



LEARNING TO SEE THE CLIMATE CRISIS

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

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Hope, Joy, and Justice for ALL Children

CHILD AND ADULT SAFEGUARDING CONSIDERATIONS

World Vision ensured the safe and ethical participation of girls, boys and women, adhering to World Vision's Safeguarding policy and protocols on data collection and World Vision's Code of Conduct. Data collectors were trained on Psychological First Aid (PFA) and interviews' ethical and safe management. Names of participants have been anonymised and changed to ensure confidentiality. Children and women were oriented on the possibility of withdrawing from the interview process at any moment. Identified cases of child and adult abuse and violence were referred to specialized agencies for case management.

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I. EXECUTIVE SUMMARY

Climate change is globally recognized as a critical concern, impacting socioecological systems, and requiring urgent societal interventions. The Intergovernmental Panel on Climate Change (IPCC) warns of an exceeding 1.5°C rise in global temperatures by 2040, leading to catastrophic social and environmental consequences. These climatic disruptions include increased land and ocean temperatures, frequent heatwaves, heightened precipitation events, and drought risks. Such changes affect ecosystems worldwide, leading to biodiversity loss, ecosystem restructuring, and declining ecosystem services. Climate change threatens human systems by stressing agriculture, forestry, fisheries, and aquaculture sectors, leading to food scarcity, elevated prices, and economic drawbacks. Health risks due to climate change encompass disease spread, nutritional deficiencies, and heightened health risks during extreme weather events.

For the Mediterranean region, where Albania is located, unique biodiversity and socio-cultural attributes are increasingly vulnerable to climate adversities. The area has experienced a 1.5°C rise in surface temperatures, intensifying climatic extremes like heatwaves, droughts, and floods, affecting ecosystems and human activities. Albania has seen notable climatic shifts over the past decade, characterized by increasing temperatures and rainfall patterns, leading to amplified risks of storms, floods, and wildfires. Such fluctuations impact sectors like agriculture, water, energy, and health. While Albania has legislated to address climate change and drafted strategies to mitigate its effects, areas remain for improvement, such as enhanced access to climate information and improved monitoring mechanisms. Reports of the country's climate strategy underline agriculture and biodiversity as especially vulnerable areas, with shifts in temperature and precipitation posing challenges to crop yields and ecosystem diversity.

The aim of this study was to explore how children and young people in Albania articulate environmental knowledge, their level of concern about climate change, their level of understanding of the consequences and impact on their lives, and their level of preparedness for climate change disasters. In addition to listening to the voices of children and young people, this research also explored how perceptions of climate change vary across different generations.

Through a mixed-method design, this research delved into the perceptions of climate change among children, adolescents, and young people in Albania. Using qualitative key informant interviews and quantitative surveys, data was gathered from a convenient sample representing diverse communities where World Vision has active programs.

We have obtained several pivotal insights into the perceptions and understandings of climate change among various age groups in Albania. These key findings shed light on the current state of climate awareness and action and underscore areas that demand attention and intervention.

Knowledge on Climate Change

Albania's children, adolescents, and young people exhibit varying **degrees of knowledge** and **concern** about climate change. While children have a moderate understanding, adolescents and young adults demonstrate a progressively more profound insight into the issue. All age groups express concern about the direct impacts of climate change on daily life.

- 46% of children, 41% of adolescents and 42% of young people have **limited, moderate, and extensive knowledge** of climate change.
- 50% of children report being **unconcerned**, and 34% are **concerned** about climate change, with *predominant concerns being unpredictable weather and direct health threats*.
- 50% of adolescents are **alarmed** about climate change, with *predominant concerns: direct impacts on daily life and potential societal ramifications*.
- 52% of young people are **alarmed** about climate change, with *predominant concerns: biodiversity loss, health threats, and broad climatic changes*.

