Research - Learning to See the Climate Crisis

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

Middle East and Eastern Europe Region

Table of Contents

1 Executive summary

Climate change poses a significant threat to global socioecological systems, with predictions of surpassing critical atmospheric warming thresholds by 2040[1]. Over the past two decades, Georgia has faced economic change, urbanization, and displacement due to disaster caused by natural hazards and conflict. The country is highly vulnerable to climate change, which exacerbates risks like flooding and landslides. These events costs Georgia over $700 million annually which is about 4.3% of GDP [2]. Climate projections suggest an increase of temperature for the period 2041-2070 within the range of 2.1ºC-3.7ºC[3]. The phenomenon of climate change presents a multitude of challenges to communities across the globe, with ramifications that extend to disruptions in livelihoods, economies, and ecosystems. In particular, Georgia is witnessing an increase in the frequency and intensity of disasters caused by natural hazards, including floods, flash floods, landslides, heatwaves, droughts, etc. The impact of climate change on the country's economy is considerable, encompassing strategic sectors such as tourism and agriculture which are acknowledged as being particularly susceptible to the effects of climate change. Other vulnerable sectors include forestry, health, and cultural heritage[4].

Central to Georgia's approach is the National Climate Change Strategy. This strategy focuses on embedding climate considerations into national development agendas, promoting sustainable economic growth. Its main goals include reducing greenhouse gas emissions and enhancing resilience across various sectors. As a party to the Paris Agreement, Georgia has committed to a substantial reduction in greenhouse gas emissions. The country's Nationally Determined Contributions (NDCs) delineate particular measures for the reduction of emissions across a range of sectors, including transport, the promotion of renewable energy sources, the introduction of energy-efficient technologies, climate-smart agriculture and agrotourism, industry, waste management and the forestry sector.

Concurrent with its efforts to mitigate the effects of climate change, Georgia has also acknowledged the necessity for adaptation to the phenomenon. Although the National Adaptation Strategy is not yet in place, a number of essential adaptation measures have been identified and initiatives are being implemented to

---

[1] World Vision Bosnia and Herzegovina. Learning to See the Climate Crisis. Children and Young People's Perceptions of Climate Change and Environmental Transformation in Bosnia & Herzegovina. Sarajevo, 2023. https://reliefweb.int/report/bosnia-and-herzegovina/learning-see-climate-crisis-children-and-young-peoples-perceptions-climate-change-and-environmental-transformation-bosnia-herzegovina.

[2] Economic and Social Commission for Asia and Pacific. (ESCAP) Risk and Resilience Portal https://rrp.unescap.org/country-profile/geo

[3] A climate law for Georgia. A green paper to explore ideas. A consultation from the Environmental Protection and Natural Resources Committee of the Parliament of Georgia. February 2023. https://web-api.parliament.ge/storage/files/shares/Komitetebi/garemo/green-paper-eng.pdf

[4] Georgia's updated Nationally Determined Contribution (NDC). 2021. https://unfccc.int/sites/default/files/NDC/2022-06/NDC%20Georgia_ENG%20WEB-approved.pdf

enhance adaptive capacity in a range of pivotal areas, including disaster risk reduction, energy, agriculture, water resources and infrastructure.

Amidst these transformations, it is crucial to recognize that children and young people will bear the brunt of the changing climate. Children are particularly vulnerable to the impacts of climate change, facing threats such as food insecurity, health risks, and displacement due to extreme weather events. Moreover, Children in developing countries and countries with weak institutions face the greatest risks. In Georgia, children are already exposed to a range of environmental and climate-related hazards. As a developing country, many children live in poverty, which exacerbates the challenges faced by their families (especially in rural areas) in coping with and recovering from climate-driven adversities. Households below the poverty level contend with constrained access to essential services such as healthcare, education, and clean water, thereby intensifying their vulnerability to climate risks. The effects of climate change also extend to mental health, as children experience anxiety and stress related to environmental changes and uncertainties about the future. Therefore, it is vital for climate policies to incorporate measures that protect children's rights and promote their well-being in the face of these challenges. Ultimately, today's children and future generations will carry a disproportionate share of the impacts of climate change, affecting their well-being in various direct, indirect, and societal ways. Given that they will be the future caretakers of the planet and decision-makers, their perspectives and actions will be crucial in addressing the climate crisis and mitigating its long-term effects.

In response to these challenges, the global community has recognized the urgent need to address the impacts of climate change, particularly on vulnerable groups such as children. In 2023, the UN Committee on the Rights of the Child (CRC) adopted "General Comment No. 26 on children's rights and the environment with a special focus on climate change[5]" which focuses on the intersection of children's rights, the environment, and climate change. It highlights that children are especially vulnerable to environmental harm and climate change, which directly affects their rights to health, survival, and development. The comment calls on states, including Georgia, to take urgent action to protect children from environmental risks, integrate children's rights into climate and environmental policies, and ensure that children, particularly those from marginalized communities, are included in decision-making processes. It emphasizes the importance of intergenerational equity, urging that the rights of future generations, including children, must be safeguarded through sustainable environmental practices and climate change mitigation efforts.

---

[5]General Comment on Children's Rights and the Environment with a Special Focus on Climate Change (General Comment No. 26) https://childrightsenvironment.org/about/

Furthermore, Georgia is a signatory to the United Nations Convention on the Rights of the Child (UNCRC), which emphasizes the right to survival, development, protection, and participation. These rights are closely linked to environmental conditions, as a healthy environment is essential for children's growth and development.

In 2019, the Georgian Parliament enacted the "Child Rights Code," which clearly outlines children's right to live and grow in a secure environment, along with their entitlement to social protection. It states that "The child shall have the right to use a natural environment and a public space that is safe for his/her health, to receive information on environmental conditions, and to participate in decision-making related to environmental protection"[6].

Despite efforts to protect children's rights, Georgia continues to face substantial challenges in ensuring that children's needs are fully addressed, particularly in the context of the climate crisis. Many policies still fail to consider the specific vulnerabilities of children in relation to environmental degradation and climate change. Furthermore, there is a lack of adequate educational support and resources to equip children with the knowledge and skills needed to adapt to these challenges. The lack of a cohesive, child-focused approach in national climate and development policies, along with the lack of children's participation in decision-making processes, remains a critical gap in safeguarding the well-being of Georgia's children.

Against this background, this research aims to explore how Georgian 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 and we asked key stakeholders to provide a comprehensive view of the current situation in Georgia. Through a mixed-method design, this research delved into the perceptions of climate change among children, adolescents and young people in Georgia. Employing both qualitative key informant interviews and quantitative surveys, data was gathered from a purposive sample representing diverse communities where World Vision has active programs for children and youth.

---

[6] Law of Georgia. The Code on the Rights of the Child. Article 12.
https://matsne.gov.ge/en/document/view/4613854?publication=4

Key findings on knowledge

Children:

- Average knowledge score: 6.84/10
- Average concern score: 5.85/10
- Commonly associate climate change with environmental degradation and diseases.
- Primary source for knowledge: Teachers
- Exposure to the topic in schools, sometimes as early as 8 years old.
- Limited focus on practical application and sustained engagement in school setting
- 85% see burning of agricultural and horticultural residues as a main contributor; 84.4% point to the transport sector.
- 48.9% believe both human actions and natural processes cause climate change.
- Emphasize human actions like littering, industrialization, and deforestation as root causes.
- A significant number of children see the lifelong impacts of climate change on malnutrition (36.3%), illness (45.7%), and land deterioration (50.6%).
- A limited number of children see the connection between climate change and education (23.9% for girls, 21.1% for boys).
- High awareness for walking/cycling (47.4%), recycling (60.6%), rational water use (62.6%), and plastic reduction (56.6%).
- Less awareness about public transport (31.1%) and food waste reduction (27.1%).

Key findings on knowledge

Adolescents:

- Average knowledge score: 6.58/10
- Average concern score: 6.69/10
- Display a blend of emotional and scientific understanding of climate change.
- Primary sources of knowledge: Teachers and mainly Social Media (e.g., TikTok)
- 93.9% identify burning of agricultural and horticultural residues and 85.9% name the transport sector as significant contributors.
- 63.9% believe both human activities and natural processes are responsible.
- Highlight technology, specifically emissions from factories and cars, as major factors.
- Adolescents perceive a lifelong impact of climate change on illness (40.7%) and malnutrition (44.6%).
- They also recognize mental health issues, including anxiety (46.7%), sleep problems (35.6%), and suicide (13.5%).
- Adolescents are aware of the immediate impacts on hazardous jobs (34.5% for girls, 36.4% for boys) and economic decline/poverty (33.3%).
- Strong recognition for walking/cycling (59% and 44%), recycling (64.3%), rational water use (53.5%), and afforestation (80.8%).
- Also, a good understanding of renewable energy solutions like solar panels (58.8%).
- Gaps in awareness regarding sustainable fashion (25.8%), public transport (26.5%), reducing air travel (27.7%), and reducing firewood use (29.2%).
- such as economic decline and social inequalities.
- Mental health concerns are even more prevalent in this group, including depression (53.3%), anxiety (52.2%), sleep problems (51.1%), and suicide (40.5%).
- High awareness about planting (94%), waste and plastic reduction (84% and 80%), and recycling (80%).
- Strong endorsement for renewable energy, particularly solar panels, both in the city (66.7%) and at home (77.6%).
- Less emphasis on public transport (39.6%), donating clothes (44%), and reducing firewood use (39.6%).

Young People:

- Average knowledge score: 6.6/10
- Highest concern score: 8.06/10
- Show a nuanced understanding of the global impact and existential threat of climate change.
- Primary sources of knowledge: Teachers and Media
- 98% and 97.7% recognize the transport and industry sectors, respectively, as main contributors.
- 61.2% acknowledge both human and natural causes.
- Discuss historical developments like the Industrial Revolution and individual behaviors as significant factors.
- Young people express concern about the lifelong impact on malnutrition (47.2%), illness (53.2%), pregnancy complications (40.5%), and limited health service capacity (39.5%).
- Young people go beyond immediate concerns to discuss existential dread and societal impacts such as economic decline and social inequalities.
- Mental health concerns are even more prevalent in this group, including depression (53.3%), anxiety (52.2%), sleep problems (51.1%), and suicide (40.5%).
- High awareness about planting (94%), waste and plastic reduction (84% and 80%), and recycling (80%).
- Strong endorsement for renewable energy, particularly solar panels, both in the city (66.7%) and at home (77.6%).
- Less emphasis on public transport (39.6%), donating clothes (44%), and reducing firewood use (39.6%).

Key findings on Practice

Children:

- Highly Motivated: A large proportion of children (97.8%) are motivated to act.
- Eco-friendly Transportation: 66% of children walk regularly.
- Energy Consumption: 41% have good energy habits.
- Waste Management: Only 1% sort waste often, and 20% abstain from using plastic bags.
- Awareness Raising: 26% engage in raising environmental awareness.
- No Preparedness: Over 50% have no specific disaster preparedness measures.

