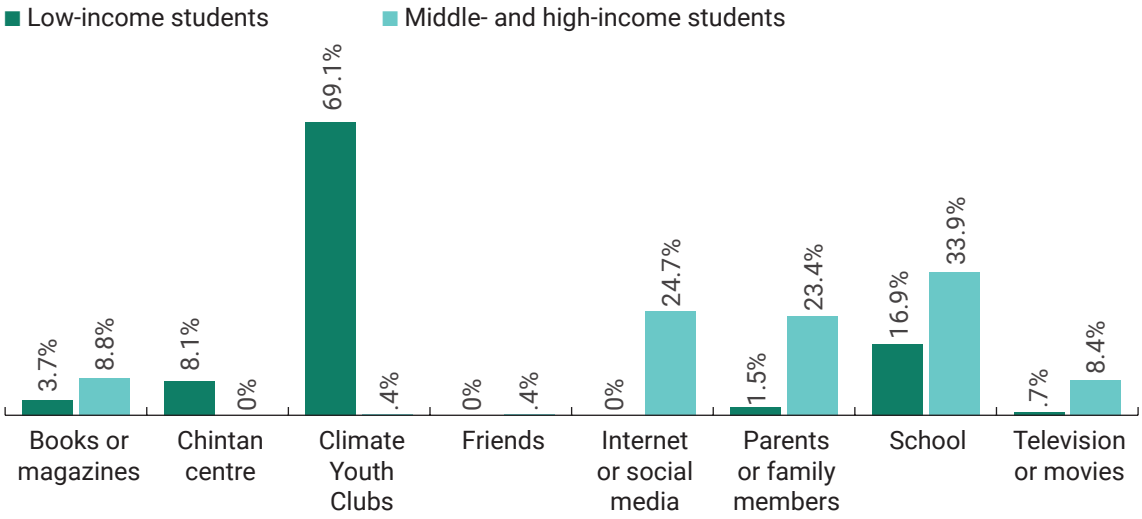


Figure 2 depicts the disparity in awareness about climate change terminology amongst low-income vs. middle- and high-income schoolchildren. Almost all schoolchildren from middle- and high-income households (98%) are aware of the term 'climate change'. None of the schoolchildren reported that they didn't know about the term 'climate change'.

73% of the schoolchildren from low-income households stated that they were aware of the term 'climate change', while 25.5% of schoolchildren indicated no awareness of the term 'climate change'.

Sources of Awareness: There were numerous sources through which schoolchildren learnt about climate change.

Figure 3: Sources of awareness of climate change among low, and middle- and high-income schoolchildren



We children are very worried about climate change because it is causing the Earth's average temperature to rise. This is a serious threat for the future. This rise in temperature will lead to widespread diseases and could damage people's ability to work. Drinking water will become scarce, and a food crisis will emerge. In coastal areas, flooding will force people to migrate, exacerbating economic difficulties.

AARAV
14 years, Ghaziabad

Figure 3 illustrates how schoolchildren from middle- and high-income households vs low-income households learnt about climate change. While 34% of schoolchildren from middle- and high-income households attributed learning about climate change to their schools, only 17% of schoolchildren from low-income households attributed the same to their schools. Schoolchildren from middle- and high-income households also attributed learning about climate change to the internet/social media (25%) and also to their parents/family members (24%).

In sharp contrast, none of the schoolchildren from low-income households attributed learning about climate change to the internet/social media, and 1% attributed learning about climate change from their families. While family, schools, and access to the internet aren't sources of learning about climate change for schoolchildren from low-income households, a high percentage of them have attributed learning about climate change to learning initiatives by civil society organisations like Chintan. While 69% have attributed the same to Climate Youth Clubs run by Chintan (once a week on weekends with focused learning on climate change), 8% have

attributed learning about it at Chintan centres (support/ tuition centres run by Chintan for wastepicker children).

This is indicative that while middle- and high-income school children have sources of learning about climate change at home and at school, as well as better access to the internet, such is not the case for their low-income counterparts. They are heavily dependent on outside sources, such as non-profit initiatives and campaigns, to learn about climate change.

Is climate change happening now?: Schoolchildren were asked if they believed climate change was happening at present. 83% of the schoolchildren across socio-economic categories stated that they believed climate change was happening now.

