

LEARNING TO SEE THE CLIMATE CRISIS

Children and Young People's Perceptions of Climate Change and Environmental Transformation in Armenia



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1. EXECUTIVE SUMMARY

Climate change is undeniably one of the most critical challenges of our time, and its impacts are being felt across the globe. In Armenia, the consequences of climate change are becoming increasingly apparent. Projections indicate rising average temperatures by 2070, leading to heatwaves, droughts, floods, and other extreme weather events. The agriculture sector, a vital pillar of Armenia's economy, is particularly vulnerable, facing declining yields and productivity.

Amidst these transformations, it is crucial to recognize that children and young people will bear the brunt of the changing climate. As the future stewards of the environment and the upcoming decision-makers, their perspectives and actions are pivotal in addressing the climate crisis effectively. This research aims to explore how Armenian children and young people conceptualize environmental knowledge as a process of "figuring out." It specifically investigates their level of concern about climate change, their understanding of its consequences and impacts on their lives, and their preparedness to cope with climate-related disasters. Additionally, the study explores the extent of children and young people's engagement with climate change as a pressing issue. It investigates their role as climate change agents and assesses their ability to navigate the challenges posed by climate change while envisioning their futures amidst various social complexities. Beyond examining the views of the younger generation, we also delve into the perceptions of adults and older generations regarding climate change.

Through a mixed-method design, this research delved into the perceptions of climate change among children, adolescents and young people in Armenia. Employing both qualitative key informant interviews and quantitative surveys, data was gathered from a convenient sample representing diverse communities where World Vision has active programs for children and youth. Additionally, caregiver interviews were conducted to gain insights into the intergenerational impact of climate change.

Knowledge on Climate Change

The results found that children had a moderate level of understanding about climate change, while adolescents showed a slightly higher level of knowledge and concern. Young people demonstrated a notable concern for climate change despite their moderate level of knowledge. Schools played a crucial role in shaping their knowledge, especially for children and adolescents. Waste incineration and the industry sector were recognized as significant contributors to climate change across all age groups. Participants from all age groups highlighted the detrimental effects of human behavior, such as pollution and deforestation, on climate change.

A considerable percentage of children, adolescents, and young people perceived the impact of climate change on the quality of life as "Mostly Negative," indicating their awareness of adverse consequences. However, some also viewed the impact as "Mostly Positive," suggesting a need for further education. Children and young people were aware of the immediate impacts on malnutrition, illness, and land deterioration, along with concerns about mental health. While not directly linking climate change to child marriage or violence against children, they recognized its impact on hazardous jobs and access to education. Discussions revealed that children, adolescents, and young people felt disproportionately affected by climate change, expressing concerns about school attendance during extreme weather and increased risks of natural disasters. Children, adolescents, and young people recognize the positive impact of actions such as walking/cycling, recycling, rational water use, and reducing plastic in mitigating climate change. However, more awareness is needed for actions like public transport and donating clothes.



Practice and taking actions to mitigate climate change

Children, adolescents, and young people show positive motivation to take action on climate change. Common driving forces for all age groups include personal beliefs, love for wildlife, and a sense of social responsibility. Young people also feel strongly about working towards a better life for future generations. Challenges affecting their willingness to engage include a belief in their lack of ability to bring about meaningful change and a sentiment of "not my job" among some. Adolescents emphasize the importance of community support and expanding their knowledge for impactful efforts. They express frustration with the lack of responsibility and carelessness exhibited by some citizens, hindering collective action. Young people identify raising awareness as crucial for their fight against climate change, hoping it leads to more sustainable practices and greater collective action. However, they face obstacles such as the lack of compassion for nature and people's unawareness of the dangers of climate change, hindering progress towards a more sustainable future.

Children, adolescents, and young people are actively engaged in actions to combat climate change. They show a positive inclination towards eco-friendly transportation, waste sorting, and energy-efficient practices. Raising awareness about environmental issues is also a common theme among them. They are motivated by personal beliefs, love for wildlife, and a sense of social responsibility to protect the environment. However, some feel inhibited by a lack of ability to bring about meaningful change or a sense of "not my job." Despite challenges, they are eager to participate and contribute to a sustainable future.

A significant percentage of children, adolescents, and young people have no specific measures in place to combat climate change. Many individuals do take steps to prepare. Education plays a crucial role, with a high percentage of respondents recognizing its importance. Practice evacuations are prevalent, but having a disaster kit needs improvement. Family emergency plans are relatively common across age groups. Regarding preferred sources of information about climate change, children rely on books and youth groups, adolescents prioritize the school curriculum, online courses, and websites, while young people prefer websites, online courses, and youth groups. Scientific journals and papers are less commonly used by all age groups.

Mental health and climate emotions

Children, adolescents, and young people exhibit a range of emotional responses to climate change. The majority of respondents across all age groups express moderate worry, with notable percentages also reporting feelings of sadness and anxiety. In interviews, children expressed deep worries about the future of the planet, fearing the devastating effects of global warming and pollution. Engaging in climate-related discussions with family and friends had a positive impact on their emotions, providing a sense of relaxation and an avenue for raising awareness. Adolescents share a mixture of sadness, worry, and feelings of powerlessness. They are deeply concerned about the potential consequences of climate change and the lack of immediate visible changes in their communities. Coping mechanisms include proactive behaviors like community work and seeking emotional support from family. School discussions on climate change play a vital role in empowering adolescents to take action. Young people also exhibit deep worry about the state of the planet and fear worsening conditions in the future. They express concern about the impact of global warming on agriculture and the spread of diseases. Engaging in climate change discussions and activities empowers them and broadens their knowledge about the topic. Overall, all age groups are emotionally affected by climate change, but they also find ways to cope and take action in various forms.

Perception of response to climate change

Across all age groups, respondents express concerns that their worries about climate change are not being taken seriously enough. They believe that governments are not doing enough to address the climate crisis, with a significant proportion feeling that their concerns are being dismissed. However, there is a relatively higher level of trust in the government's efforts to protect children and young people from the impacts of climate change.

Adolescents emphasize the vital role of national and international decision-makers in reducing climate change. They propose awareness campaigns and stricter regulations to hold industries and individuals accountable for their environmental impact. Their suggestions include promoting renewable energy sources, tightening factory regulations, and negotiating with all parties involved to find common solutions.

Young people also believe that governments can make a substantial impact in reducing climate change. They propose developing new environmental projects and programs, implementing stricter laws to protect the environment, promoting the use of clean and energy-efficient sources, and prioritizing the preservation of forests. Additionally, they emphasize the importance of raising awareness about climate change, especially among older generations, to create a unified effort towards tackling the issue.

The adolescents emphasized the importance of providing avenues for open expression and dialogue, suggesting individual interviews and digital platforms where they could freely voice their concerns and participate in discussions. They also stressed the value of group discussions to consider diverse perspectives and online surveys to assess the concerns and ideas of children and young people globally.

Regarding the role of NGOs like World Vision, the adolescents outlined crucial responsibilities in combating climate change. They highlighted the significance of raising awareness and conducting training sessions to empower children and young people. NGOs, in their view, can act as catalysts for continuous awareness and education. The adolescents also encouraged NGOs to organize various activities and events directly addressing climate change, such as community work and garbage cleaning, to foster a sense of ownership and responsibility. Furthermore, they emphasized the need for active collaboration between NGOs and the government to amplify their concerns, with these organizations serving as bridges between the young individuals and policymakers for a unified approach in combating climate-related challenges.

The intergenerational perception of climate change

In the eyes of caregivers, climate change is perceived as a consequence of past and present generations' wrong behaviors towards the environment. They strongly believe that human activities, such as deforestation and indifference towards the issue, have significantly contributed to the current climate crisis. Caregivers express concern about the exploitation and abuse of natural resources, minerals, and water, further exacerbating the situation. The waste and toxins generated by factories are also highlighted as major contributors to pollution and climate deterioration.

To address the problem, caregivers advocate for various measures. They stress the importance of raising awareness about climate change and its consequences. Reducing harmful behaviors that harm the environment is seen as crucial, and they emphasize educating their children about the significance of preserving the environment. However, caregivers have mixed feelings about the future they are leaving for their children. Some express pessimism, fearing that there might be no solution to the crisis and that the situation may continue to worsen, leading to an unhealthy environment for their kids. On the other hand, some hold onto hope, believing that the consistent efforts of the current generation to combat climate change may eventually lead to a positive resolution.

Despite their concerns, caregivers actively engage in climate-related actions and support their children's advocacy efforts. They play a significant role in raising awareness about climate change, educating their kids, and encouraging them to participate in environmentally conscious activities like community work and recycling initiatives. Caregivers also emphasize leading by example and display environmentally friendly behaviors themselves to inspire their children to follow suit. They believe in creating a supportive and empowering environment for children to take action against climate change and stress the importance of establishing a stronger connection between generations to work together towards a common goal.

To instill a genuine love and appreciation for the environment, caregivers propose educating children through informative videos, courses, and discussions about nature, tree planting, and the benefits of such actions in generating oxygen and reducing pollution. They remain hopeful that with increased organizational and programmatic efforts and greater consciousness and care for the environment, a positive change can be achieved for future generations.



Key recommendations

Based on the findings, World Vision calls for urgent and collaborative action to address the challenges posed by climate change in Armenia. World Vision recognizes the critical role of children, adolescents, and young people in shaping a sustainable future. Therefore, World Vision advocate for the following actions:

- Strengthen Climate Education: Enhance climate change education in schools and communities to improve knowledge and understanding among children, adolescents, and young people.
- Foster Climate Resilience: Implement climate adaptation programs and disaster preparedness training to equip children and young people with coping mechanisms to tackle climate-related challenges.
- Empower Youth Climate Advocacy: Create platforms for open dialogue, such as digital forums and surveys, to amplify the voices of children and young people in advocating for climate action.
- Enhance Government Action: Encourage governments to prioritize climate change mitigation and adaptation efforts, involve youth in decision-making processes, and bridge the gap between climate concerns and action.
- Strengthen NGO Collaboration: Promote active collaboration between NGOs, governments, and communities to mobilize resources and address climate change collectively.



Key findings on knowledge



Children:

- Average knowledge score: 5.35 out of 10 (moderate level of understanding).
- Immediate focus on weather transformation and its effects, expressing concerns about discomfort and unease.
- Awareness of environmental consequences like ice melting, floods, droughts, and devastating fires.
- School experiences, especially "Natural Science" subject, played a crucial role in shaping their knowledge.
- Waste incineration and the industry sector identified as significant contributors to climate change.
- Some children believed climate change resulted from a combination of human actions and natural processes.



Adolescents:

- Average knowledge score: 6.35 out of 10 (slightly higher level of understanding).
- Expressed concern about drastic weather shifts impacting landscapes and seasons.
- Global warming, rising ocean levels, animal extinction, and mental well-being during colder weather were key concerns.
- School subjects like Geography, Nature Science, and "Me and the Surrounding World" contributed to their knowledge.
- Awareness of waste incineration and the industry sector's contribution to climate change.
- Believed climate change is primarily driven by human actions like deforestation and pollution.



Young People:

- Average knowledge score: 5.57 out of 10 (moderate level of understanding).
- Higher concern score: 6.04 out of 10.
- Focused on global warming and its impacts, including abnormal temperatures, droughts, and reduced humidity.
- Highlighted distressing impact of pollution on plant and animal species, leading to changes in ecosystems.
- Schools and families played significant roles in enhancing their understanding.
- Recognized waste incineration and the industry sector as significant contributors to climate change.
- Identified human behaviors like pollution and deforestation as fueling the climate crisis.



Perceptions of Climate Change Impact (Children, Adolescents, and Young People):

- Majority perceived the impact as "Mostly Negative" on global quality of life.
- Some also viewed the impact as "Mostly Positive," indicating a need for further education.
- Recognized impacts on malnutrition, illness, and land deterioration.
- Concerns about mental health, particularly anxiety and sleep problems.
- Awareness of impact on hazardous jobs and access to education.



Perception of actions for Mitigating Climate Change:

- Children recognized positive impact of walking/cycling, recycling, rational water use, food waste reduction, and reducing plastic.
- Adolescents emphasized recycling, rational water use, and planting as impactful actions.
- Young people acknowledged recycling, rational water use, solar panels, and waste reduction as significant practices.