Adolescents:

- Strong Motivation: 89.4% are motivated by factors including the potential for significant impact.
- Barriers to Actions: Financial limitations and social support are key factors affecting their ability to engage in certain practices.
- Sustainable Transport: 63% walk regularly; 50% often use public transport.
- Dietary Choices: 43% consume organic food either regularly or often.
- Energy and Water: 35% conserve energy; 37% report regular water usage.
- Waste and Plastic: Only 2% donate clothes regularly, 10% refrain from using plastic bags often, 5% sort waste regularly.
- Advocacy: 31% spread environmental awareness either often or sometimes.
- No Preparedness: 50% to 54.6% lack specific measures.

Young People:

- General Motivation: 81.6% are motivated, though some feel their actions can't bring about significant change.
- Barriers to Actions: Point to systemic shortcomings and a lack of supportive structures as hindrances.
- Desire for Systemic Change: Feel their actions need to be part of broader, systemic solutions.
- Transport Choices: 60% walk regularly; 52% use public transport regularly.
- Energy and Water Efficiency: 34% use energy-efficient lighting; 38% have efficient energy consumption; 32% are conscious about water consumption.
- Plastic Reduction: 28% refrain from using plastic bags, 22% avoid plastic regularly.
- Waste Management and Composting: Only 14% collect garbage regularly, and 4% compost.
- Advocacy: 24% regularly or often engage in raising environmental awareness.
- No Preparedness: Over 50% are unprepared.

Key findings on Climate emotions:

Children:

- Worry Level: 52% are "a little worried."
- Sadness: 63.9% feel sad about climate change.
- Helplessness: Varies from 26% to 45.5%.
- Optimism: Not quantified but interviews indicate a moral obligation to act.
- Complex Emotions: Fear, anxiety, and a sense of personal responsibility are prevalent.

Adolescents:

- Worry Level: 44% are "moderately worried" and 19% "very worried."
- Sadness: 46.4% feel sad.
- Helplessness: Varies from 26% to 45.5%.
- Optimism: Ranges from 57.9% to 72.9%.
- Complex Emotions: Emotions range from frustration to powerlessness, yet a willingness to engage exists.

Young People:

- Worry Level: 52% are "moderately worried" and 16% "very worried."
- Sadness: Highest at 72.7%.
- Helplessness: Varies from 26% to 45.5%.
- Optimism: Ranges from 57.9% to 72.9%.
- Complex Emotions: Emotions include despair, eco-anxiety, activism fatigue but also hope through collective action.

Key findings on the intergenerational perception of climate change:

- Older adults are more proactive in environmental matters; younger ones are seen as future activists.
- A sense of collective, intergenerational responsibility is strongly felt among older adults
- Despite anxiety about the future, there is a prevalent sense of optimism.
- Older adults call for a multi-pronged approach involving governments, NGOs, and individuals for effective climate action.
- Leading by example is the most effective way caregivers influence children's attitudes towards climate change.
- Education through hands-on activities significantly impacts children's sense of responsibility and awareness.
- Open dialogues about climate topics are crucial for building informed understanding.
- Providing access to credible resources empowers children to conduct independent research.
- Caregivers participate in community initiatives and regulatory compliance, suggesting a multi-faceted role in climate action.

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

- Majority of children (51.3%) are dissatisfied with the government's attention to climate issues, rising to 54.2% for adolescents and 65.7% for young people.
- High levels of distrust exist about the effectiveness of governmental action, especially among adolescents (67.6%) and young people (77.1%).
- 75.4% of children trust the government's efforts to protect them from climate impacts, compared to 47.1% of adolescents and 17.9% of young people.
- Respondents demand a transition to renewable energy, better waste management, and robust conservation policies.
- Adolescents and young people are calling for stricter environmental laws, citing European models as examples to follow.
- Schools are seen as essential platforms for climate-related dialogues and as a means to gather opinions from young people.
- Surveys are considered useful tools for capturing a wide range of youth perspectives on climate issues.
- Extracurricular activities, such as school clubs and NGO projects, are highly valued for in-depth engagement.
- There is a strong demand among young people for NGOs to adopt more hands-on, educational strategies that lead to actionable climate solutions.
- Respondents indicate that climate change is overshadowed by other social and political issues, leading to a feeling of being sidelined.
- Incentives like gifts were suggested to encourage wider public participation in discussions and actions related to climate change.

Key findings on local initiatives and areas of support:

- Climate change's impact on young people is multifaceted and includes emotional stress, gender vulnerabilities, and potential rights violations.
- Georgia's commitment to international climate agreements is evidenced by the introduction of climate-specific legislation and action plans.
- Climate awareness is systematically integrated into education, promoting eco-consciousness from an early age.
- Youth involvement is a priority, with programs aimed at raising awareness and empowering young people to drive climate initiatives.
- Georgia's approach to climate resilience encompasses economic viability, technology adoption, mitigation, adaptation, and community involvement.

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 levels[7]. Crossing this critical threshold is now linked to triggering the most catastrophic social and environmental consequences of a changing climate.

Countries worldwide are becoming more susceptible to devastating weather phenomena such as change in precipitation regimes and heavy rains, droughts, and severe storms. This susceptibility is due, in part, to recent fluctuations in climate patterns but also because of the enhanced sensitivity to these events owing to historical practices, social and economic conditions, or unresolved legacy issues. The extent to which these countries' economies are affected by weather vulnerability depends on their ability to manage or adapt to these conditions.

Over the past two decades, Georgia has experienced significant economic change, urbanization and displaced populations due to conflict and disasters triggered by natural hazards[8]. Georgia is considered highly vulnerable to the effects of climate change, facing threats that include increased frequency and severity of droughts, flooding and landslides[9]. River flooding, rockslides, landslides and mudslides are the chief source of natural disasters in Georgia. Extreme flood events cost the country over US$190 million per year. Scientists estimate that climate-driven disasters could cost Georgia as much as $12 billion over the next decade, almost 80 percent of Georgia's current annual GDP[10]. These are expected to have serious implications for agriculture in particular, which is central to the Georgian economy, given that a significant portion of the population is employed in this sector. A changing climate will also significantly impact the coastal zone. The most vulnerable sectors are agriculture, forestry, tourism, health and cultural heritage[9].

Against that backdrop, **the aim of this study was to explore how children and young people in Georgia come to articulate environmental knowledge as a process of "figuring out"** more specifically the

---

[7] IPCC (2018) https://www.ipcc.ch/sr15/
[8] World Bank (2021): Climate risk Country Profile Georgia
[9] UNDP (2023) EU4Climate-Georgia full report
 https://eu4climate.eu/wp-content/uploads/2023/05/GEORGIA_EU4Climate_2023.pdf
[10] UNDP (2022) https://georgia.un.org/en/180476-standing-climate-change

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.

The research also explored the extent to which children and young people engage or are 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 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. Moreover, the research evaluated key Georgian stakeholders' views on the urgency of climate change for youth, their advocacy journeys, challenges faced, and effective initiatives, while also pinpointing areas of neglect, especially concerning young individuals' needs and vulnerabilities.

By examining these factors, this research endeavored to generate valuable insights into the perception of climate change among children and young people in Georgia. 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 100 children aged 8-11, 100 adolescents aged 12-17, and 50 young women and men aged 18-24, selected conveniently from urban and rural communities in Georgia.

2. Key Informant interviews (KII) with children: 4 KIIs were conducted with girls and boys from rural and urban communities in Georgia

3. Key informant interviews with adolescent: 4 KIIs were conducted with girls and boys from rural and urban communities in Georgia

4. A total of 8 KIIs were carried out with young individuals hailing from both rural and urban communities across Georgia. To capture a diverse set of perspectives, the respondents included young men and women, individuals with physical disabilities, and members from ethnic and religious minorities.

5. KIIs were conducted with 3 female caregivers to explore the intergenerational impact of climate change.

6. KIIs were conducted with three pivotal stakeholders: an independent consultant specializing in environmental policy, the Head of the Primary Structural Unit of the Environment and Climate Change Department at the Ministry of Environment Protection and Agriculture of Georgia, and the Project Manager at CENN, a regional NGO focusing on environmental conservation.

Sampling Strategy

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

- Access to Participants: World Vision's existing programs for children and youth in Georgia 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 time-consuming and resource-intensive. Purposive sampling allows researchers to collect data efficiently and quickly without the need for extensive planning and logistics.

- Feasibility: Georgia's geography and demographics might pose challenges in reaching a representative sample using other sampling methods. Purposive 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 remote and face-to-face interviews. The survey was designed to collect quantitative data and was administered through MS Forms and was conducted either remote 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. [11]This included examining frequencies,

---

[11] Data cleaning was also conducted, hence the percentages are not round and are in decimals, as some responses with I don't know or no answer were not included in the cumulative percentage.

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 Georgia, it is important to acknowledge certain limitations that may have influenced the findings and interpretations.

Firstly, purposive 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 Georgia. 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 Georgia. 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 equal, with each age group consisting of equal proportions of males and females. The marital status of young people varied, with the majority being single and 12% married. More than half of surveyed children and young people resided in urban areas 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

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 small percentage had participated in the past or were currently members especially in Youth clubs. 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. Regarding employment, the majority of surveyed young people were not currently employed, with 46% indicating employment status in diverse fields.

4.2 Knowledge

Among the children surveyed, the average self-rated score for their knowledge about climate change was 6.84 out of 10. This suggests that children have a notable level of understanding about the topic. The findings also indicated that children expressed a considerable level of concern about climate change, with an average self-rated score of 5.85 out of 10 (Figure 1). When asked about what comes to mind when hearing the words "climate change", interviewed children articulated an unsettling image of a deteriorating world. One girl painted a vivid scene, saying, *'A place, ground full of garbage, withered flowers, plants, grasses, cut trees, and a total black atmosphere, exhaust in the air. This air causes many diseases and various things. '*Similarly, an 11-year-old boy connected disasters caused by natural hazards like *'floods, hurricanes, earthquakes,'* to climate change, emphasizing that he is well aware of the devastating causes behind these calamities. The youngsters' perceptions, collectively underscore their evolving consciousness about climate change and its far-reaching implications.