Children, adolescents, and young people in Albania **primarily acquire knowledge** about climate change from teachers, supplemented by media, family members, and books. While children value hands-on activities at school, adolescents are influenced by global activism, and young people merge classroom learning with extracurricular seminars. However, across the board, there is a gap in understanding the psychological implications of climate change.

Children, adolescents, and young people display varying depths in understanding human-induced climate change. Children focus on visible daily contributors like waste and transport. Adolescents extend their understanding of industry impacts, including construction. Young adults emphasize electricity production and broader systemic causes. As age increases, so does the complexity of their perspectives.

- 86.2% of children identify **waste incineration** as the most significant contributor to climate change, followed by **heating** (64.7%) and transport (63.3%).
- 92.2% of adolescents identify the **industry sector** contribution and 91.6% **waste incineration** as the most significant contributor to climate change, followed by transport (84.8%).
- 93.4% of young people identify the **industry sector** contribution and 90.6% of **waste incineration** as the most significant contributor to climate change, followed by **electricity production** (81.3%).

Every age group recognizes the detrimental effects of climate change. Children notice tangible shifts in their environment, adolescents connect these changes to broader societal implications, and young adults, with their broader perspective, understand the global consequences of climate impact. The concern grows from immediate observations in childhood to a comprehensive understanding in adulthood.

- Children perceive the immediate impacts of climate change on **illness** (55.7%), **land deterioration** (41%), and **malnutrition** (40.6%).
- Adolescents see climate change as having an immediate impact on **illness** (53.6%), **malnutrition** (47.4%), and **mental health**, with anxiety (61.5%) and sleep problems (40.6%) being significant concerns.
- Young people see a lifelong impact of climate change on **malnutrition** (41.4%), **illness** (50%), and **limited health service** capacity (53.6%). **Mental health** concerns are articulated by young people, including depression (40.3%), anxiety (47.6%), and sleep problems (50.8%).

Across three age groups in Albania, climate change mitigation solutions are clearly understood. While children predominantly recognize the benefits of recycling and water conservation activities, adolescents fully grasp diverse mitigation areas, including renewable energy and sustainable fashion. Young adults emphasize the interconnectedness of personal actions with broader societal impacts.

- Children put significant emphasis on the benefits of **walking/cycling** (46.4%), **recycling** (48.6%), and **rational water use** (44.6%). They also recognize the significant impact of **reducing plastic use**.
- Adolescents have strong recognition of the benefits of **walking and cycling** (57.5% and 60.3%), **recycling** (68.3%), and **tree planting** (75%). They acknowledge **solar panels and energy-efficient lighting** as impactful solutions. There is a need for awareness around sustainable fashion and the importance of donating clothes.
- Young people favour activities like **walking and cycling** (50% and 56.1%), **recycling** (53.8%), and **tree planting** (64.6%) and acknowledge the role of **solar panels** in cities and waste reduction methods such as **composting**.

Practices and actions to mitigate climate change

Children to young adults display a passionate commitment to climate action. Children advocate for collective responsibility, adolescents combine personal convictions with calls for systemic change, and young adults stress shared responsibility while constrained by societal inaction. A unanimous call emerges despite varying perspectives: "**Climate change is everyone's battle.**"

- Across all age groups, **personal beliefs** serve as a notable driving force (42.2% to 81.1%).

- The **love for wildlife** resonates strongly with 74.7% of children, 66.7% of adolescents, and 83% of young people as a motivator.
- A sense of **social responsibility** is prevalent, with 58.1% of adolescents and 77.4% of young people.
- Adolescents (45.5%) and young people (75%) feel inhibited by the belief that they **cannot bring about meaningful change**.
- 50% of children, 36.8% of adolescents, and 37.5% of young people express a **"not my job"** sentiment regarding their willingness to engage with climate change initiatives.