Key findings on Practice



Children:

- Positive motivation to take action on climate change.
- Common driving forces: personal beliefs, love for wildlife, and social responsibility.
- Engage in eco-friendly transportation and water consumption habits.
- Show awareness of environmental practices but room for improvement in waste sorting and reducing plastic bag usage.
- Prefer to rely on books for education and learning about climate change



Adolescents:

- Positive motivation to take action on climate change.
- Common driving forces: personal beliefs, love for wildlife, and social responsibility.
- Actively engage in eco-friendly transportation, waste sorting, and energy-efficient practices.
- Preference for organic food, but awareness needed for donating clothes.
- Emphasize the importance of community support and expanding knowledge for impactful efforts.
- Prefer to prioritize school curriculum and and online ressources to learn about climate change



Young People:

- Positive motivation to take action on climate change.
- Common driving forces: personal beliefs, love for wildlife, and social responsibility.
- Actively engage in eco-friendly transportation and waste sorting.
- Preference for organic food, but areas needing improvement in composting and reducing plastic bag usage.
- Identify raising awareness as crucial for their fight against climate change.
- Prefer websites and online courses to gain knowledge on climate change



Preparedness to disaster:

- Education plays a significant role in disaster preparedness, with a high percentage of respondents recognizing its importance.
- Practice evacuations (drills) are prevalent across all age groups, but having a disaster kit is less common.
- Family emergency plans are relatively common among respondents from all age groups.

Key findings on Climate emotions:



- Majority of children, adolescents, and young people express moderate worry about climate change.
- Notable percentages report feelings of sadness and anxiety across all age groups.
- Children fear the devastating effects of global warming and pollution on the planet's future.
- Engaging in climate-related discussions with family and friends positively impacts children's emotions and raises awareness.
- Adolescents feel a mix of sadness, worry, and powerlessness, being deeply concerned about climate change consequences and the lack of visible changes in their communities.
- Coping mechanisms for adolescents include proactive behaviors like community work and seeking emotional support from family.
- School discussions on climate change play a vital role in empowering adolescents to take action.
- Young people express deep worry about the state of the planet and fear worsening conditions, including the impact on agriculture and the spread of diseases.
- Engaging in climate change discussions and activities empowers young people and broadens their knowledge about the topic.

Key findings on the perception of the response to climate change:



- Respondents from all age groups express concerns about their worries on climate change not being taken seriously enough by governments.
- Many feel that current government actions to address the climate crisis are insufficient.
- Despite concerns, a majority of children, adolescents, and young people trust that the government is committed to safeguarding their future.
- Adolescents propose awareness campaigns and stricter regulations to hold industries and individuals accountable for their environmental impact.
- Young people suggest developing new environmental projects, implementing stricter laws, promoting clean energy sources, and prioritizing forest preservation as key government actions.
- Adolescents emphasize the need for open expression and dialogue, suggesting individual interviews and digital platforms for voicing concerns.
- They also stress the value of group discussions and online surveys to assess concerns and ideas globally.
- NGOs like World Vision are seen as crucial in raising awareness and conducting training sessions to empower children and young people in combating climate change.
- Adolescents encourage NGOs to organize direct activities like community work and garbage cleaning to foster a sense of responsibility.
- Active collaboration between NGOs and the government is proposed to amplify concerns and create a unified approach in tackling climate-related challenges.

Key findings on the intergenerational perception of climate change:



- Caregivers perceive climate change as a consequence of past and present generations' harmful behaviors towards the environment.
- Human activities, including deforestation, exploitation of natural resources, and waste from factories, are seen as major contributors to the current climate crisis.
- Raising awareness about climate change and its consequences is considered crucial by caregivers.
- Educating children about the importance of preserving the environment is emphasized.
- Caregivers have mixed feelings about the future they are leaving for their children, with some expressing pessimism and others holding onto hope for positive change.
- Caregivers actively engage in climate-related actions and support their children's advocacy efforts.
- Leading by example and displaying environmentally friendly behaviors are seen as essential in inspiring children to take action against climate change.
- Creating a supportive and empowering environment for children's climate action is emphasized.
- Educating children through informative videos, courses, and discussions about nature and tree planting is proposed.
- Caregivers remain hopeful that increased efforts and consciousness for the environment can lead to positive changes for future generations.

2. INTRODUCTION

Climate change is often said to be the defining issue of our time. Indeed, climate change threatens the stability of socioecological systems around the globe and requires unprecedented societal transformation now. The urgency of the issue is apparent when considering the latest Special Report by the Intergovernmental Panel on Climate Change, which warns that by 2040 global atmospheric warming could exceed 1.5°C beyond preindustrial levels¹. Crossing this critical threshold is now linked to triggering the most catastrophic social and environmental consequences of a changing climate.

Armenia, a landlocked country located in the South Caucasus region, is characterized by diverse landscapes, ranging from fertile plains to rugged mountains. Like many countries worldwide, Armenia is not immune to the far-reaching consequences of climate change. Various assessments² have repeatedly emphasized the profound impact that climate change will have on Armenia's climate in the coming century. The projections indicate a substantial rise in average temperatures by 2070, reaching approximately 40 degrees. In tandem, there will be a decline in precipitation, river flow, lake levels, and artesian water levels, leading to more frequent occurrences of heat waves, stronger winds, droughts, landslides, mudflows, and floods.

The challenges posed by climate change are especially concerning for the agriculture sector due to inefficient water management practices and significant water losses. Additionally, a decrease in overall pasture area and pasture yield by 7-10%, along with an 8-14% decline in fodder production volumes and crop yields by 2030, looms on the horizon. The repercussions of climate change in Armenia are projected to have severe economic consequences, significantly impacting various aspects of society. Among the most affected will be business revenues, employment opportunities, household incomes, and overall consumption patterns. The agricultural sector, in particular, will suffer, leading to food shortages and soaring food prices as agricultural productivity declines³.

In the face of Armenia's changing climate and its far-reaching consequences, it is crucial to acknowledge that children and young people will be among the most affected by these transformations. As the future custodians of the environment and the next generation of decision-makers, they will inherit the full scope of challenges posed by climate change. Amidst these challenges, the role of children and young people in addressing climate change becomes crucial. As future decision-makers, their perceptions towards climate change can significantly influence the success of environmental initiatives and policies.

Against that backdrop, the aim of this study was to explore how children and young people in Armenia come to articulate environmental knowledge as a process of "figuring out" more specifically the research explored children and young people's level of concern on climate change, level of knowledge on the consequence and impact of climate change on their lives and level of preparedness to climate change disaster.

¹ IPCC (2018) https://www.ipcc.ch/sr15/

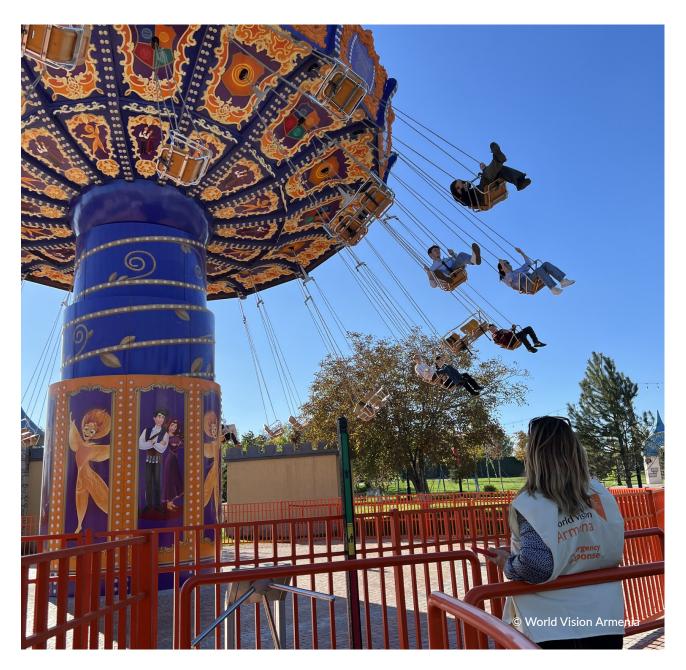
² Climate change: Impacts, vulnerabilities and adaptation in developing countries, United Nations Framework Convention on Climate Change (UNFCCC), 2007, The Socio-Economic Impact of Climate Change in Armenia, UNDP, 2009, Social snapshot and Poverty in Armenia, Statistical committee of RA, 2021, Climate risk and vulnerability assessment (CRVA) report, UNDP, Green climate fund, Ministry of Environment, CARD, 2021

³ Fourth National Communication on Climate Change. Yerevan, RA Ministry of Environment, UNDP Armenia, 2020

The research also explored the extent to which children and young people engage or a ready to engage with the changing climate as a matter of concern. More specifically the research explored children and young people's action on the climate crisis as climate change agents and to what extent they are equipped to navigate climate change and to envision their futures amid multiple social challenges.

In addition to listening to the voices of children and young people, this research also sought to explore how perceptions of climate change vary across different generations. By examining the views and attitudes of adults and older generations, a comprehensive understanding of the broader societal outlook on climate change could be attained.

By examining these factors, this research endeavored to generate valuable insights into the perception of climate change among children and young people in Armenia. This knowledge will inform targeted interventions, policies, and strategies to empower and engage the younger generation in climate change mitigation and environmental conservation efforts.



3. METHODOLOGY

Research Design

This research utilized a mixed-method design, combining quantitative and qualitative data collection methods. The integration of both approaches provided a comprehensive and nuanced understanding of children and young people's perceptions of climate change. The quantitative data allowed for the examination of trends and patterns, while the qualitative data provided rich insights into individual experiences, perceptions, and responses.

Sample Size and Data Collection Tools

To gather quantitative and qualitative data from children, adolescent and young people, a range of research tools were employed, including surveys and key informant interviews:

- 1. Survey: Three surveys, one for children, one for adolescents and another one for young people were administered to collect quantitative insights on the perception of climate change. The sample included 99 children aged 8-11, 101 adolescents aged 12-17, and 53 young women and men aged 18-24, selected conveniently from urban and rural communities in Armenia.
- 2. Key Informant interviews with children: 4 KIIs were conducted with girls and boys from rural and urban communities in Armenia
- 3. Key informant interviews with adolescent: 7 KIIs were conducted with girls and boys from rural and urban communities in Armenia
- 4. Key Informant interviews with young people: 4 KIIs were conducted with young women and men from Rural and Urban communities from Armenia.
- 5. KIIs were conducted with 3 caregivers to explore the intergenerational impact of climate change.

Sampling Strategy

The researchers selected participants by convenience from various urban and rural communities in Armenia where World Vision has existing programs for children and youth. The decision to use convenient sampling may have been influenced by several factors:

• Access to Participants: World Vision's existing programs for children and youth in Armenia provided easy access to potential participants. It allowed the researchers to directly engage with the target population without the need for extensive outreach efforts.

- Time and Resource Constraints: Conducting research in diverse communities can be timeconsuming and resource-intensive. Convenient sampling allows researchers to collect data efficiently and quickly without the need for extensive planning and logistics.
- Feasibility: Armenia's geography and demographics might pose challenges in reaching a representative sample using other sampling methods. Convenient sampling allowed researchers to work within their limitations and still obtain valuable insights from the targeted population.

Data Collection

Data collection for this study involved the use of both surveys and Key Informant Interviews, which were administered through a combination of phone and face-to-face interviews. The survey was designed to collect quantitative data and was administered through MS Forms and was conducted either over the phone or in person, depending on the preferences and accessibility of the participants. The KIIs, on the other hand, aimed to gather qualitative insights and were conducted using face-to-face interactions to ensure the comfort for the participant throughout the process.

The utilization of both phone and face-to-face interviews allowed for flexibility in data collection, accommodating the diverse circumstances and geographical locations of the participants. It ensured that data could be gathered effectively while respecting the participants' preferences and maintaining the highest ethical standards.

