Intergenerational Spillovers of Environmental Attitudes and Behaviors*

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Abstract

This study evaluates how environmental education shapes household behavior through the intergenerational transmission of knowledge, beliefs and attitudes. We implement a novel activity-based environmental education program tailored to the local context in Patna, India, and designed to engage both children and adults. We test the direct effects of the intervention on participants and spillovers to non-participating family members in a randomized field experiment with 1,545 child–parent pairs. Households were assigned to one of three treatment arms—child-only, parent-only, or joint child–parent participation—or to a control group. We find that direct participation increases pro-environmental behaviors. Spillover effects are present but asymmetric. While both children and parents influence one another, only children shift their parents' beliefs and attitudes toward climate change. After accounting for spillovers, joint participation does not produce stronger outcomes than participation by either group individually, suggesting that targeting children may be a more scalable and cost-effective approach to promoting sustainable household behavior.

Keywords: Environmental education; Intra-household spillovers; Intergenerational transmission; Pro-environmental behavior; Climate risk perceptions; Factorial randomized design; India

JEL Codes: D10, I20, C93, Q01, Q53, O10

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1 Introduction

Encouraging households to adopt sustainable behaviors is a fundamental step toward addressing climate change and other environmental challenges (IPCC, 2023; Dietz et al., 2009). Household choices over energy use, waste, and consumption generate substantial externalities, with downstream consequences for public health (Hathaway and Maibach, 2018; Cianconi et al., 2020; Berry et al., 2010), human capital (Hanna and Oliva, 2016; Venegas Marin et al., 2024; Marchetta et al., 2019; Garg et al., 2020), and distributive equity (Mattoo and Subramanian, 2012). While a growing body of research evaluates interventions that promote pro-environmental behaviors, most focus on individual decision-makers—typically adults—implicitly treating the household as a unitary agent.

This assumption is particularly restrictive for climate mitigation: those who bear long-run consequences may not control decisions today, while those with decision authority may have weaker preferences for mitigation. Children tend to express greater concern about climate change and will bear its long-term consequences disproportionately (Currie and Deschênes, 2016; O'Donoghue and Rabin, 2015; Weber, 2010; Fuerst and Singh, 2018). At the same time, decision-making power over household resources and many environmental behaviors typically resides with parents (Jodl et al., 2001; Lawson et al., 2019a; Lazarides et al., 2015; Bandura and Cherry, 2020). This mismatch raises a first-order policy design question: who within the household should be targeted to maximize the effectiveness of climate interventions—adults, children, or both jointly?

To answer this question, we conducted a cluster randomized controlled trial in Patna, India—a low-income urban area facing severe environmental challenges, including air pollution, inadequate waste management, recurrent flooding, and rising temperatures (Guttikunda and Jawahar, 2019; Alakshendra, 2019). We enrolled 1,545 child–parent pairs (3,090 individuals) and randomly assigned them to one of four groups: (1) a control group with no exposure to the program; (2) a child-only treatment arm (T1); (3) a parent-only arm (T2); and (4) a joint parent–child arm (T3). This 2×2 household factorial design separately identifies (i) direct effects on treated children and treated parents, (ii) within-household spillovers from treated to untreated members, and (iii) whether joint exposure generates complementarities beyond the sum of individual treatments. Accordingly, the design directly answers three questions: (i) What are the direct effects of environmental education on participating adults and children? (ii) To what extent do

non-participating household members exhibit spillover effects, and are there asymmetries in the strength of spillovers? (iii) Does joint participation amplify impacts of the program through complementarities?

We study outcomes that capture both costly and low-cost environmental action. We measure two incentive-compatible behaviors: willingness to incur time costs for recycled materials via a "green certificate" choice, and willingness to pay via an experimental donation. We also measure self-reported pro-environmental household behaviors, climate attitudes (i.e. risk perceptions), beliefs (i.e. self-efficacy), and climate knowledge. Because the intervention is delivered at home rather than through schools, we observe treatment responses in the setting where many environmental decisions are made and can cleanly separate direct effects from within-household spillovers. To understand the mechanisms underlying intergenerational spillovers, we explore whether the frequency of climate-related discussions with family and peers and perceptions of relationship hierarchy mediate behavioral and attitudinal change.

Our study yields three main findings. First, the curriculum produces meaningful direct effects for both children and parents. Treated children were 22 percentage points more likely to choose the green certificate and increased green donations by 41 percent (an average increase of approximately INR 7 from a control mean of INR 17.78). They also reported a 0.20 standard deviation increase in pro-environmental household behaviors and a 0.33 standard deviation increase in climate risk perceptions. Treated parents were 25 percentage points more likely to choose green certificates, exhibited a 0.26 standard deviation increase in climate risk perceptions, and experienced a 0.15 standard deviation gain in climate knowledge.

Second, spillovers are asymmetric and run predominantly from children to parents. Parents of treated children were 26 percentage points more likely to choose green certificates and exhibited increased climate risk perceptions (0.19 standard deviations) and self-efficacy (0.15 standard deviations), though we detect no significant spillovers for other behavioral outcomes or knowledge. In contrast, spillovers from parents to children are limited: the only significant effect is a 24 percentage point increase in children's green certificate choice, with no detectable impacts on children's attitudes, knowledge, or other behaviors.

Third, joint parent–child participation does not significantly outperform targeting children alone. Children in the joint treatment arm were 29 percentage points more likely to choose green certificates

and increased donations by INR 7.7; parents in the joint arm were 27 percentage points more likely to choose green certificates and experienced gains in risk perceptions (0.23 standard deviations) and self-efficacy (0.17 standard deviations). However, after accounting for spillovers from children, these additional effects are not significantly larger than those in the child-only condition. Taken together, the results imply limited complementarities from joint exposure and suggest that targeting children can be an efficient way to shift household environmental attitudes and selected behaviors through intergenerational influence.

We find suggestive evidence that intra-household spillovers were mediated, in part, by increased discussion of climate change. This pattern is noteworthy given prior evidence that communication plays a central role in shaping climate attitudes and behaviors by facilitating social learning and increasing issue salience. The intervention increased the frequency of climate-related discussions within households, with communication increasing regardless of whether children or parents were targeted by the treatment. However, this communication was asymmetric in its behavioral implications. While increases in parent-to-child discussions mediated spillover effects on childrens' pro-environmental behavior, we do not find corresponding evidence that child-to-parent discussions mediated parents' selection of the green certificate. Importantly, the magnitude of these spillovers did not vary by kids' perceptions of household hierarchy. We also examined whether spillover effects varied by the gender of the participating child or parent but found no systematic differences. Taken together, these results highlight that communication is a central driver of behavioral spillovers and operates independently of household power dynamics or demographic attributes.

We contribute to three strands of literature—environmental behavior change, intra-household spillovers, and educational interventions—through an experimental design that, to our knowledge, provides a clean identification of bi-directional environmental influence within households. Our four-arm randomized controlled trial separately assigns environmental education to children, parents, to both jointly, or to neither, allowing us to recover distinct estimates for (i) direct treatment effects, (ii) cross-member spillover effects, and (iii) joint exposure effects within the same household. This design enables a head-to-head comparison of child-to-parent and parent-to-child influence across a range of outcomes, an identification problem that existing studies, which typically treat only one household member, are unable to address. This question is especially salient in the context of climate change, where children often hold stronger environmental preferences but lack formal decision-making power.

While joint parent–child participation has been studied in health and education contexts (Golan et al., 2006; Özler et al., 2018; Berlinski et al., 2009), ours is the first study to embed joint exposure within a household-level 2×2 factorial design in the context of environmental education. The inclusion of a joint treatment arm alongside child-only and parent-only arms allows us to test whether treating multiple household members generates complementarities or whether spillovers render additional targeting redundant—a distinction that is central for policy design but rarely addressed empirically. We find that the joint intervention produces only modest gains relative to the child-only intervention and does not significantly outperform it. Accounting for direct effects and spillovers, our results suggest that targeting children alone may be the most cost-effective and scalable strategy for shifting household-level environmental outcomes. More broadly, this design allows us to decompose total treatment effects into direct and spillover components, providing methodological guidance for optimal intervention targeting of household-based policies. Our study builds on the intra-household decision-making literature by shifting the focus away from spousal interactions and toward parent–child relationships (Jack et al., 2024; Conlon et al., 2021), and provides direct causal evidence on the role of children as agents of change within families.

Another feature of our study is the household-based delivery of the intervention. Most environmental education programs are implemented through schools (Roy Ballantyne and Packer, 2001; Lawson et al., 2019b; Jaime et al., 2023), and consequently, evidence on intergenerational spillovers is in the direction of children to parents (Alix-García and Knittel, 2025; Jaime et al., 2023). Our home-based experimental design instead engages children and/or parents directly in the setting where most environmental decisions are actually made, allowing us to estimate spillovers in both directions.

2 Context

The intervention took place in Patna, the capital city of the Indian state of Bihar, which exemplifies the environmental challenges facing rapidly urbanizing cities in the developing world. Between 1971 and 2011, Patna's population grew fourfold, from 473,000 to 1.68 million (Census of India, 2011), straining infrastructure and natural resources through largely unplanned urban expansion (Ghose, 2014). This rapid growth has created severe environmental pressures that directly affect residents' daily lives and health outcomes.

The city faces acute air and water pollution challenges that have worsened significantly in recent years. Air quality has reached crisis levels, with the AQI exceeding 300 (classified as "very poor") in November 2023 — one month before our baseline survey began. These conditions have driven a dramatic increase in health impacts: acute respiratory infections surged from approximately 300,000 cases in 2018-19 to over 1.2 million in 2019-20 (Insight, 2023). Water contamination presents equally pressing concerns, particularly in the Ganga River, where untreated sewage and industrial discharge render the water unfit for human use (Down to Earth, 2024). Climate change compounds these challenges through increasing frequency of extreme weather events, including floods and heatwaves, which threaten public health, infrastructure, and economic stability (Masson-Delmotte et al., 2021; WHO, 2021).

These intersecting environmental crises make Patna an ideal setting in which to test interventions designed to build awareness of environmental challenges and climate change and promote behavioral change among both adolescents and adults. The city's challenges, rapid urbanization, severe pollution, weak infrastructure, and climate vulnerability, characterize many urban centers across South Asia and the developing world more broadly. As such, our findings speak not only to environmental education in Patna but also to the potential for household-based interventions to address environmental challenges in similar contexts globally.

3 The Intervention and Experimental Methodology

3.1 The "Green Warriors" Curriculum

We tested the *direct* and *indirect* effects of exposure to "Green Warriors", a novel environmental education curriculum that is designed to promote the adoption of sustainable behaviors by households. The curriculum was developed by *VentureVillage*, a Finland-based organization with an operational presence in India, with the aim of increasing individual awareness of climate change and local environmental issues while equipping participants with practical strategies to mitigate those risks.

We selected the Green Warriors curriculum due to its engaging approach, which incorporates in-depth, interactive lessons taught by trained educators over a few weeks (Ballantyne et al., 2001; Moser and Dilling, 2011; Sutherland and Ham, 1992). We collaborated closely with *VentureVillage* to

adapt the curriculum to Patna's environmental challenges, which was informed by extensive discussions with the Patna Municipal Corporation. According to the World Bank report on Education for Climate Action, "*For information to spur action, those who receive the information must understand it, see it as actionable, care about the topic, and believe that their actions will improve outcomes*" (Sabarwal et al., 2024). In line with this principle, we adapted the curriculum to foster a sense of environmental stewardship by encouraging participants to adopt more sustainable household behaviors, lead or participate in pro-environmental campaigns, and share their knowledge and actions with peers and family members. The full curriculum is provided in Appendix H and field photographs in Appendix I.

All trainers who administered the curriculum to participants underwent comprehensive training by *VentureVillage* in activity-based teaching techniques, ensuring quality of the curriculum implementation. The curriculum consisted of four thematic sessions, each lasting around 30 minutes. Crucially, the intervention sought to go beyond awareness-building, encouraging participants to adopt practical sustainable solutions to actively reduce their environmental impact.

The themes of the four sessions were as follows:

Session 1: Awareness and Identification of Environmental Problems

This session focused on building awareness about the urgency of climate change and environmental problems by using puzzles, pictures, and videos to visualize environmental damage. Participants identified issues in their immediate surroundings and reflected on how human actions contribute to these challenges. They were also encouraged to speak with family members about environmental changes over the past 30 years. The intent of the session was to help participants develop a clearer understanding of the scale and urgency of environmental issues and recognize the direct connection between human activity and environmental degradation. They learned to identify local environmental problems and began thinking about their own role in shaping environmental outcomes.