As illustrated in Figure 5, 68% schoolchildren from

Figure 4: Perception about whether climate change is presently happening

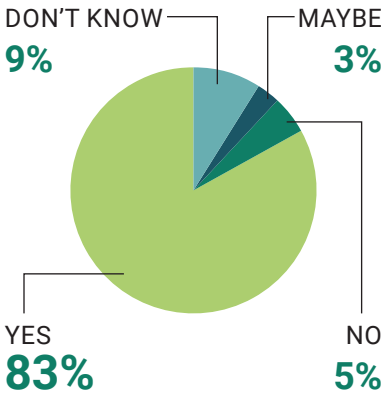
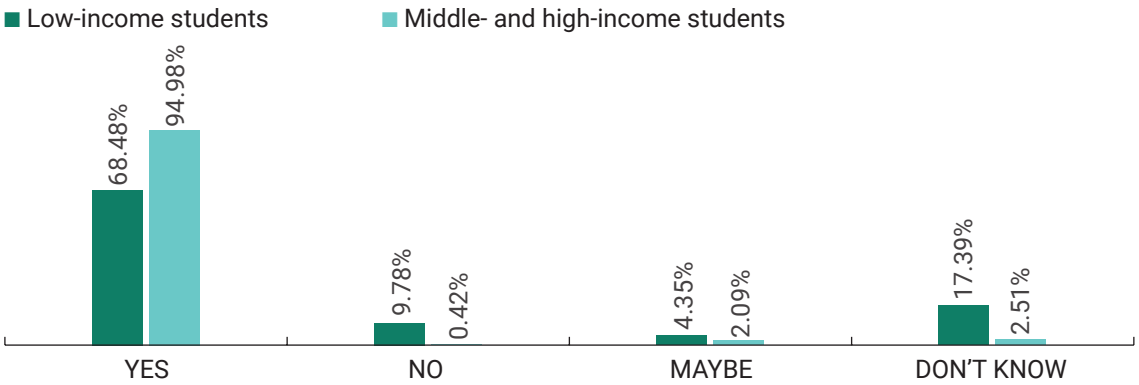


Figure 5: Low vs. middle- and high-income schoolchildren's perception of whether climate change is presently happening



low-income households believe that climate change is currently happening as compared to 95% schoolchildren from middle- and high-income households indicating a significant difference in the perceptions of both categories.

Further, 10% of the schoolchildren from low-income households stated that climate change isn't happening currently, whereas 14% stated that they did not know if climate change is happening currently.

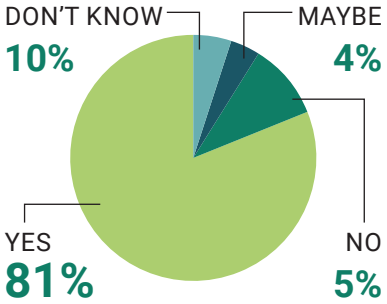
As compared to this, less than 1% of school children from middle- and high-income households claimed that climate change isn't happening currently, and only 2.5% of them claimed that they did not know if climate change is currently happening.

This highlights the significant perception difference and information amongst school-children from middle- and high-income households going to private schools vs. school children from low-income households going to government schools.

3 CAUSES AND CONSEQUENCES OF CLIMATE CHANGE

THIS CHAPTER describes schoolchildren's perceptions on the causes of climate change, followed by the perceived impact on weather conditions.