Furthermore, a participatory approach was employed during the data collection process for KIIs. This approach involved the use of vignettes and short stories to engage participants and encourage their active participation in sharing their experiences and perspectives. Vignettes, which are fictional but realistic scenarios, were presented to participants to stimulate discussions and reflections on climate change-related issues. These vignettes provided a platform for participants to express their thoughts, emotions, and personal narratives related to the impact of climate change on their lives. This method facilitated a deeper understanding of their individual stories, enabling a more nuanced analysis and interpretation of the data collected.

Data Analysis

The collected data from the survey tools, which were administered through Microsoft Forms, was transferred to SPSS (Statistical Package for the Social Sciences) for data analysis. The analysis of the survey data involved conducting descriptive analysis using SPSS. This included examining frequencies, distributions, and percentages of the responses provided by the participants. The quantitative insights obtained from the survey were crucial in understanding the prevalence and patterns of various aspects related to perceptions of climate change.

Regarding the KIIs a thematic analysis approach was employed to analyze the qualitative data. Thematic analysis involved identifying recurring themes, patterns, and concepts within the interview transcripts. This process allowed for a comprehensive exploration of the participants' experiences, perceptions, and perspectives on climate change and its consequences.

To ensure the robustness and credibility of the findings, a triangulation approach was employed, whereby data from multiple sources were combined and analyzed. The survey data and the thematic analysis of the KIIs were triangulated providing a rich and nuanced understanding of the impact of climate change on children, adolescents, and young people.

Ethical Considerations

Ethical considerations were paramount throughout the research process to ensure the protection and well-being of all participants, particularly children and young people. Prior to data collection, a comprehensive informed consent process was followed, where participants were provided with a clear explanation of the research objectives, procedures, potential risks and benefits, and their rights to voluntary participation and withdrawal. Consent forms were obtained from all participants, and for children and adolescents, additional consent was sought from their caregivers or legal guardians.

To uphold the principles of safeguarding, measures were implemented to ensure the physical and emotional safety of participants. Confidentiality and anonymity were maintained by assigning unique identifiers to each participant, and all personal information was kept secure and accessible only to authorized researchers. Participants were assured that their responses would be treated with the utmost respect and used solely for research purposes.

In cases where the research unveiled sensitive information or disclosed instances of harm or distress, appropriate referral pathways were established. These referral processes aimed to prioritize the well-being and welfare of participants and mitigate any potential harm that may arise from their involvement in the research.

The ethical considerations surrounding this study were guided by internationally recognized ethical guidelines, ensuring the highest standards of research integrity and respect for human rights. The research team remained committed to upholding ethical practices throughout the entire research process, from data collection to analysis and dissemination of findings. By prioritizing informed consent, safeguarding measures, and referral protocols, the study aimed to protect the rights, dignity, and well-being of all participants, fostering a research environment that adhered to ethical principles and promoted trust and respect.



Limitations

While this study aimed to provide valuable insights into children and young people's perceptions of climate change in Armenia, it is important to acknowledge certain limitations that may have influenced the findings and interpretations.

Firstly, convenient sampling may not represent the broader population accurately. It may introduce bias, as participants were selected based on their proximity to World Vision programs rather than through a random or systematic approach. The findings from a convenience sample might not be applicable to the entire population of children and youth in Armenia. The study's results should be interpreted as reflective of the specific communities where data was collected, rather than being generalized to the entire country. Moreover, researchers have limited control over the characteristics of the sample in convenient sampling. This can affect the study's internal validity, as the sample might not adequately represent the diversity of the population.

Secondly, the data collection relied on self-reported information obtained through surveys and interviews. While efforts were made to ensure the accuracy and honesty of responses, there may have been biases or recall errors that could have influenced the data. Participants' perceptions and experiences are subjective, and their responses may have been influenced by various factors such as social desirability or personal interpretation.

Lastly, external factors such as time constraints, resource limitations, and contextual challenges may have impacted the research process and potentially affected the comprehensiveness and depth of the study's findings. These limitations were taken into consideration when interpreting the results and applying them to policy or practice.

Despite these limitations, the study contributes valuable insights into children and young people's perception of climate change in Armenia. It highlights the importance of further research and interventions to foster a deeper understanding of climate change among children and young people and empower them to become active agents of change in environmental conservation and sustainability.



4. FINDINGS/DISCUSSION

4.1 Socio-demographic characteristics

The gender distribution among the surveyed children and young people was relatively balanced, with each age group consisting of roughly equal proportions of males and females. The marital status of young people varied, with the majority being single. A considerable percentage of surveyed children and young people resided in rural areas (Table 1).

Family situations varied among surveyed children and young people, with some living in single-parent households, and others in households headed by females. A small percentage belonged to minority groups. Moreover, a notable number of surveyed children and young people had family members with disabilities or chronically ill, while a significant portion comprised families with elderly members (Table 1).

The study also explored surveyed children and young people's engagement in youth groups, revealing varying levels of participation among different age groups. While a substantial proportion of surveyed children and young people were not involved in youth groups, a notable number had participated in the past or were currently members especially in World Vision Youth clubs and Impact clubs (Table 1).

Almost all surveyed children being enrolled in formal education, primarily at the primary or intermediate levels. However, among surveyed young people, a diverse range of education levels was observed, with some having attained high school completion or post-secondary qualifications (Table 1).

Regarding employment, the majority of surveyed young people were not currently employed, with only a quarter indicating employment status in the sectors of agriculture, construction, Development/NGO and production (Table 1).

Table 1: Socio-demographic characteristics of children, adolescents and young people

Variables		Children	Adolescent	Young people
Total Sample		N=99	N=101	N=53
Gender	Male Female	50.5% 49.5%	50.5% 49.5%	49.1% 50.9%
Marital status	Single Married Widowed Divorced Separated			84.9% 13.2% - 1.9% -
Community	Urban Rural	28.3% 71.7%	28.7% 71.3%	34% 66%

Variables		Children	Adolescent	Young people
Family situation	Single father/ mother Female heading household Members from minority groups Unaccompanied minors Members with physical disability Members with psychosocial disability Members with intellectual disability Members chronically ill Elderly members Other	25.3% 17.2% 1.0% - 13.1% 1.0% 5.1% 17.2% 50.5% 2.0%	12.9% 18.8% 1.0% 0.0% 18.8% 3.0% 6.9% 20.8% 46.5% 3.0%	24.5% 18.9% 7.5% 5.7% 24.5% 3.8% 3.8% 24.5% 43.4%
Participation in youth groups	No Yes Not currently but participated in the past	64.6% 24.2% 11.1%	87.1% 7.9% 5.0%	71.7% 15.1% 13.2%
Enrollment in formal education	No Yes	- 100%	3% 97%	41.5% 58.5%
Current level for children enrolled in formal education	Primary Intermediate Secondary Finished high school Technical/ vocational	32.3% 67.7% - - -	- 67.3% 30.6% - 2.0%	
Highest level of education attained for children not enrolled in formal education and young people	None Primary Intermediate Secondary Finished high school Post-secondary Technical/vocational	- - - - -	- - - - 2% 1%	1.9% 11.3% 67.9% 5.7% 13.2%
Employment	No Yes			75.5% 24.5%

4.2 Knowledge

4.2.1 General Knowledge on Climate Change

Among the children surveyed, the average score for their knowledge about climate change was 5.35 out of 10. This suggests that children have a moderate level of understanding about the topic. The findings also indicated that children expressed a notable level of concern about climate change, with an average score of 5.84 out of 10 (Figure 1).

During the insightful Key Informant Interviews (KIIs) with children, their perceptions of climate change emerged with remarkable clarity. When asked about the phrase "climate change," their minds immediately gravitated towards the concept of weather transformation and its profound effects. Many responses centered on the unsettling shifts in climate, alternating between unbearable heat and chilling cold, causing discomfort and unease. Children also exhibited awareness of the farreaching consequences of climate change on the environment. They expressed concerns about ice melting in the Polar Regions leading to floods, the looming threat of droughts, and the alarming rise in devastating fires. One ten-year-old boy stated, "To me, climate change is a sudden change in weather that

is either unbearably hot or unbearably cold." The emotional toll of climate change was also evident as an eleven-year-old girl shared, "The first thing I imagine is the changing climate of the country, winter-summer, precipitation; it affects my mood because I get sad during cold weather."

As we move to the adolescent age group, the average score for knowledge about climate change increases to 6.35 out of 10. This suggests that adolescents have a slightly higher level of understanding compared to children. Additionally, their concern about climate change is more pronounced, with an average score of 6.61 out of 10 (Figure 1).

In conversations with adolescents about climate change, several themes emerged. They immediately associated it with drastic weather shifts, such as unbearable temperatures and the absence of snow, impacting seasons and landscapes. One seventeen-year-old boy said, "By climate change, I understand a change in the weather that changes our environment." Global warming was another concern, with rising ocean levels, floods, landslides, and its dire consequences. The notion of animal extinction also struck a chord, reflecting their awareness of the impact on wildlife and ecosystems. Interestingly, some adolescents shared how climate change affects their mental state, causing drops in mood during colder weather. One sixteen-year-old girl expressed, "As soon as the weather gets cold, I experience a drop in mood. Sweets help me, I talk with family members."

Among the young people surveyed, the average score for knowledge about climate change is 5.57 out of 10. However, like adolescents, young people demonstrated a higher level of concern, with an average score of 6.04 out of 10 (Figure 1).

When young people contemplate climate change, their minds largely gravitate towards global warming as a prominent concern. They perceive the weather undergoing significant transformations, leading to abnormal temperatures, droughts, and reduced humidity. Moreover, the distressing combination of present-day pollution compounds the issue, endangering various plant and animal species. One 23-year-old woman emphasized, "When hearing climate change, the first thoughts that come to mind are global warming and air pollution. For me, climate change is weather change." Similarly, an 18-year-old man highlighted the impact on ecosystems, stating, "For example, drying forests, lack of humidity, the climate in the region is changing, some plants and animals may disappear."

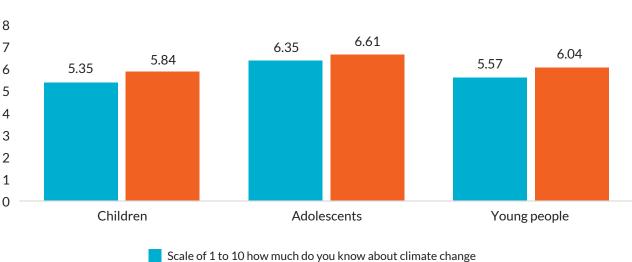


Figure 1: Children and young people's general knowledge and concerns over climate change

, ,

Scale of 1 to 10 how concerned are you about climate change

4.2.2 Sources for knowledge's acquisition on climate change

The study examined the sources from which children, adolescents, and young people in Armenia acquire their knowledge about climate change. Teachers emerged as the primary source of climate change knowledge for the participants across all three age groups. Family members also proved to be influential in providing knowledge about climate change. The media was another prominent source of climate change information, particularly for surveyed adolescents and young people. Peers played a more limited role as a source of climate change knowledge. Books were also mentioned as a source of climate change knowledge, with 69.7% of surveyed children and 64.2% of surveyed adolescents reporting books as an information resource (Figure 2).

The children's knowledge about climate change appeared to be largely shaped by their school experiences. Many of them learned about climate change through the "Natural Science" subject, which introduced them to the concept and its underlying reasons. However, the interviews also revealed some interesting variations in their sources of knowledge. One child mentioned that the interview itself helped deepen their understanding, as they had observed certain effects but were unaware of their connection to climate change. In contrast, another child shared that they had not learned much about climate change in school but instead gained insights from watching cartoons.

Adolescents also primarily acquired their knowledge about climate change through schools. The subjects that played a key role in their learning included Geography, Nature Science, and "Me and the Surrounding World" classes. Additionally, some adolescents mentioned that they expanded their understanding of climate change through participation in World Vision camps in Armenia and by exploring information on the internet, particularly through Wikipedia.

The majority of the young people revealed that their primary source of learning about climate change was through schools. Subjects such as Nature Science and Geography provided them with valuable insights through readings, discussions, and seminars. Additionally, some young people mentioned that their families also played a role in enhancing their understanding of climate change. However, concerning the psychological effects of climate change, all of the young people expressed that they had not received any education on this aspect.