Albanian younger generations actively participate in environmental preservation, with high engagement across age groups. Children are inclined towards eco-friendly transportation and energy conservation but lag in waste sorting and plastic abstinence. Adolescents favour walking and organic food consumption and are potential environmental advocates but seek more institutional support. Young adults lean towards walking, waste sorting, and organic diets, yet face challenges in community engagement and need more robust support systems. Across all age groups, there's a strong call for unity in combatting climate change and a perceived need for greater involvement from all sectors of society.

- High participation in **eco-friendly transportation**, with many opting to walk, was reported by 81.2% of children, 91.6% of adolescents, and 91% of young people.
- Children put a strong emphasis on **water conservation** (88%) and **energy-saving practices** (85.5%), adolescents on **water consumption** (80.9%) and **energy efficiency** (71.8%), and young people on **donating clothes** (73.1%) and **water conservation** (71.6%).
- Children report **limited engagement** in waste sorting (64.1%) and avoiding plastic bags (49.6%).
- Adolescents and young people report **bicycling** to the highest rare or non-practice rate, respectively 61.8% and 37.3%.

Disaster preparedness varies across age groups, with young adults exhibiting the most readiness. Children and adolescents lag, particularly in evacuation practices and having family emergency plans. Education is universally recognized as vital for preparedness, yet its practical impact needs to be more consistent.

- 19.6% of children, 25.9% of adolescents, and 38.2% of young people **lack specific disaster preparedness measures**.
- Education is a significant influencer in preparedness, with 49.5% of children, 57.3% of adolescents, and 65% of young people acknowledging its role.
- 44.8% of young people, 43.8% of adolescents, and 33% of children **possess a disaster kit**.

Mental health and climate emotions

The pervasive impact of climate change isn't just ecological but also deeply emotional, especially among the young. Across all age groups, feelings of worry, sadness, and helplessness dominate. Children's problems are grounded in tangible experiences, like recent earthquakes. Adolescents oscillate between anxiety, fuelled by the grim realities, and relief from solution-based discussions. The youth express frustration over perceived inaction but find comfort in collective discussions and efforts. The emotional toll underscores the importance of active engagement and support in tackling climate anxiety.

- 79.6% of young people, 77% of adolescents, and 62.9% of children **feel "sad"** about climate change.
- Feelings of **"helplessness"** are widespread across all age groups (60% of young people, 50% of adolescents and 51.9% of children)
- 54.5% of young people, 48.1% of adolescents, and 44.2% of children remain **"optimistic"** despite the pressing concerns.
- 55.2% of young people, 35.5% of adolescents, and 45.2% of children express feeling **powerless** toward climate change.
- Climate activists inspire many young people and find solace in group discussions.

Perception of response to climate change

Across all age groups, there is a prevalent sentiment of being overlooked in climate change concerns. While a significant proportion find government actions inadequate, there is also a notable trust in the government's commitment to protecting the youth. Adolescents and young individuals both stress the need for definitive action, education, and awareness campaigns led by the government to address the climate crisis.

Adolescents and young people believe NGOs are crucial in addressing climate change, emphasizing the direct engagement with the youth for their opinions and ideas which include surveys and climate-oriented group activities. They believe child-focused NGOs should raise awareness, foster youth groups, and drive initiatives related to climate change. The crucial role of NGOs as a bridge between youth and policymakers is also stressed, ensuring young voices are heard at higher decision-making platforms.

- 59.3% of young people, 37% of adolescents, and 28.6% of children report **distress over their concerns being dismissed** about the government's response to climate concerns.
- 44.9% of children, 25.3% of adolescents, and 41.8% of young adults believe that the government's actions regarding the climate crisis are inadequate.
- Despite the scepticism, 58.6% of children, 47.6% of adolescents, and 37.3% of young adults expressed **trust in the government's** commitment to shielding the youth from climate impacts.
- The role of media, incentives for sustainable businesses, and tighter environmental controls are seen as essential measures the government should pursue.
- Adolescents and young people want NGOs to seek their opinions on climate change through various mediums actively.
- Child-focused NGOs should prioritize awareness campaigns and implement projects that support youth in addressing climate challenges.
- **NGOs are seen as potential bridges between youth concerns and policy-making** entities, emphasizing the importance of youth voices in decisions related to climate change.