Session 2: Understanding Waste and Its Management

In the second session, participants explored how everyday activities contributed to waste generation and how individual actions connected to broader waste management systems at the community, district, national, and global levels. Through waste tracking exercises, they visualized their personal impact and reflected on how daily habits contributed to larger environmental challenges.

Session 3: Behavioral Change Towards Environmental Sustainability

The third session introduced participants to the idea of taking small steps to create meaningful environmental change. They were asked to reflect on their own consumption habits to understand how individual actions when adopted by many could lead to significant collective impact. The session emphasized the importance of making eco-friendly choices in daily life and highlighted the role of personal responsibility in advancing sustainability. Participants also explored the history of environmental catastrophes, with a focus on the local context of Patna.

Session 4: Climate Activism and Pro-Environmental Campaigns

The final session aimed to increase participants' awareness of climate activism around the world and encouraged them to consider and commit to pro-environmental campaigns. Participants were introduced to prominent environmental champions and global climate movements, and they explored examples of community-driven initiatives. They were then encouraged to design their own campaigns for their schools or neighborhoods, reinforcing the importance of local engagement in driving environmental change.The session concluded with a discussion of key takeaways from the entire program and a recap of the concrete actions participants could take to spread awareness and foster collective action toward environmental sustainability.

3.2 Implementation of the curriculum

Households assigned to the three treatment groups received a total of six visits by the enumerators. These included the four interactive education sessions conducted by the enumerators at their homes and two data collection rounds (baseline and endline surveys) for the participating parent or child. Each of the four environmental education sessions was delivered during a separate visit to the household. Control group households were visited only twice, once for the baseline survey and once for the endline survey. They did not receive the environmental education sessions. The average duration between the completion of the baseline survey and the endline survey was approximately two months for all participating households. Figure A1 in the appendix shows the timeline.

3.3 Treatment Arms

We evaluated the overall impact of the curriculum by examining both its direct effects on the targeted participant and its indirect effects on a non-participating household member. Specifically, to test for asymmetries in spillovers from children to parents or parents to children, we implemented the curriculum across four distinct treatment arms: (1) Child only (T1), where only the child received the intervention; (2) Parent only (T2), where only the parent received the intervention; (3) Child and Parent (T3), where both the child and parent received the intervention; and (4) Control group (C), where neither the child nor the parent received the intervention.

3.4 Validity of the Randomization

While the intervention was delivered at home, randomization was conducted at the section level in the schools, with sections assigned to one of three treatment arms or a pure control group.[1] Each grade is divided into multiple sections to maintain class sizes recommended by the Education Department of Bihar. Assigning treatment at the section level, rather than to individuals, minimized the risk of treatment contamination that could arise from interactions among students in the class assigned to different treatment arms.

To ensure a balanced allocation of sections across treatment groups, we stratified the randomization along three dimensions: (i) grade, (ii) section size, and (iii) a contamination propensity score. The contamination propensity score was constructed at the classroom level using peer network data collected in the baseline survey. During baseline data collection, each student listed up to five peers with whom they interacted most frequently, distinguishing between peers in the same section, peers in other sections of the same grade, and peers in other grades. For each section, we aggregated interactions outside the classroom to identify sections with higher potential for cross-contamination. This index was used as a stratification variable to ensure an even distribution of high-contamination sections across treatment arms. Appendix D provides details on the construction of the contamination propensity score. Table A5 shows that the index is balanced across treatment groups, indicating limited interaction across sections.

In addition, we identified 156 sibling pairs during the baseline survey. To avoid within-household

[1] We recruited participants through schools to identify eligible child–parent pairs; the intervention itself was administered at the household level. See Appendix G for details on field operations.

confounds arising from multiple treated children, we randomly selected one sibling per household to participate in the study. This procedure resulted in a final sample of 3,090 participants, comprising 1,545 child–parent pairs. Overall, the randomization was successful in generating a balanced sample across treatment arms. Baseline characteristics for children, parents, and households are well balanced along stratification dimensions and other observables. We report detailed balance checks in Tables A5, A6, A7, and A8.

4 Data Collection, Outcomes, and Pre-Analysis Plan

4.1 Baseline Data Collection Protocols

We identified eligible schools based on approval from the Head of School and student availability for the baseline according to the academic calendar. We proceeded with sample selection in a staggered manner, school by school. Once a school was selected, we obtained consent from students and their parents, indicating their willingness to take part in the study. We then conducted baseline surveys in two stages. First, we administered the baseline to all students from whom we had obtained both child and parent consent. Our enumerators conducted household visits to collect baseline data from all consenting parents. Further details regarding the field operations can be found in Appendix G.

4.2 Outcomes

4.2.1 Incentive Compatible Outcomes

To evaluate the curriculum's effectiveness, we focused on outcomes that align with its content and thematic progression. Specifically, we measured participants' willingness to donate to an environmental cause and to wait to obtain a recycled certificate in place of an immediately available non-recycled one. These two outcomes differed in the type of commitment required—time or money—yet neither demanded significant physical effort from participants. Opting for the recycled certificate required participants to passively wait for the delayed option, while the donation involved contributing funds that were experimentally earned and could otherwise be kept by the participants.[2]

[2]These outcomes were pre-registered with the AEA Trial Registry at RCT ID: AEARCTR-0013240

Green Certificate: At the end of the curriculum, all participants were given a completion certificate. They had the option to receive a certificate printed on standard paper immediately or to wait one week for a certificate printed on recycled paper. The more environmentally-friendly choice thus incurred a real and salient additional time cost. The immediate gratification of receiving the standard certificate can be viewed through the lens of present bias, whereby individuals place disproportionate weight on immediate outcomes relative to delayed ones (O'Donoghue and Rabin, 2015). In our context, the certificate itself is valued and is a socially meaningful credential for participants, and delaying its receipt imposes a salient cost in terms of immediacy and recognition. Choosing the recycled certificate therefore reflects a willingness to forgo immediate gratification for an environmental consideration, making this outcome a salient test of pro-environmental behavior in this context. In addition, this outcome is particularly well suited to the Bihar context, where solid waste management and paper waste are persistent policy challenges. State- and national-level reports document low rates of waste segregation, limited recycling infrastructure with paper constituting a substantial share of household solid waste.

In response, public campaigns under initiatives such as the Swachh Bharat Mission have emphasized recycling, and responsible paper use, especially through schools. As a result, recycled paper is a widely recognized and meaningful environmental signal.[3]

Green Donations: We measured participants' willingness to make contributions to address environmental issues with an incentive-compatible, experimentally elicited donation task, in which respondents could allocate their earnings to an environmental organization. Participants had a 1 in 6 chance to win 100 INR by rolling a fair die. Before the lottery outcome was revealed, they had to decide whether to contribute some of their potential earnings to one of two organizations: one focused on an environmental cause (waste recycling and management) and the other on a non-environmental yet salient cause (helping children). This decision thus incurs a monetary cost. We examined which organization participants chose, and how much they decided to donate. Our primary outcome measure is the amount donated to the environmental organization, with the choice of the alternative organization or no donation coded as 0.[4] Data on green donations was collected in both the baseline and endline.

[3] Refer to Table A10 for detailed descriptions of all the outcomes.
[4] Refer to Table A9 for detailed descriptions of all the outcomes.

4.2.2 Self-Reported Outcomes

Pro-environmental Behaviors: In both the baseline and endline surveys, we asked parents and children to indicate how often they or their family members engaged in various pro-environmental activities, such as segregating waste and using energy-efficient light bulbs. These actions require significant effort, as they involve sustained changes in daily behavior. Detailed information on the behaviors is provided in Table A11.

Frequency of Discussions About Climate Change: We assessed how frequently participants engaged in climate change conversations over the preceding 2-3 weeks with friends, family, and community members. We normalized the responses. Detailed information on specific questions and index construction is provided in Table A11.

4.2.3 Climate Change Attitudes

We assessed participants' attitudes toward climate change by measuring both their level of concern and their perceived ability to contribute to its mitigation.

Personal Efficacy: We measured participants' perceptions of the impact and effectiveness of their own actions, as well as individual actions more broadly, in addressing local environmental challenges and mitigating climate change with six questions. These responses were combined into a single efficacy index by summing and standardizing the scores from each question. Efficacy was measured at both baseline and endline. Detailed information on specific questions and index construction is provided in Table A9.

Risk Perceptions: We evaluated participants' concern and perceptions about the risks and impacts of climate change using four questions. Detailed information on specific questions and index construction is provided in Table A10. Risk perceptions were measured at both baseline and endline.

4.2.4 Climate Change Knowledge

To assess participants' awareness and understanding of climate change and local environmental issues, we created a knowledge index based on four questions. The index was constructed by aggregating and standardizing the responses to each question. Knowledge was measured at both baseline and endline. Detailed information on specific questions and index construction is provided in Table A9.

4.3 Descriptive Statistics

Our study sample was drawn from 131 classrooms across 11 private schools in Patna, and included both children and their parents. The majority of our households (96%) were Hindu, with 39% belonging to upper castes and 56% classified as Other Backward Classes (OBC). Socioeconomically, 21% of the households stated that they have a 'Below Poverty Line' card. Additionally, 24% of households had at least one member in a government job, 26% owned a car, and 72% owned a house. The average age of the children in the sample was 12 years, and they were enrolled in grades 6 to 8.[5] Notably, 53% of the children spoke English[6], and 66% were male. On the parent side, the average age was 37 years, and 65% of the participating parents were mothers. We present the descriptive statistics in Tables A1, A2, A3, and A4.

5 Conceptual Framework

5.1 Household Environmental Behavior Production Function

Household environmental behaviors depend on children's and parents' knowledge about climate change and environmental issues, their pro-environmental attitudes (including risk perceptions and self-efficacy), household characteristics, and critically, the mechanisms through which these inputs interact via intra-household communication and spillovers between family members. The effectiveness of environmental education in shifting household behavior thus depends not only on the direct effects on those who receive the intervention, but also on how knowledge and attitudes transmit between children and parents through discussion, observation, and normative influence within the household. Within this framework, our experiment examines how environmental education delivered to children, parents, or both alters the production of household environmental behaviors. The curriculum aims to increase knowledge, shift attitudes, and promote behavioral change through three distinct delivery mechanisms: (i) T1 (child-only), where children receive environmental education; (ii) T2 (parent-only), where parents receive the intervention; and (iii) T3 (joint), where both participate together.

[5] We intentionally excluded grade 10 students from this intervention due to the externally administered "high-stakes" board examination, which coincided with our endline data collection.

[6] The curriculum was available in both Hindi and English

5.2 Differential Responsiveness and Intra-Household Spillovers

Environmental education can target either children or parents as potential agents of household behavior change. The relative effectiveness of each approach depends on both direct responsiveness to the intervention and the strength of intra-household spillovers. Children could generate larger spillovers within the household and serve as more effective agents of change for two reasons. First, children's attitudes may be less entrenched than adults', making them more malleable to new information about climate change. Second, children face greater future exposure to climate impacts, creating stronger intrinsic motivation to engage with environmental content. However, this is reversed, if we expect parents to have a larger decision making role in households, particularly in hierarchical family structures.

Spillover mechanisms. Environmental knowledge and attitudes can be transmitted between household members through social learning or normative influence. Social learning occurs when family members observe and adopt each others' behaviors and beliefs through discussion and interaction. Normative influence arises when perceived family expectations shape individual behavior. We hypothesize these spillovers to work through communication, in the form of frequency of environmental discussions within the household. Household hierarchy may also matter in this regard. In families where parents hold greater decision-making authority, children may find it harder to influence parental beliefs and behaviors, while parents may more easily shape their children's. Similarly, the gender composition of the child–parent dyad may affect how knowledge and attitudes are transmitted, if communication patterns or authority dynamics differ between mothers and fathers. We examine whether communication, household hierarchy, and the gender composition of the dyad moderate spillover effects.

5.3 Behavioral Heterogeneity by Cost Structure

Environmental behaviors vary substantially in the costs they impose, whether in time, money, or sustained effort. **Green Certificate.** Choosing a recycled certificate over a non-recycled option imposes a time delay: participants wait one week but incur no monetary expense or sustained effort. As such, this behavior captures a low cost, marginal, immediately consequential pro-environmental choice. These behaviors are important because they are highly responsive to informational and normative influences and often represent the first margins of behavioral adjustment following an

intervention, preceding behaviors that require sustained effort or structural change. Accordingly, we expect such choices to exhibit the strongest direct treatment effects and the most pronounced spillovers, as they face few practical barriers and are readily transmitted through social interaction within households.