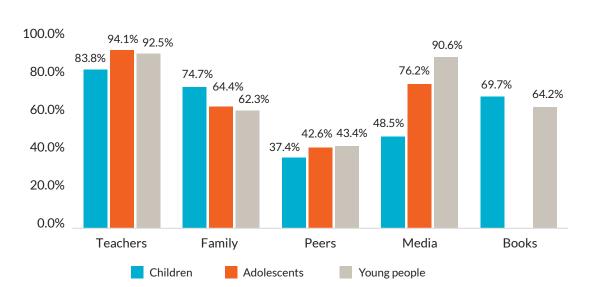


Figure 2: Children and young people's sources of knowledge on climate change

4.2.3 Perceptions of main contributors to climate change

For surveyed children, the incineration of waste stood out as the most significant contributor to climate change, with 80.8% identifying it as a main culprit. The industry sector followed closely, with 78.6% of children perceiving it as a significant contributor. The electricity also garnered considerable attention among children, with 65.3% recognizing its impact on climate change (Figure 3). Among the surveyed children, a considerable percentage (43.3%) believe that climate change is predominantly caused by natural phenomena. In contrast, a smaller percentage (15.5%) attribute climate change to human factors. Moreover, a significant number of children (39.2%) perceive climate change as a result of both human actions and natural processes (Figure 4).

During KIIs, children displayed varying opinions on the reasons behind climate change, yet a prevailing belief emerged that it is predominantly caused by human actions rather than natural events. The majority of them pointed to the industry sector as the primary contributor to climate change. This sector, encompassing factories, cars, and mines, emits toxic smoke, polluting the air and fueling climate change. The detrimental effects of human behavior were also acknowledged, especially when it comes to their carelessness towards the environment. Littering and the indiscriminate cutting down of trees were mentioned as examples of such behavior that exacerbate climate change. A perceptive eleven-year-old girl highlighted the diverse factors, stating, "The toxic smoke produced by factories, the smoke of cars, people's bad treatment of nature, cutting down trees, and always releasing water are the causes of climate change. Smoke pollutes the air and can also cause diseases." Meanwhile, a ten-year-old boy echoed the impact of human behavior, saying, "When people throw a lot of garbage, they pollute the environment, as a result, the climate changes and diseases arise."

Surveyed adolescents, on the other hand, showed a similar awareness of the impact of waste incineration and the industry sector's contribution, with 87.1% and 66.0% respectively identifying it as a main contributor. However, a lower percentage (54.0%) of adolescents attributed significant importance to electricity production. The construction sector received more recognition from adolescents (44.9%) than from children, suggesting a heightened understanding of the environmental impact of construction activities in this age group (Figure 3). Among the surveyed adolescents, 28.7% attributing climate change to natural phenomena and 20.8% to human factors. However, a majority (50.5%) recognize that climate change is a consequence of both human actions and natural occurrences (Figure 4).

Adolescents' thoughts on the causes of climate change reveal several prominent themes. The majority believe that climate change is primarily a result of human actions, where behaviors such as cutting down trees and littering contribute significantly to its severity. They see human activities as a major driving force behind climate-related disasters, considering them to be more man-made than natural phenomena. Some adolescents also pointed to the spread of pollution as a key factor in exacerbating climate change and damaging parts of the atmosphere. The impact of smokeproducing factories is another concern among adolescents, as they believe that the emissions from these factories contribute to air pollution, which in turn worsens climate



change. They also highlight the harmful effects of garbage thrown into rivers and streets, along with the damage caused by activities such as space flight that affect the ozone layer. A sixteen-year-old girl emphasized the human factor, stating, "I think that climate change can also be influenced by humans, and I think disasters are more man-made than natural phenomena".

Surveyed young people displayed the highest level of concern regarding the waste incineration and the industry sector, with a striking 92.5% and 84.0% respectively recognizing their role in contributing to climate change. Like adolescents, a lower percentage (58.8%) of young people pointed to electricity production as a main contributor. The transport sector was also highly recognized by young people, with 74.5% attributing its role in climate change. Additionally, young people demonstrated a higher level of awareness of the agriculture sector's contribution, with 69.4% identifying it as a main contributor (Figure 3). The data also reveals that young people show the highest level of awareness, with 63.5% acknowledging that climate change is caused by both human activities and natural processes.

Young people's beliefs about the reasons behind climate change are multifaceted and interconnected. The majority of them identify the emission of greenhouse gases as the main driver of the climate crisis. They attribute these gases to sources such as factory emissions and vehicle exhaust, which contribute to air pollution and, in turn, can lead to the destruction of the ozone layer. This insight reflects their understanding of the intricate relationship between greenhouse gases and their detrimental impact on the Earth's climate. Moreover, young people also recognize the significant role of human behaviors in fueling climate change, particularly through pollution and deforestation. They acknowledge that these activities contribute to the overall environmental degradation and exacerbate the climate crisis. A twenty-three-year-old woman highlighted the consequences of human actions, stating, "As a result of wrong human activities, climate changes, for example, deforestation and pollution of nature." Similarly, a nineteen-year-old man drew attention to the impact of greenhouse gases from human economic activities, leading to the destruction of the ozone layer and increased heat on Earth. A twenty-four-year-old woman also expressed her concerns about various sources of emissions, such as factory gases, vehicle emissions, and even the smoke from fireworks, all contributing to air pollution and potentially influencing climate change.

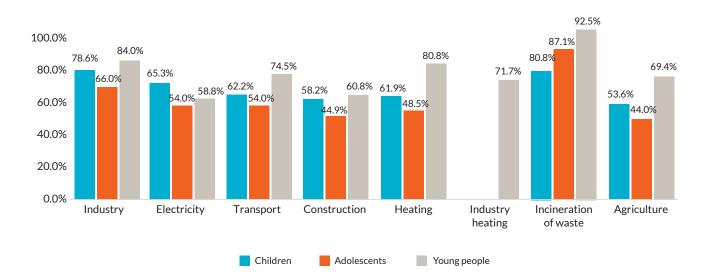


Figure 3: Children and young people's perceptions on main contributors to climate change

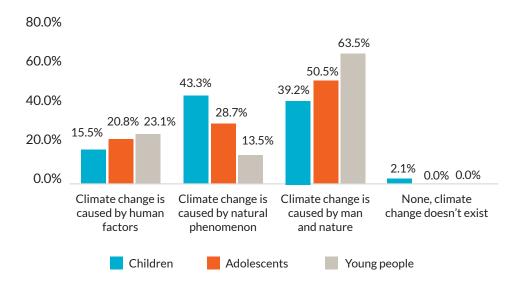


Figure 4: Perceptions of climate change causes

4.2.4 Knowledge on the Impact of Climate Change on Children and Young People

Among the children surveyed, 45.7%, perceived the climate change's impact on the quality of life of children and young people globally as "Mostly Negative," emphasizing a prevailing view of adverse consequences on their lives due to climate change. However, a considerable 23.9% viewed the impact as "Mostly Positive," suggesting that some children might lack knowledge on climate change (Figure 4). Adolescents' perceptions of climate change's impact on their quality of life followed a similar trend. While 49% perceived the impact as "Mostly Negative" (Figure 4). The data for young people shows a similar pattern, with 13.7% expressing a "Very Negative" perception and 47.1% perceiving the impact as "Mostly Negative." (Figure 5)

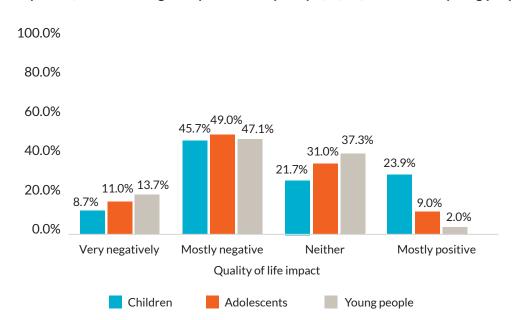


Figure 5: Perception of climate change's impact on the quality of life of children and young people

The data shows that a majority of children perceive immediate impacts of climate change on malnutrition (49.5%), illness (56.6%), and land deterioration (45.9%). They also express awareness of climate change's influence on mental health (41.6%). However, most children do not see direct connections between climate change and child marriage or violence against children. Additionally, a significant proportion of children (42.4%) believe that climate change poses immediate risks to hazardous jobs for both girls and boys. Furthermore, around one-third of the surveyed children (30.4%) recognize climate change's impact on access to education for both genders, and a substantial portion perceive an immediate impact on school attendance decline for both genders (45.7% for girls and 45.1% for boys), reflecting their understanding of potential disruptions in educational systems (Table 2)

During KIIs, children recognized that children and young people are among the demographics most severely affected by climate change, as evidenced by the impacts on their lives. When asked about the types of impact climate change can have on them, the children provided valuable insights. One significant concern was the effect of climate change on their school attendance. Severe weather conditions, such as heavy snow or extreme heat, were seen as hindrances to safely reaching school. Moreover, they expressed fears about the increased likelihood of earthquakes, which put the lives of many children and young people at risk. Climate change was also perceived as having adverse effects on physical health. Hot weather was linked to headaches and difficulty adapting to unfamiliar climates. Furthermore, the children believed that climate change could lead to an increase in illnesses and a decrease in food quality, potentially affecting the physical well-being of several children and young people. The thoughts of an eleven-year-old girl encapsulated these concerns, stating, "There may be a lot of snow, and the children cannot go to school". Another ten-year-old boy shared his concerns about the impact of hot weather, "If it's too hot, it can cause headaches, besides being not used to it, it can be difficult to adapt to that climate." The impact on health was also emphasized by another ten-year-old boy, "It will be bad for people; they will get sick, diseases will spread a lot." Additionally, an eleven-year-old girl highlighted the consequences of climate change on food quality and health, "As a result of climate change, quality food will become less, and it will cause diseases due to the consumption of unhealthy food."

The findings indicate that a significant proportion of adolescents see climate change as having an immediate impact on malnutrition (48.5%) and illness (44.0%). Moreover, adolescents express concerns about limited health care access for both girls (28.3%) and boys (27.3%). They also recognize the immediate impact of climate change on mental health, with anxiety (63.0%) and sleep problems (64.0%) being significant concerns. While most adolescents do not perceive direct impacts of climate change on issues like discrimination, violence, and child marriage, they show awareness of the immediate impacts on hazardous jobs for both genders (45.5% for girls and 46.9% for boys) and economic decline/poverty (37.0%). Additionally, adolescents acknowledge the immediate impact of climate change on limited access to education for both girls (22.0%) and boys (21.2%), along with school attendance decline for both genders (40.6% for girls and 42.6% for boys) (Table 2).

During KIIs, Adolescents hared that young people and children worldwide are indeed heavily affected by climate change, with adolescents highlighting mental and physical health consequences as primary concerns. They expressed that climate change leads to increased anxiety, sadness, and fear, causing psychological distress. Additionally, climate change's impact on physical health makes them more susceptible to the spread of diseases. An insightful fifteen-year-old girl shared her concerns, saying, "When I think about the effects of climate change, I become anxious". Regarding the effects on different genders, adolescents held contrasting views. Some believed that girls are more vulnerable to the emotional toll of climate change due to their perceived sensitivity. However, others argued that climate change does not discriminate based on gender and affects everyone equally. A seventeen-year-old boy expressed his opinion, "I think it affects girls more because girls are more sensitive and emotional, while boys mostly adapt to changes more easily." On the contrary, a fifteen-year-old boy stated, "I don't think it should be different; it will affect everyone in the same way."

A significant proportion of surveyed young people see an immediate impact of climate change on malnutrition (42.0%), illness (49.1%), and limited health service capacity (55.1%). Surveyed young people also express concern about the immediate impact of climate change on mental health, including depression (62.3%), anxiety (63.5%), and sleep problems (57.7%). Moreover, the data shows that surveyed young people are mindful of the long-term impacts of climate change on certain issues. Notably, they perceive a lifelong impact on land deterioration (47.1%), pregnancy complications (25.5%), and learning difficulties (11.5%). Additionally, the data indicates young people's concern about the potential societal impact of climate change. They recognize the immediate impact on economic decline and poverty (47.1%) and group hostility (36.0%), which may exacerbate social inequalities and tensions. However, it is worth noting that young people perceive child marriage, physical violence, emotional violence, and sexual violence against girls and boys to have a relatively lower impact from climate change (Table 2).