The intergenerational perception of climate change

Caregivers express deep concern over the ongoing climate crisis, pinpointing unbridled human consumption and a lack of tangible action as critical problems. Economic challenges often push climate concerns to the back burner. However, there's a call for global collaboration and unity. In addressing the crisis, caregivers stress personal accountability, instilling sustainable habits in children, community involvement, continuous education, and provision of resources as pivotal strategies. They see their role as mentors for the younger generation.

- Caregivers identify human activities, especially in industrialized societies, as the primary cause of environmental degradation.
- **Frustration** exists due to a need for more tangible action and positive role models in the fight against climate change.
- **Economic constraints often overshadow concerns** about climate change, making immediate survival a priority for many.
- **Leading by example** is vital; caregivers focus on personal sustainability habits and instill these in the younger generation.
- Caregivers highlight the role of **education and constant awareness** in addressing the climate crisis, with institutions like families and schools as crucial conduits.
- There's a call for increased access to resources and opportunities, promoting awareness, actionable projects, and grants to support climate initiatives.

Based on the findings, World Vision calls on local and national stakeholders in Albania to prioritize and amplify the voices and concerns of children, adolescents, and young people in all climate action strategies and policies. World Vision Albania recommends and advocates for the following actions:

Education and information of the public:

- Integrate interactive climate change modules in school curriculums.

- Organize regular school workshops and study visits on sustainable practices.
- Encourage student-led climate change clubs and initiatives.
- Offer training for teachers on climate science and sustainable practices.
- Develop public awareness campaigns on climate change tailored to various age demographics.

Adolescents and Youth Engagement:

- Engage children, adolescents, and youth representatives in national climate strategy discussions.
- Foster platforms where caregivers and younger generations discuss climate change, facilitating the exchange of experiences, perspectives, and knowledge.
- Provide grants for youth-led climate action projects.

Mental health awareness related to climate change:

- Include the emotional and psychological impacts of climate change in health education.
- Facilitate community-led support groups addressing climate anxiety.

Accountability and transparency toward the public:

- Enhance transparency in government-led environmental projects through regularly updating the public on progress.
- Encourage media houses to provide regular updates on climate action.

Environmental conservation and urban sustainability initiatives:

- Prioritize reforestation and afforestation initiatives.
- Develop community gardens and promote urban agriculture.
- Design urban areas to be more resilient to rising temperatures.

Sustainable business practices:

- Support local businesses engaged in sustainable practices (implementing green practices and growing environmental responsibility).
- Enhance waste management systems and promote recycling.
- Provide incentives for renewable energy installations.

II. 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 matter 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 (IPCC, 2018). Crossing this critical threshold is now linked to triggering a changing climate's most catastrophic social and environmental consequences.

The IPCC special report 2018 highlighted that human-induced global warming was already causing multiple observed changes in the climate system. These included increases in both land and ocean temperatures, as well as more frequent heatwaves, increase in the frequency and duration of marine heatwaves, an increase in the frequency, intensity and/or amount of heavy precipitation events at the global scale, as well as an increased risk of drought (Allen, et al., 2018).

The 2022 report states that the 2018 detected impacts are attributable to climate change now. Climate change impacts are concurrent and interact with other significant societal changes that have become more salient, including a growing and urbanising global population; significant inequality and demands for social justice; rapid technological change; continuing poverty, land and water degradation; biodiversity loss; food insecurity; and a global pandemic (Pörtner, et al., 2022).

Countries worldwide are becoming more susceptible to devastating weather phenomena such as floods, 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.