Green Donations. Donating to environmental causes entails a monetary commitment, even when contributions are drawn from experimentally provided funds, which participants could otherwise retain for personal use. As such, this behavior captures a willingness to forgo private resources in favor of environmental outcomes. Because donations constitute a one-time decision rather than a sustained behavioral change, we expect more moderate direct treatment effects relative to "green certificates." Moreover, spillover effects are likely to be weaker, as monetary decisions involve more salient personal trade-offs and are less likely to be openly discussed or socially transmitted within households.

Pro-Environmental Behaviors. Actions such as waste segregation, energy conservation, and sustainable consumption require sustained effort and coordination across household members. These behaviors impose the high adoption costs and face the greatest institutional and habitual barriers. We expect moderate direct effects of the intervention but limited spillovers, as sustained behavior change is likely to require active participation and reinforcement over time.

5.4 Joint Participation and Complementarity

Joint participation (T3) may amplify treatment effects if parent and child inputs exhibit complementarity in producing environmental outcomes. However, complementarity is not always guaranteed. If the mechanisms through which children and parents influence household behavior operate independently, joint participation may not exceed the sum of individual treatments. Moreover, if spillovers from children to parents are already substantial in T1, adding direct parental participation in T3 may yield only marginal additional gains:

6 Estimating Equation

We estimate the following intent to treat (ITT) empirical specification to identify the direct and indirect effects of the treatment.

$$Y_{i,t=1} = \beta_0 + \beta_1 P + \beta_2 T_1 + \beta_3 T_2 + \beta_4 T_3 + \beta_5 (P * T_1) + \beta_6 (P * T_2) + \beta_7 (P * T_3) + \beta_8 Y_{i,t=0} + \beta_9 X_i + e_i$$

where $Y_{i,t=1}$ is an outcome measure for individual i (which can be a parent or a child) measured at endline and $Y_{i,t=0}$ is the same outcome measured at baseline (if available). P is the indicator variable that takes value 1 if i is a parent and 0 if i is a child. T_1 is an indicator for the 'Child Only Treatment', T_2 is an indicator for the 'Parent Only Treatment', and T_3 is an indicator for the 'Child + Parent Treatment'. X_i is a vector of control variables that are selected using a double LASSO procedure and school-fixed effects. Standard errors are clustered at the section level at which the intervention is randomized.

The relevant comparison for children is against the child control group β_0 and for parents is against the parent control group $\beta_0 + \beta_1$.

We test the following:

Direct effects:

H1.a: *The direct effect of participating in the curriculum for the child is measured by comparing β_2 to β_0.*

H1.b: *The direct effect of participating in the curriculum for the parent is measured by comparing β_6 to $\beta_0 + \beta_1$.*

H1.c: *The direct effect of attending the curriculum jointly is β_4 (compared to the baseline β_0) for children and β_7 (compared to the baseline $\beta_0 + \beta_1$) for parents.*

Spillovers:

H2.a: *The spillover effects on the child when their parent receives the curriculum (i.e., T_2) is β_3 compared to the child baseline β_0.*

H2.b: *The spillover effects on the parent when their child received treatment (i.e., T_1) is β_5 compared to the parent baseline $\beta_0 + \beta_1$.*

The behavioral and self-reported outcomes analyzed in the following section were pre-registered prior to data collection with the AEA Trial Registry (RCT ID: AEARCTR-0013240), and Open Science Framework Registry.

7 Main Results

7.1 Participant Engagement and Session Quality

We first assess the quality of curriculum implementation and participant engagement. Enumerators recorded engagement metrics after each of the four sessions across all treatment arms (T1, T2, and T3). Table 1 presents summary statistics for nine binary engagement indicators. Overall, participants demonstrated high levels of engagement with the curriculum. Nearly all participants (96.4%) remained attentive throughout the sessions, and a similarly high proportion (96.2%) reported enjoying the session activities. The majority of participants (91.0%) were able to effectively summarize the session content when prompted. Additionally, three-quarters of participants (75.4%) actively asked questions during the sessions.

Implementation conditions were generally conducive to learning, with minimal disruptions across sessions. Only a small fraction of sessions experienced significant background noise (4.8%), family interference (4.7%), or general interruptions (3.2%), suggesting that the home-based delivery model provided reasonably controlled learning environments for most participants. The positive reception is further evidenced by the fact that 94.4% of participants stated they would recommend the course to others.

7.2 Behavioral Outcomes

We first examine the effect of the curriculum on the two incentivized behavioral outcomes: green certificates and green donations. Table 2 presents the regression estimates based on the specification outlined in the previous section.

Green certificate: We observe a significant increase in the choice of the green certificate across all conditions—direct participation, spillover, and joint participation—among both parents and children. Children who directly participated in the curriculum (T1) were significantly more likely to choose the recycled certificate compared to those in the control group, highlighting the curriculum's impact on their consumption choices. Similarly, parents who were directly exposed to the curriculum (T2) also showed a significant and similar increase in green certificate choices of 25 percentage points. We estimate a spillover effect among parents of 26 percentage points when only children participated (T1), and a spillover effect of 24 percentage points among children when only parents participated (T2). The

effect sizes of the spillovers are similar to the direct effect of participating in the curriculum. Lastly, we observed an increase in the selection of green certificates among both parents and children in the joint condition—children showed a 29 percentage point increase and parents showed a 27 percentage point increase compared to their respective controls.

Green Donations: We saw a direct effect of the treatment on green donations among children, who increased their donations to the environmental cause by 7.02 INR ($p < 0.05$) compared to the control group. We do not find significant direct effects of the treatment on green donations among parents (T2). Unlike "green certificates," we did not observe any spillovers for "green donations", indicating that not all behaviors are transmitted through indirect exposure. Additionally, we observed an increase of 7.70 INR ($p < 0.05$) in green donations among children when they participated jointly with their parents (T3). However, we again find no significant effect on parents.

Comparing Green certificates and Green donations: While we observe significant spillover effects for the green certificate outcome, the same is not true for green donations, suggesting that behaviors requiring a monetary commitment may be more resistant to indirect influence. This pattern highlights an important distinction between behaviors that impose a time-based trade-off and those that require a direct financial sacrifice. Importantly, the curriculum had a significant impact on children for both behaviors, whereas direct effects for parents were mixed, with statistically significant effects observed only for the green certificate outcome. These differences in direct effects between children and parents are mirrored in the joint participation treatment.

Self-Reported Behavioral Outcomes: Children who directly participated in the curriculum (T1) reported doing more pro-environmental behaviors. We observed the same pattern for children in the joint participation treatment (T3), though these effects are only marginally significant. For parents, we do not see any effect.

7.3 Perceptions, Attitudes and Knowledge

We next examined the effects of the curriculum on climate change knowledge, personal efficacy, and risk perceptions. The curriculum provided factual information about climate change and was designed to increase knowledge and awareness. Tailored to the local context of Patna, the curriculum linked climate change impacts to participants' daily lives, which may increase their risk perceptions. Additionally, it included actionable steps aimed at inspiring participants to take action, potentially

increasing their sense of personal efficacy to address climate change. Table 3 shows the regression estimates of intervention effects on attitudes and beliefs.

Self-Efficacy: For children, no significant changes in personal efficacy were observed across any of the treatment conditions. For parents, there was no direct effect on personal efficacy among parents who participated directly in the program (T2). Interestingly, parents' perceived efficacy increased substantially when they participated in the curriculum alongside their children (T3), with an increase of 0.17 standard deviations ($p < 0.05$). Spillovers were also observed from children to parents (T1), resulting in a 0.15 standard deviations increase in parental self-efficacy ($p < 0.05$).These results suggest that children are an important component of perceptions of personal efficacy among parents.

Risk Perceptions: We find an increase in the risk perceptions of children in both the direct and joint treatment conditions. Children who participated in the curriculum (T1) demonstrated a 0.33 standard deviations increase in perceived risk ($p < 0.01$), while those who participated together with their parents (T3) showed a 0.32 standard deviations increase ($p < 0.01$). These results suggest that the curriculum heightened children's perceptions of the risks associated with climate change, especially in terms of their worry and concern about its impacts. There were no spillover effects from parents to children for risk perceptions—children's perceptions were unaffected by their parents' participation in the curriculum unless they themselves directly engaged with it.

For parents, all treatment conditions resulted in an increase in risk perceptions relative to the control group. Parents who directly participated in the curriculum (T2) experienced a 0.26 standard deviations increase ($p < 0.01$), slightly smaller than the effect observed for children in the direct treatment (33 pp). We also observe spillovers: parents whose children participated in the curriculum (T1) exhibited a 0.19 standard deviations increase in perceived risk ($p < 0.01$), indicating that children's engagement had an influence on their parents' perceptions of climate change risks. Parents who participated jointly with their children (T3) also showed a 0.23 standard deviations increase in risk perception ($p < 0.01$).

Climate Change Knowledge: Knowledge was assessed with three questions that measured overall understanding of climate change, belief in its occurrence, and knowledge of its causes. These questions were presented in a multiple-choice format, requiring respondents to select the correct answer from the given options. We do not find significant changes in climate change knowledge

among children across the treatment conditions. However, while the effects are not statistically significant, we observe some trends that suggest potential differences between the treatment groups. Children who directly participated in the curriculum alone (T1) or jointly with parents (T3) reported higher knowledge levels compared to the control group (T1: 56.33%; T3: 53.70%; C: 46.68%). In contrast, children in the parent-only condition (T2) had climate change knowledge comparable to the control group (T2: 46.34% vs. C: 46.68%). Additionally, belief that climate change is happening was already high among children in the control group (87.98% of respondents agree that climate change is happening). This high baseline likely contributed to a ceiling effect, limiting the potential for further improvements through the treatment. Across all groups, over half of the children in the baseline were also able to correctly identify the causes of climate change, indicating a reasonable level of foundational knowledge.

In contrast, the curriculum had a significant impact on climate change knowledge among parents, but only when they participated in the curriculum directly. In the parent-only treatment (T2), parents exhibited an increase in knowledge (0.15 standard deviations, $p < 0.05$), whereas no significant effects were observed in the joint treatment (T3), where both parents and children participated, or in the child-only condition (T1).

8 Mechanisms

8.1 Parent–child discussions

Given the symmetric spillover effects observed for green certificate choices, we first examine whether these spillovers operate through increased environmental discussions within households in both directions. Table 4 presents the analysis focusing on the two spillover pathways: from child participation to parent behavior (T1), and from parent participation to child behavior (T2). We examine whether the treatment increases household discussions and whether controlling for this intermediate outcome alters the estimated treatment effect on the choice of green certificates. This approach is descriptive in nature and is intended to assess whether household discussions are a plausible channel underlying the spillover effects

For spillovers from children to parents (Panel A), we find that child participation in the curriculum leads to a substantial increase in child-reported green discussions. However, controlling

for these discussions does not attenuate the spillover effect on parents' green certificate choices, and the discussion index itself is not significantly associated with parental behavior. This suggests that child-to-parent spillovers do not primarily operate through explicit environmental discussions, but may instead reflect alternative channels such as observational learning, inferred norms, or broader changes in the salience of environmental issues in the household.

In contrast, for spillovers from parents to children (Panel B), we find evidence consistent with partial mediation through discussions. Parent participation significantly increases parent-reported green discussions, and these discussions are positively associated with children's green certificate choices. Including the discussion index modestly reduces the estimated spillover effect, indicating that conversations within the household may be one channel through which parental participation influences children's behavior. Taken together, these results point to different mechanisms underlying spillovers from parents to children or children to parents: while parental engagement appears to affect children partly through discussion, child-driven spillovers to parents are less likely to be mediated by explicit communication.

8.2 Hierarchy and gender composition

A natural concern is that intergenerational influence may be constrained by household decision authority. In more hierarchical parent–child relationships, children may have fewer opportunities to persuade parents, potentially attenuating child-to-parent spillovers even when children themselves respond to the curriculum.