In terms of the adolescent age group, the average self-rated score for knowledge about climate change is 6.58 out of 10. This suggests that adolescents have a high level of understanding regarding climate change. Additionally, their concern about climate change is higher than children's, with an average self-rated score of 6.69 out of 10 (Figure 1). And lastly, when it comes to the young people surveyed, the average self-rated score for knowledge about climate change is 6.6 out of 10. Moreover, young people demonstrated the highest level of concern amongst the age groups, with a striking average self-rated score of 8.06 out of 10 (Figure 1).
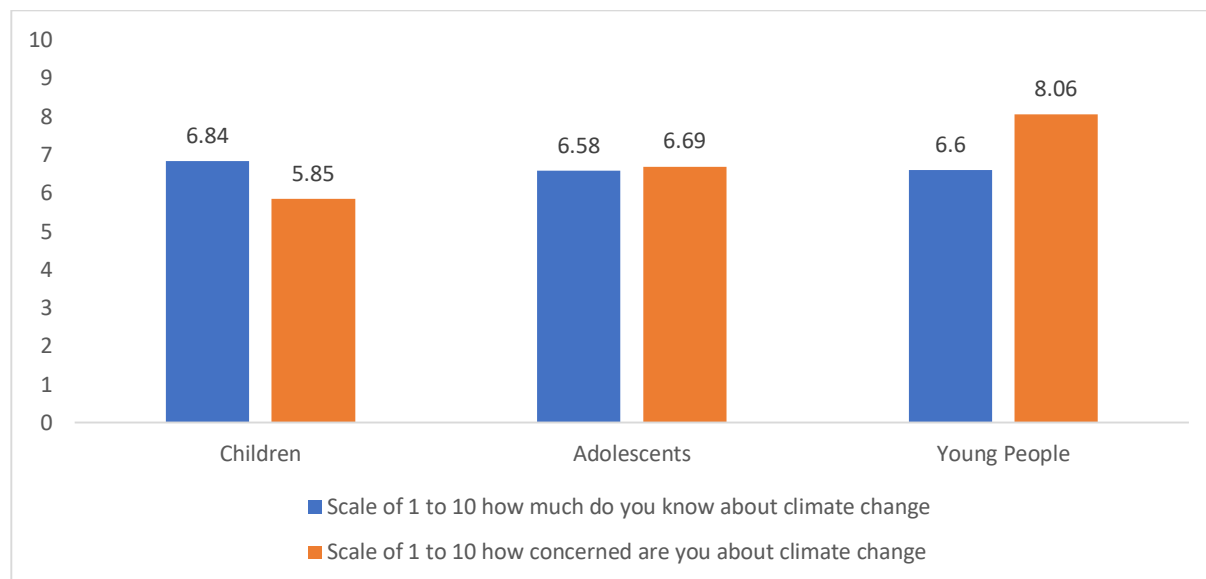

Figure 1 Children and young people's general knowledge and concerns over climate change

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

The adolescent responses paint a complex picture of climate change education, revealing a blend of traditional and modern learning avenues. While the role of teachers and schools remains relevant—as evidenced by some respondents noting classroom exposure—the immediacy and reach of social media platforms like TikTok seem to have a significant, perhaps even dominant, influence. One girl explicitly stated, "I've learned more about climate change from TikTok and social media than I have in school."
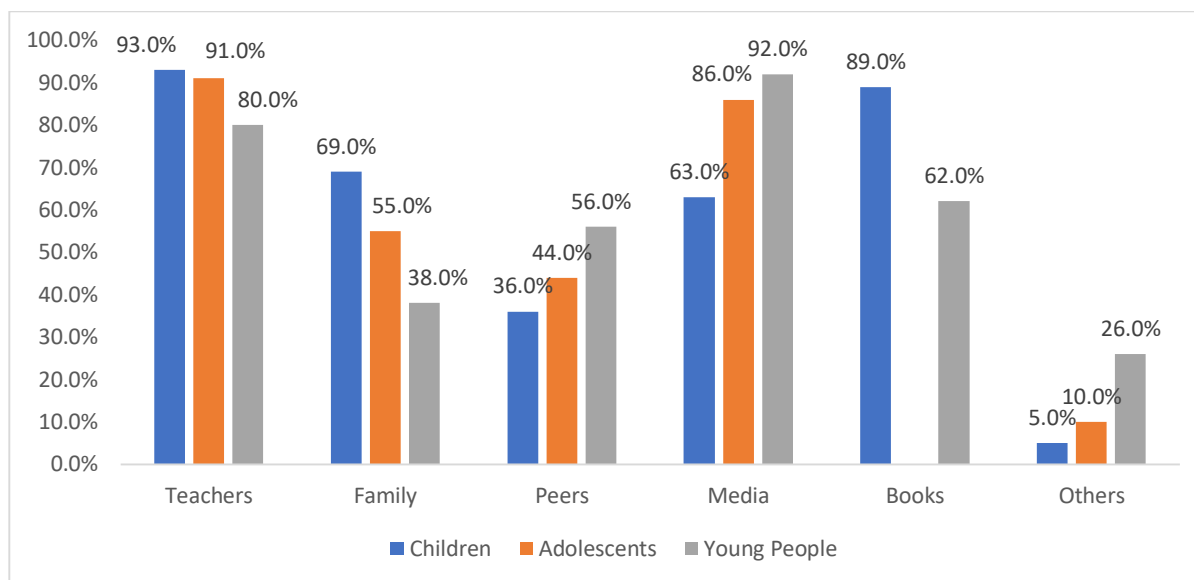
Figure 2 Children and young people's sources of knowledge on climate change

For surveyed children, burning of agricultural and horticultural residues was shown to be the most significant contributor to climate change, with a significant 85% identifying it as a main culprit. The transport sector followed closely, with 84.4% of children perceiving it as a significant contributor (Figure 3). Among the surveyed children, a considerable percentage (48.9%) believe that climate change is predominantly caused by both human actions and natural processes (Figure 4). Interviewed children's perspectives on the causes of climate change offer a striking blend of accountability and moral responsibility. Unanimously, they point to human actions as the root cause, highlighting activities such as industrialization, littering, and deforestation. A girl succinctly states, *"I think only humans are the cause of climate change because animals don't do anything wrong, it's just humans. Just because we want to live well, we harm nature."* An 11-year-old boy expands on this, mentioning that humans *"do not pay attention to anything, neither to the environment, nor to nature and life,"* emphasizing the array of irresponsible actions, from littering to industrial pollution.

Surveyed adolescents, showed a similar awareness of the impact of burning of agricultural and horticultural residues and the transport sector's contribution, with 93.9% and 85.9% respectively identifying it as a main contributor (Figure 3). Among the surveyed. Surveyed young people displayed a similar level of concern regarding the transport and industry sectors, with a striking 98% and 97.7% respectively recognizing their role in contributing to climate change (Figure 3). The data also reveals that young people show a high level of awareness, with 61.2% acknowledging that climate change is caused by both human factors and natural processes (Figure 4). Young women and men exhibit a nuanced understanding of the multifaceted causes of climate change, agreeing that while natural factors may contribute, human activities are the primary

driver. Many pinpoint the Industrial Revolution as a critical juncture when human-caused emissions began to intensify dramatically.

It is noteworthy that the above results are consistent with the actual situation in the country. In particular, GHG emissions in Georgia are generated in seven main sectors: energy production and transmission, transport, buildings, industry, agriculture, waste management, and forestry, and it is in these key sectors identified in the country's climate change strategy, that mitigation actions are planned to be implemented[12].
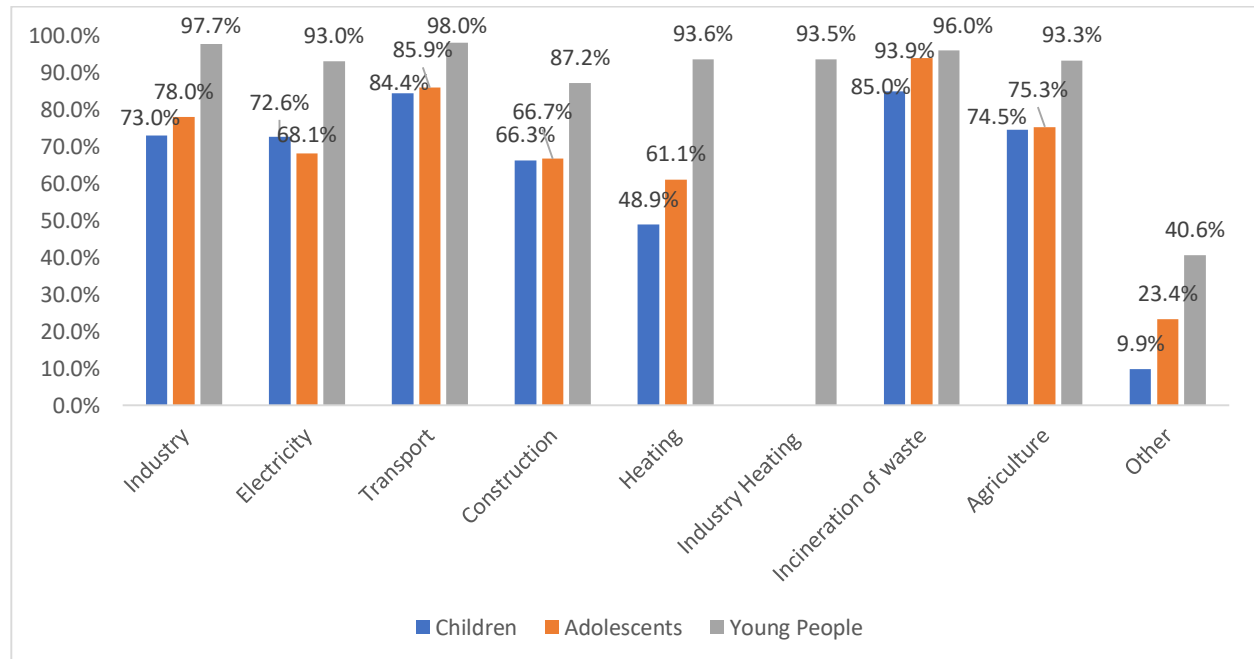

Figure 3 Children and young people's perceptions on main contributors to climate change

---

[12] 2021-2023 Action Plan of Georgia's 2030 Climate Strategy. Strategic documents | Ministry of Environmental Protection and Agriculture of Georgia
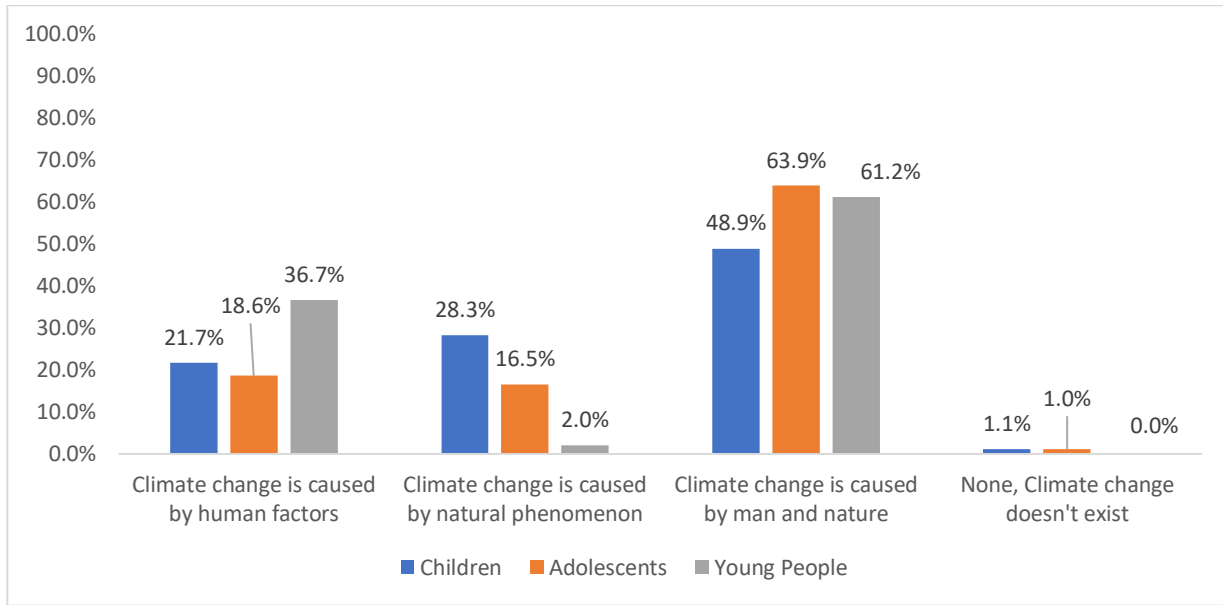
Figure 4 Perceptions of climate change causes