Climate change has significantly impacted global marine, terrestrial, and freshwater ecosystems, causing unexpected widespread effects, including species losses, disease increase, and first climate-driven extinctions. These changes result in altered biodiversity, ecosystem restructuring, and decreased ecosystem services, affecting economic and livelihood aspects. Species' responses to climate change, especially at the boundaries of their habitats, have led to habitat loss, invasions by non-native species, and shifts in ecosystems. Additionally, about 50% of studied land plants and animals have seen local population losses due to climate extremes, with global extinctions already being observed. Particularly affected are ecosystems in extreme thermal habitats like poles, mountain tops, and equatorial regions (Pörtner, et al., 2022).

Extreme weather events, which exceed many ecological and human systems' resilience, negatively affect agriculture, forestry, and fisheries productivity, leading to food scarcity, increased food prices, and economic losses. The global food system is under stress, with warming hindering agriculture, forestry, fisheries, and aquaculture, further impacting food quality, harvest stability, and the distribution of crucial biological entities (Pörtner, et al., 2022).

Climate change stresses agricultural, forestry, fisheries, and aquaculture sectors, reducing crop yields, increasing tree mortality, and disruptions to marine ecosystems. The warming has altered biological timings and distributions, impacting food quality and availability. Climate extremes have further threatened food security, with events like droughts and marine heatwaves leading to reduced food availability and increased prices. Vulnerable groups, such as low-income households and small-scale producers, face higher risks of malnutrition and livelihood loss. Projected impacts suggest that climate change will render some food production areas unsuitable, exacerbate food and nutrition insecurity, and challenge outdoor workers and livestock due to heat stress (Bezner Kerr, et al., 2022).

Health and wellbeing are impacted by climate change, including the spread of diseases, increased rates of diarrheal diseases linked to extreme weather events, and respiratory issues arising from wildfires and pollutants. Additionally, heatwaves have exposed more populations to health risks, with severe implications for labour productivity. Climate-induced food insecurity has further led to malnutrition, particularly affecting children, pregnant women, and vulnerable populations.

Projected risks suggest a drastic rise in ill health and premature deaths due to climate-sensitive conditions by 2050. With increasing global temperatures, heat-related morbidities and cardiovascular diseases are expected to rise. Rising carbon dioxide levels are anticipated to decrease the nutritional value of key crops, exacerbating malnutrition. Mental health will also be further threatened, with vulnerable groups facing the brunt of the impacts (Cissé, et al., 2022).

The UN Sustainable Development Goals (SDGs) provide insights on the impact of climate change. Climate change can hinder achieving the goals or even reverse current progress in various SDGs, primarily poverty reduction (SDG1), zero hunger (SDG2), gender equality (SDG5), and reducing inequality (SDG10) (Filho, Lovren, Will, Salvia, & Frankenberger, 2021).

The Mediterranean region, where Albania lies, is characterized by unique biodiversity and sociocultural richness, is currently facing significant challenges due to climate change. This area has seen a rise in surface temperature of 1.5°C above pre-industrial levels, which has led to more frequent and intense heatwaves, droughts, floods, and sea-level rise, as well as cascading impacts on marine and terrestrial ecosystems, and human activities like agriculture, forestry, fisheries, and tourism (Ali, et al., 2022).

Albania stands out as one of the Balkans region countries most susceptible to shifts in climate trends. The last decade and a half have witnessed significant changes in weather patterns, with a tendency towards higher temperatures (Albania has experienced an increase in mean annual temperature of 1°C since the 1960s), rainfall intensity has increased leading on flood events, and intense storms, floods, heatwaves and wildfires are becoming more frequent, unpredictable and severe due to projected climate change trends. Key sectors impacted by shifts in climate are agriculture, water, energy, health, and coastal zones (The World Bank Group, 2021).

Higher temperatures, heat waves and heat extremes are a major concern for Albania which impact the health of vulnerable populations. Night temperatures are also increasing for Albania, resulting in decreased opportunity for natural cooling. Increased health threats can be projected and monitored through the frequency of tropical nights (>20°C) (The World Bank Group, 2021).