We measure perceived relational hierarchy using a vignette in which a fictional child in class 7 is offered a place in a weekend science competition and the family must decide whether she participates. Both the child and the parent in each dyad answer five questions about the scenario: who is likely to make the final decision (the child, one parent, both parents, or the whole family), how influential parental opinions are in such decisions, who would decide if their own child were in the same situation, how likely the child would be to insist on his or her own preference against the family's wishes, and how many of the respondent's peers would go against their family in the same scenario. We code responses so that higher values correspond to stronger parental authority and average across items to form a continuous hierarchy index, constructed separately from child and parent reports. The detailed measure construction is in A12 in appendix F.

We estimate specifications that interact the treatment indicators with the hierarchy index and tables 5 and 6 report the interaction terms. Overall, we find limited evidence that hierarchy systematically moderates the intervention's effects. For the incentive-compatible outcomes, treatment $\times$ hierarchy interactions are generally small and statistically indistinguishable from zero for green certificates and donations for both children and parents (Table 5). For self-reported behaviors, we likewise find little evidence that hierarchy changes the average treatment effects on pro-environmental behavior. The clearest hierarchy-related heterogeneity appears for climate-related communication: several treatment $\times$ hierarchy interactions for *green discussions* are positive and statistically significant, especially on the parent side (Table 5), suggesting that hierarchy is more strongly related to whether the curriculum changes household conversations than to whether it changes the core behavioral outcomes.

For survey-reported outcomes, we again find that most treatment $\times$ hierarchy interactions are close to zero, but there is some evidence of moderation for a subset of attitudinal measures. In particular, interactions for self-efficacy and risk perceptions are positive and statistically significant in a few specifications (Table 6), while interactions for knowledge and perceived social norms are generally small. Taken together, these results do not support the view that stronger authority gradients shut down spillovers or eliminate treatment impacts. Instead, hierarchy appears, at most, to shift *how* households process the curriculum—most visibly through climate-related discussions and, in some cases, through perceived efficacy and risk—rather than producing broad attenuation of the main behavioral effects.

We also examine whether intergenerational influence varies with the gender composition of the dyad, focusing on whether the participating parent is the father (Tables 7 and 8). For behavioral outcomes, the interaction terms with father participation are small and statistically insignificant across outcomes for both children and parents (Table 7). For survey-reported outcomes, we similarly find little evidence of gender moderation for self-efficacy, risk perceptions, or social norms. The primary exception is climate knowledge: the estimated impacts on parents' knowledge are significantly smaller when the participating parent is the father, with negative and statistically significant father-interaction terms across treatment arms (Table 8). This suggests that mothers are more likely to have spillovers from the intervention when it comes to acquiring climate knowledge. However, since mothers make up 65 percent of participating parents, the father interaction is estimated from a smaller subsample. Aside from this pattern, the data suggest that the curriculum's behavioral impacts and most belief

changes are broadly similar across dyads, and that heterogeneity by parent gender is limited.

9 Benchmarking Effect Sizes

To situate the magnitude of our estimates, we benchmark our effects against the existing literature on pro-environmental behavior and environmental education. A central takeaway from this literature is that, while behavioral interventions can influence environmentally relevant outcomes, average effect sizes are typically modest—especially when outcomes involve behavior rather than self-reported attitudes. Table 9 summarizes benchmark effect sizes from the related literature to provide context for the magnitudes we estimate.

Meta-analytic evidence provides a useful baseline. Nisa et al. (2019) synthesize randomized controlled trials across energy use, transportation, recycling, food consumption, and water use, and report an average standardized effect size of $d = -0.093$ for climate-relevant behaviors. This benchmark indicates that well-identified interventions generally yield small average impacts on behavior.

Against this backdrop, the magnitudes we estimate are large. In our study, treated children were 22 percentage points more likely to choose a green certificate and increased green donations by 41 percent relative to the control mean. Parents of treated children exhibited spillovers of comparable magnitude, with a 26 percentage point increase in green certificate choice. These behavioral effects are substantially larger than those typically documented in the environmental behavior literature and are notable given that our outcomes are incentive-compatible rather than self-reported.

Comparisons with environmental education interventions further underscore this point. School-based programs often generate improvements in children's knowledge, attitudes, and self-reported behaviors, but spillovers to parents are generally weak or absent. For example, Jaime et al. (2023) document improvements in children's environmental practices following a school-based intervention in Chile, but find no evidence of spillover effects on parents' outcomes. Relative to this evidence, the magnitude of the behavioral spillovers we observe is unusually large.

Our estimates also stand out relative to the literature on intergenerational transmission. Existing studies document child-to-parent spillovers primarily in beliefs or knowledge rather than behavior. Lawson et al. (2019b) report a child-to-parent effect of approximately 0.12 standard deviations on

climate concern, while Damerell et al. (2013) find knowledge transmission from children to parents but do not examine behavioral outcomes. In contrast, we document sizable spillovers on revealed, incentive-compatible behavior, at least for low-cost behaviors, placing our estimates at the upper end of the distribution of intergenerational effects documented to date.

10 Conclusion

This paper studies how environmental education shapes household behavior depending on whether children or parents are exposed to the educational intervention. Using a four-arm randomized experiment that separately targets children, parents, or both, we provide causal evidence on the direction, magnitude, and limits of intergenerational spillovers in environmental behavior. The results point to a systematic asymmetry: children's participation in an environmental education program generates substantial direct effects and meaningful spillovers to parents, while parental participation is largely limited to direct effects on parents themselves but generates only limited spillovers to children.

These findings contribute to the broader literature on intra-household decision-making by highlighting a domain in which influence is not aligned with formal authority or control over resources. In contrast to settings such as health or education, where parental investments typically dominate, environmental education appears to operate through channels that allow children to shape household beliefs and low-cost behaviors. One interpretation is that climate change education alters the distribution of perceived stakes across generations: children face greater future exposure, which may increase the salience and credibility of their advocacy within the household. In this sense, environmental education may activate normative or identity-based mechanisms that differ from those governing standard household investments.

Our experimental design also allows us to assess whether treating multiple household members generates complementarities. We find little evidence that joint parent–child participation amplifies outcomes relative to child-only exposure. Instead, the estimates are consistent with a substitution pattern in which activating a single household member—particularly a child—is sufficient to shift household norms around environmental responsibility. This result suggests that intergenerational spillovers may reflect changes in the allocation of attention and salience within the household, rather than additive information effects. From a methodological perspective, these findings underscore the

importance of distinguishing direct, spillover, and joint effects when evaluating household-based interventions.

We also find that spillovers are not uniform across outcomes. Intergenerational transmission is concentrated in low-cost, visible behaviors and in attitudinal measures, while behaviors requiring sustained effort or monetary commitment exhibit little indirect response. This heterogeneity aligns with models in which social influence is more effective for actions that serve as signals of identity or values, but less effective when adoption is constrained by economic or institutional barriers. The results therefore delineate a boundary or limit to household spillovers: attitudes and perceptions transmit readily, while higher-cost behaviors remain tightly linked to individual incentives and constraints. Another possibility is that attitudes and beliefs, such as risk perceptions and personal efficacy, are important precursors to pro-environmental behaviors, which may take more time to emerge.

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Tables and Figures

Table 1: Engagement and Participation Metrics

Variable	Mean	SD	Min	Max	Sessions × Observations
Panel A: Participant Engagement					
Asked questions during session	0.754	0.431	0	1	5,314
Attentive throughout session	0.964	0.187	0	1	5,314
Enjoyed session activities	0.962	0.191	0	1	5,314
Wanted to end session quickly	0.146	0.353	0	1	5,314
Able to summarize session well	0.910	0.286	0	1	5,314
Panel B: Implementation Quality					
Background noise	0.048	0.213	0	1	5,314
Family interference	0.047	0.211	0	1	5,314
Interruptions during session	0.032	0.175	0	1	5,314
Panel C: Overall Satisfaction					
Would recommend course to others	0.944	0.230	0	1	1,318

NOTES: All variables are binary indicators (0/1); means therefore represent the proportion of respondents with a positive response. Variables are coded as 1 if the respondent strongly agrees or agrees (categories 1–2 on the original five-point scale), and 0 otherwise (categories 3–5). Data were collected by trained enumerators after each of the four curriculum sessions for treatment groups T1 (Child Only), T2 (Parent Only), and T3 (Child and Parent); comparable data are not available for the control group. The "Sessions × Observations" column reflects session-level measurements (4 sessions × up to 1,329 treated participants = 5,316 maximum possible observations; the actual count is 5,314 due to minor attrition). Panel A variables reflect enumerator assessments of participant behavior and engagement. Panel B variables capture environmental factors that may affect learning quality; note that these are coded such that lower values indicate better implementation conditions (e.g., noise = 0 means the session had minimal background noise). Panel C reflects participants' self-reported willingness to recommend the course, collected at program completion (N = 1,318 reflects one response per participant rather than per session).

Table 2: Behavioral Outcomes

	Incentivized behavior				Self-reported behavior			
	Green Certificates		Green Donations (INR)		Pro-Environment Behavior		Green Discussions	
	Child	Parent	Child	Parent	Child	Parent	Child	Parent
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
T1: Child Only (Direct Effect)	0.22***		7.02**		0.20**		0.40***	
	(0.06)		(2.72)		(0.08)		(0.11)	
T2: Parent Only (Spillover Effect)	0.24***		2.66		0.12		0.10	
	(0.06)		(2.37)		(0.08)		(0.08)	
T3: Child + Parent (Joint Effect)	0.29***		7.70**		0.14*		0.35***	
	(0.06)		(2.96)		(0.08)		(0.12)	
T1: Child Only (Spillover Effect)		0.26***		-0.19		0.07		0.08
		(0.06)		(2.55)		(0.09)		(0.08)
T2: Parent Only (Direct Effect)		0.25***		0.04		0.03		0.21**
		(0.05)		(2.65)		(0.09)		(0.10)
T3: Child + Parent (Joint Effect)		0.27***		-3.32		-0.01		0.21
		(0.05)		(2.92)		(0.08)		(0.13)
Control Mean	0.53	0.51	17.78	18.98	0.00	0.00	3.30	3.14
Observations	2892	2892	2892	2892	2892	2892	2892	2892
School Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Baseline Control			Yes	Yes	Yes	Yes		
LASSO Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTES: Standard errors clustered at the section level (in parentheses). $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. Baseline controls are included for all the outcomes for which baseline data is available. For calculating the donation amounts to green charity, all the donation amounts to non-green charities were coded to 0. Columns (1) and (2) depict the coefficients for the choice of eco-friendly certificates by the child and parent respectively. Columns (3) and (4) depict the coefficients for donations (in Rs.) made to green charity by the child and their parent respectively. Columns (5) and (6) depict the coefficients for the (self-reported) pro-environment behavior index of the child and parent respectively. The pro-environment behavior indices are constructed using Anderson (2008). Columns (7) and (8) depict the coefficients for the willingness to discuss about climate change with friends, family, or neighbours by the child and parent respectively. All the columns use survey data.

Table 3: Survey Reported Outcomes

	Climate Knowledge		**Climate Self Efficacy**		**Climate Risk Perception**		**Perceived Social Norms**	
	Child	Parent	Child	Parent	Child	Parent	Child	Parent
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
T1: Child Only (Direct Effect)	0.06		0.09		0.33***		0.16*	
	(0.07)		(0.07)		(0.07)		(0.08)	
T2: Parent Only (Spillover Effect)	0.02		-0.01		0.12		0.08	
	(0.08)		(0.07)		(0.07)		(0.08)	
T3: Child + Parent (Joint Effect)	0.01		0.04		0.32***		0.26***	
	(0.08)		(0.09)		(0.08)		(0.09)	
T1: Child Only (Spillover Effect)		0.02		0.15**		0.19***		0.10
		(0.07)		(0.07)		(0.07)		(0.08)
T2: Parent Only (Direct Effect)		0.15**		0.11		0.26***		0.10
		(0.07)		(0.07)		(0.06)		(0.08)
T3: Child + Parent (Joint Effect)		0.01		0.17**		0.23***		0.15*
		(0.09)		(0.09)		(0.09)		(0.09)
Control Mean	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Observations	2892	2892	2892	2892	2892	2892	2892	2892
School Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Baseline Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LASSO Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTES: Standard errors clustered at the section level (in parentheses). $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. Baseline controls are included for all the outcomes for which baseline data is available. Columns (1) and (2) depict the coefficients for the climate change knowledge index, Columns (3) and (4) depict the coefficients for the self-efficacy towards climate change index, Columns (5) and (6) depict the coefficients for the risk perception towards climate change and Columns (7) and (8) depict the coefficients for the perceived social norms towards climate change index. All the indices are constructed using Anderson (2008).