Figure 6: Perception of schoolchildren on human activity-induced climate change

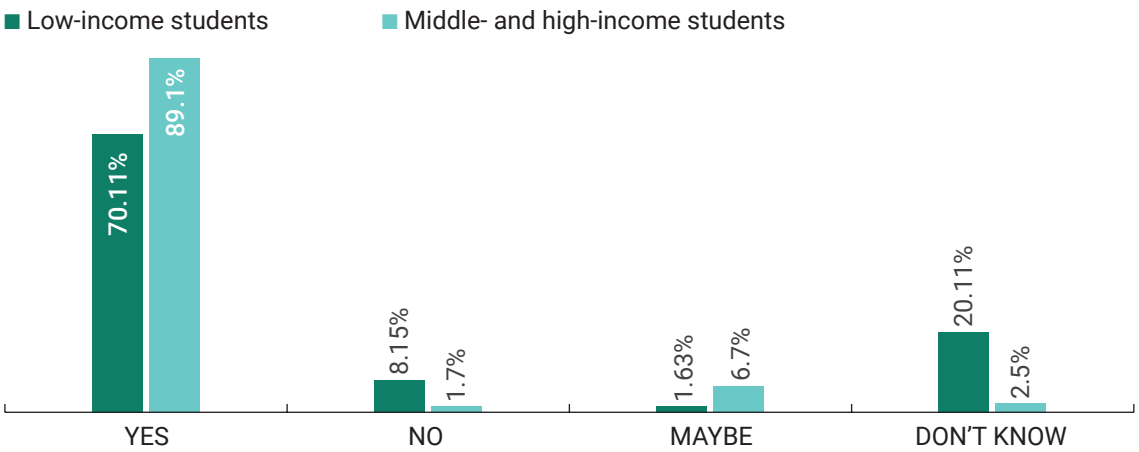


Human activity-induced climate change: 81% of the schoolchildren who participated in this survey believed that climate change is accelerating due to human activities.

As seen in Figure 7, 89% of schoolchildren from middle- and high-income households believe that climate change is accelerating due to human activities, while less than 2% believe that such is not the case.

In comparison, 70% of the schoolchildren from low-income households believe that climate change is accelerating due to human activities, while 20% claimed they didn't know enough about the issue to have an opinion. 10% of them believed that human activities had no link with accelerated climate change.

Figure 7: Perception of schoolchildren on human activity-induced climate change among low-income vs middle- and high-income schoolchildren



I feel that climate change can change the entire way of living for our generation. Our entire school life will have major impacts. The winters are freezing and the summer is melting beyond belief. By 2030, an apocalypse may hit Earth if we don't control these problems. Yes, I am worried about the future of our planet. If we don't stop it, the entire human civilization could just end.

ANAYA PANDE, 13 years, New Delhi

Figure 8: Perception on past vs present heat levels

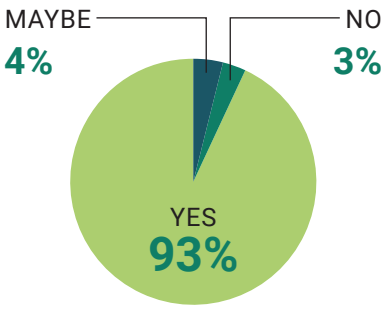
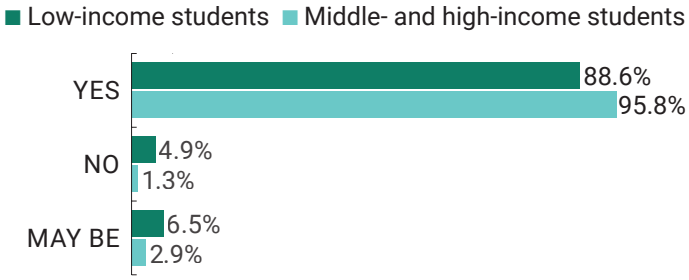


Figure 9: Perceptions of low-income vs middle- and high-income schoolchildren regarding heat levels



In terms of gender, more male students (85%) reported that human activities accelerated climate change than female students (77%).

Past vs. present weather conditions: 93% of schoolchildren believed that the planet is experiencing hotter weather currently as compared to a few years ago. As the survey was conducted during and right after an intense heatwave, this was considered to be a topical question to ask.

Figure 9 illustrates the perception of schoolchildren from middle- and high-income households compared to low-income households regarding whether the weather has become hotter in recent years. Among schoolchildren from middle- and high-income households, 96% agreed with the view of the weather getting hotter, while 89% of low-income school children expressed the same perception.

The belief that the weather is becoming hotter is widely shared across socio-economic categories.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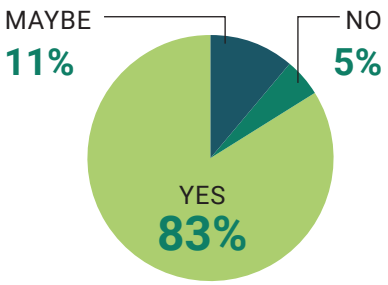
4 IMPACT OF CLIMATE CHANGE ON EVERYDAY LIVES

THIS CHAPTER describes schoolchildren's perceptions about the impact of climate change on health, well-being, and their parents' productivity.