38.5% of the surveyed children perceived the climate change's impact on the quality of life of children and young people globally as "Mostly Negative" and 30.3% as "Very Negative," emphasizing a prevailing view of negative consequences on their lives due to climate change (Figure 4). Adolescents' perceptions of climate change's impact on their quality of life followed a similar trend with 34.8% perceived the impact as "Mostly Negative" and 21.3% as "Very Negative" (Figure 4). The data for young people shows a similar pattern, with the majority (58%) expressing a "Very Negative" perception and 36% perceiving the impact as "Mostly Negative." (Figure 5)
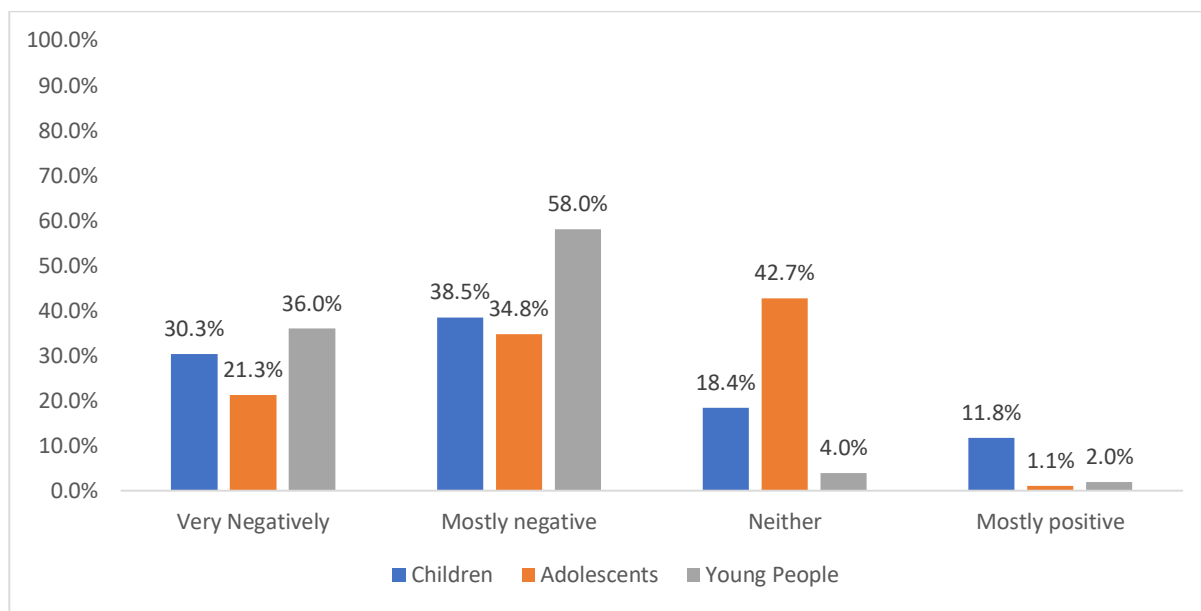
Figure 5 Perception of climate change's impact on the quality of life of children and young people

The quantitative data highlights children's perception of the lifelong impacts of climate change on malnutrition (36.3%), illness (45.7%), and land deterioration (50.6%). They also express awareness of climate change's immediate influence on mental health (39.8%). However, most children do not see direct connections between climate change and child marriage or violence against children. Furthermore, a small proportion of the surveyed children recognize climate change's lifelong impact on access to education for both genders (23.9% for girls and 21.1% for boys), reflecting their understanding of potential disruptions in educational systems. Interviewed children's perspectives on the impact of climate change paint a complex picture, revealing deep concerns. The majority paint a bleaker image, concentrating on social issues such as increasing poverty and deteriorating health, especially among children. An 11-year-old boy, for instance, notes *"Due to climate change causing more frequent natural disasters, an increasing number of children are losing their lives. Education, already a challenge for many, is becoming even more difficult to access because of these changes."* Adding another layer to this multi-dimensional issue, the children acknowledge the emotional and mental repercussions of climate change, such as the concept of *"bad energies"* affecting people's moods. One boy suggests that if children grow up seeing litter and environmental degradation, they may perpetuate these issues, thereby creating a self-sustaining cycle of environmental negligence.

4.3 Practice

The survey results demonstrate a significant high level of motivation among children, adolescents, and young people regarding environmental concerns. Specifically, a striking 97.8% of children, 89.4% of adolescents, and 81.6% of young people indicated that they are either strongly or somewhat motivated. (Figure 6).

The reasons behind their personal motivations vary, but some common themes emerge. Across all age groups, love for wildlife serve as a powerful driving force, with a significant percentage (95% to 97.7%) citing this as a significant motivator. The chance to provide a better life for future generations is another compelling reason, resonating strongly with 89.8% of children, 95.2% adolescents and 92.5% of young people, showcasing their concern for environmental sustainability. Moreover, setting an example also play a notable role behind the participant's motivation, with a percentage of 87.5% for children, 95.2% for adolescents, and 80% for young people. Upgrading personal knowledge also serves as a compelling reason for the motivation of the surveyed children and young people with a significant percentage of 80% to 85.2% (Figure 7).

Despite these positive motivations, some respondents cite challenges that can affect their willingness to engage. A notable percentage of children (50%), adolescents (50%), and young people (33.3%) feel inhibited by the belief that engaging in climate related activities is not their job. Similarly, a significant percentage of adolescents (70%), and young people (77.8%) indicated that they do not have a reason behind their demotivation, showcasing the dire need for more awareness (Figure 8).

The adolescent respondents highlight several barriers and motivations that influence their ability and willingness to act on climate change. Financial limitations are a notable concern, particularly for projects that require a significant initial investment like solar panels. As one girl puts it, *"Installing solar panels isn't cheap, and in Georgia, where funds are limited, it's really an option only for the wealthy, which I am not."* Social support is another factor that respondents identify as crucial for taking substantial steps towards combating climate change. One 13-year-old boy notes, *"I need support from my parents and friends."* The role of close relationships in encouraging or inhibiting climate action underscores the importance of community engagement and family education in this context. Moral commitment also emerges, especially when it comes to lifestyle choices like adopting a vegetarian diet. One girl observes, *"In theory, becoming a vegetarian is straightforward and just requires the will to do it. But given that people have consumed meat for generations, making such a rapid change can be challenging"*. Lastly, there's a prevalent sentiment that individual actions, while meaningful, need to be part of a broader collective effort to make a real impact. *"The obstacle I see is that while I make an effort not to litter, real change would require everyone else to do the same."* one girl points out. Another boy echoes this, saying, *"I'd be more inclined to take action if I*

saw that everyone else was doing the same." On the issue of gender, the adolescents' views emphasize a notion of equality in taking climate action. The prevailing sentiment is that the ability to contribute to environmental solutions is not determined by gender. *"Absolutely. What one gender can do, the other can do as well. I don't see why there should be separate roles for boys and girls"* says one girl, mirroring the thoughts of other respondents.

Interviewed young people display a nuanced understanding of the complexities involved in addressing climate change. While they acknowledge the potential of individual actions like energy conservation or solar panel installation, there's a recurring sentiment of feeling powerless to effect meaningful change alone. A female respondent captures this sense of limitation, stating, *"What holds me back personally is the feeling that I can't make a significant impact; for example, when a store hands you a product in a plastic bag, you're left wondering what you can actually do to change things*

On the subject of gender equality in environmental activism, respondents expressed a collective sentiment that opportunities for involvement should not be determined by gender. This view is reinforced by the accessibility of information and platforms for activism offered by social media and the internet. One man emphasized, "Social media and online platforms provide us access to a wealth of information on various subjects, as well as connect us to organizations, schools, and universities where we can express our opinions and concerns." In essence, the prevailing opinion is that tackling climate change is a universal responsibility that transcends gender lines, captured by another man's statement that "Every person can do something for the world and for their city and nature."
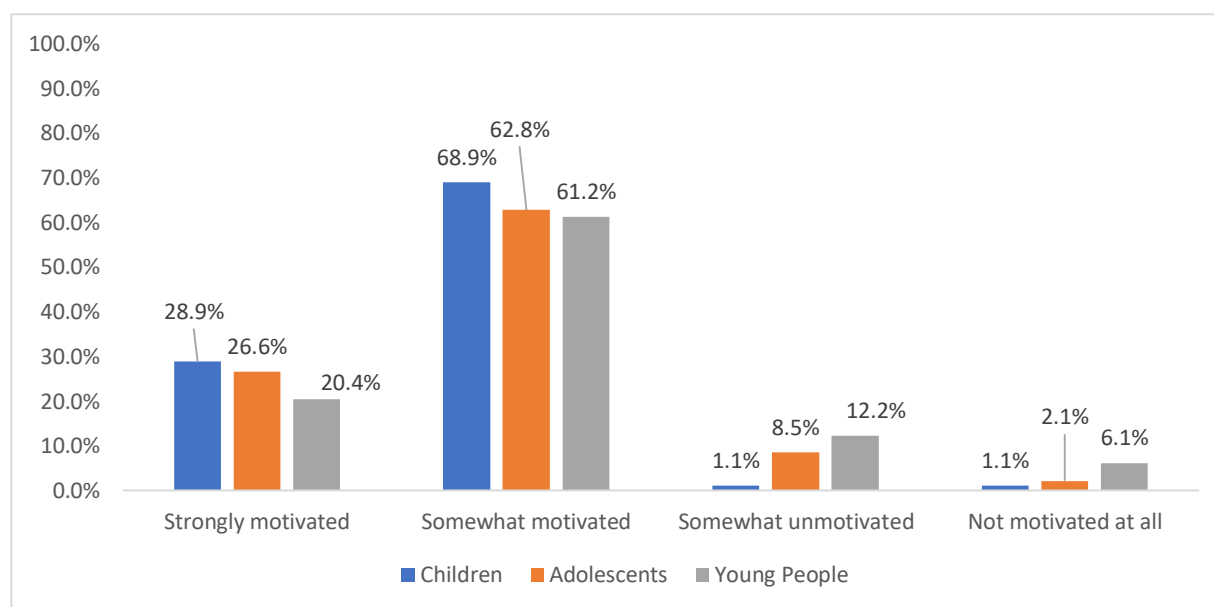
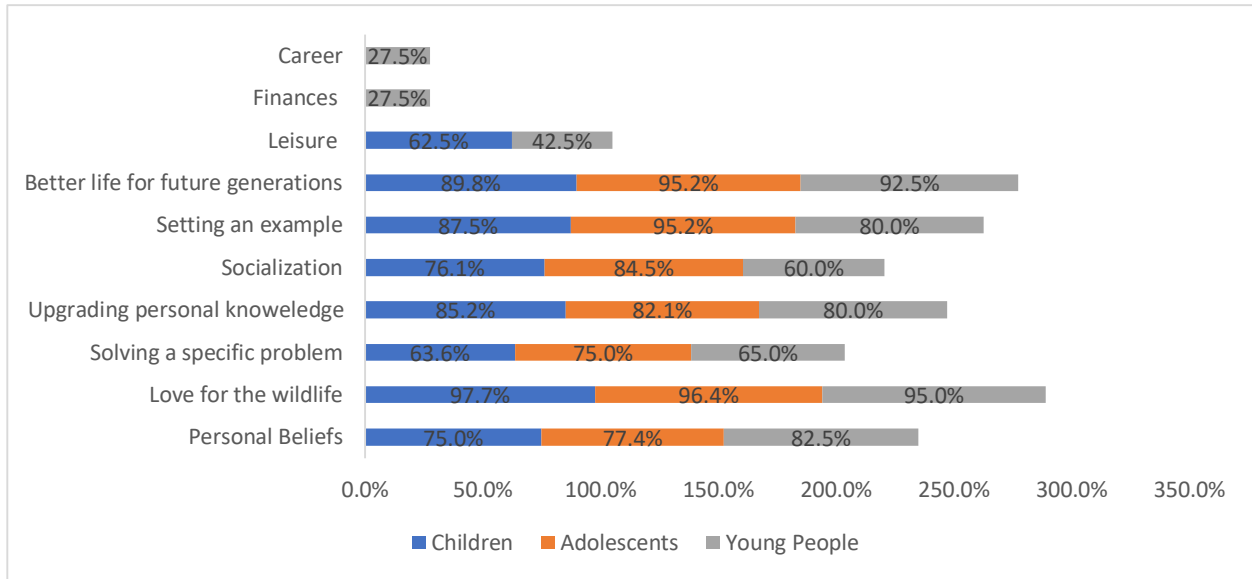*Figure 6 Motivation to engage in environmental activities*