Table 4: Mediation Analysis: Green Certificate Spillovers

	Panel A: Child → Parent			**Panel B: Parent → Child**		
	Total Effect	Mediator Only	With Mediator	Total Effect	Mediator Only	With Mediator
	(1)	(2)	(3)	(4)	(5)	(6)
T1: Child Only	0.23***	0.30***	0.23***			
	(0.06)	(0.07)	(0.06)			
Discussion Index			0.00			
			(0.01)			
T2: Parent Only				0.21***	0.21***	0.20***
				(0.06)	(0.06)	(0.06)
Parent Discussion Index						0.05***
						(0.02)
Observations	779	779	779	802	802	802
R^2	0.31	0.06	0.31	0.22	0.04	0.23
School Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Grade Controls	Yes	Yes	Yes	Yes	Yes	Yes

NOTES: This table examines whether spillover effects of the curriculum on green certificate choices operate through increased parent-child discussions about environmental issues. Panel A considers spillovers from child participation to parent outcomes (T1), using child-reported discussion indices as mediators. Panel B considers spillovers from parent participation to child outcomes (T2), using parent-reported discussion indices as mediators. All specifications include school fixed effects and standard errors clustered at the classroom level. *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$.

Table 5: Heterogeneity Analysis: Treatment Effects by Household Hierarchy

	Green Certificates		Pro-Environment Behavior		Green Discussions		Green Donations (Rs.)	
	Child	Parent	Child	Parent	Child	Parent	Child	Parent
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Direct Effects by Child-Reported Household Hierarchy								
T1: Child Only × Hierarchy Index	0.01		0.04		−0.06		−0.59	
	(0.03)		(0.07)		(0.08)		(2.19)	
T2: Parent Only × Hierarchy Index	0.04		−0.05		0.15*		2.36	
	(0.03)		(0.07)		(0.07)		(2.13)	
T3: Joint × Hierarchy Index	−0.01		−0.19**		−0.02		4.67*	
	(0.03)		(0.09)		(0.07)		(2.53)	
Panel B: Spillover Effects by Child-Reported Household Hierarchy								
T1: Child Only (Spillover) × Hierarchy Index		−0.01		−0.08		0.19***		2.72
		(0.03)		(0.08)		(0.07)		(2.30)
T2: Parent Only × Hierarchy Index		0.04		−0.06		0.16**		4.22**
		(0.03)		(0.06)		(0.07)		(2.00)
T3: Joint (Spillover) × Hierarchy Index		0.02		−0.13		0.12		2.85
		(0.04)		(0.08)		(0.07)		(2.16)
Control Mean	0.53	0.51	0.00	0.00	3.30	3.14	17.78	18.98
Observations	2,892	2,892	2,892	2,892	2,892	2,892	2,892	2,892
School Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Baseline Controls	–	–	Yes	Yes	–	–	Yes	Yes
LASSO Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTES: This table reports heterogeneous treatment effects by household decision-making hierarchy. Each coefficient comes from a separate regression that interacts treatment assignment with a child-reported household hierarchy index measured at baseline; higher values of the index indicate more hierarchical (adult-dominated) decision-making. Standard errors clustered at the section level are reported in parentheses. *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$. Panel A reports interaction effects for outcomes measured on the treated household member. Panel B reports interaction effects for outcomes measured on the untreated household member (spillovers). Columns labeled "Child" and "Parent" indicate whether the outcome is reported by the child or the parent, respectively. All specifications include school fixed effects and a common set of control variables selected via double LASSO. Baseline outcome controls are included where available (Pro-Environment Behavior and Green Donations).

Table 6: Heterogeneity Analysis: Treatment Effects on Survey Outcomes by Household Hierarchy

	Climate Knowledge		Climate Self-Efficacy		Climate Risk Perception		Perceived Social Norms	
	Child	Parent	Child	Parent	Child	Parent	Child	Parent
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Direct Effects by Child-Reported Household Hierarchy								
T1: Child Only × Hierarchy Index	−0.05		0.09		0.03		−0.10	
	(0.06)		(0.07)		(0.07)		(0.06)	
T2: Parent Only × Hierarchy Index	0.01		0.20***		0.14**		0.02	
	(0.05)		(0.07)		(0.07)		(0.06)	
T3: Joint × Hierarchy Index	−0.05		0.16*		0.05		0.00	
	(0.05)		(0.09)		(0.07)		(0.06)	
Panel B: Spillover Effects by Child-Reported Household Hierarchy								
T1: Child Only (Spillover) × Hierarchy Index		0.03		0.05		0.06		0.03
		(0.07)		(0.06)		(0.05)		(0.08)
T2: Parent Only × Hierarchy Index		0.08		0.11*		0.13*		−0.02
		(0.07)		(0.06)		(0.07)		(0.07)
T3: Joint (Spillover) × Hierarchy Index		−0.01		0.13*		0.05		−0.01
		(0.08)		(0.07)		(0.06)		(0.08)
Control Mean	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Observations	2,892	2,892	2,892	2,892	2,892	2,892	2,892	2,892
School Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Baseline Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LASSO Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTES: This table reports heterogeneous treatment effects by household decision-making hierarchy. Each coefficient comes from a separate regression that interacts treatment assignment with a child-reported household hierarchy index measured at baseline; higher values of the index indicate more hierarchical (adult-dominated) decision-making. Standard errors clustered at the section level are reported in parentheses. *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$. Panel A reports interaction effects for outcomes measured on the treated household member. Panel B reports interaction effects for outcomes measured on the untreated household member (spillovers). Columns labeled "Child" and "Parent" indicate whether the outcome is reported by the child or the parent, respectively. All specifications include school fixed effects, baseline outcome controls, and a common set of control variables selected via double LASSO.

Table 7: Heterogeneity Analysis: Treatment Effects by Parent Gender

	Green Certificates		Pro-Environment Behavior		Green Discussions		Green Donations (Rs.)	
	Child	Parent	Child	Parent	Child	Parent	Child	Parent
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Direct Effects by Parent Gender								
T1: Child Only (Direct Effect) × Father Participant	−0.03		0.08		−0.17		1.52	
	(0.06)		(0.16)		(0.20)		(5.44)	
T2: Parent Only (Spillover Effect) × Father Participant	−0.10		−0.10		−0.16		−5.05	
	(0.07)		(0.13)		(0.18)		(5.57)	
T3: Child + Parent (Joint Effect) × Father Participant	−0.02		0.11		−0.01		−0.18	
	(0.07)		(0.16)		(0.19)		(6.21)	
Panel B: Spillover Effects by Parent Gender								
T1: Child Only (Spillover Effect) × Father Participant		−0.04		0.04		−0.05		−7.59
		(0.06)		(0.15)		(0.16)		(5.09)
T2: Parent Only (Direct Effect) × Father Participant		−0.08		−0.18		0.06		−7.30
		(0.07)		(0.13)		(0.15)		(5.37)
T3: Child + Parent (Joint Effect) × Father Participant		−0.06		−0.12		0.15		−7.76
		(0.07)		(0.16)		(0.18)		(5.16)
Control Mean	0.53	0.51	0.00	0.00	3.30	3.14	17.78	18.98
Observations	2,892	2,892	2,892	2,892	2,892	2,892	2,892	2,892
School Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Baseline Controls			Yes	Yes			Yes	Yes
LASSO Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTES: This table reports heterogeneous treatment effects by parent gender. Each coefficient comes from a separate regression that interacts treatment assignment with an indicator for whether the participating parent was the father (versus the mother). Standard errors clustered at the section level are reported in parentheses. *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$. Panel A reports interaction effects for outcomes measured on the treated household member. Panel B reports interaction effects for outcomes measured on the untreated household member (spillovers). Columns labeled "Child" and "Parent" indicate whether the outcome is reported by the child or the parent, respectively. All specifications include school fixed effects, baseline outcome controls, and a common set of control variables selected via double LASSO.

Table 8: Heterogeneity Analysis: Treatment Effects on Survey Outcomes by Parent Gender

	Climate Knowledge		Climate Self-Efficacy		Climate Risk Perception		Perceived Social Norms	
	Child	Parent	Child	Parent	Child	Parent	Child	Parent
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Direct Effects by Parent Gender								
T1: Child Only × Father Participant	0.03		0.18		0.21		0.03	
	(0.13)		(0.12)		(0.14)		(0.12)	
T2: Parent Only × Father Participant	−0.15		0.06		−0.17		0.01	
	(0.14)		(0.11)		(0.16)		(0.12)	
T3: Joint × Father Participant	−0.06		0.22*		−0.22		0.15	
	(0.14)		(0.13)		(0.17)		(0.16)	
Panel B: Spillover Effects by Parent Gender								
T1: Child Only (Spillover) × Father Participant		−0.24*		−0.01		−0.13		0.00
		(0.12)		(0.15)		(0.14)		(0.14)
T2: Parent Only × Father Participant		−0.28*		−0.02		−0.03		0.07
		(0.15)		(0.15)		(0.13)		(0.15)
T3: Joint (Spillover) × Father Participant		−0.61***		−0.03		−0.09		0.00
		(0.17)		(0.16)		(0.14)		(0.14)
Control Mean	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Observations	2,892	2,892	2,892	2,892	2,892	2,892	2,892	2,892
School Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Baseline Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LASSO Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTES: This table reports heterogeneous treatment effects by parent gender. Each coefficient comes from a separate regression that interacts treatment assignment with an indicator for whether the participating parent was the father (versus the mother). Standard errors clustered at the section level are reported in parentheses. *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$. Panel A reports interaction effects for outcomes measured on the treated household member. Panel B reports interaction effects for outcomes measured on the untreated household member (spillovers). Columns labeled "Child" and "Parent" indicate whether the outcome is reported by the child or the parent, respectively. All specifications include school fixed effects, baseline outcome controls, and a common set of control variables selected via double LASSO.

A Demographic Tables

Appendix Table A1: Descriptive Statistics: Child Baseline Characteristics

	N	Mean	Std. Dev.	Min.	Max.
Child's gender (0=Female/1=Male)	1,545	0.66	0.48	0.00	1.00
Participating parent (0=Father/1=Mother)	1,545	0.65	0.48	0.00	1.00
Child's age	1,539	12.24	1.54	8.00	18.00
Child's grade	1,545	6.43	1.54	4.00	9.00
Can speak english fluently (1=Yes/0=No)	1,545	0.53	0.50	0.00	1.00
Contamination index (Child network mapping)	1,545	0.01	1.01	-0.62	7.63
Part of a sibling household (1=Yes/0=No)	1,545	0.10	0.30	0.00	1.00

NOTES: Descriptive statistics of the child characteristics as measured in the baseline.

Appendix Table A2: Descriptive Statistics: Parent and Household Characteristics (Part-1)

	N	Mean	Std. Dev.	Min.	Max.
Household demographics and socio-economic status:					
Parent's age Age	1,537	37.66	5.76	23.00	65.00
Owns below poverty line card	1,521	0.21	0.40	0.00	1.00
Household caste category:					
General category	1,527	0.39	0.49	0.00	1.00
Other backward class	1,527	0.56	0.50	0.00	1.00
Scheduled caste	1,527	0.05	0.21	0.00	1.00
Scheduled tribe	1,527	0.01	0.08	0.00	1.00
Household religion:					
Household religion: Hindu	1,542	0.96	0.20	0.00	1.00
Household religion: Muslim	1,542	0.04	0.19	0.00	1.00
Household religion: Other	1,542	0.00	0.06	0.00	1.00

NOTES: Descriptive statistics of the parent and household characteristics as measured in the baseline.