Changes in climate and increasing extreme weather events may significantly impact Albania's economy and key sectors. Critical infrastructure and agricultural production, including crops and livestock, are at risk from these hazards (FAO, 2018).

In 2020, Albania enacted a law on climate change (Ndryshimet Klimatike, 2020) with the following objectives: *a)* Reduce greenhouse gas emissions; *b)* Expedite adaptation processes to mitigate the detrimental effects of climate change; *c)* Uphold the Republic of Albania's obligations to the global climate change Convention; *d)* Establish a comprehensive legal and inter-institutional framework for national climate action in alignment with EU climate change regulations; *e)* Align with nations acknowledging the climate emergency, in line with the European Parliament's decision dated November 28, 2019.

Albania has drawn a climate change strategy outlining specific measures to mitigate potential risks and damages associated with climate change. These measures encompass energy, transport, water, agriculture, forestry, health, biodiversity, and tourism (Ministria e Turizmit dhe Mjedisit, 2019). REC Albania (2022) conducted the monitoring of the action plan of the national strategy on climate change 2019 – 2020, found that despite some areas receiving positive ratings, several key areas showed significant room for improvement. One such area was access to climate information, and another lacked a monitoring and evaluation system to track timely progress.

The Fourth National Communication of Albania on Climate Change (Kamberi, Islami, Bruci, & Salisbury, 2022) acknowledges climate change as a cross-cutting issue to all sectors in Albania and beyond. The report is focused on the Vjosa Basin River but also provides a general view of the impact of climate change on agriculture, water, health, and biodiversity.

The impact of climate change on agriculture in Albania is multifaceted, with both positive and negative consequences. Rising temperatures, surpassing 25°C in summer, increase evaporation, and lead to more frequent droughts, and place crops at an increased risk of water stress. Specifically, maize, tomatoes, and perennial plants might face severe damage. Perennial crops,

which require chilling, may also see a reduction in yield. These temperature shifts might benefit certain crops, such as alfalfa, grass, and winter wheat. Heavy rains heighten the risk of flooding agricultural areas, resulting in significant economic damage. Furthermore, sea-level rise poses another challenge by causing the salinization of coastal aquifers, which might result in a significant loss of arable lands (Kamberi, Islami, Bruci, & Salisbury, 2022).

Shifts in temperature and precipitation present significant threats to biodiversity. Due to the diffusion of seawater and coastal erosion, sea level rise exacerbates these threats. It results in flooding, land loss, and groundwater salinization, all of which contribute to a considerable loss in biodiversity. There is an observable shift in water fauna and flora, leaning towards species that prefer warmer and saltier conditions (Kamberi, Islami, Bruci, & Salisbury, 2022).

The report also sheds light on the projected trends in health conditions affected by climate change. Air quality, humidity and the changing pollen seasons worsen asthma and chronic pulmonary diseases, heat stress aggravates cardiovascular diseases and chronic pulmonary diseases. Traditional malnutrition metrics in children, like wasting and stunting, have halved in the past decade. However, malnutrition can weaken immune defences and long-term adaptation to extreme events. Individuals affected by mental illness, dementia and people with disabilities are more vulnerable during severe weather events. Lastly, many infectious agents, like salmonella and noroviruses, become more virulent in warmer temperatures. The vectors transmitting these diseases are also influenced by climatic changes (Kamberi, Islami, Bruci, & Salisbury, 2022).

In terms of education, awareness raising, and information share there remains significant work to be done in Albania (Kamberi, Islami, Bruci, & Salisbury, 2022). The integration of climate change and sustainable development education is still emerging. At the pre-university level, subjects like society, biology, and geography incorporate climate change content, complemented by extracurricular activities that raise environmental awareness. However, the higher education sector in the country lacks specialized programs in Climate Change or Sustainable Development. NGOs, International Organizations, and occasionally private companies have been most active in the awareness raising campaign for the public regarding climate change. Climate awareness at all levels remains low and cooperation between all relevant stakeholders requires further strengthening.