Figure 10: Perception of climate change and health links



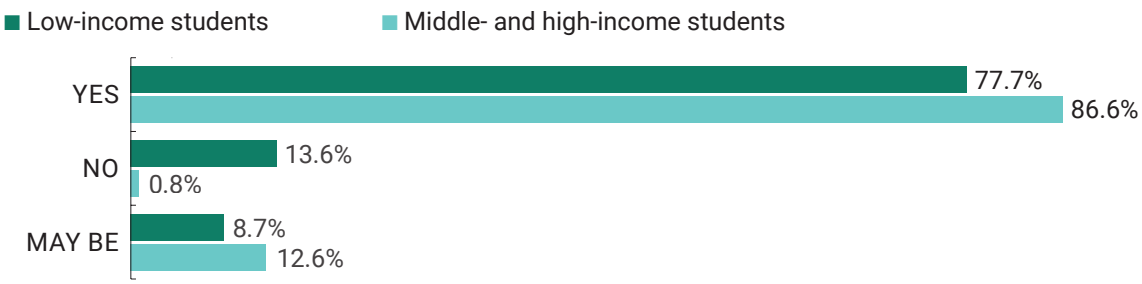
Climate change's impact on health: As indicated in Figure 10, 83% of the schoolchildren believed that climate change is taking a toll on human health and well-being. 6% of schoolchildren felt that climate change did not have an impact on human health, and 11% were unsure of the link between climate change and its impact on human health.

Nearly 78% of the schoolchildren attending schools from low-income households believe that climate change has an effect on human health and well-being. On the other hand, 87% of schoolchildren from middle- and high-income households believe that climate change impacts human health and well-being (87%).

Further, while 14% of schoolchildren from low-income households do not believe that climate change impacts health, less than 1% of middle- and high-income schoolchildren hold the same belief.

Climate Change's Impact on Parents' Work: Schoolchildren were asked whether or not their parents' work is impacted by climate change. 71% of the schoolchildren who participated in this survey stated that their parents face difficulty going to work or travelling due to climate change. 14% felt that such was not the case.

Figure 11: Perception of climate change and health links among low-income vs middle- and high-income schoolchildren



Climate change is making it difficult for us to play outside because either the air is dirty or it is getting very hot. Sometimes it rains too much, causing floods that fill our houses with dirty water. I am afraid that in the future, we may not have clean air or water and could all become very sick.

RIYA, 15 years, Ghaziabad

The smoke from the landfill never stops, and with the weather getting hotter, it's even worse. I cough a lot, and my family keeps falling sick. I'm scared that one day the air will be too dangerous to breathe.

ARMAAN, 13 years, Bhalswa Dairy, Delhi

Figure 12: Effect of climate change on parents' work

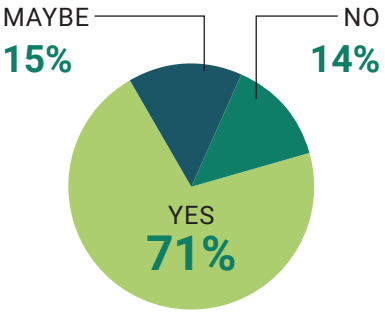
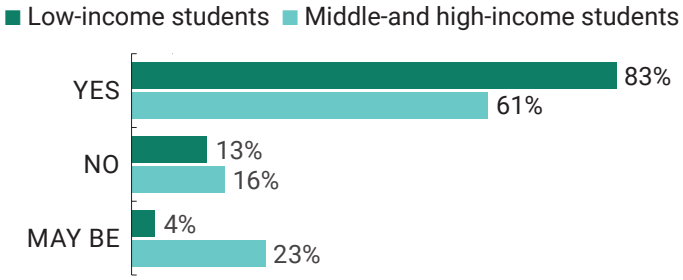


Figure 13: Perception of low vs. middle and high income schoolchildren on climate change impacts on parents' work



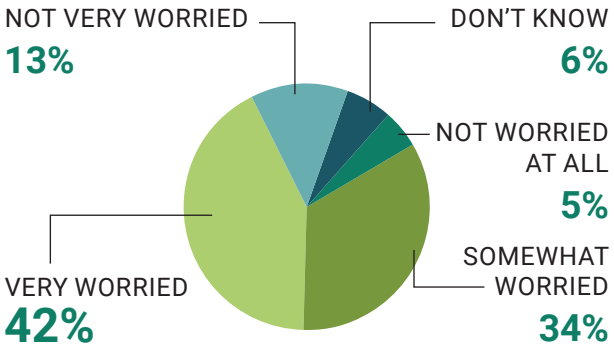
When asked about whether climate change caused difficulties for their parents at work (such as going to work or productivity at work), 83% schoolchildren from low-income households have stated that their parents face difficulties going to work as compared to 61% schoolchildren from middle- and high-income households.