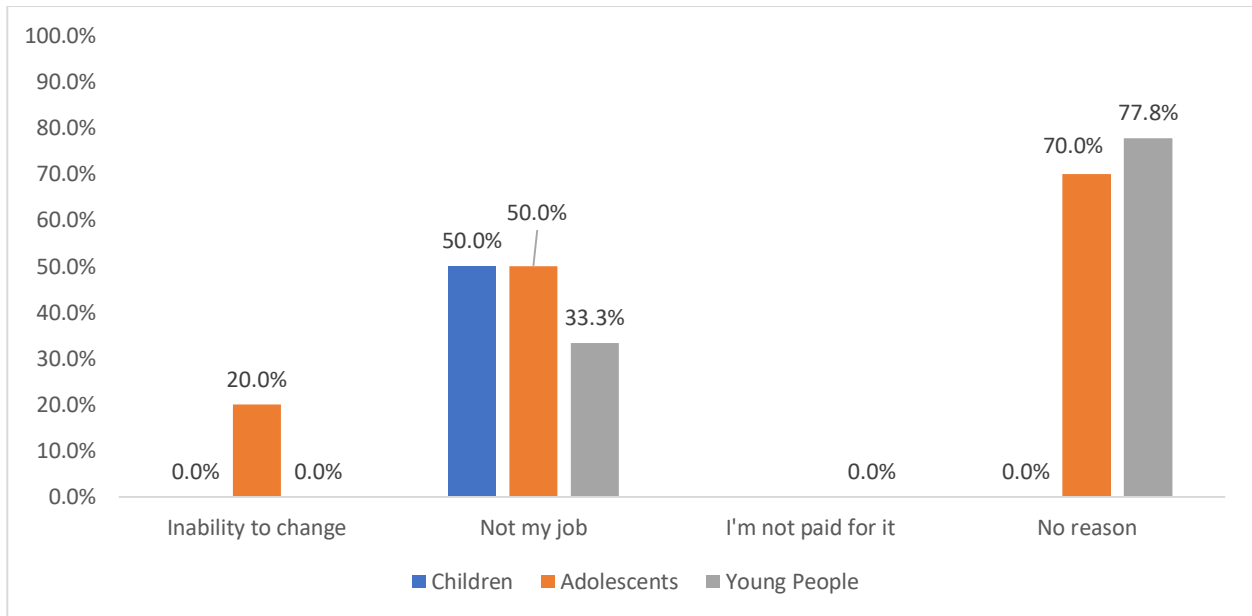*Figure 7 Sources of motivation*

Figure 8 Sources of demotivation

A significant percentage of surveyed respondents from all three age groups (81.4% of children, 80.6% of adolescents, and 81.6% of young people) participate and engage in actions that contribute to environmental preservation and sustainability (Figure 9).
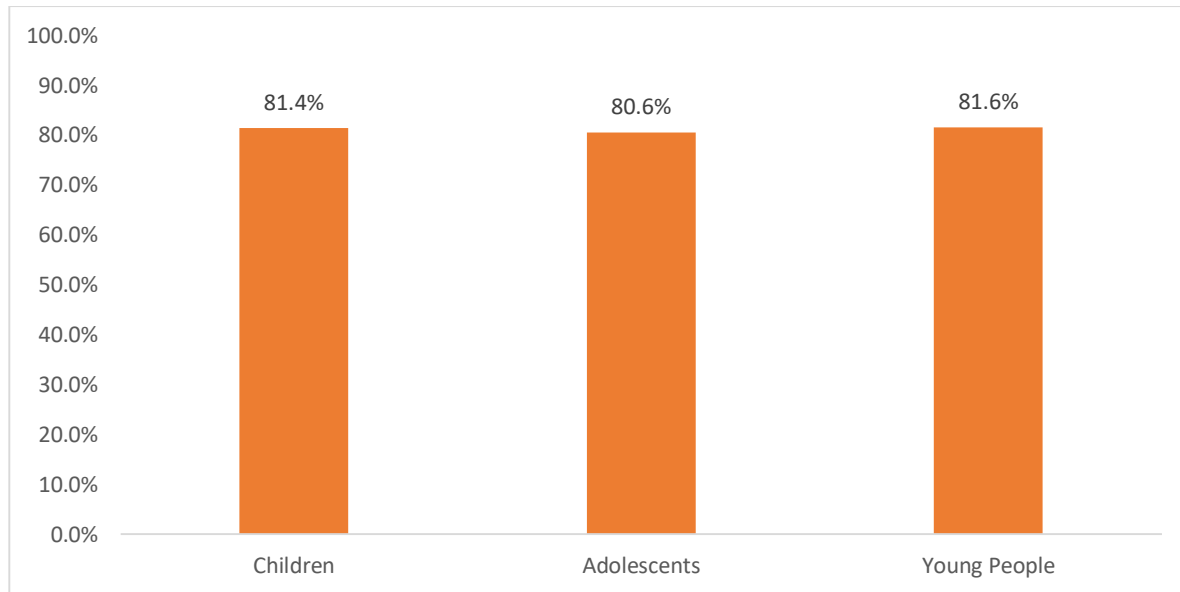

Figure 9 Participation in activities that impact the environment

Preparedness for disasters was examined throughout the survey, the data among different age groups reveals interesting insights. While the majority of children, adolescents, and young people (50% to 54.6%) 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 (58.9%), adolescents (57.1%), and young people (52%) acknowledging its importance. On the other hand, when it comes to having a disaster kit and practicing evacuation, there is room for improvement. In terms of having a disaster kit, only 14.6% of children, 11.3% of adolescents, and 22.4% of young people reported having one. However, we have to stay critical if children's perception on disaster kits are correct due to the fact that it is not a widespread practice in Georgian households. Engaging in practice evacuation was prevalent only in 7.9% of children, 10.2% of adolescents, and 12% of young people. (Figure 10)