Albania is part of the Green Agenda among the six Western Balkans countries, signed at the Sofia Summit (RCC, 2021). This action plan not only outlines regional steps for climate protection but also underscores the vital role of youth. Recognizing that they are the most affected by current decisions on climate and environmental issues, youth are not merely beneficiaries but pivotal stakeholders in the agenda's execution. Their distinctive insights, marked by innovation and critical thinking, ensure the initiative's success.

2.1 Aim of the study

Against that backdrop, this study aimed to **explore how children and young people in Albania come to articulate environmental knowledge** as a process of “figuring out” more specifically the research explored **children and young people’s level of concern about 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 the voices of children and young people, this research also explored **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 endeavoured to generate valuable insights into the perception of climate change among children and young people in Albania. This knowledge will inform targeted interventions, policies, and strategies to empower and engage the younger generation in climate change mitigation and environmental conservation efforts.

III. METHODOLOGY

3.1 Research Design

This research utilized a mixed-method design, combining quantitative and qualitative data collection methods. Integrating 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.

3.2 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.

TABLE 1: QUANTITATIVE AND QUALITATIVE SAMPLE SIZE

Tools		Sample size (N)
Quantitative	Survey for children 8 – 11 years old	117
	Survey for adolescents 12 – 17 years old	131
	Survey for young people 18 – 24 years old	67
Qualitative	Key Informant interviews with children	4
	Key informant interviews with adolescent	4
	Key Informant interviews with young people	5
	Key Informant interviews with caregivers (to explore the intergenerational impact of climate change)	4

3.2.1 Sampling Strategy

The researchers selected participants by convenience from various urban and rural communities in Albania where World Vision has existing programs. 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 Albania 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. Convenient sampling allows researchers to collect data efficiently and quickly without the need for extensive planning and logistics.

3.2.2 Tools and 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 had four sections, starting with *demographic information, knowledge about climate change, practises done toward climate change, impact of climate change on emotions and government response to climate change*. The survey was administered through MS Forms and was conducted either online 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.

3.3 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 analyse 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 analysed. 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.

3.4 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.

3.5 Limitations

While this study aimed to provide valuable insights into children and young people's perceptions of climate change in Albania, 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 Albania. 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.

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.

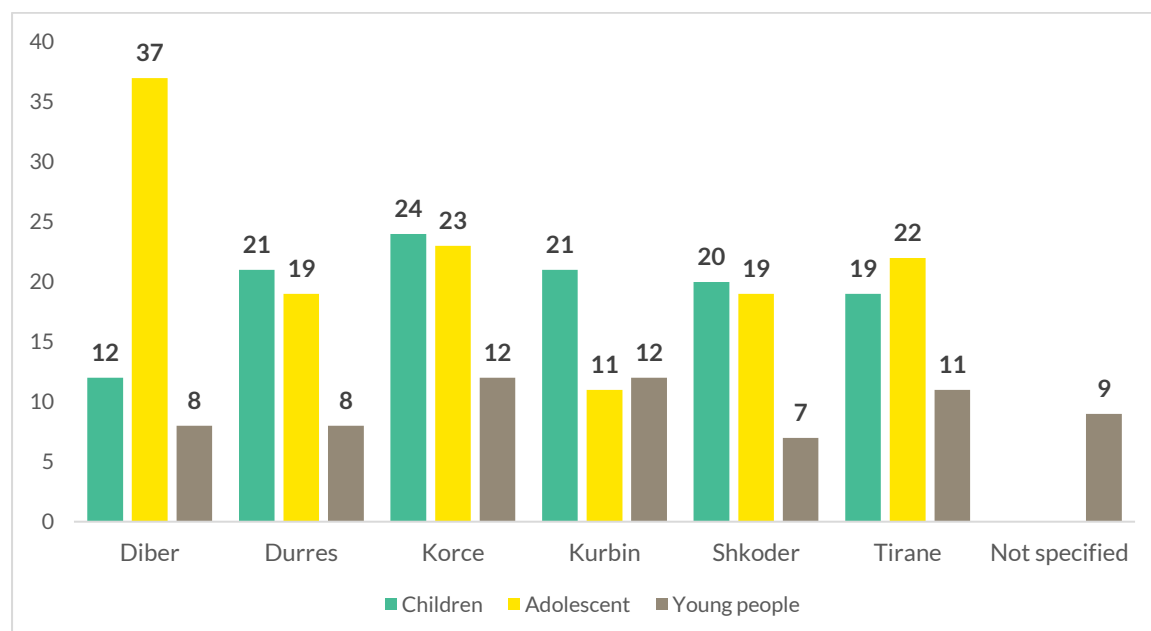
Despite these limitations, the study contributes valuable insights into children and young people's perception of climate change in Albania. It highlights the importance of further research and interventions to foster a deeper understanding of climate change among children and young people and empower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