This difference is probably because the parents of low-income school children surveyed are outdoor workers (wastepickers). Further, they travel mostly by foot or non-motorised transport, exposing them further to extreme weather conditions as compared to middle- and high-income parents who travel by motorised transport and four-wheelers as well as work indoors.

5 CLIMATE CONCERN AND ACTION

THIS CHAPTER explores whether schoolchildren are concerned about climate change with regard to the future, their view on tokenism about climate action, and willingness to learn more about climate change.

Figure 14: Concerns about climate change



Climate change-induced worry: Schoolchildren were asked to express their concerns with climate change on the following scale: very worried, somewhat worried, not very worried, not worried at all.

- Overall, 89% of schoolchildren expressed at least some level of worry regarding climate change.
- 42% of the schoolchildren stated that they were very worried about climate change
- 34% stated that they were somewhat worried about climate change.
- 13% were not too worried about climate change
- 5% weren't worried at all

Low-income vs. middle- and high-income: While 98% of the schoolchildren from middle- to high-income households expressed some level of worry due to climate change, 76% schoolchildren from low-income households expressed the same.

Only 10% of schoolchildren from low-income households and 2% of schoolchildren from

Climate Anxiety in Children

STUDIES GLOBALLY have indicated an increased sense of anxiety and/or negative emotions amongst children and youth as the impacts of climate change are witnessed. For instance, in a global survey, *The Lancet* identified that 62% of young people are anxious about climate change, while 67% said that they were sad and afraid.[12]

As climate change adds to the mental burden of children, it may have significant impacts on their overall development and growth, relationships, home and outside, and their overall perspectives and perceptions of life and future.

Figure 15: Opinion on tokenism and need for stronger action

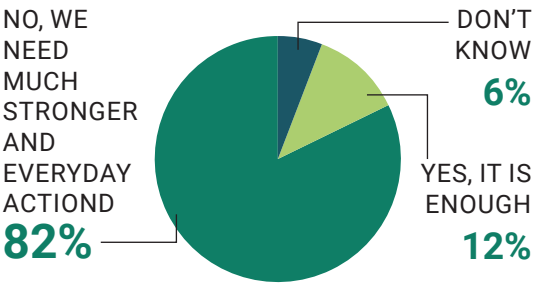
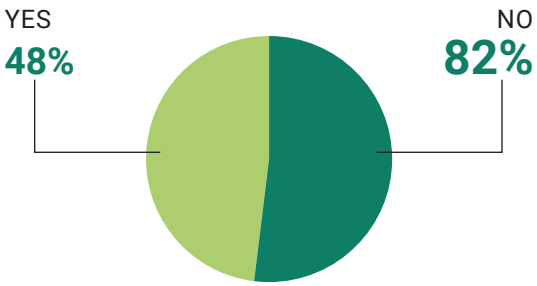


Figure 16: Action taken to fight climate change



middle- and high-income households weren't worried about climate change at all.