Figure 10 Preparedness to disaster
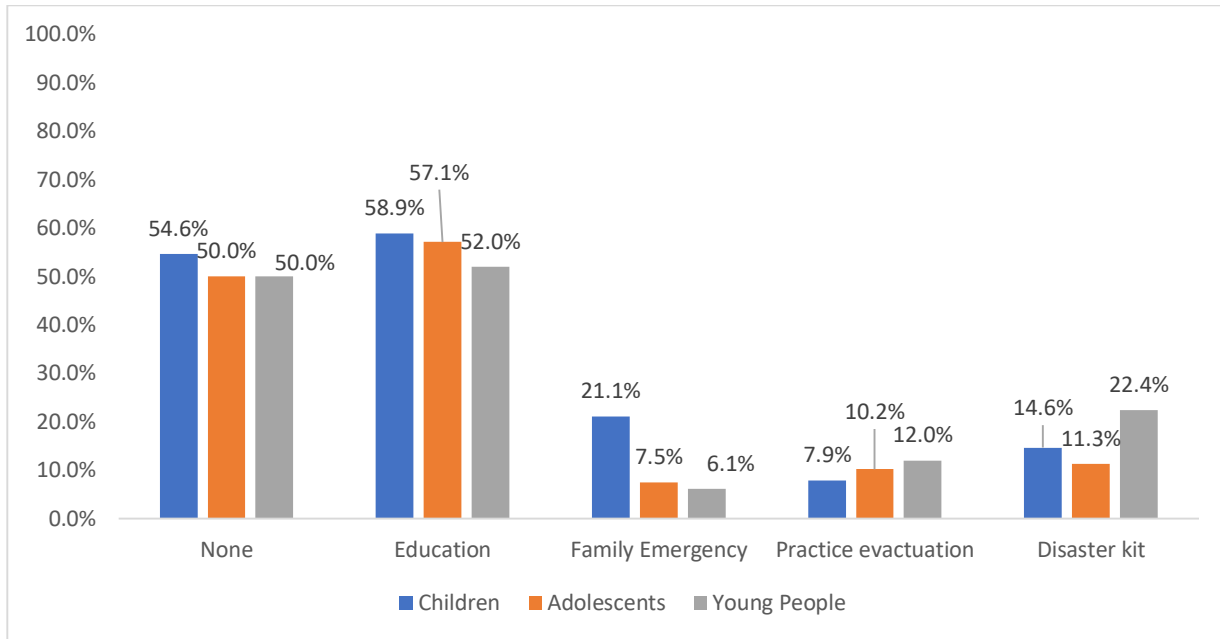
When it comes to learning about climate change, children, adolescents, and young people have varied preferences. Children and adolescents rely heavily on the school curriculum, books, and youth groups. For young people, workshops are the top choice, followed by youth groups, seminars, and online courses. Scientific journals and papers are less commonly used across all age groups (Figure 11).
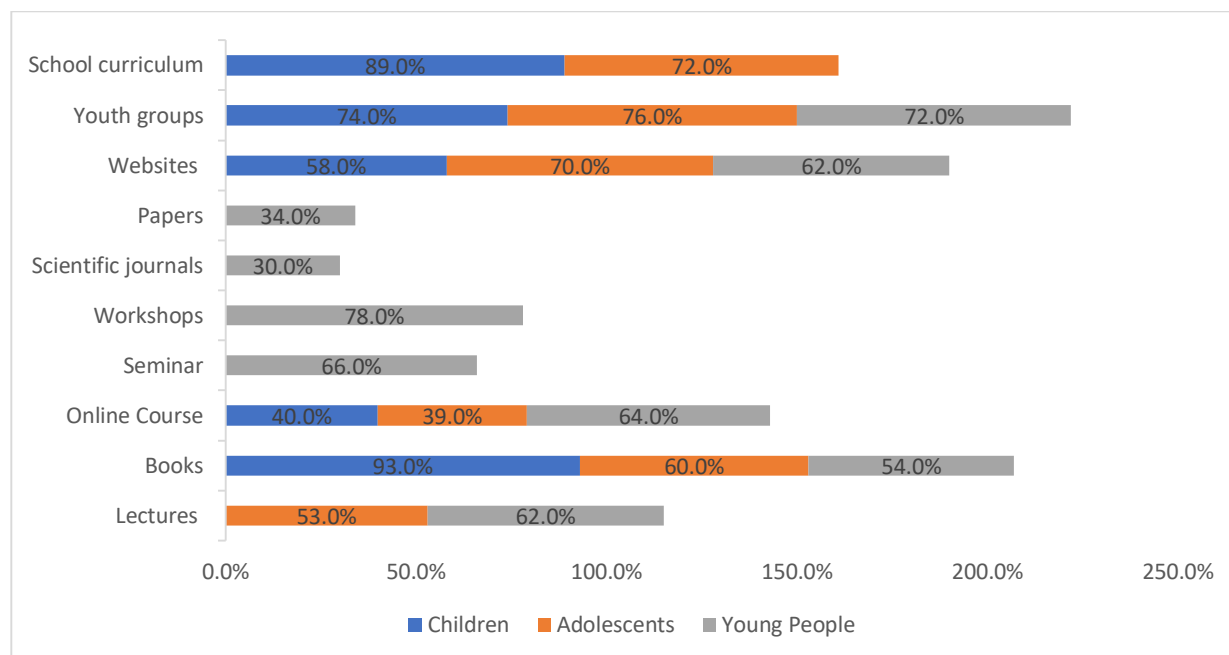
Figure 11 Preferred Sources for Climate Change Information

4.4 Impact of Climate Change on Mental Health

When it comes to worries about climate change, the majority of adolescents and young people fall into the "moderately worried" category, with significant percentages of 44% and 52% respectively. Interestingly, the majority of children showed less worry, where 52% of them indicated that they feel "A little worried". A notable proportion of young adults and adolescents are also "very worried," with percentages of 16% and 19% respectively. Only a small minority, particularly young people (4%) and adolescents (4%) express being "extremely worried" about climate change, while none of the children showed this level of worry (Figure 12).

A substantial number of respondents feel "sad" about climate change, with percentages ranging from 72.7% for young people, 46.4% for adolescents, and 63.9% for children. "Helpless" feelings are also prevalent, with considerable percentages across all age groups, ranging from 26% to 45.5%. Additionally, participants reported feeling afraid, with percentages ranging from 44.4% to 56.5%. Moreover, feeling down was also experienced by 51%% of children, 40.6% of adolescents, and 58.7% of young people. On the other hand, "optimism" is relatively common, with percentages ranging from 57.9% to 72.9%. (Figure 13)

The interviewed children display a multifaceted emotional response to environmental issues, ranging from fear and anxiety to a strong sense of moral obligation. Many experience distress over deforestation and feel worried about isolated incidents like power outages, interpreting them as ominous signs of broader

environmental problems. One child encapsulated this sentiment by stating, *"One time, we experienced a minor setback in our community when the power went out. The situation made me feel anxious, frightened, and unsure about what steps to take next."*

The diversity of adolescents' emotional responses to climate change illustrates the complex, multi-layered psychological impact of this global crisis. From anxiety and emotional distress to skepticism and apathy, people's feelings cover a broad spectrum. For example, one respondent admitted, *"I feel more frustrated and bewildered than downhearted, mainly because the issue is so vast and I'm unsure what steps to take."* reflecting a sense of emotional complexity and paralysis due to the enormity of the issue. Another stated, *"if I act alone, I cannot change anything,"* emphasizing a feeling of powerlessness that can stymie individual action. The emotional landscape of young people grappling with the reality of climate change is a tapestry of complex feelings, oscillating between despair and hope, inaction and activism. A prevailing sentiment, as one man put it, is a sense of being *"Disheartened and helpless because my personal contributions seem futile if those in leadership positions aren't committed to change."* capturing the despair many feel when confronting the overwhelming scale of environmental degradation. This feeling is often coupled with a form of eco-anxiety or *"activism fatigue,"* a psychological toll incurred from constantly battling the enormity of the problem and the apathy or inaction of those in positions of power. However, the narrative is not entirely bleak. Many young people find strength in collective awareness and action, as one 18-year-old woman expressed, *"It's a great feeling to stand side by side, especially when you are united by some project and goals."* Additionally, the role of educational institutions and online communities in fostering such collective action and serving as emotional support systems cannot be overstated. They not only help disseminate critical information but also serve as spaces for emotional healing and constructive dialogue.
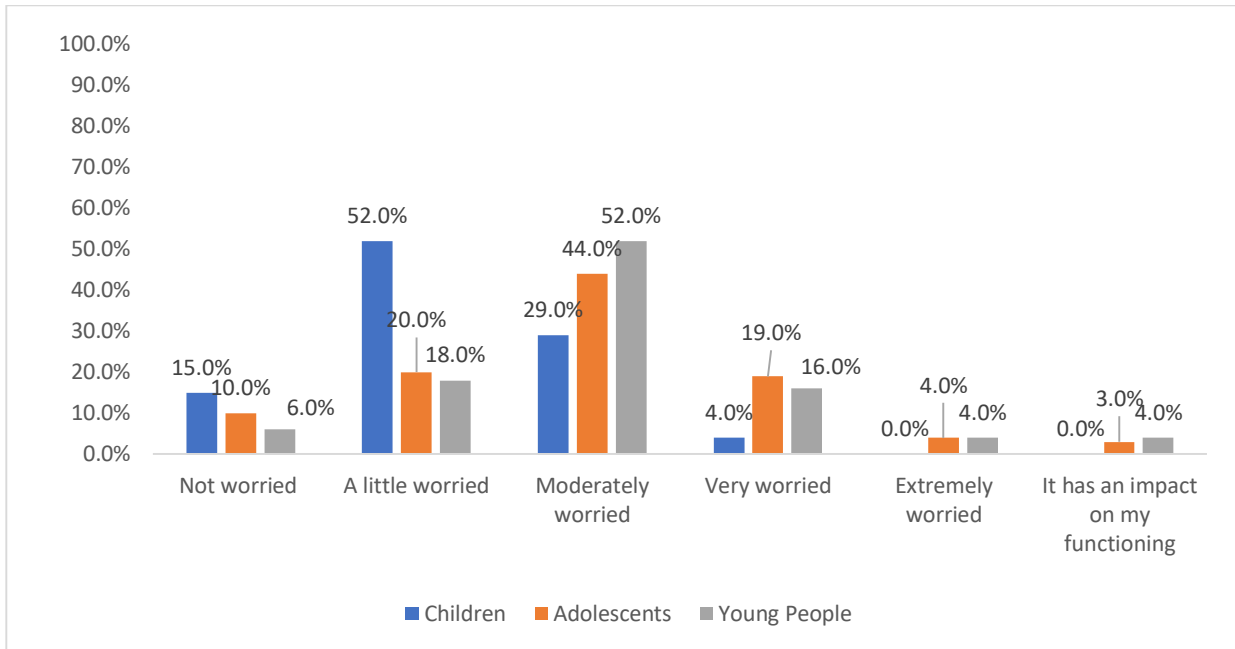
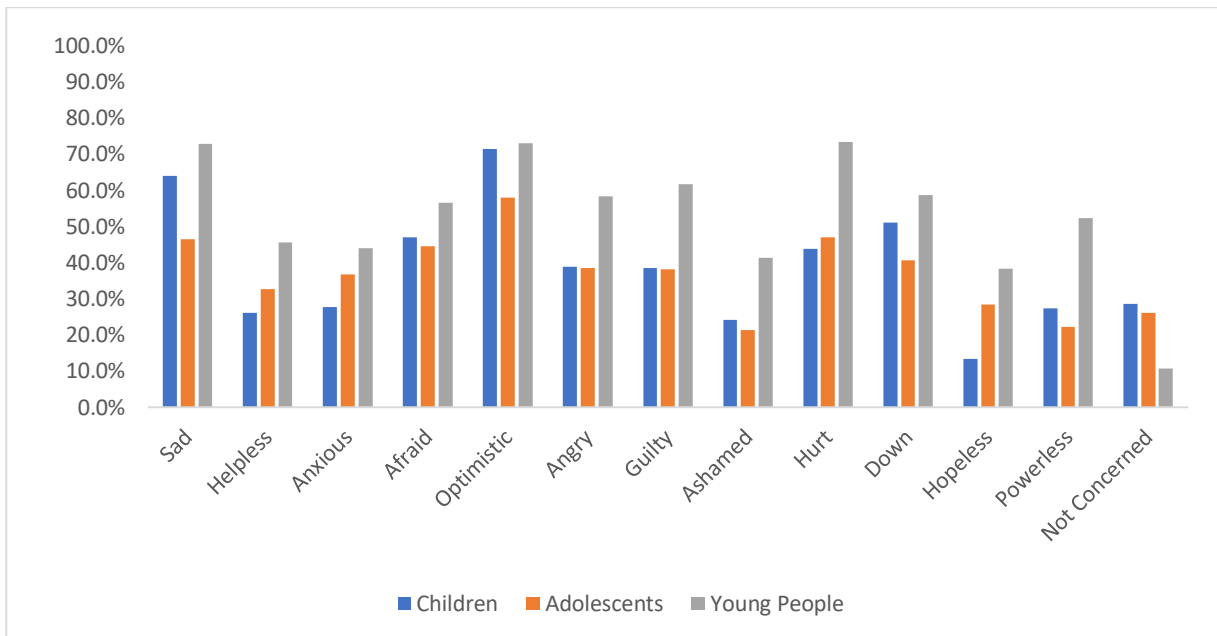*Figure 12 Level of worries over climate change*