According to interviewed young people, Climate change's devastating effects on children and young people have become increasingly evident, encompassing a range of concerning consequences: Firstly, air pollution resulting from climate change has led to an increase in illnesses and diseases, posing significant threats to the physical health of the younger generation. As a nineteen-year-old man pointed out, "If dangerous emissions continue, the air will get worse, and people will get diseases." Secondly, the rise in temperatures due to climate change has created challenging conditions, particularly in extreme heat, which leaves people more susceptible to falling sick. An eighteen-year-old woman expressed her concern, stating, "People will not stand the heat, they will feel sick."

Beyond the physical toll, climate change is also impacting the mental health of children and young people. The fluctuating weather patterns and extreme temperatures can lead to feelings of sadness and mood swings. An eighteen-year-old man highlighted this emotional aspect, saying, "All these things affect children, the air is also more polluted, I think that's why children get sick more often, and emotionally, for example, they get very sad when they can't ride a sled in winter."

Regarding the relationship between climate change and gender, the majority of young people believe that it affects everyone equally, irrespective of gender. As a twenty-three-year-old woman expressed, "In my opinion, climate change affects men and women equally." A nineteen-year-old man echoed this sentiment, emphasizing, "What is the difference between a woman and a man? In my opinion, there is no difference." However, there are contrasting views. One young person, an eighteen-year-old woman, believes that girls may be more vulnerable to climate change's effects due to their perceived delicacy and sensitivity.

Table 2: Children	and voung neonle's	nercentions on t	he impact of cl	limate change on	their lives
Tuble 2. Cilliuleii (ana vouns beoble s	DELLEDLIDIIS OII L	.HE IIIIDULL DI LI	IIIIIale change on	LITEII IIVES

		Children	Adolescents	Young people
Total sample		N=99	N=101	N=53
Malnutrition	Not an impact Immediate impact Lifelong impact	23.7% 49.5% 26.8%	27.8% 48.5% 23.7%	32.0% 42.0% 26.0%
Illness	Not an impact Immediate impact Lifelong impact	7.1% 56.6% 36.4%	15.0% 44.0% 41.0%	15.1% 49.1% 35.8%
Pregnancy complications	Not an impact Immediate impact Lifelong impact			8.5% 66.0% 25.5%

		Children	Adolescents	Young people
Limited Health service capacity	Not an impact Immediate impact Lifelong impact			28.6% 55.1% 16.3%
Limited Health care for girls	Not an impact Immediate impact Lifelong impact		64.6% 28.3% 7.1%	
Limited Health care for boys	Not an impact Immediate impact Lifelong impact		64.6% 27.3% 8.1%	
Mental Health	Not an impact Immediate impact Lifelong impact	29.2% 41.6% 29.2%		
Depression	Not an impact Immediate impact Lifelong impact			15.1% 62.3% 22.6%
Anxiety	Not an impact Immediate impact Lifelong impact		22.0% 63.0% 15.0%	11.5% 63.5% 25.0%
Sleep Problems	Not an impact Immediate impact Lifelong impact		28.0% 64.0% 8.0%	25.0% 57.7% 17.3%
Learning difficulties	Not an impact Immediate impact Lifelong impact		61.0% 32.0% 7.0%	50.0% 38.5% 11.5%
Suicide	Not an impact Immediate impact Lifelong impact		88.8% 7.1% 4.1%	71.1% 22.2% 6.7%
Land deterioration	Not an impact Immediate impact Lifelong impact	22.4% 45.9% 31.6%	24.2% 31.3% 44.4%	19.6% 33.3% 47.1%
Women financial access	Not an impact Immediate impact Lifelong impact			62.8% 20.9% 16.3%
Jobs for women	Not an impact Immediate impact Lifelong impact			50.0% 34.8% 15.2%
Discrimination against girls	Not an impact Immediate impact Lifelong impact		82.7% 15.3% 2.0%	
Discrimination minority groups	Not an impact Immediate impact Lifelong impact		81.4% 16.5% 2.1%	
Child marriage for girls	Not an impact Immediate impact Lifelong impact	91.4% 6.2% 2.5%	92.6% 4.3% 3.2%	79.5% 9.1% 11.4%

		Children	Adolescents	Young people
Child marriage for boys	Not an impact Immediate impact Lifelong impact	91.4% 6.2% 2.5%	93.6% 3.2% 3.2%	81.8% 9.1% 9.1%
Violence against girls	Not an impact Immediate impact Lifelong impact	91.6% 3.6% 4.8%		
Violence against boys	Not an impact Immediate impact Lifelong impact	84.7% 10.6% 4.7%		
Physical Violence against girls	Not an impact Immediate impact Lifelong impact		87.6% 9.3% 3.1%	78.3% 8.7% 13.0%
Physical Violence against boys	Not an impact Immediate impact Lifelong impact		88.7% 8.2% 3.1%	82.2% 8.9% 8.9%
Emotional Violence against girls	Not an impact Immediate impact Lifelong impact		88.7% 8.2% 3.1%	76.1% 10.9% 13.0%
Emotional Violence against boys	Not an impact Immediate impact Lifelong impact		89.7% 7.2% 3.1%	72.3% 14.9% 12.8%
Sexual Violence against girls	Not an impact Immediate impact Lifelong impact		90.7% 6.2% 3.1%	76.6% 8.5% 14.9%
Sexual Violence against boys	Not an impact Immediate impact Lifelong impact		92.8% 4.1% 3.1%	80.4% 10.9% 8.7%
Partner violence	Not an impact Immediate impact Lifelong impact			88.1% 7.1% 4.8%
Hazardous jobs for girls	Not an impact Immediate impact Lifelong impact	50.6% 42.4% 7.1%	40.4% 45.5% 14.1%	32.6% 47.8% 19.6%
Hazardous jobs for boys	Not an impact Immediate impact Lifelong impact	50.6% 42.4% 7.1%	37.8% 46.9% 15.3%	37.5% 50.0% 12.5%
Economic decline/poverty	Not an impact Immediate impact Lifelong impact		21.0% 37.0% 42.0%	23.5% 47.1% 29.4%
Group Hostility	Not an impact Immediate impact Lifelong impact			50.0% 36.0% 14.0%
Girls unable to access education	Not an impact Immediate impact Lifelong impact	66.3% 30.4% 3.3%	76.0% 22.0% 2.0%	

		Children	Adolescents	Young people
Boys unable to access education	Not an impact Immediate impact Lifelong impact	63.7% 33.0% 3.3%	76.8% 21.2% 2.0%	
Girls school attendance decline	Not an impact	51.1%	55.4%	45.1%
	Immediate impact	45.7%	40.6%	39.2%
	Lifelong impact	3.3%	4.0%	15.7%
Boys school attendance decline	Not an impact	51.6%	53.5%	49.0%
	Immediate impact	45.1%	42.6%	37.3%
	Lifelong impact	3.3%	4.0%	13.7%

4.2.5 Knowledge on the impact of mitigation solutions

The data reveals important percentages that highlight children's perceptions of activities that may impact climate change. Notably, 46.5% of children recognize the big positive impact of walking/cycling, similarly, 60.6% of children believe that recycling can have a big impact on mitigating climate change. Interestingly, 62.6% of children acknowledge the big impact of the rational use of water, demonstrating their understanding of the importance of responsible water consumption in addressing environmental challenges. Moreover, 46.5% of children recognize the big impact of food waste reduction, reflecting their awareness of the environmental consequences of reducing food waste. Another notable finding is that 50.5% of children perceive a big impact from the reduction of plastic. However, there are areas where more awareness-raising is needed. For example, only 29.3% of children see public transport as having a big impact. Similarly, 24.2% of children believe donating clothes can have a big impact, while a considerable 38.4% see no impact at all (Table 3).

As we engaged in conversations with children, they shared their thoughtful ideas on activities intended to make a difference. A determined eleven-year-old girl expressed her willingness to raise awareness and take action, saying, "I can explain to my friends not to throw garbage, participate in community cleaning activities, sort garbage." Similarly, a ten-year-old boy displayed a keen understanding of the importance of afforestation. With conviction, he stated, "We need to plant a lot of trees... When there are many trees, the air will be richer in oxygen and cleaner." Venturing beyond reforestation, another ten-year-old boy sought to address the harmful impact of certain industries. He urged, "We should not make smoke, people enter mines, they should not work in mines, they should do something else nice." His concerns extended to finding alternative, sustainable solutions that could harness solar energy, thus reducing harmful emissions. The children's passion for environmental preservation extended to agricultural practices as well. A caring eleven-year-old girl voiced her plans to contribute positively, stating, "Try more to sow agricultural products, grow healthy agricultural products, plant trees, collect garbage, keep the environment clean."

Adolescents showed a strong understanding of the impact of certain actions on mitigating climate change. Walking and cycling were recognized as having a big impact by a significant percentage, 23.8% and 25.7%, respectively. Recycling was overwhelmingly acknowledged for its big impact (66.0%), showcasing a good understanding of waste management. Rational water use (55.4%) and planting (73.3%) were also perceived as highly impactful, reflecting their awareness of water conservation and afforestation's role in carbon sequestration. Solar panels garnered positive recognition, with 55.4% acknowledging their big impact, indicating a favorable attitude towards renewable energy solutions. However, there is room for improvement in raising awareness of sustainable fashion and responsible consumption, as only 9.2% recognized the impact of donating clothes. Similarly, waste reduction through food waste and plastic reduction needs more attention, with 27.7% acknowledging their impact.

Educating adolescents about the significance of public transport (21.8%) and reducing air travel (34.7%) can also lead to more impactful actions.

Adolescents strongly advocate for raising awareness and teaching children about climate change to mitigate its impact. They emphasize the importance of encouraging discussions and awareness sessions in schools, communities, and families to introduce children to the effects of climate change and ways to limit its impact. Some adolescents also suggest practical actions for children, such as picking up garbage, planting trees, and using solar panels, as steps to actively participate in climate change mitigation. They believe that informed children will behave more consciously and take responsible actions to protect the environment for future generations. In their view, teaching children about climate change is crucial in fostering a sense of care and love for their homeland and ensuring a healthy future for generations to come. A seventeen-year-old bot stated, "Children need to be informed so that they know which of their actions can contribute to climate change and which not. That way they will behave more consciously and be sure that they are not contributing to climate change."

The findings show that young people are actively engaged in understanding actions that can positively influence climate change. Among the activities surveyed, recycling emerges as a highly favored practice, with an overwhelming 75.0% of young people acknowledging its significant impact on mitigating climate change. Another prominent action recognized by young people is rational water use, with 67.9% acknowledging its importance in conserving water resources and addressing climate change. Solar panels in the city (63.5%) and planting (75.5%) are also viewed as impactful practices. Additionally, waste reduction (73.6%) and composting (48.1%) are perceived as impactful approaches to combat climate change. While young people exhibit a high level of awareness regarding actions that can have a positive impact on climate change, the data also highlights some areas that need attention. For instance, donating clothes (22.0%) and less air travel (31.4%) are perceived to have a comparatively lower impact (Table 3).

During KIIs, young people shared impactful actions to mitigate with climate change. Engaging in community work and implementing projects that promote sustainability and waste recycling can make a difference. Taking care of agriculture by planting trees and advocating against deforestation also plays a crucial role in mitigating climate change. Additionally, they can use their voices to raise awareness about climate change and encourage others to be informed and take action. By serving as examples and actively participating in climate-related activities, young people can contribute positively to protecting the environment and ensuring a sustainable future for all. As one participant emphasized, even being aware of the issue and encouraging others to do the same can have a significant impact on preventing global change.