Table 9: Benchmarking Effect Sizes in Environmental Education and Behavioral Interventions

Study	Intervention Context	Outcome Type	Effect Size	Design Notes
Nisa et al. (2019)	Meta-analysis of randomized interventions across energy use, transport, recycling, food, and water	Climate-relevant behaviors	$d = -0.093$	Average standardized effect across revealed behaviors
Jaime et al. (2023)	School-based environmental education (Chile)	Child self-reported behaviors	+5–11 pp	Child-only exposure; no spillovers to parents
Lawson et al. (2019b)	School-based climate education (United States)	Parent climate concern (spillover)	0.12 SD	Child-to-parent attitudinal spillover
Damerell et al. (2013)	Wetlands-focused environmental education (United Kingdom)	Parent knowledge (spillover)	+19%	Knowledge transmission only
Monroe et al. (2019)	Systematic review of climate change education studies	Environmental attitudes	0.15–0.20 SD	Typical attitudinal effects
Cordero et al. (2020)	University-level climate and weather course (United States)	Climate concern	$d = 0.45$	Intensive, experiential; non-randomized
Boudet et al. (2016)	Girl Scouts energy-saving program with family engagement (United States)	Household energy-saving behaviors	$d = 1.12$ (children); $d = 0.62$ (parents)	Large short-run effects; attenuation over time
This study	Household-based randomized controlled trial (India)	Incentive-compatible green choice (children)	+22 pp	Direct behavioral effect; light-touch curriculum
This study	Household-based randomized controlled trial (India)	Incentive-compatible green choice (parents, spillover)	+26 pp	Child-to-parent behavioral spillover
This study	Household-based randomized controlled trial (India)	Climate risk perceptions	0.33 SD (children); 0.26 SD (parents)	Attitudinal effects with intra-household spillovers

NOTES: Effect sizes are reported as percentage point (pp) changes or standardized differences (SD), as defined in the original studies. Outcomes are not directly comparable across studies due to differences in intervention intensity, outcome measurement, and identification strategies. The table provides contextual benchmarks rather than a ranking of intervention effectiveness.

Appendix Table A3: Descriptive Statistics: Parent and Household Characteristics (Part-2)

	N	Mean	Std. Dev.	Min.	Max.
Household income (Monthly):					
Monthly income: Less than INR ten thousand	1,393	0.09	0.29	0.00	1.00
Monthly income: INR Ten to thirty thousand	1,393	0.46	0.50	0.00	1.00
Monthly income: INR Thirty to sixty thousand	1,393	0.32	0.47	0.00	1.00
Monthly income: INR Sixty thousand to hundred thousand	1,393	0.10	0.29	0.00	1.00
Monthly income: INR Greater than Rs. hundred thousand	1,393	0.03	0.17	0.00	1.00
Household assets:					
Household asset: Owns car	1,545	0.26	0.44	0.00	1.00
Household asset: Owns bike/motorcycle	1,545	0.80	0.40	0.00	1.00
Household asset: Owns air conditioner	1,502	0.30	0.46	0.00	1.00
Household asset: Owns refrigerator	1,535	0.82	0.38	0.00	1.00
Household asset: Owns computer/laptop	1,507	0.46	0.50	0.00	1.00
Household asset: Owns washing machine	1,515	0.50	0.50	0.00	1.00
Household asset: Owns room heater	1,499	0.35	0.48	0.00	1.00

NOTES: Descriptive statistics of the parent and household characteristics as measured in the baseline.

Appendix Table A4: Descriptive Statistics: Parent and Household Characteristics (Part-3)

	N	Mean	Std. Dev.	Min.	Max.
Parent occupation:					
Occupation: Not working outside home	1,467	0.02	0.15	0.00	1.00
Occupation: Government job	1,467	0.24	0.43	0.00	1.00
Occupation: Private firm employee	1,467	0.30	0.46	0.00	1.00
Occupation: Owns business (both small and large)	1,467	0.42	0.49	0.00	1.00
House ownership:					
Stays in Own House	1,538	0.72	0.45	0.00	1.00
Stays in rented house	1,538	0.28	0.45	0.00	1.00
How many rooms are there in your house?	1,539	3.96	2.75	1.00	40.00
Parent education:					
Never went to school	1,521	0.03	0.17	0.00	1.00
Upto primary school	1,475	0.11	0.31	0.00	1.00
Upto grade 10	1,334	0.26	0.44	0.00	1.00
Upto grade 12	990	0.29	0.45	0.00	1.00
Master's degree & beyond	1,494	0.12	0.32	0.00	1.00
Vocational training	1,521	0.02	0.14	0.00	1.00

NOTES: Descriptive statistics of the parent and household characteristics as measured in the baseline.

Appendix Table A5: Balance Table: Child Baseline Characteristics

Variable	Mean Control	Mean T1 (Child Only)	Mean T2 (Parent Only)	Mean T3 (Child and Parent)	diff (2)-(1)	diff (3)-(1)	diff (4)-(1)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Child's gender (Male or Female)	0.707	0.679	0.590	0.654	-0.058*	-0.111***	-0.013
	(0.456)	(0.467)	(0.492)	(0.477)	(0.034)	(0.035)	(0.038)
Participating parent (Father or Mother)	0.682	0.604	0.637	0.675	-0.022	-0.054	-0.007
	(0.466)	(0.490)	(0.481)	(0.469)	(0.035)	(0.034)	(0.038)
Child's age	12.331	12.463	12.169	11.885	0.039	-0.045	-0.699***
	(1.704)	(1.351)	(1.460)	(1.628)	(0.111)	(0.106)	(0.128)
Child's grade	6.618	6.659	6.391	5.904	-0.099	-0.040	-0.985***
	(1.807)	(1.314)	(1.347)	(1.614)	(0.111)	(0.102)	(0.126)
# Household members	6.307	6.421	6.293	6.267	-0.140	-0.051	-0.142
	(3.212)	(3.340)	(4.392)	(3.406)	(0.245)	(0.286)	(0.275)
Can speak english fluently	0.573	0.516	0.503	0.525	-0.020	-0.027	-0.045
	(0.495)	(0.500)	(0.501)	(0.500)	(0.037)	(0.036)	(0.041)
Contamination index (Child network mapping)	-0.008	0.082	-0.030	-0.019	0.029	-0.039	-0.078
	(0.992)	(1.034)	(0.983)	(1.064)	(0.076)	(0.073)	(0.086)
Part of a sibling Household	0.099	0.108	0.121	0.075	-0.007	0.011	-0.035
	(0.299)	(0.310)	(0.326)	(0.264)	(0.023)	(0.023)	(0.024)
Observations	403	399	463	280	1,545	1,545	1,545

NOTES: Standard errors are clustered at the school level (in parentheses). Columns (1) depicts the mean of the student characteristics for those who were in the control group. Columns (2)-(4) depict the mean of the child characteristics for those who are in the child-only (T1), parent only (T2) or in child and parent (T3) treatment groups respectively. Columns (5)-(7) depict the p-values for difference in means of the child characteristics of the respective treatment groups in comparison to the control group. All the indices were created using Anderson (2008). Refer to Table A9 for details about the index construction. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Appendix Table A6: Balance Table: Parent and Household Characteristics (Part-1)

Variable	Mean Control	Mean T1 (Child Only)	Mean T2 (Parent Only)	Mean T3 (Child and Parent)	diff (2)-(1)	diff (3)-(1)	diff (4)-(1)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Parent's age	37.729	38.020	37.475	36.663	0.281	0.113	-0.923*
	(6.000)	(6.124)	(5.946)	(6.289)	(0.453)	(0.435)	(0.503)
Owns below poverty line card	0.207	0.211	0.171	0.255	-0.006	-0.055*	0.012
	(0.405)	(0.408)	(0.377)	(0.436)	(0.030)	(0.028)	(0.034)
Household caste category:							
General category	0.401	0.389	0.374	0.389	0.066*	-0.045	-0.013
	(0.491)	(0.488)	(0.484)	(0.488)	(0.036)	(0.034)	(0.040)
Other backward class	0.549	0.550	0.571	0.560	-0.071*	0.033	0.009
	(0.498)	(0.498)	(0.495)	(0.497)	(0.036)	(0.035)	(0.041)
Scheduled caste	0.043	0.055	0.048	0.044	0.006	0.013	0.004
	(0.203)	(0.229)	(0.214)	(0.205)	(0.016)	(0.016)	(0.017)
Scheduled tribe	0.008	0.005	0.007	0.007	-0.001	-0.002	-0.000
	(0.087)	(0.071)	(0.081)	(0.085)	(0.006)	(0.006)	(0.007)
Household religion:							
Household religion: Hindu	0.955	0.965	0.970	0.935	-0.017	0.014	-0.034*
	(0.207)	(0.184)	(0.171)	(0.246)	(0.014)	(0.014)	(0.018)
Household religion: Muslim	0.042	0.033	0.026	0.061	0.015	-0.017	0.032*
	(0.202)	(0.178)	(0.159)	(0.240)	(0.014)	(0.013)	(0.018)
Household religion: Other	0.002	0.003	0.004	0.004	0.002	0.003	0.002
	(0.050)	(0.050)	(0.066)	(0.060)	(0.004)	(0.004)	(0.005)
Observations	403	399	463	280	1,545	1,545	1,545

NOTES: Standard errors are clustered at the school level (in parentheses). Columns (1) depicts the mean of the parent/household characteristics for those who were in the control group. Columns (2)-(4) depict the mean of the child characteristics for those who are in the child-only (T1), parent only (T2) or in child and parent (T3) treatment groups respectively. Columns (5)-(7) depict the p-values for the difference in means of the parent/household characteristics of the respective treatment groups in comparison to the control group. All the indices were created using Anderson (2008). Refer to Table A9 for details about the index construction. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Appendix Table A7: Balance Table: Parent and Household Characteristics (Part-2)

Variable	Mean Control	Mean T1 (Child Only)	Mean T2 (Parent Only)	Mean T3 (Child and Parent)	diff (2)-(1)	diff (3)-(1)	diff (4)-(1)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Household income (Monthly):							
Monthly income: Less than INR ten thousand	0.086	0.102	0.093	0.097	0.007	-0.011	-0.007
	(0.280)	(0.303)	(0.291)	(0.297)	(0.023)	(0.022)	(0.024)
Monthly income: INR Ten to thirty thousand	0.429	0.444	0.501	0.467	-0.047	0.026	0.027
	(0.496)	(0.498)	(0.501)	(0.500)	(0.039)	(0.038)	(0.042)
Monthly income: INR Thirty to sixty thousand	0.338	0.331	0.296	0.315	0.028	0.008	0.004
	(0.474)	(0.471)	(0.457)	(0.465)	(0.037)	(0.036)	(0.040)
Monthly income: INR Sixty thousand to hundred thousand	0.102	0.102	0.083	0.097	0.021	-0.008	-0.006
	(0.303)	(0.303)	(0.276)	(0.297)	(0.024)	(0.022)	(0.026)
Monthly income: Greater than INR hundred thousand	0.046	0.023	0.027	0.023	-0.009	-0.016	-0.019
	(0.209)	(0.149)	(0.162)	(0.151)	(0.014)	(0.014)	(0.016)
Household assets:							
Household Asset: Owns car	0.310	0.243	0.240	0.257	-0.003	-0.057*	-0.025
	(0.463)	(0.429)	(0.427)	(0.438)	(0.032)	(0.032)	(0.037)
Household Asset: Owns bike/motorcycle	0.811	0.787	0.812	0.800	-0.019	0.009	-0.001
	(0.392)	(0.410)	(0.391)	(0.401)	(0.030)	(0.029)	(0.033)
Household asset: Owns air conditioner	0.360	0.230	0.308	0.293	-0.030	-0.049	-0.021
	(0.481)	(0.422)	(0.462)	(0.456)	(0.030)	(0.032)	(0.036)
Household asset: Owns refrigerator	0.829	0.804	0.851	0.796	0.004	0.012	0.009
	(0.377)	(0.398)	(0.357)	(0.404)	(0.028)	(0.026)	(0.031)
Household asset: Owns computer/laptop	0.487	0.424	0.482	0.421	0.015	0.012	-0.014
	(0.500)	(0.495)	(0.500)	(0.495)	(0.036)	(0.036)	(0.040)
Household asset: Owns washing machine	0.524	0.442	0.525	0.505	0.036	0.017	0.019
	(0.500)	(0.497)	(0.500)	(0.501)	(0.035)	(0.035)	(0.039)
Household asset: Owns room heater	0.408	0.304	0.338	0.370	-0.040	-0.038	0.020
	(0.492)	(0.460)	(0.474)	(0.484)	(0.035)	(0.035)	(0.040)
Observations	403	399	463	280	1,545	1,545	1,545