Figure 13 Climate emotions

4.5 Perception of responses to climate change

Across all age groups, a notable proportion of respondents highlighted their concerns about the governmental response to the climate crisis. The majority of children (51.3%), adolescents (22.8%), and young people (14.6%) express dissatisfaction with the level of attention given to their worries. Similarly, 72% of children and 32.2% of adolescents feel that governments are not doing enough to avoid climate catastrophe, while only 10.3% of young people reported it. 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 (37.8%), adolescents (54.2%), and young people (65.7%) report experiencing this. (Figure 14)

On a positive note, respondents especially children (75.4%) 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 (83.5%) believe that the government is committed to safeguarding their future, while a lower percentage of adolescents (47.1%) and young people (17.9%) reported believing it. 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 prominent among children (60.3%), adolescents (67.6%), and young people (77.1%). Lastly, adolescents (60.8%) and young people (76.3%) feel that the government is betraying children and young people (Figure 14)

The views of adolescents on government action for the climate crisis are multifaceted and insightful. They first highlight the need for public awareness. One 13-year-old boy says, *"People ought to be informed to cease deforestation and to adopt solar energy for more sustainable power consumption."* Second, the focus shifts to renewable energy, emphasizing a departure from fossil fuels. They see this transition as a government priority, aligning with global sustainability goals. Third, they advocate for robust nature conservation policies. The perception of government response to environmental issues among young people is tinged with dissatisfaction and calls for more robust action. Respondents feel that the current policies lack the stringency and enforcement needed to make a real impact. They draw on European models to emphasize the need for strict environmental protection measures and penalties for those who harm the environment. "Initially, we need to adopt rigorous measures for environmental protection. For instance, in Europe, walking across a lawn could result in a fine, but such cultural norms are lacking here." a woman points out. Young respondents also express concerns over the misuse of water resources, linking environmental health directly to public health. The call for tighter laws is indicative of a frustration with the existing legal framework. Additionally, the mention of illegal logging and the impact of unregulated construction shows that these are visible, urgent issues in the eyes of the youth. *"The primary focus should*

be on prohibiting unauthorized deforestation and regulating the activities of construction firms." asserts a 19-year-old man.
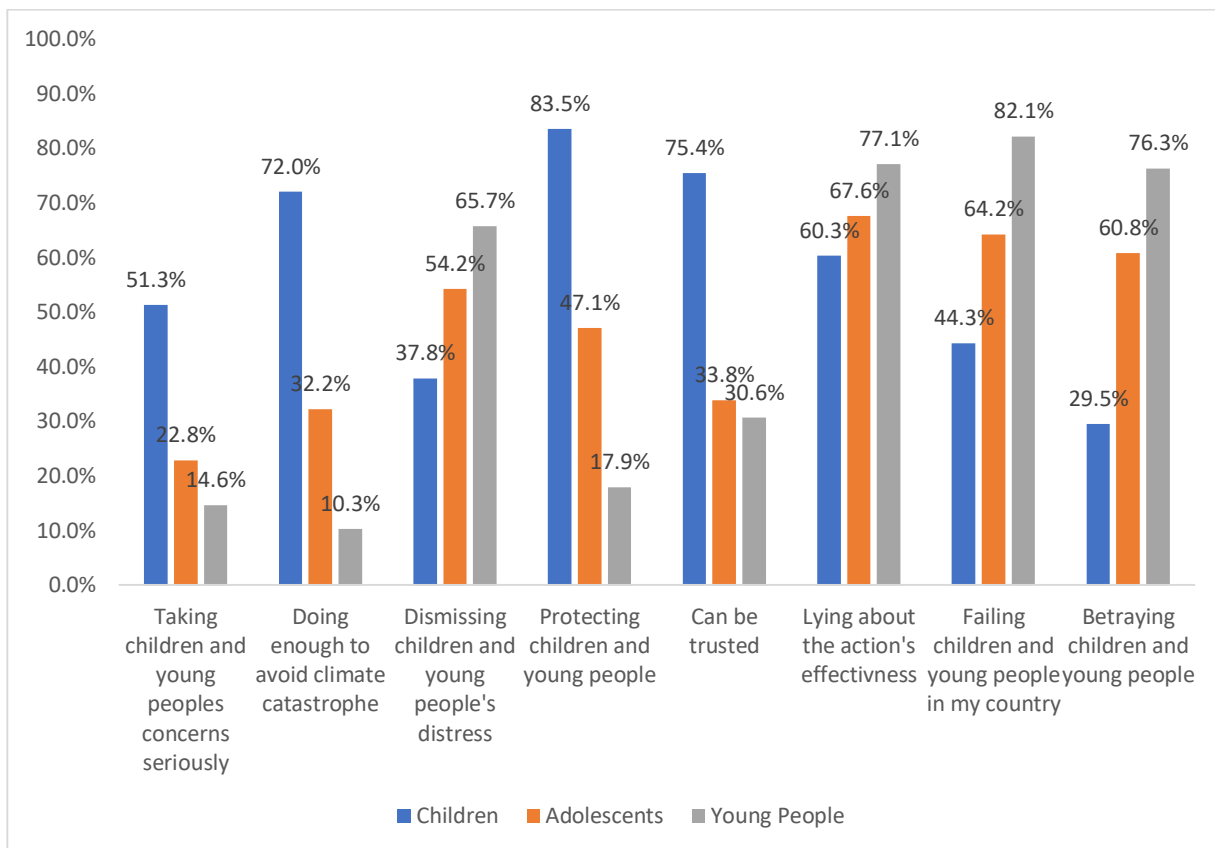

Figure 14 Perception of the government response to climate change

Adolescents have diverse yet specific ideas on how NGOs can better engage them on the subject of climate change. Many respondents see schools as essential platforms for gathering youth opinions, given their role not just as educational hubs but also as centers for social dialogue. Alongside this, surveys were frequently cited as effective tools for capturing a wider range of youth perspectives. Beyond formal settings, extracurricular activities, such as school clubs and NGO-sponsored projects, are considered valuable for fostering more in-depth, sustained engagement on climate issues. As one boy succinctly put it, *"A survey could help capture the views of the youth and then act upon those opinions."* This focus on various engagement methods, from the educational to the interactive, reveals a keen interest among young people in being actively involved in shaping their future, especially in the context of climate change.

The feedback from young people reveals a strong desire for more and NGO involvement in climate change issues. One prevalent sentiment is that youth often feel sidelined, craving more avenues where their voices can be heard and heeded. The data also indicates that climate change is perceived as lacking prominence

on the public agenda, overshadowed by other political and social issues. Incentives, like gifts, were suggested as a way to encourage public participation in generating useful climate feedback. Importantly, there is a call for hands-on, educational strategies that not only gather opinions but also lead to actionable results. These include setting up regular training and information sessions in educational institutions, thereby acknowledging the role schools play in shaping a climate-conscious generation.

4.6 The intergenerational perception of Climate Change

The discussion among participants reveals a complex web of perceptions, responsibilities, and expectations concerning the climate crisis. Caregivers, especially, highlight a multi-generational approach to climate responsibility. Older people are credited for being more proactive in matters such as littering or wastage, as indicated by comments like, *"Older people always speak up. "*However, there's also a recognition that the younger generation is keen to learn and must be educated on the nuances of environmental care. Statements such as, *"Young people should learn how to let this new one grow,"* capture this sentiment. The role of collective responsibility is underlined throughout the discussion, with both young and older caregivers acknowledging their generational obligations. While older caregivers feel they can offer experiential wisdom, like identifying damaged trees and offering solutions for their care, younger individuals see their role as learners and activists for the future. The input from participants illustrates the multifaceted role that caregivers play in shaping the attitudes and actions of children and youth toward climate change. One of the main avenues of influence is through leading by example. Caregivers emphasized that their own responsible behavior, such as resource conservation, sets a template for younger generations to emulate. Phrases like *"children learn 90% by example and speaking"* affirm the power of modeling good behavior.

Another crucial aspect is education. Participants pointed out the importance of teaching children about environmental stewardship through practical, hands-on activities. Whether it's cleaning up a shared space or participating in tree-planting events, actions like these provide not just learning experiences but also instill a sense of ownership and responsibility in young minds. As one participant noted, engaging children in activities like "Activities like watering plants, cleaning up, and hauling away waste have become routine practices for them." helps normalize these actions as a part of daily life. Furthermore, caregivers discussed the value of accessibility to educational resources. Helping children find credible information on climate-related topics and encouraging independent research are ways to build an informed and empowered next generation. As one caregiver mentioned, *"They seek out information on their own, but I assist them as well. They are quite advanced for their age."*

Regulatory compliance and community initiatives were also stressed, with an emphasis on collective efforts like plastic collection campaigns and the importance of clean public spaces. This suggests that caregivers see themselves as not just educators or role models but as integral parts of a larger community-based approach to tackling climate issues.

4.7 Local initiatives and areas of support

In Georgia, stakeholders are increasingly cognizant of the sweeping ramifications of climate change, warning that its repercussions *"will pervade almost every facet of daily life."* This urgency is fueled by the accelerated melting of glaciers and compounded by severe weather phenomena, including record-breaking heatwaves, storms, and heavy rainfall leading to destructive mudflows and landslides. These interconnected challenges not only pose immediate threats to human life but also destabilize key sectors like agriculture and energy. The consensus is clear: climate change will have a pervasive impact on the nation's entire economic landscape.

Although Georgia is a minimal contributor to global greenhouse gas emissions, it is steadfast in its commitment to international climate obligations. Georgia made a conditional commitment to reduce greenhouse gas emissions by 50-57% by 2030 compared to 1990 levels (subject to international support). The country also increased its unconditional GHG emission reduction target to 35% by 2030 compared to 1990 levels. Policy advancements, such as the introduction of the Caucasus region's inaugural climate-specific law, which is under preparation, further underscore a unified, proactive approach. These legislative milestones, together with the Country's Nationally Determined Contribution (NDC) document, Climate Change strategy and corresponding detailed action plans, signify a dual focus on enhancing local resilience and fulfilling global commitments, advocating for an integrated, cross-sectoral strategy as essential for Georgia's future security.

When it comes to the specific impact of climate change on young people, the situation is complex and multi-layered. One participant compared the emotional and psychological toll of climate-induced changes to the COVID-19 lockdown, stating, *"While I haven't formally assessed the type of stress induced by these events, it's clear that disruptions of this magnitude have a significant emotional impact on vulnerable populations, including the elderly and children."* This reference serves as a potent reminder of the depth of psychological impact environmental crises can have on younger populations.

The dialogue also highlights gender-specific vulnerabilities exacerbated by climate change, particularly those affecting girls in relation to sanitation and education. One respondent stressed, *"Climate change*

disproportionately impacts women, a vulnerability that often manifests from a young age." This perspective points to the need for gender-sensitive approaches in climate adaptation and mitigation efforts.

Interestingly, there's a growing perception that climate change constitutes a violation of children's rights. *"Climate change undermines the fundamental rights of children to education and a stable life,"* observed another participant. This perspective has even found expression in the country's Nationally Determined Contributions (NDCs), which explicitly focus on the well-being of children in the context of a changing climate.