Table 3: Perceptions of	of activities that can	have an impact on	climate change
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		Children	Adolescent	Young people
Total Sample		N=99	N=101	N=53
Walking	Big Impact No impact at all		23.8% 49.5%	30.8% 38.5%
Cycling	Big Impact No impact at all		25.7% 44.6%	40.4% 28.8%
Walking/ Cycling	Big Impact No impact at all	46.5% 32.3%		
Public transport	Big Impact No impact at all	29.3% 27.3%	21.8% 34.7%	39.2% 25.0%

		Children	Adolescent	Young people
recycling	Big Impact No impact at all	60.6% 18.2%	66.0% 10.0%	75.0% 7.7%
Energy efficient light bulbs	Big Impact No impact at al		43.6% 15.8%	58.8% 7.8%
organic food	Big Impact No impact at all		34.0% 14.0%	44.2% 15.4%
Collection of garbage	Big Impact No impact at all			64.2% 15.1%
Solar panels in the city	Big Impact No impact at all			63.5% 11.5%
Rational use of water	Big Impact No impact at all	62.6% 17.2%	55.4% 17.8%	67.9% 9.4%
Planting	Big Impact No impact at all		73.3% 11.9%	75.5% 9.4%
Waste reduction	Big Impact No impact at all			73.6% 5.7%
Composting	Big Impact No impact at all			48.1% 17.3%
Energy efficient appliances	Big Impact No impact at all			45.1% 11.8%
Donating clothes	Big Impact No impact at all	24.2% 38.4%		22.0% 38.0%
Food waste reduction	Big Impact No impact at all	46.5% 12.1%	27.7% 19.8%	60.4% 13.2%
Reduction of plastic	Big Impact No impact at all	50.5% 13.1%	27.7% 19.8%	59.6% 13.5%
Digitization of operations	Big Impact No impact at all			50.0% 15.4%
Solar panels at home	Big Impact No impact at all		55.4% 11.9%	57.7% 9.6%
Less air travel	Big Impact No impact at all		34.7% 23.5%	31.4% 13.7%
Firewood use	Big Impact No impact at all		25.3% 28.3%	31.4% 21.6%

4.3 Practice

4.3.1 Taking actions on climate change

Adolescents and young people stand out as particularly motivated age groups, with 71.7% and 74.0% respectively, expressing a strong willingness to participate. On the other hand, 56.6% of children also show positive motivation levels, indicating that many young individuals are actively interested in environmental issues (Figure 6).

The reasons behind their personal motivations vary, but some common themes emerge. Across all age groups, personal beliefs serve as a powerful driving force, with an overwhelming majority (85.2% to 87.6%) citing this as a significant motivator. The love for wildlife is another compelling reason, resonating strongly with 88.6% of adolescents and 95.3% of young people. Moreover, a sense of social responsibility is prevalent among young people, with 90.9% of adolescents and 93.0% of young people expressing their desire to set an example for others. Additionally, 96.6% of young people feel strongly about working towards a better life for future generations, showcasing their concern for environmental sustainability (Figure 7).

Despite these positive motivations, some respondents cite challenges that can affect their willingness to engage. A notable percentage of adolescents (45.5%) and young people (71.4%) feel inhibited by the belief that they lack the ability to bring about meaningful change. Similarly, 54.5% of adolescents and 57.1% of young people express a sentiment of "not my job," indicating a need to clarify the shared responsibility in environmental efforts (Figure 8).

During the KIIs, adolescents recognize that battling climate change requires significant support and engagement from their communities. They believe that community support is crucial in implementing climate-related activities effectively. As one participant expressed, "If I decide, like Greta Thunberg, to carry out some actions, I need my community to stand with me." Moreover, expanding their knowledge on the topic and finding ways to limit its effects are essential for their efforts to be impactful. Another adolescent mentioned, "I am more impactful when I gain the professional knowledge." However, adolescents also face barriers in their fight against climate change. They express frustration with the lack of responsibility and carelessness exhibited by some citizens, hindering collective action. As another participant emphasized, "The biggest obstacle is that people are indifferent. In order for the climate of the whole world to restore, we need to take collective actions."

Young people are proactive in identifying types of support that can increase action against climate change. Raising awareness is a crucial aspect in their fight against climate change. They believe that by increasing awareness, people would start making climate-appropriate decisions. This can lead to more sustainable practices and greater collective action. As one participant expressed, "I recently participated in a climate change awareness event that utilized a fantastic approach. They provided us with valuable theoretical knowledge about climate change, and then we had the opportunity to plant various vegetables in the garden, symbolizing the hope for a sustainable future. This hands-on experience made the issue feel more tangible and reinforced the importance of taking action". However, young people also face obstacles in their pursuit of climate action. One significant barrier is the lack of compassion for nature among some individuals. People's unawareness of the dangers of climate change and their inability to sort garbage properly hinder the progress towards a more sustainable future. As one participant mentioned, "Among the obstacles we face, one significant concern is that not everyone actively participates in sorting garbage. This lack of engagement hinders our efforts in waste management and recycling, making it challenging to achieve a cleaner environment".

Figure 6: Motivation to engage in environmental activities

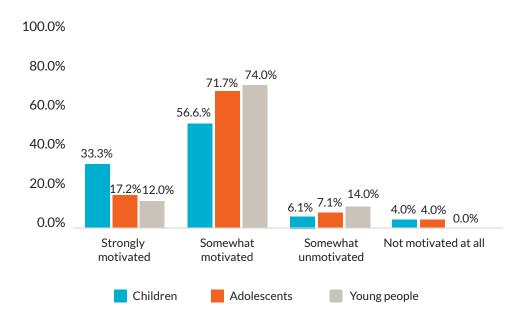
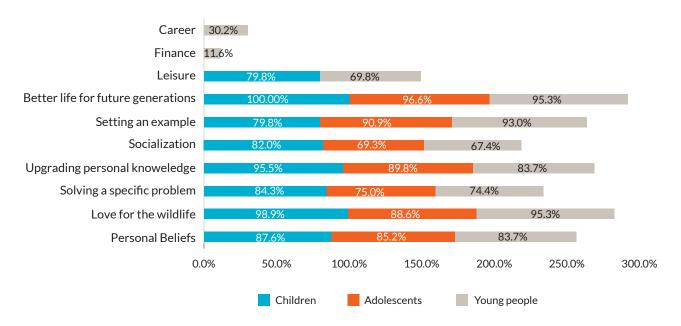


Figure 7: Sources of motivation



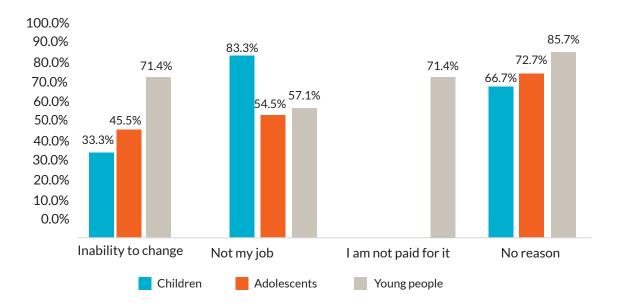
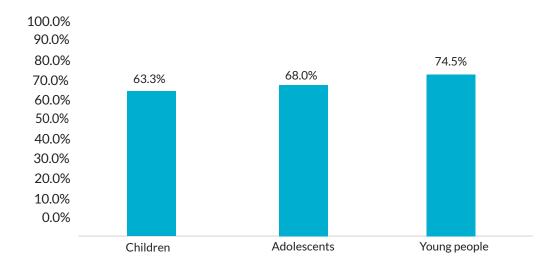


Figure 8: Sources of demotivation

4.3.2 Practicing mitigation solutions

A significant proportion of respondents from all three age groups (63.3% of children, 68.0% of adolescents, and 74.5% of young people) participate and engage in actions that contribute to environmental preservation and sustainability (Figure 9).

Figure 9: Participation in activities that impact the environment



The data provides valuable insights into the behaviors and actions of children in relation to various environmental practices. When it comes to walking, a remarkable 81.8% of children report doing it regularly, showcasing a positive inclination towards eco-friendly transportation. However, waste sorting seems to be less prevalent, with only 18.2% of children doing it regularly. On the bright side, water consumption habits show promising results, as 63.6% of children claim to consume water regularly. However, reducing plastic bag usage remains an area of concern, with only 13.1% of children using no plastic bags regularly. A significant portion of children (62.6%) exhibit energy consumption efficiency regularly, demonstrating a sense of responsibility towards energy conservation. Furthermore, spreading awareness about environmental issues is also embraced by a considerable number of children, with 12.1% engaging in this activity regularly (Table 4).

Interviewed children are actively looking for ways to make a positive impact on reducing climate change. They understand the importance of raising awareness about the issue and showcasing the dangers of harmful practices like mine work on the environment. Engaging in climate-related community activities, such as participating in clean-up initiatives and waste sorting, is seen as crucial in maintaining a clean and sustainable environment. Additionally, they emphasize the significance of planting trees and taking care of agriculture to reduce air pollution and combat climate change effectively. One area where children identify room for improvement is the availability of garbage bins in their communities. They express the need for more bins to be placed in strategic locations, believing that this can lead to better waste management and encourage recycling practices. Encouraging people to plant more trees and cultivate crops is also seen as an essential step in protecting the environment.

Table 4: Children's practice of mitigation solutions to reduce the climate change's impact

Walking	Regularly Often Sometimes Rarely Not at all	81.8% 13.1% 3.0% 2.0% 0.0%
Waste sorting	Regularly Often Sometimes Rarely Not at all	18.2% 15.2% 22.2% 16.2% 28.3%
Water consumption	Regularly Often Sometimes Rarely Not at all	63.6% 14.1% 13.1% 2.0% 7.1%
No plastic bags	Regularly Often Sometimes Rarely Not at all	13.1% 1.0% 22.2% 24.2% 39.4%
Donate clothes	Regularly Often Sometimes Rarely Not at all	13.1% 6.1% 25.3% 42.4% 13.1%

Energy consumption efficiency	Regularly Often Sometimes Rarely Not at all	62.6% 19.2% 7.1% 4.0% 7.1%
Spreading awareness	Regularly Often Sometimes Rarely Not at all	12.1% 19.2% 28.3% 28.3% 12.1%

The majority of adolescents (75.2%) walk regularly, indicating a positive trend in eco-friendly transportation. Public transport is used sometimes by 33.7% of adolescents, suggesting room for promoting public transport as a sustainable option. Adolescents actively participate in waste sorting, with 18.8% doing it regularly and 21.8% often, reflecting a growing awareness of proper waste disposal and recycling. Regarding dietary choices, a significant number of adolescents consume organic food regularly (26.7%) and often (28.7%), showing a preference for sustainable and healthier options. Water consumption habits are balanced, with 43.6% reporting regular usage and 25.7% often. A portion of adolescents (24.8%) frequently avoids plastic bags, indicating a positive effort to reduce plastic waste. However, only 4.0% of adolescents donate clothes regularly, while 50.5% do so rarely, indicating an area for increased awareness and action. Promoting energy-efficient practices could be beneficial, as 40.6% of adolescents report regular efforts to conserve energy. Spreading awareness about environmental issues is notable, with 20.8% doing it often and 31.7% sometimes, highlighting their potential as advocates for conservation (Table 5).

Some of the interviewed adolescents are actively engaged in climate-related actions, such as using energy-efficient sources and promoting solar energy as alternatives to traditional harmful methods. They also take part in garbage collection and recycling initiatives during family trips and school community work. However, many of them admit not knowing anyone practicing such actions, highlighting the need for greater awareness and participation in climate change efforts. Regarding gender differences, the majority of adolescents believe that girls contribute more to climate-related activities due to their higher levels of activity and enthusiasm. Some even feel that boys are less interested or indifferent in such issues. However, there are also opinions stating that both genders are equally active in climate-related actions.