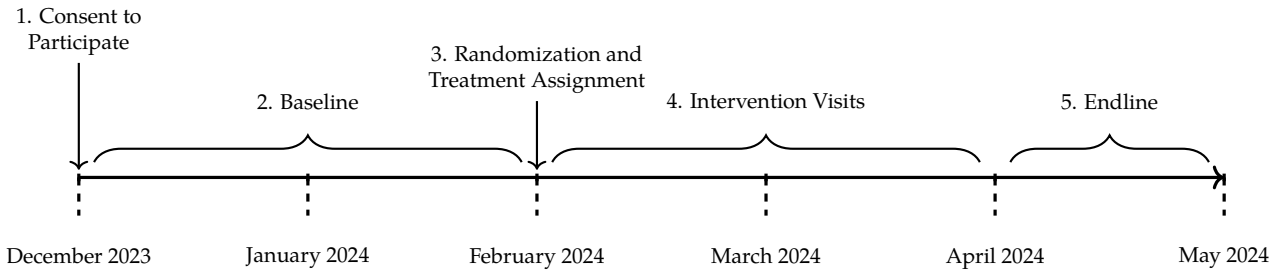
NOTES: Standard errors are clustered at the school level (in parentheses). Columns (1) depicts the mean of the parent/household characteristics for those who were in the control group. Columns (2)-(4) depict the mean of the child characteristics for those who are in the child-only (T1), parent only (T2) or in child and parent (T3) treatment groups respectively. Columns (5)-(7) depict the p-values for the difference in means of the parent/household characteristics of the respective treatment groups in comparison to the control group. All the indices were created using Anderson (2008). Refer to Table A9 for details about the index construction. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Appendix Table A8: Balance Table: Parent and Household Characteristics (Part-3)

Variable	Mean Control	Mean T1 (Child Only)	Mean T2 (Parent Only)	Mean T3 (Child and Parent)	diff (2)-(1)	diff (3)-(1)	diff (4)-(1)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Parent occupation:							
Occupation: Not working outside home	0.018	0.035	0.025	0.007	0.022*	0.006	-0.010
	(0.134)	(0.184)	(0.155)	(0.086)	(0.013)	(0.011)	(0.010)
Occupation: Government Job	0.244	0.229	0.230	0.276	0.015	0.015	0.080**
	(0.430)	(0.421)	(0.422)	(0.448)	(0.033)	(0.032)	(0.037)
Occupation: Private firm employee	0.315	0.332	0.275	0.299	0.013	-0.087**	-0.045
	(0.465)	(0.471)	(0.447)	(0.458)	(0.037)	(0.034)	(0.040)
Occupation: Owns Business (Both Small and Large)	0.415	0.394	0.452	0.407	-0.050	0.059	-0.027
	(0.493)	(0.489)	(0.498)	(0.492)	(0.038)	(0.037)	(0.042)
House ownership:							
Stays in own house	0.731	0.773	0.661	0.707	-0.067**	-0.028	-0.037
	(0.444)	(0.419)	(0.474)	(0.456)	(0.030)	(0.032)	(0.035)
Stays in rented house	0.269	0.227	0.339	0.293	0.067**	0.028	0.037
	(0.444)	(0.419)	(0.474)	(0.456)	(0.030)	(0.032)	(0.035)
How many rooms are there in your house?	3.958	4.412	3.621	3.903	-0.029	-0.181	-0.049
	(2.615)	(3.420)	(2.450)	(2.204)	(0.221)	(0.176)	(0.196)
Parent education:							
Never went to school	0.025	0.049	0.020	0.029	0.009	-0.012	-0.005
	(0.157)	(0.215)	(0.139)	(0.169)	(0.014)	(0.011)	(0.014)
Upto primary School	0.090	0.105	0.105	0.139	-0.016	0.000	0.029
	(0.287)	(0.307)	(0.307)	(0.347)	(0.022)	(0.022)	(0.026)
Upto grade 10	0.207	0.309	0.280	0.224	0.067*	0.034	-0.014
	(0.406)	(0.463)	(0.449)	(0.418)	(0.034)	(0.033)	(0.037)
Upto grade 12	0.289	0.272	0.296	0.306	-0.063	-0.027	0.008
	(0.454)	(0.446)	(0.457)	(0.462)	(0.041)	(0.041)	(0.046)
Master's degree & beyond	0.126	0.127	0.114	0.107	0.049**	0.017	0.013
	(0.332)	(0.334)	(0.318)	(0.309)	(0.024)	(0.023)	(0.027)
Vocational training	0.023	0.018	0.024	0.011	0.007	0.008	-0.008
	(0.149)	(0.133)	(0.153)	(0.104)	(0.010)	(0.011)	(0.011)
Observations	403	399	463	280	1,545	1,545	1,545

NOTES: Standard errors are clustered at the school level (in parentheses). Columns (1) depicts the mean of the parent/household characteristics for those who were in the control group.Columns (2)-(4) depict the mean of the child characteristics for those who are in the child-only (T1), parent only (T2) or in child and parent (T3) treatment groups respectively. Columns (5)-(7) depict the p-values for the difference in means of the parent/household characteristics of the respective treatment groups in comparison to the control group. All the indices were created using Anderson (2008). Refer to Table A9 for details about the index construction. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

B Timeline



Appendix Figure A1: Timeline of the Field Activities

C Steps for Index Construction

We follow the methodology proposed by Anderson (2008) to create variance-weighted indices.[7]

The outcome variables are comprised of several individual questions (usually 5-point likert scale or Agree/Disagree scale). We aggregate these individual questions and create an index by taking the weighted-average value of these individual variables. The weights are constructed by normalizing the variables such that they have same standard deviation and following Anderson (2008), the weights from the inverse covariance matrix is recovered.

Following process is followed by Anderson (2008) for index construction:

(i) For all variables, the positive direction always indicates a more "environment friendly" outcome. We recode all the variables for which the scale was reversed in the original question, such that a higher value continues to indicate a more environment friendly outcome.

(ii) For questions that used a 5-point Likert scale, a corresponding binary variable is created. This binary variable is coded as 1 if the respondent answered "Strongly Agree" ("Strongly Disagree") or "Agree" ("Disagree") for a question containing an environmentally progressive (regressive) statement, and 0 otherwise.

(iii) Standardization of each individual variable takes place by demeaning the variables and subsequently dividing them by the control group standard deviation. We create standardized variables $\tilde{y}$ using this process.

[7] Refer to Haushofer and Shapiro (2016); Fiala et al. (2022) for a recent application.

(iv) Compute covariance matrix $\widehat{\sum}$, which consist of elements:

$$\sum_{mn}^{\wedge} = \sum_{i=1}^{N_{mn}} \frac{(y_{im} - \bar{y}_m)}{\sigma_m^y} * \frac{(y_{in} - \bar{y}_n)}{\sigma_n^y}$$

where, N_{mn} is the number of observations (total persons with non-missing data for variables m and n).

(v) Next, we invert the covariance matrix, and define weight w_k for each variable k by summing the entries in the row of the inverted covariance matrix:

$$(\sum^{\wedge})^{-1} = \begin{bmatrix} c_{11} & \cdots & c_{1K} \\ \vdots & \ddots & \vdots \\ c_{K1} & \cdots & c_{KK} \end{bmatrix}$$

$$w_k = \sum_{l=1}^{K} c_{kl}$$

(vi) Finally create a new variable, $\hat{y}_i$, that is a weighted average of $\tilde{y}_{ik}$ for person i. When constructing $\hat{y}_i$, weight its inputs, standardized variables $\tilde{y}_{ik}$ by the inverse of the covariance matrix of the transformed variables. A simple way to do this is to set the weight on each outcome equal to the sum of its row entries in the inverted covariance matrix for area. The index variable $\hat{y}_i$ is called because this transformation yields a generalized least squares estimator Anderson (2008).

$$\hat{y}_i = \Big(\sum_{k \in K} w_k \Big)^{-1} \sum_{k \in K_i} w_k * \frac{y_{ik} - \bar{y}_k}{\sigma_k^y}$$

D Contamination Propensity Index Score

This index was calculated by mapping the peer network data gathered at baseline for every child. Following steps were followed for the index construction:

(i) The contamination index used for the randomization is constructed from a "sender's only" perspective. We map the peer network data at the section level, grade level and finally, at the school level.[8]

(ii) Since our unit of randomization is at the section level, the within section networks are not considered for the calculation of our "contamination score." Only the grade and school level networks are considered for our calculations, since they contribute towards the potential "contamination" in our study.

(iii) Each child is assigned a raw contamination score against each of the network categories. For example, if the child speaks to 5 students within the section level, a raw score of 5 is assigned to this child. The same scoring pattern is followed for the remaining two categories.

(iv) We convert these raw scores into index scores by using Anderson (2008). Refer to Section C for details on the index construction. Following this, each child is associated with a contamination propensity index score, which is calculated by aggregating grade level and school level contamination scores.

(v) Since our unit of randomization is at the section level, we represent the level of contamination for a particular section by contamination propensity score of the median student.

(vi) Similarly at the school level, we calculate the median contamination among all the sections.

(vii) Following the above steps ensures that each section and each school is represented by its respective median contamination score.

(viii) Lastly, we classify whether a section is above or below the median level of contamination by using a binary variable. This variable takes a value 1 if the median contamination level of the section is greater than or equal to the median contamination level for the particular school and 0 otherwise. This variable is used as a stratification variable in our randomization.

[8] The minimum raw score which the child can receive is 1, since we made it compulsory to name at least one friend that they speak to within their grade and within their school (but outside the section). The maximum score for both the categories is 6 as per the child baseline data.

E Statistical Power

We present power calculations for our primary outcomes, described in Table A9. We used our baseline sample of 1,545 children to calculate the outcome mean and standard deviation.[9] We conducted two-tailed hypothesis tests using a 5% significance level and power of 0.8. We accounted for the clustering of standard errors and used our baseline data to calculate the intra-cluster (i.e., intra-section) correlation (ICC). We had approximately 33 clusters per arm with a median cluster size of 18 children. We were well-powered to detect conservative effect sizes of 0.05 standard deviations on our primary outcomes, i.e., the "direct effect" of our environment curriculum on the amount of green donations of children (and their parents).

The focus of our study was estimating the intergenerational spillover of pro-environmental knowledge and behaviors within the household, i.e. from child to parent and vice-versa. Since the design and context of our study were novel, we lacked a directly comparable study to draw from for an estimate of the indirect effects (i.e. spillovers) of our intervention. However, given that we could detect small effect sizes, even with conservative assumptions, we believed that our study was powered to detect the indirect effects of our intervention. For instance, by assuming a modest estimate of 0.2 standard deviations for our direct effects, our study was well-powered to accommodate efficiency losses of nearly 75% of the direct effect for our indirect effect. Thus, despite the inherent uncertainties, we expected us to be well-powered to detect the indirect effects of the intervention.

[9] All power calculations were conducted using the donation outcome.

F Outcome Definitions

Appendix Table A9: Outcomes: Indices and Definitions

Outcomes Indicator	**Definition**
Donations to a green organization (individual and household level)	Participants have a 1 in 6 chance of winning 100 INR by rolling a dice. Before the roll, they can opt to donate part of their potential winnings to one of two charities: an environmental one or one supporting children. *We assess the amount paid by the participants to green charity*.
Climate Change Knowledge Index (individual and household level)	*To assess climate change knowledge, beliefs about its existence, local impacts, and causal attributions, we asked the following questions.* 1. How much do you know about climate change? (1-I know nothing; 4-I know a lot) 2. Do you think that climate change is happening? (1-Yes; 2-No) 3. Which of the following do you think is most accurate? Climate change is... (1-Caused mostly by human activities; 2-Caused equally by human activities and natural changes; 3-Caused mostly by natural changes in the environment; 4-None of the above because climate change isn't happening) 4. How strongly do you agree or disagree with the following statement: Climate change is affecting the weather in India by increasing droughts, floods, and extreme heat (1-Strongly Agree; 5-Strongly Disagree) 5. How strongly do you agree or disagree with the following statement? Climate change is affecting the weather in Bihar by increasing droughts, floods, and extreme heat (1-Strongly Agree; 5-Strongly Disagree)
Self-Efficacy (individual and household level)	*We asked the following to measure how participants view the impact and success of their actions and others', in tackling local environmental problems and climate change.* Response Options: (1-Strongly Agree; 5-Strongly Disagree) 1. Small individual actions (such as wasting water or electricity) can add up to a large negative impact on the local environment and climate change. 2. There is no use in taking individual actions to better the local environment or address climate change because they have limited impact. 3. I can make a difference in solving climate change. 4. I can make a difference in solving the local environmental challenges. 5. Through my political actions (e.g. protests, communicating with officials), I can make a difference in addressing local environmental issues and climate change. 6. My actions to improve the local environment and mitigate climate change will encourage others to do the same.

The table contains detailed descriptions of outcome variables. All outcome measures are collected for parents and children separately. Details for index construction provided in the section C.