However, gaps do exist. A participant issued a cautionary note, saying, *"There's a noticeable void in the focus of environmental organizations on the nexus between climate change and children's rights, underscoring an unmet need for both awareness and research."* This comment suggests that there is room for greater collaboration between organizations focusing on environmental issues and those advocating for children's rights.

In Georgia, stakeholders endorse a multi-pronged strategy to combat climate change that focuses on *"comprehensive resilience building, international commitments, and long-term strategies."* A pivotal aspect of this strategy is the call for *"climate considerations"* to be integrated *"into all sectors' strategies, plans, and development programs,"* thereby mainstreaming climate resilience across the board. One participant asserts that *"the main approach is that the country's system should be adapted to take into account the issues of climate change,"* highlighting the immediate need for comprehensive adaptation plans.

Further reinforcing Georgia's commitment to global climate initiatives, such as the United Nations Framework Convention on Climate Change, stakeholders stress the importance of *"aligning with global climate goals,"* including ambitious plans to *"reduce our greenhouse emissions percentage by 2030 compared to 1990."* One participant emphasizes Georgia's *"unconditional commitment to reduce greenhouse emissions,"* indicating that the development of a robust adaptation plan is imminent.

Crucially, stakeholders highlight the role of *"coordination, reporting, and collaboration,"* with the ministry identified as playing a central role in harmonizing efforts across various sectors. They also emphasize empowering youth as a key strategy, detailing projects that aim to *"raise awareness among youth"* and provide them funding to develop climate initiatives. As one participant notes, *"Our organization's priority is youth and their involvement in climate change issues,"* suggesting that fostering youth engagement is essential for long-term climate resilience.

In Georgia, stakeholders have articulated a robust approach for tackling climate change that emphasizes economic incentives, mitigation efforts, adaptation strategies, and community involvement. Recognizing

the economic viability of projects as paramount, one participant argues, *"No matter how perfect a plan we write... if it does not have an economic basis, it will not work."* In line with this, successful initiatives include offering customs benefits for hybrid cars and funding eco-friendly technologies.

Mitigation and adaptation take center stage with collaborations like the one with the Rustavi Nitrogen Plant, noted for having *"reduced greenhouse gas emissions and environmental pollution."*[13] The implementation of *"early warning systems in the most vulnerable river basin"* exemplifies successful adaptation efforts. Local endeavors, such as "*the planting of windbreak forests in the Guria region,*" are lauded for contributing to climate resilience.

The discussions also stress agricultural and infrastructural resilience. Sustainable practices, like *"the promotion of organic farming in the municipality of Marneuli,"* reflect efforts to safeguard agriculture. Meanwhile, technology adoption for *"reducing pollution and CO2 emissions"* is pursued for infrastructure protection. Collaboration across various sectors, underscored as essential for *"adaptation in vulnerable regions,"* and inclusive decision-making, with a *"focus on involving youth and women,"* form the bedrock of a holistic climate strategy.

The dialogues highlight the imperative need to engage youth in climate change initiatives, recognizing them as the future stewards of our planet. As one participant aptly puts it, *"This is the future generation, and therefore, their correct awareness, their correct upbringing and correct understanding of these problems is a prerequisite for this problem to be addressed."* Indeed, the youth of today will inherit the climate crisis, making their education, empowerment, and active involvement in mitigation and adaptation strategies crucial.

What stands out is the *"multiplier effect"* that youth can generate. As young people get involved in climate initiatives, they become conduits of information and awareness. *"The involvement of young people in any such project is important, because the information they received will be spread ten times more,"* observes a participant. By sharing their newly acquired knowledge with peers and community members, they amplify the impact of climate education and action.

A key asset in this youth engagement strategy is the National Climate Platform (NCP). The NCP acts as a hub where multiple stakeholders, including private agencies, public organizations, and NGOs, converge to deliberate on climate-related matters. *"If there is a topic that needs to be discussed, NCP members meet as required and present some of the ideas that a particular climate organization may have,"* said a

---

[13] This project has been terminated by German government at the end of 2024.

representative. This collective action model emphasizes the importance of aggregating resources, expertise, and initiatives to mount a coordinated effort against climate challenges.

The response makes it clear that the involvement of youth is an intentional and central part of the country's climate action plan. However, it stops short of specifying whether there is a deliberate focus on engaging both boys and girls in these initiatives. Therefore, to further strengthen the youth engagement strategy, it may be beneficial to ensure that gender-specific barriers to participation are identified and addressed, ensuring inclusivity.

In the ongoing efforts to address climate change, a standout initiative is the proactive inclusion of women in all aspects of environmental action. *'The response to gender inclusion in climate action is not just policy; it's about reimagining possibilities,'* states one organiz*er,* highlighting a specific example: *'Take, for instance, the case where we ensured that motherhood is not a barrier to participation—we allowed a woman to bring her child to our climate action camp.'* This kind of holistic approach ensures that caregiving responsibilities don't sideline women from active engagement. Moreover, achieving gender balance isn't simply a goal—it's a core principle. *'Gender balance isn't a buzzword; it's a necessity for effective action,'* says another leader in the initiative, adding, *'Women should not just be involved; they should be representative.'* By crafting programs that are as inclusive as they are ambitious, the initiative ensures that women can contribute to crucial climate decision-making processes, breaking down barriers and setting a precedent for equitable involvement.

Stakeholders identified a key aspect of climate adaptation: the indispensable role of international support and financial resources. One cannot underestimate the hurdles involved in complying with global standards. As one expert insightfully states, *'Donor funding is of great importance, because, as you know, it is very difficult to create a document compliant to EU standards with our own funds; besides, this requires hard work.'* It is not simply about starting initiatives; it's also about achieving broader systemic transformations, such as harmonizing national policies with international norms. Yet, financial aid is not a silver bullet; the utilization of these resources is just as important as their acquisition. As emphasized in the dialogue, *'However, it is necessary to adequately use the resources and properly conduct processes. Both the involvement of international organizations and local/regional organizations are important.'* The interplay between international aid and efficient resource management becomes clear: to ensure successful climate adaptation, both elements must work in tandem. This viewpoint reinforces the narrative's emphasis on the vital role of spatial planning as a frequently overlooked yet essential component of climate adaptation. As the dialogue suggests, tackling climate adaptation is not merely a question of financial resources but also demands well-structured institutional responsibilities and holistic planning strategies.

5 Conclusion and Recommendations

Georgia's response to climate change requires a multifaceted approach that includes comprehensive climate education, youth empowerment, emotional resilience, stakeholder collaboration, and disaster preparedness. By addressing knowledge gaps, fostering emotional engagement, and enabling meaningful action, Georgia can empower its young generation to drive positive change, shape policies, and create a sustainable future for themselves and the environment. The collaboration of governments, NGOs, caregivers, educational institutions, and youth is pivotal in collectively addressing the climate crisis and securing a resilient future for Georgia.

Based on the findings World Vision calls both local and national stakeholders in Georgia to prioritize and amplify the voices and concerns of children, adolescents, and young people in all climate action strategies and policies. As the findings illustrate, the younger generation is both informed about and deeply affected by climate change. Their insights, drawn from tangible experiences and educated perspectives, can provide invaluable contributions to the nation's holistic approach to addressing the climate crisis, Gender-sensitive approaches in climate adaptation and mitigation efforts. Crosscutting issues such as social inclusion and gender equality should be address in all levels of the recommendation.

> **Strengthen Climate Education and capacity:** Develop and implement comprehensive climate education programs that are age-appropriate, scientifically accurate, and incorporate both traditional and digital platforms to ensure broad and credible knowledge dissemination among children, adolescents, and young people.

1. Develop comprehensive curriculum guidelines for climate education, incorporating scientific concepts, local case studies, and emotional well-being components.
2. Develop interactive digital platforms that offer accurate climate information and resources, engaging young people through their preferred communication channels.
3. Strengthen the curriculum of teacher training programs to equip educators with the tools and knowledge to effectively teach climate change concepts.
4. Develop a certification program for schools that demonstrate excellence in climate education and sustainability practices, encouraging healthy competition.
5. Create Youth Climate Change Ambassadors network in Georgia.

6. Strengthen the role of Youth workers in mobilising youth and raising awareness on climate change and its consequences.

Foster Youth-Led Initiatives: Create platforms for young people to take the lead in designing and implementing climate initiatives, empowering them to drive change in their communities and amplify their impact through collective action.

7. Ensuring young people having a direct role in shaping their future and influencing climate policies and strategies, e.g. via youth advisory committees or organizing regular town hall meetings where young people can interact with policymakers and express their concerns, ensuring their voices are heard in decision-making.

8. Implement peer-to-peer climate education programs, leveraging adolescents and young people as educators to enhance credibility and reach.

9. Encouraging innovative solutions and collaborative projects among students, e.g. via climate action clubs and competitions in schools.

10. Provide financial incentives for youth-led climate initiatives, fostering creativity and ownership while addressing financial limitations.

11. Create mentorship programs connecting experienced climate activists with young individuals, providing guidance and knowledge-sharing.

Promote Emotional Resilience: Integrate emotional well-being and resilience-building into climate education programs to address the psychological impacts of climate change on children and young people, fostering a balanced approach to action and emotional engagement.

12. Collaborate with mental health professionals to integrate emotional resilience strategies into climate education, empowering young people to cope with climate-related anxieties

13. Collaborate with mental health organizations to offer support services for young people experiencing climate-related distress, both online and offline.

Strengthen Stakeholder Collaboration: Encourage closer collaboration between governments, NGOs, educational institutions, and caregivers to develop holistic climate action plans that address knowledge gaps, challenge perceptions, and foster a unified response.

14. Encouraging all the stakeholders to collaborate with climate scientists to create educational content that explains the scientific basis of climate change in accessible language for different age groups.

15. Integrate climate action into extracurricular activities, such as sports events, arts festivals, and community clean-ups, to engage a wider range of young people.

16. Develop digital toolkits for parents and caregivers, offering guidance on discussing climate change and fostering sustainable behaviours at home.

17. Supporting collaboration on the regional level to bring together young people from diverse backgrounds to share experiences, ideas, and best practices e.g. via regional youth climate summits.

18. Strengthening capacity of media outlets to ensure accurate and unbiased climate reporting, combating misinformation and fostering informed public discourse.

19. Promote partnerships with private sector organizations to fund youth-led climate initiatives and offer mentorship opportunities.

20.

    Enhance Disaster Preparedness: Develop and disseminate practical disaster preparedness plans that are tailored to different age groups, involving caregivers, educational institutions, and local communities to ensure effective response strategies.

21. Encourage involvement of children, adolescents, and young people in planning and practicing emergency response, e.g. via community-based disaster preparedness workshops

22. Develop localized climate action toolkits for different regions of Georgia, taking into account unique vulnerabilities and opportunities for climate resilience.

Learning to See the Climate Crisis

World Vision
GEORGIA

World Vision in Georgia

www.worldvision.ge

WorldVisioninGeorgia

World Vision Georgia