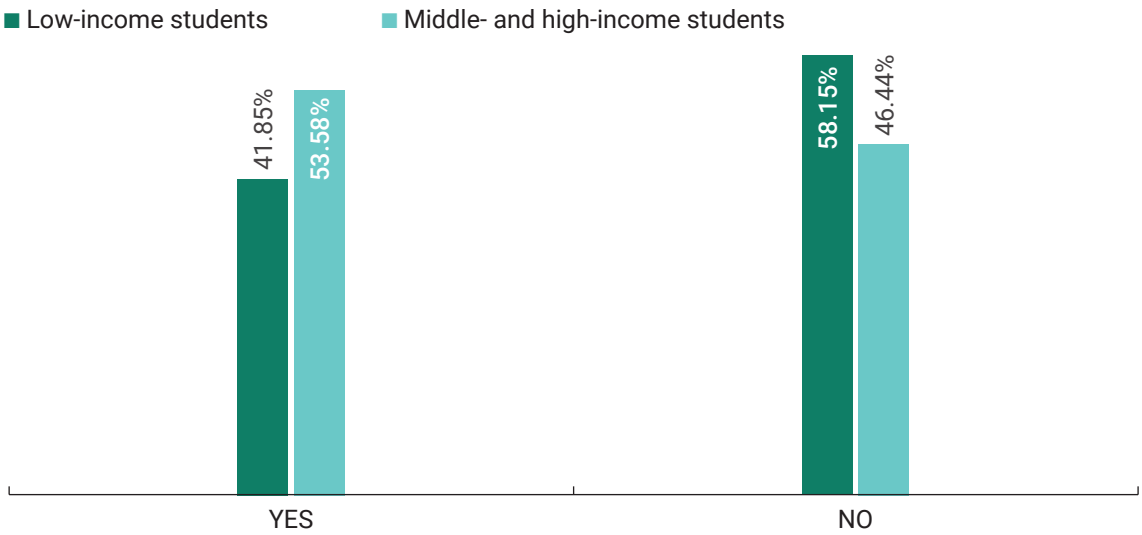
On Tokenism About Climate Action: Schoolchildren were asked if celebrating days like 'World Environment Day' or 'Earth Day' were adequate to fight climate change. 82% of schoolchildren stated that celebrating such days wasn't enough and that stronger and everyday action is needed to fight climate change.

A stark difference was seen in the response of middle- and high-income schoolchildren vs. low-income schoolchildren. 97% of schoolchildren in the former category stated the need for stronger climate action as compared to 62.5% of respondents from the latter category.

Action to Fight Climate Change: Schoolchildren were asked whether or not they are taking action necessary to combat climate change. 48% of the schoolchildren who participated in this survey stated that they have taken action to fight climate change. The remaining 52% stated that they have taken no action to fight climate change.

While 54% of schoolchildren from middle- and high-income households reported that they took action to fight climate change, the remaining share mentioned that they did not take any

Figure 17: Low-income vs middle- and high-income schoolchildren's climate action



Climate Action By Children

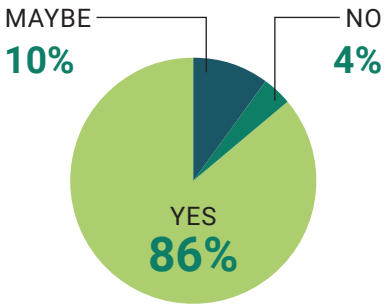
RECOGNISING THE key role children can play in supporting their mothers and communities in building climate resilient decisions, 500 children aged 10-15 years from urban poor communities in Delhi NCR were invited to participate in Climate Youth Clubs run by Chintan where they learnt about climate change, air pollution, and their impacts as well as solutions. Following are some examples of the actions taken by the children in the informal settlements as part of the Climate Youth Club.

i. Building awareness through creative material: The children engaged in the Climate Youth Club have developed creative materials such as storybooks, poems, and films to raise climate change awareness amongst a wider network of children and youth.

ii. Door-to-door community awareness: The children's door-to-door awareness efforts on climate change, particularly to address everyday risk of climate change, are having a positive impact in their communities. By raising awareness in informal settlements, they are contributing to building community resilience in the face of climate risks like heatwaves.

iii. Children supporting their mothers: The trainings with children have covered the gendered impact of climate change. The children have supported their mothers and other women in the community in local advocacy efforts to address water shortages, overflowing drains during rains, and air pollution.

Figure 18: Children's desire to learn about climate change



such action.

In the case of children from low-income households, a higher percentage (58%) reported that they did not take action to fight climate change, while 42% mentioned that they took action.

Learning About Climate Change: Schoolchildren from low, and middle- and high-income households stated that they would like to learn more about climate change. 86% of the schoolchildren are keen to learn more about climate change. 4% of schoolchildren stated that they do not wish to learn more about climate change.

Low-income vs. middle- and high-income households: 93% of schoolchildren from low-income households reported that they wanted to learn more about climate change, and 81% of schoolchildren from middle- and high-income households reported that they wanted to learn about climate change. This can be attributed to the lack of resources low-income schoolchildren have to learn about climate change as compared to middle- and high-income schoolchildren who have access to ample resources.

In terms of gender, more male students (87%) as compared to female students (77%) felt the need for stronger and everyday action to fight climate change.