Appendix Table A10: Outcomes: Indices and Definitions

Outcomes Indicator	**Definition**
Choice of Certificate (Child and Parent)	Participants choose between two options: a certificate printed on regular paper available immediately, or one printed on recycled paper available with a one-week delay.
Volunteering (Child only)	Whether the participant add their name to a list from which 5 child volunteers will be selected after the end of the study for an environmental activity.
Civic Engagement (Parents only)	A measure of whether a parent issued an environmental complaint through the official complaint mechanism.
Classroom Advocacy (Child only)	Whether a child adds signs up to be potentially selected to deliver a 10-minute speech promoting eco-conscious behavior in their classroom. At the end of the study, we randomly select 3 students to give the talk.
Climate Change Worry and Risk Perceptions Index	1. How worried are you about climate change? (-) (1-very worried; 4-not worried at all) 2. To what extent will climate change harm future generations of people? (-) (1-A great deal; 4-Not at all) 3. How much do you think climate change will harm you personally? (-) (1-A great deal; 4-Not at all) 4. To what extent will climate change harm people in Bihar? (-) (1-A great deal; 4-Not at all) Details for index construction provided in the section C.

The table contains detailed descriptions of outcome variables. All outcome measures are collected for parents and children separately.

Appendix Table A11: Outcomes: Indices and Definitions

Outcomes Indicator	**Definition**
Self-reported Environmental Behaviors	1. Separated waste into food waste and other type of waste materials 2. Recycled products 3. Composted food waste 4. Recycled newspapers and other paper waste 5. Recycled plastic waste 6. Looked for ways to reuse things 7. Carried own cloth bag when going shopping 8. Carried own water bottle when leaving the house 9. Used paper bags instead of plastic bags 10. Turned off electrical appliances whenever left a room 11. Switched-off the fridge during longer holidays 12. Unplugged/Switched off electronic devices 13. Checked efficiency labels when buying household electronics 14. Changed light bulbs to energy-saving lighting Details for index construction provided in the section C
Discussions about Climate Change	1. In the past 2-3 weeks, how often did you speak with friends, family, or people in your community about climate change? Response Options: 5-pt Likert (Once per day - Not at all)
Perceived Social Norms	1. Thinking about kids at your school, what fraction do you think are worried about climate change? 2. Now thinking about all of the people in your community, what fraction do you think are worried about climate change? 3. Thinking about kids at your school, what fraction do you think regularly take actions to address climate change? 4. Thinking about kids at your school, what fraction do you think regularly take actions to address local environmental issues? 5. Now thinking about all of the people in your community, what fraction do you think regularly take actions to address climate change? 6. Now thinking about all of the people in your community, what fraction do you think regularly take actions to address local environmental issues? Response Options: 0%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, and 100%

The table contains detailed descriptions of outcome variables. All outcome measures are collected for parents and children separately.

Appendix Table A12: Exploratory Outcomes: Indices and Definitions

Outcomes Indicator	**Definition**
Hierarchy Vignette	*Deepa and Rajesh have a child, Anjali, who is in class 7 at* [*School Name*]. *She was recently offered the opportunity to participate in a prestigious science competition, which requires extra classes on weekends. The family is considering what to do.* 1. Who do you think will most likely make the final decision about Anjali's participation in the weekend classes? (1-Anjali; 2-Deepa (the mother); 3-Rajesh (the father); 4-Deepa and Rajesh together; 5-The entire family together) 2. How influential do you think Anjali's parents opinions are in determining whether s/he participates in the weekend? (1-Not influential; 2-Somewhat influential; 3-Neither; 4-Highly influential; 5-The only opinions that matter) 3. Imagine if Anjali was [Child Name]. Who would make the decision about his/her participation in the weekend classes? (1-[Child Name]; 2-[Child Name]'s Mother; 3-[Child Name]'s Father; 4-Both Mother and Father; 5-Entire family together) 4. Imagine if [Child Name] was in Anjali's situation, how likely would [Child Name] be to insist on his/her preference despite your family's differing opinion? (-)(1-Very unlikely; 5-Very likely) 5. [For children] Think of five friends of yours. If they had a child in Anjali's situation, how many of those children do you think would go against their family's wishes if they did not match their own desires? (0-0; 1-1; 2-2; 3-3; 4-4; 5-5)

The table contains detailed descriptions of the vignette used to measure hierarchy for the parents. An adapted version of the questions are used for children. All outcome measures are collected for parents and children separately.

Appendix Table A13: Exploratory Outcomes: Indices and Definitions

Outcomes Indicator	**Definition**
Child-Parent Interaction Index	1. [Child Name] feels comfortable talking to me about his/her values and beliefs (-) 5-pt Likert (Strongly agree - strongly disagree) 2. I often ask [Child Name] about his/her day (e.g. what did you do in school, what did you learn, did the teacher say anything, etc.) (-) 5-pt Likert (Strongly agree - strongly disagree) 3. I encourage [Child Name] to express his opinions (-) 5-pt Likert (Strongly agree - strongly disagree) 4. I help [Child Name] with his/her class assignments/homework (-) 5-pt Likert (Strongly agree - strongly disagree) 5. I regularly monitor [Child Name]'s studies (-) 5-pt Likert (Strongly agree - strongly disagree) 6. How frequently do the following situations take place in your household: Having dinner together with your family (-) (1-Once or Twice a Month; 2-Once a week; 3-Multiple times per week; 4-Almost Everyday; 5-Never) 7. How frequently do the following situations take place in your household: Going to the theatre together with the family (-) (1-Once or Twice a Month; 2-Once a week; 3-Multiple times per week; 4-Almost Everyday; 5-Never) 8. How frequently do the following situations take place in your household: Going outside with your family for a meal (-) (1-Once or Twice a Month; 2-Once a week; 3-Multiple times per week; 4-Almost Everyday; 5-Never) 9. How frequently do the following situations take place in your household: Going for shopping with your family (-) (1-Once or Twice a Month; 2-Once a week; 3-Multiple times per week; 4-Almost Everyday; 5-Never)

The table contains detailed descriptions of the child-parent interaction index for the parents. An adapted version of the questions are used for children. All outcome measures are collected for parents and children separately.

G Field Operations

G.1 Field team composition

The field team from DAI Research and Advisory Services consisted of 45 enumerators, 6 supervisors, 1 field manager, and 2 project assistants. The field team reported to 1 Senior Research Associate and 1 Research Manager, who was responsible for checking the data quality and ensuring the data collection and intervention activities were undertaken as per the research design and ethics protocols.

G.2 Survey data collection

Student baseline: The baseline data collection was conducted between December 2023 and January 15, 2024. The data collection took place at the school level after obtaining necessary approvals from the school management and consent from the respective student-parent pairs.

The field team scheduled prior appointments with the school management before the day of data collection. The baseline surveys for students were conducted in the school classrooms. Depending on the class sizes and the number of students who expressed their interest in participating in our study, the school management provided us with classroom spaces accommodating a maximum of 40 students per class. The baseline surveys were self-administered, and each student was provided with a tablet. The baseline survey instrument (coded in Survey CTO) was pre-loaded on each device. At least two enumerators were present in each classroom, and they were responsible for providing the necessary instructions and guidelines for the self-administered survey. The enumerators were trained to address any technical difficulties faced by the students while answering the questions, and they were also responsible for clarifying any conceptual issues in the comprehension of a question.

Parent baseline: The parent baseline survey was successfully conducted between December 28, 2023, and January 29, 2024. The parent baseline data collection was conducted at the household level. Necessary approvals and appointments were obtained from the participating parents before the data collection visit by the enumerator. The baseline surveys were enumerator-administered. The enumerators were trained to address any technical difficulties faced by the parents while answering the questions, and they were also responsible for clarifying any conceptual issues in the comprehension of a question.

H Curriculum

Appendix Table A14: Green Warriors Session Plan for children (Sessions 1-2)

Session 1

Key Objectives:
To make students identify environmental problems near their house and to make them think of the connection between human actions and environmental changes.

Lesson Description:
The session will start with a pre-program assessment. In the first activity, the student will be given 2 puzzles. By understanding the contrast between these 2 images, the student will be able to visualize the intensity of problems due to waste generation. After this, the student will watch a video on the intensity of problems due to climate change. At the end of the class, the student will be given an assignment to identify environmental problems near their house and will be given a format for creating a report on the same.

Learning Outcomes:
- Student will be able to (SWBAT) learn about global scale of environment related problems.
- SWBAT understand that human actions cause damage to the environment.
- SWBAT identify environmental problems near their house.
- SWBAT discuss with parents about the environmental changes over the last 30 years.

Materials Required:
- Pre-program assessment – 1 copy per student
- Puzzles – 2 A4 size puzzles per facilitator
- Homework Sheet – 1 copy per student
- Tablet – 1 per facilitator

Session 2

Key Objectives:
To make students aware about:
- Everyday activities that generate waste at an individual level
- Scale of the waste management problem when waste is aggregated at various levels (community, district, state, country, globe etc)
- Positive and negative impact of human actions on the environment around us

Session Description:
The session starts with a recap of the previous session as well as the sharing of the homework from the previous day. After this, the facilitator will distribute a worksheet that will help the student identify everyday activities that contribute to waste generation. The student will then play a game modeled on the Snakes and Ladders game through which he/she will learn about the various causes and effects of environmental pollution. The session will end with a quick recap and sharing of homework sheet along with the instructions for completing the homework.

Learning Outcomes:
- Student will be able to (SWBAT) identify their habits that cause environmental problems
- SWBAT learn about positive and negative consequences of human actions on the environment
- SWBAT gain better understanding of their own contribution to the waste management problem through the waste tracking activity

Materials Required:
- Activity sheet – 1 copy per student
- Homework sheet – 1 copy per student
- Tablet – 1 per facilitator
- Link to Snakes and Ladders Game

Appendix Table A14: Green Warriors Session Plan for children (Sessions 3-4) (continued)

Session 3

Key Objectives:
To make students:
- Understand that small steps that individuals take can create massive positive changes when aggregated
- Commit to habit changes that they can carry out at an individual level
- Understand the practicalities of leading an environment friendly life and familiarize themselves with environment friendly choices currently available when carrying out everyday tasks
- Learn the history of environmental catastrophes in their home state

Session Description:
The session starts with a recap of the previous session as well as a discussion on the homework from the previous session. After this, the teacher will distribute a worksheet that will make each student think of changes that they can bring about in their own life. The student will then play the Eco Treasure Hunt game where they will gain awareness of environment friendly choices available to them when carrying out everyday tasks. The session will end with a quick recap and sharing of homework videos and homework sheet along with the instructions for completing the homework.

Learning Outcomes:
- Students will be able to (SWBAT) identify behavioural changes that they can incorporate in their lives to lead more environment friendly lives and will take a pledge to carry out these positive habits
- SWBAT understand the practical aspects of leading an environment friendly life and will think about the balance between environment friendly choices and the cost of these choices
- SWBAT learn the history of environmental catastrophes that have struck Bihar in recent years

Materials Required:
- Activity sheet – 1 copy per student
- Homework sheet – 1 copy per student
- Tablet – 1 per facilitator
- Links to Homework Videos – 3
- Link to Eco Treasure Hunt Game

Session 4

Key Objectives:
To make students:
- Aware of climate activism by their peers around the world
- Think about pro-environmental campaigns that they can carry out
- Commit to pro-environmental campaigns that they will be able to conduct within their school or in the neighborhood

Session Description:
The session starts with a recap of the previous session as well as a discussion on the homework from the previous session. After this, the facilitator will show 2 videos of young environmental champions and will hold a discussion with the student on whether they can carry out similar pro-environmental campaigns in their school or in their neighborhood. The session will end with a recap of the major learnings from the program and a discussion on potential activities that students can carry out.

Learning Outcomes:
- Student will be able to (SWBAT) get inspired by pro-environmental activities undertaken by other students of their age
- SWBAT commit to leading an environment friendly life themselves as well as to share their learnings with friends and family members
- SWBAT identify a project that they can work on with their friends to spread awareness of environmental problems and the need for coordinated human action to bring about changes

Materials Required:
- Tablet – 1 per facilitator

Note: An adapted version of the same curriculum is used for parents. Contents and language of delivery is made age appropriate for parents.

I Field Images



Appendix Figure A2: Facilitator training conducted by VentureVillage



Appendix Figure A3: Child baseline at school



Appendix Figure A4: Parent engaged in the curriculum



Appendix Figure A5: Child engaged in puzzle