Table 5: Adolescents' practice of mitigation solutions to reduce the climate change's impact

Walking	Regularly Often Sometimes Rarely Not at all	75.2% 20.8% 2.0% 2.0% 0.0%
Bicycling	Regularly Often Sometimes Rarely Not at all	1.0% 3.0% 5.9% 4.0% 86.1%

Public transport	Regularly Often Sometimes Rarely Not at all	6.9% 20.8% 33.7% 20.8% 17.8%
Waste sorting	Regularly Often Sometimes Rarely Not at all	18.8% 21.8% 17.8% 14.9% 26.7%
organic food	Regularly Often Sometimes Rarely Not at all	26.7% 28.7% 22.8% 14.9% 6.9%
Water consumption	Regularly Often Sometimes Rarely Not at all	43.6% 25.7% 7.9% 12.9% 9.9%
No plastic bags	Regularly Often Sometimes Rarely Not at all	8.9% 8.9% 24.8% 18.8% 38.6%
Avoiding plastic	Regularly Often Sometimes Rarely Not at all	7.9% 10.9% 27.7% 22.8% 30.7%
Donate clothes	Regularly Often Sometimes Rarely Not at all	4.0% 10.9% 22.8% 50.5% 11.9%
Energy consumption efficiency	Regularly Often Sometimes Rarely Not at all	40.6% 14.9% 13.9% 12.9% 17.8%
Spreading awareness	Regularly Often Sometimes Rarely Not at all	6.9% 20.8% 31.7% 22.8% 17.8%

The data from young people indicates positive trends in environmentally friendly practices. Walking is the most popular eco-friendly transportation choice, with 73.6% reporting regular walks. Public transport is also widely used, with 22.6% reporting regular use. Waste sorting is actively practiced by 17.0% regularly and 24.5% often, showcasing a growing awareness of proper waste management.

Energy-efficient practices are prominent, with 35.8% using energy-efficient lighting regularly. Young people also demonstrate a preference for organic food, with 41.5% consuming it regularly. On the other hand, there is room for improvement in certain areas. Bicycling as a mode of transportation and composting are less frequently adopted, with only 5.7% regularly bicycling and 17.0% composting. Avoiding plastic bags is an area that requires attention, as only 11.3% do it regularly, while 41.5% do not avoid them at all. Spreading awareness is a valuable activity, with 22.6% doing it often, presenting an opportunity for inspiring others to participate in eco-friendly practices (Table 6).

Some interviewed young people in the community are aware of their peers actively taking mitigation measures against climate change. They mentioned that these young individuals are dedicated to climate-related community activities such as tree planting and other community work, actively involving others in their efforts. Regarding gender differences, opinions among young people vary. Some believe that both genders participate equally in climate change mitigation activities, emphasizing that anyone can get involved regardless of their gender. However, others mentioned that girls are more likely to be involved due to the perception that they may face greater challenges in coping with climate change, which motivates them to take more active roles.

Table 6: Young people's practice of mitigation solutions to reduce the climate change's impact

Walking	Regularly Often Sometimes Rarely Not at all	73.6% 20.8% 0.0% 5.7% 0.0%
Bicycling	Regularly Often Sometimes Rarely Not at all	5.7% 1.9% 5.7% 0.0% 86.8%
Public transport	Regularly Often Sometimes Rarely Not at all	22.6% 32.1% 22.6% 13.2% 9.4%
Waste sorting	Regularly Often Sometimes Rarely Not at all	17.0% 24.5% 22.6% 11.3% 24.5%
Energy efficient lighting	Regularly Often Sometimes Rarely Not at all	35.8% 17.0% 17.0% 9.4% 20.8%
organic food	Regularly Often Sometimes Rarely Not at all	41.5% 24.5% 17.0% 13.2% 3.8%

Collecting garbage	Regularly Often Sometimes Rarely Not at all	17.0% 18.9% 30.2% 30.2% 3.8%
Water consumption	Regularly Often Sometimes Rarely Not at all	50.9% 17.0% 11.3% 17.0% 3.8%
Growing Vegetables	Regularly Often Sometimes Rarely Not at all	24.5% 26.4% 11.3% 22.6% 15.1%
No plastic bags	Regularly Often Sometimes Rarely Not at all	11.3% 5.7% 28.3% 13.2% 41.5%
Avoiding plastic	Regularly Often Sometimes Rarely Not at all	5.7% 11.3% 26.4% 20.8% 35.8%
Donate clothes	Regularly Often Sometimes Rarely Not at all	7.5% 9.4% 20.8% 49.1% 13.2%
Composting	Regularly Often Sometimes Rarely Not at all	17.0% 13.2% 26.4% 17.0% 26.4%
Energy consumption efficiency	Regularly Often Sometimes Rarely Not at all	39.6% 26.4% 9.4% 13.2% 11.3%
Spreading awareness	Regularly Often Sometimes Rarely Not at all	11.3% 22.6% 24.5% 35.8% 5.7%

4.3.3 Preparedness to disaster

The data on preparedness for disasters among different age groups reveals interesting insights. While a significant portion of children, adolescents, and young people (36.7% to 46.5%) reported having no specific disaster preparedness measures in place, there is a noteworthy number of individuals who do take steps to prepare. Education appears to play a crucial role in disaster preparedness, with a high percentage of children (82.7%), adolescents (93.1%), and young people (73.6%) acknowledging its importance. Practice evacuation, which involves practicing drills to know what to do during a disaster, is highly prevalent, with 71.7% of young people, 84.0% of adolescents, and 91.8% of children engaging in this proactive measure. However, when it comes to having a disaster kit, there is room for improvement, as only 37.7% of young people, 43.6% of adolescents, and 49.0% of children reported having one. Family emergency plans are relatively common, with around half of the respondents in each age group having them (28.8% for young people, 50.5% for adolescents, and 50.0% for children). (Figure 10)

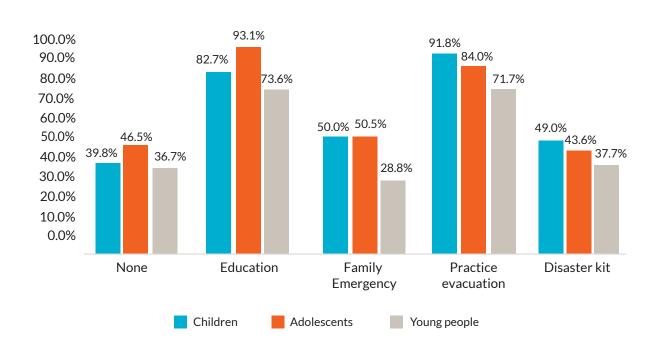


Figure 10: Preparedness to disaster

4.3.4 Preferred sources of information

When it comes to learning about climate change, children, adolescents, and young people have varied preferences. Children rely heavily on books and youth groups, while adolescents prioritize the school curriculum, online courses, and websites. For young people, websites are the top choice, followed by online courses and youth groups. Scientific journals and papers are less commonly used across all age groups (Figure 11).

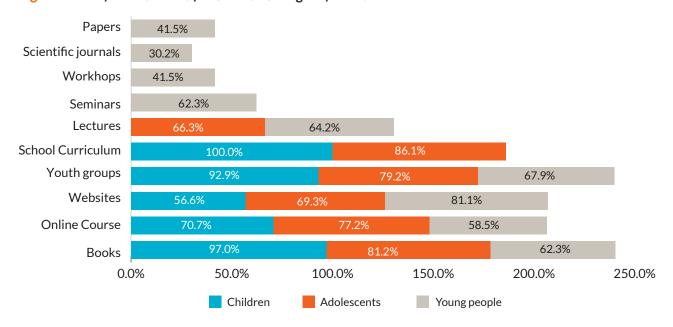


Figure 11: Preferred Sources for Climate Change Information

4.4 Impact of Climate Change on Mental Health

4.4.1 Climate emotions

When it comes to worries about climate change, the majority of respondents fall into the "moderately worried" category, with significant percentages ranging from 42.4% for children to 49.5% for adolescents and 47.2% for young people. A notable proportion of young individuals are also "very worried," with percentages ranging from 18.8% to 28.3%. Only a small minority, particularly children (3.0%), express being "extremely worried" about climate change (Figure 12).

A substantial number of respondents feel "sad" about climate change, with percentages ranging from 53.8% for young people to 74.7% for children. "Anxious" feelings are also prevalent, with high percentages across all age groups, ranging from 73.6% to 77.2%. Additionally, "optimism" is relatively common, with percentages ranging from 76.9% to 84.7%. (Figure 13)

Interviewed children candidly shared their deep worries in response to the pressing issue of climate change. The unanimous sentiment that emerged from these discussions was a resounding concern for the future of the planet. The children spoke passionately about the reasons behind their worries. They feared the devastating effects of global warming - from shrinking snowfall to decreased crop yields and the resulting increase in diseases. "I feel fear and sadness when I imagine the dangerous consequences of global warming" shared one concerned child. The potential lack of oxygen and the spread of toxic pollution were among the worries that weighed heavily on their young minds.

Engaging in climate-related discussions with their family and friends had a positive impact on the children's emotions. These interactions not only allowed them to learn new information but also provided an avenue for raising awareness about climate change. "I feel relaxed when I tell and talk to my mother about the climate and I also get advice," expressed a child.

The interview with adolescents shed light on their emotional responses to climate change, revealing a mixture of sadness, worry, and feelings of powerlessness. The majority of participants expressed

concern about the potential consequences of climate change, including its impact on physical health, mental well-being, and the environment. The devastating effects of global warming, such as extreme weather events, crop damage, and the threat of species extinction, contributed to their emotional distress. A fifteen-year-old girl stated "when it happens in different countries, I feel bad for a moment, and I realize that I am powerless". While some adolescents mentioned that their country might not yet feel the full force of climate change, they still harbored worries about the future. They understood the urgency of the situation and feared that if proactive measures were not taken, it could lead to irreversible consequences. The lack of immediate visible changes in their community did not diminish their anxieties about the broader global crisis. A fifteen-year-old boy said "I am not depressed, but I feel powerless because I'm afraid that if I initiate something as a preventive measure, it might not work out, and I won't be able to do anything.". To cope with their emotions, some adolescents engaged in proactive behaviors, such as participating in community work, planting trees, and encouraging others to protect the environment. They found solace in taking tangible actions that aligned with their beliefs about climate change mitigation. Others coped by seeking emotional support from family members, engaging in positive distractions, or focusing on the brighter aspects of life. On a positive note, school discussions on climate change emerged as a valuable platform for adolescents to gain knowledge and engage in meaningful conversations. These discussions helped them feel empowered by arming them with valuable information and a better understanding of the climate crisis. Education and open dialogues in schools can be crucial in equipping adolescents with the tools and motivation to take action against climate change. "Discussions about climate change have only been in the classroom so far and this interview, but I feel good when I learn something new during these discussions" said a 17-year-old boy.

The emotions and concerns of young people regarding climate change were palpable. Most of them expressed deep worry about the state of our planet, fearing the possibility of worsening conditions in the future. For instance, an 18-year-old man emphasized, "We all should be worried, in my opinion, in 50 years, the condition of our planet Earth will worsen, and we have no other planet to live on." The issue of climate change weighed heavily on the minds of young people, leading to feelings of sadness and even depression. The potential dangers of climate change, including its impact on agriculture and the spread of diseases, only added to their worries. A 23-year-old woman further emphasized, "As a result of global warming, diseases can multiply and affect the development of agriculture."

The interviewed young people felt empowered by their involvement in climate change discussions and activities. Participating in these discussions allowed them to learn and broaden their knowledge about the topic. An 18-year-old man shared, "When we discuss climate change topics in class, my friends and I get a better idea of the seriousness of the problem, and by participating in environmental activities, we understand what important action we are doing for our community."