6 CONCLUSIONS AND RECOMMENDATIONS

BASED ON the findings of the survey by Chintan, the key conclusions are as follows:

1. Asymmetry in awareness about climate change between socio-economic groups: 87% of all schoolchildren surveyed knew about the term 'climate change'. However, asymmetry in the knowledge exists amongst socioeconomic categories — 25.5% of schoolchildren in the low-income category hadn't heard the term at all as compared to 2% schoolchildren in the middle- and high-income category who reported the same. Similarly, while 95% of schoolchildren from middle- and high-income households believed that climate change is currently occurring, only 68% of schoolchildren from low-income households believed the same.

2. Fewer sources of information for schoolchildren from low-income households: Schoolchildren from middle- and high-income households have diverse sources of information on climate change, which is not the case for low-income schoolchildren. 77% of low-income schoolchildren relied on learning centres run by the not-for-profit organisation Chintan, while only 17% relied on schools and 1% on parents to learn about climate change. None of them relied on social media or the internet.

In contrast, 69% of middle- and high-income schoolchildren learnt about climate change from schools, 25% from parents, and 24% from social media or the internet. This suggests that middle- and high-income schoolchildren have better access to resources like the internet and a more supportive learning environment at home and school.

3. High incidence of climate change-related stress amongst school children: 89% of schoolchildren across socioeconomic categories are worried about climate change to varying degrees. However, more middle- and high-income schoolchildren (98%) are worried about climate change, as compared to 76% low-income schoolchildren. It is to be noted that 14% of low-income schoolchildren expressed that they didn't know enough on the subject to have an opinion, while no middle- and high-income schoolchildren reported so.

4. Schoolchildren don't support tokenism in addressing climate change and want stronger action: 89% of schoolchildren expressed worry about climate change and their consequent future. Majority of middle- and high-income schoolchildren (97%) find merely celebrating World Environment Day and Earth Day inadequate to fight climate change and feel much stronger and that everyday action is required. 62.5% low-income schoolchildren also report the same opinion. This indicates asymmetry in the proportion of schoolchildren worried about climate change amongst socio-economic groups. This is possible because low-income school children do not have as many avenues to learn and discuss climate change as compared to middle- and high-income schoolchildren.

5. Schoolchildren are able to link climate change and adverse impacts on health and well-being: Overall, 83% of schoolchildren across socioeconomic categories were able to connect that climate change adversely impacts human health and well being. 78% of schoolchildren reported this from low-income households as opposed to 87% schoolchildren from middle and high income households, indicating a better understanding of the climate change-related health impact link amongst the latter category.

Recommendations

1. Inclusion of a comprehensive practice-based climate education module in all schools

While the Central Board of Secondary Education (CBSE) has incorporated the concept of climate change in textbooks, there remains a gap in such knowledge transfer to the children. As the study revealed, there is a lack of information that can be addressed by introducing practice-based modules on climate education. All education boards should include practical modules that will also address children's concern about tokenist actions. These lessons should be introduced both in private and public schools. This is especially relevant for public schools with a higher asymmetry of information about climate change. In addition to practical modules, special awareness sessions should be introduced to mainstream the impact of climate change in education. This can help bridge the information gap on climate change identified among low-income schoolchildren.

2. Teacher's capacity building

It is widely accepted that an instructor's ability to teach is key to learning in a classroom. Therefore, equipping teachers with adequate knowledge and resources, especially in schools in remote areas and outside the CBSE curriculum, will enable climate change-sensitive discussions in class.

3. Climate education for parents

As the study revealed, children are unable to discuss climate change at home; therefore, increasing awareness among parents would be essential. This can be achieved via school-led awareness campaigns and during parent-teacher meetings via informed discussions. Empowering adults will enable them to have informed discussions with children, creating a more supportive learning environment at home. This would be especially relevant in lower-income communities where climate change may not be part of daily discussions. Parents from such communities could be empowered via special informational sessions.

4. Awareness about impacts of climate change on mental health

The study reveals that children are worried and anxious about the impact of climate change, which could have ramifications on their mental wellbeing. Therefore, it is essential to acknowledge the impact on mental health and equip counsellors (in schools) and mental health professionals with new research and experiences about the impact of climate change on children and youth.

5. Positive climate action stories to mitigate anxiety

To address the rising levels of climate anxiety among children, educational initiatives should incorporate stories of successful climate action and solutions. This can help schoolchildren feel hopeful and motivated rather than overwhelmed by the scale of the crisis. A focus on solutions

and innovations to fight climate change will help reduce anxiety about the future and motivate action. Such practices can be promoted via competitions at the school, regional, or national level. Students and their parents will be compelled to engage with a solution-oriented approach via creative storytelling and craft projects.

6. Healthcare Engagement in Climate Education

Healthcare professionals, particularly paediatricians, must have the option and opportunity to learn about climate change and its impacts on children. This will help them link health conditions (physical and mental) with climate change effectively and develop and suggest treatment pathways.

7. Representation of low-income children in climate networks

Children from low-income backgrounds, particularly those with leadership potential, must be trained in public speaking and advocacy. These schoolchildren must be given opportunities to voice their concerns and perspectives in regional, national, and international youth climate networks, fostering inclusivity in climate discourse. Some ways to do this include:

i. Collaborations with international organisations and civil society organisations to ensure reach to low-income school children and schools.

ii. Government-driven and aided networks with focus on representation of voices from diverse socioeconomic groups.

8. Social protection for children

It may be pertinent to include climate change as a category for social protection. This is necessary for adults in cases of extreme weather such as floods and heat waves. Protection of adults in a household extends itself to their children. Moreover, it is essential to acknowledge the unique vulnerability of children and youth to the adverse effects of climate change, warranting their inclusion under social protection schemes. This is relevant in the case of midday meals during summer vacations. While there is a significant rise in temperature exposing children to hotter summers, the lack of meals due to summer vacation in schools should be addressed. One of the central tenets of social protection is increasing resilience. Therefore, making it relevant and necessary for children and youth to have protection for increasing resilience and mitigating risks of climate change.

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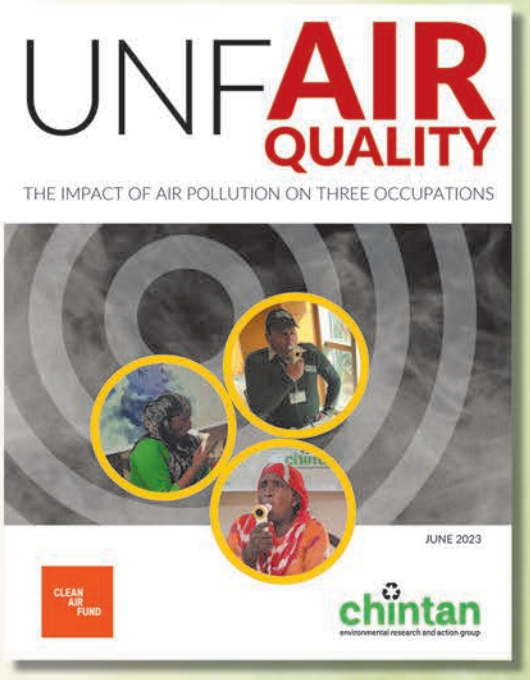

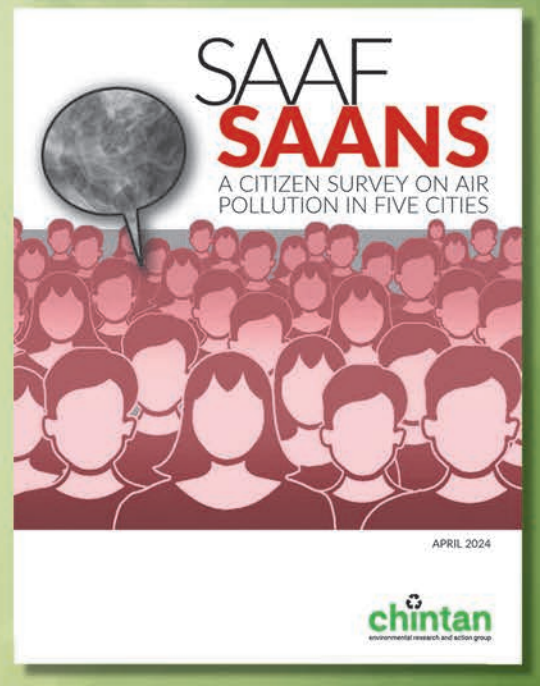

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