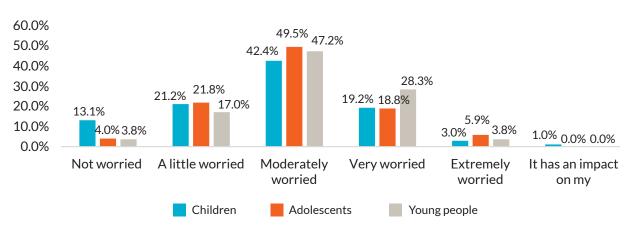


Figure 12: Level of worries over climate change

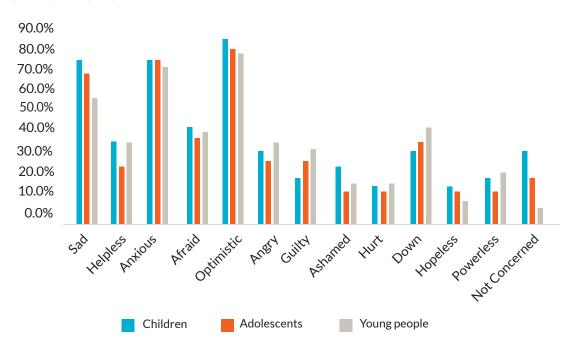


Figure 13: Climate emotions

4.5 Perception of responses to climate change

4.5.1. Perception of the government response

Across all age groups, a significant proportion of respondents feel that their concerns about climate change are not being taken seriously enough. The majority of children (76.5%), adolescents (62.2%), and young people (40.0%) express dissatisfaction with the level of attention given to their worries. Likewise, respondents feel that governments are not doing enough to avoid climate catastrophe. High percentages of children (72.2%), adolescents (58.3%), and young people (31.9%) believe that current actions are insufficient to address the climate crisis. The data also highlights feelings of distress caused by the perception that children and young people's concerns are being dismissed. A substantial number of children (75.0%) report experiencing this, while a smaller but still significant proportion of adolescents (30.1%) and young people (39.6%) share the same sentiment. (Figure 14)

On a positive note, respondents show a relatively higher level of trust in the government's efforts to protect children and young people from the impacts of climate change. The majority of children (81.3%), adolescents (73.2%), and young people (40.8%) believe that the government is committed to safeguarding their future. However, the data also suggests some level of skepticism, with a notable percentage of respondents suspecting that the government might be lying about the effectiveness of their climate actions. This sentiment is particularly prominent among children (29.0%) and adolescents (33.7%). (Figure 14)

Adolescents recognized the vital role that national and international decision-makers play in ensuring a safe future and reducing climate change. They shared thoughtful suggestions on how governments should take action. "Governments should pass laws to do less damage to the environment," emphasized one adolescent. Another insightful voice added, "They can raise awareness to keep their environment clean, to have a universal day of cleaning, and also think of methods not to have polluted air." Their ideas highlighted the need for awareness campaigns and stricter regulations to hold industries and individuals

accountable for their environmental impact. The adolescents displayed a clear understanding of the key points their governments should prioritize to address the climate crisis. Their proposals included promoting renewable energy sources like solar panels, tightening factory regulations, and negotiating with all parties involved to find common solutions. "For example, the requirements related to factories should be tightened so that filtration is performed normally and the air is less polluted."

Young people believe that national and international governments can make a substantial impact in reducing climate change. They propose several key steps that governments can take, including developing new environmental projects and programs, implementing stricter laws to protect the environment, promoting the use of clean and energy-efficient sources like solar power and electric vehicles, and prioritizing the preservation of forests, especially given deforestation's significant role in climate change. Additionally, young adults emphasize the importance of raising awareness about climate change and its potential consequences. They believe that many elderly individuals in their country are not fully aware of the issue and its implications for future generations. By involving older generations in awareness-raising campaigns and programs, they aim to create a unified effort towards tackling climate change. "Armenia, being an aging country with a large number of adults, requires special attention to the issue of climate change. Many elders may not be fully aware of the severity of this problem, perhaps due to the favorable conditions they experienced in their youth. However, it's crucial to engage them in awareness-raising campaigns because their grandchildren and future generations will bear the brunt of climate change's impact. Involving them in these campaigns can serve as a starting point for significant initiatives, such as the installation of solar plants and other vital projects aimed at safeguarding our planet's future "said a 24-year-old woman."

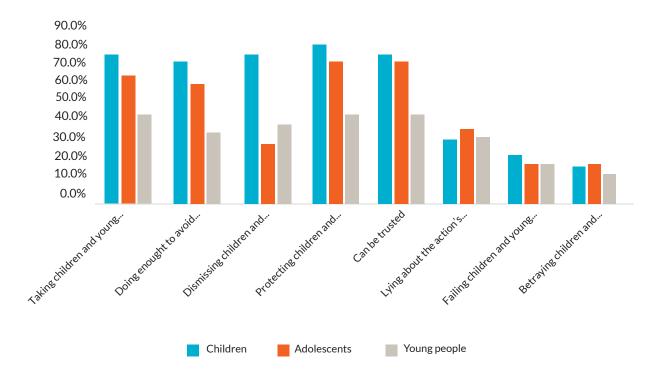


Figure 14: Perception of the government response to climate change

4.5.2 Perception of the NGOs response

Interviewed adolescents and young people offered thoughtful perspectives on how NGOs and the government could actively involve children and young people in the fight against the pressing issue of climate change.

The adolescents emphasized the significance of providing avenues for open expression and dialogue. They proposed conducting individual interviews, where they could calmly articulate their opinions without any reservation. "I prefer one-on-one discussions where I can express my thoughts freely," shared a 15-year-old girl. Embracing the digital era, a 16-year-old girl suggested the establishment of a new platform that allows children and young people to voice their concerns freely and participate in discussions. "With the technological advancements at our disposal, we can create forums and disseminate information effectively," she articulated, envisioning a space where their voices would be heard. Additionally, the adolescents emphasized the value of group discussions that would take into account the perspectives of all participants. A 17-year-old boy expressed, "Organizing discussions that involve everyone's opinion can lead to comprehensive solutions". Recognizing the efficiency of online surveys, a 16-year-old boy proposed utilizing this method to assess the concerns and ideas of children and young people both locally and globally. "Online surveys can bridge gaps and ensure widespread participation," he stated, underscoring the potential reach and impact of such initiatives.

Regarding the role of NGOs like World Vision, the adolescents outlined crucial responsibilities in combating climate change. They stressed the importance of raising awareness and conducting training sessions to empower children and young people. "World Vision can be a catalyst for continuous awareness and education," asserted a thoughtful 17-year-old boy, acknowledging the vital role of NGOs in creating lasting impact. The adolescents also encouraged NGOs to organize various activities and events to address climate change directly. "Engaging in community work and garbage cleaning can create a sense of ownership and responsibility," suggested a 15-year-old boy, emphasizing the significance of hands-on initiatives. Moreover, the young minds called for active collaboration between NGOs and the government to amplify their concerns. "These organizations can serve as a bridge between us and the policymakers," voiced a determined 16-year-old girl, advocating for a unified approach in combating climate-related challenges

4.6 The intergenerational perception of Climate Change

4.6.1 Perception of the climate crisis responsibility

In the eyes of caregivers, climate change is a result of past and present generations' wrong behaviors towards the environment. They strongly believe that human activities, such as deforestation and indifference towards the issue, have contributed to the current climate crisis. Moreover, the exploitation and abuse of natural resources, minerals, and water have further exacerbated the situation. Caregivers also point out that the waste and toxins generated by factories are polluting the world and contributing to the deterioration of the atmosphere, leading to climate change.

To address the problem, caregivers are advocating for several measures. They emphasize the importance of raising awareness about climate change and its consequences. Additionally, they believe that it is crucial to reduce harmful behaviors that harm the environment. Educating their children about the significance of preserving the environment is also seen as a fundamental step towards mitigating the climate crisis. However, caregivers appear to have mixed feelings about the future they are leaving for their children. Some express pessimism, believing that there might be no solution to the current crisis, and the situation may continue to worsen. They worry that their kids will grow up in an unhealthy environment, surrounded by unhealthy food choices. On the other hand, some caregivers hold onto hope, believing that the consistency of current generations' climate activities and efforts to combat climate change may eventually lead to a positive resolution.

A 35-year-old woman reflects on the deteriorating state of nature and envisions a challenging environment for future generations. However, she finds encouragement in the growing commitment



among the current generation to protect nature through increased organizational and programmatic efforts. She remains hopeful that greater consciousness and care for the environment will emerge. A 39-year-old woman expresses concerns about the current state of pollution and foresees a troubling future. Yet, she clings to hope, holding onto the possibility of positive changes. Similarly, a 36-year-old woman acknowledges the gaps in addressing the climate crisis but stresses the need for collective action. She urges society to act as one to preserve the country, nature, and leave a cleaner and better world for future generations.

4.6.2 Actions taken by caregivers to address the climate crisis

Caregivers have been actively engaging in climate-related actions and supporting their children in their advocacy efforts. They recognize the importance of raising awareness about climate change and take initiatives to educate their kids about the issue, its potential effects, and the ways to address it. Encouraging their children's involvement in community work, recycling initiatives, and other environmentally conscious activities is a top priority for these caregivers. Some have even taken personal steps to contribute, like one caregiver who stopped using plastic products to help combat the climate crisis.

To create a supportive and empowering environment for children to take action against climate change, caregivers emphasize the significance of making children aware of the problem and its implications. They stress the importance of leading by example, displaying environmentally friendly behaviors themselves so that their children can observe and follow suit. Furthermore, caregivers are enthusiastic about encouraging their children to participate in climate-related activities organized at school or within the community.

For these caregivers, it is essential to establish a stronger connection between generations and work together towards a common goal. They believe that educating children through informative videos, courses, and discussions about nature, tree planting, and the benefits of such actions, such as generating oxygen and reducing pollution, can instill a genuine love and appreciation for the environment.

5. RECOMMENDATIONS

World Vision aims to create a holistic and inclusive approach to combatting climate change in Armenia, empowering children, adolescents, young people, and caregivers to become effective climate change agents and safeguard the future of generations to come. World Vision calls for:

- 1. Introduce climate change modules in school curricula to educate children, adolescents, and young people about the science, impacts, and solutions related to climate change.
- Organize workshops and training programs for caregivers to raise awareness about climate change and equip them with skills to engage in climate-related conversations with children and young people.
- Establish community-based climate action groups that involve caregivers, children, and young people to collectively implement climate-related initiatives and promote sustainable practices.
- 4. Support climate-related research and data collection to better understand the local impacts of climate change and design targeted interventions for vulnerable communities.
- Collaborate with media organizations to create climate change awareness campaigns that target caregivers, children, and young people, utilizing various platforms such as television, radio, and social media.
- 6. Develop child-friendly and interactive educational materials, including videos, games, and storybooks, to engage children and young people in climate-related topics.
- Organize climate-themed competitions and events, such as art exhibitions and storytelling contests, to encourage creativity and raise awareness about climate change among children and young people.
- 8. Implement tree-planting campaigns in schools and communities, involving children and young people to actively contribute to reforestation efforts.
- 9. Establish community climate centers where caregivers, children, and young people can access information, resources, and support related to climate change.
- 10. Encourage caregivers to lead by example by adopting sustainable practices, such as energy conservation, waste reduction, and responsible consumption.
- Partner with local businesses to promote eco-friendly products and services, encouraging caregivers and their families to make environmentally conscious choices.
- Advocate for policies and regulations that prioritize climate change mitigation and adaptation, ensuring a sustainable future for the next generations.

- Support youth-led climate initiatives and organizations, providing them with mentorship and resources to amplify their impact in climate advocacy.
- Organize climate-related field trips and excursions to nature reserves and conservation areas, allowing children and young people to experience the natural environment firsthand.
- Collaborate with universities and research institutions to conduct climate-related studies that involve children and young people, encouraging their active participation in scientific research.
- Engage religious and community leaders to promote environmental stewardship and climate consciousness among their followers and communities.
- Implement climate-related training programs for caregivers on disaster preparedness and response, empowering them to protect their families during climate-related emergencies.
- 18. Establish a reward and recognition system for outstanding climate actions taken by caregivers, children, and young people, encouraging continuous engagement in climate-related initiatives.
- Develop partnerships with international organizations and institutions to access global best practices and resources for climate change education and advocacy.
- 20. Encourage caregivers to form climate action support groups where they can share experiences, challenges, and success stories, fostering a sense of solidarity and collective action.



6. CONCLUSION

In conclusion, the findings from this research underscore the urgency of taking decisive and collaborative action to address climate change in Armenia. Climate change is not a distant problem but a pressing reality that requires immediate attention and meaningful efforts from all sectors of society. World Vision recognizes the pivotal role of children, adolescents, and young people in shaping the future of our planet. As such, we advocate for a multifaceted approach that involves various stakeholders, including governments, NGOs, educators, caregivers, and the broader community, to work together towards a common goal of combatting climate change and creating a sustainable and resilient future. As World Vision, we are committed to walking this journey together with the people of Armenia, supporting and empowering children and young people, caregivers, and communities in their efforts to combat climate change. Through our programs and initiatives, we will continue to advocate for climate education, resilience-building, youth empowerment, enhanced government action, and collaboration among stakeholders. Together, we can make a tangible and positive difference in the fight against climate change, preserving the beauty and richness of our planet for generations to come. Let us act now and shape a brighter, greener, and more sustainable future for all.



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