IV. FINDINGS AND DISCUSSION

4.1 Socio-demographic characteristics

Participants in the survey were 315 children, adolescents, and young people from 6 areas of Albania where World Vision is present (Figure 1).

FIGURE 1: CHILDREN, ADOLESCENTS AND YOUNG PEOPLE BY AREA



The gender distribution among the surveyed children and young people varied slightly, with each age group comprising a somewhat higher percentage of females than males. Surveyed children and young people mainly resided in rural areas (35.3%) (Table 2).

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 2).

TABLE 2: SOCIO-DEMOGRAPHIC CHARACTERISTICS OF CHILDREN, ADOLESCENTS AND YOUNG PEOPLE

		Children	Adolescent	Young people
		N=117	N=131	N=67
Gender	Male	34.3%	42.0%	43.3%
	Female	65.8%	58.0%	56.7%
Marital status	Single			95.5%
	Married			4.5%
Community	Urban	74.4%	54.7%	67.2%
	Rural	25.6%	45.3%	32.8%
Family situation	Single father/ mother	0.9%	3.1%	6.0%
	Female heading household	6.0%	7.6%	16.4%
	Members from minority groups	3.4%	6.1%	9.0%
	Unaccompanied minors	-	0.8%	3.0%
	Members with physical disability	4.3%	3.8%	11.9%

Members with psychosocial disability	0.9%	0.8%	7.5%
Members with intellectual disability	2.6%	3.1%	3.0%
Members chronically ill	10.3%	5.3%	19.4%
Elderly members	29.1%	29.8%	28.4%
Other	15.4%	24.4%	-

The study also explored surveyed children and young people's engagement in youth groups, revealing varying levels of participation among different age groups especially in World Vision programming (Table 3).

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 the majority having attained high school completion or post-secondary qualifications (Table 3). Regarding employment, most surveyed young people were not currently employed, with only around a quarter indicating being employed in certain sectors.

TABLE 3: EDUCATION AND PARTICIPATION IN GROUPS OF CHILDREN, ADOLESCENTS AND YOUNG PEOPLE

		Children N=117	Adolescent N=131	Young people N=67
Participation in youth groups	No	24.8%	28.2%	35.8%
	Yes	59.8%	62.6%	25.4%
	Not currently but participated in the past	15.4%	9.2%	38.8%
Enrolment in formal education	No	-	2.3%	7.5%
	Yes	100%	97.7%	92.5%
Current level for children enrolled in formal education	Primary	89.5%	-	
	Intermediate	10.5%	58.6%	
	Secondary	-	34.4%	
	Finished high school	-	-	
	Technical/ vocational	-	7%	
Highest level of education attained	None	-	-	4.5%
	Primary	100%	-	1.5%
	Secondary	-	66.7%	1.5%
	Finished high school	-	33.3%	50.7%
	Post-secondary	-	-	31.3%
	Technical/ vocational	-	-	10.4%
Employment	No			73%
	Yes			27%

4.2 Knowledge

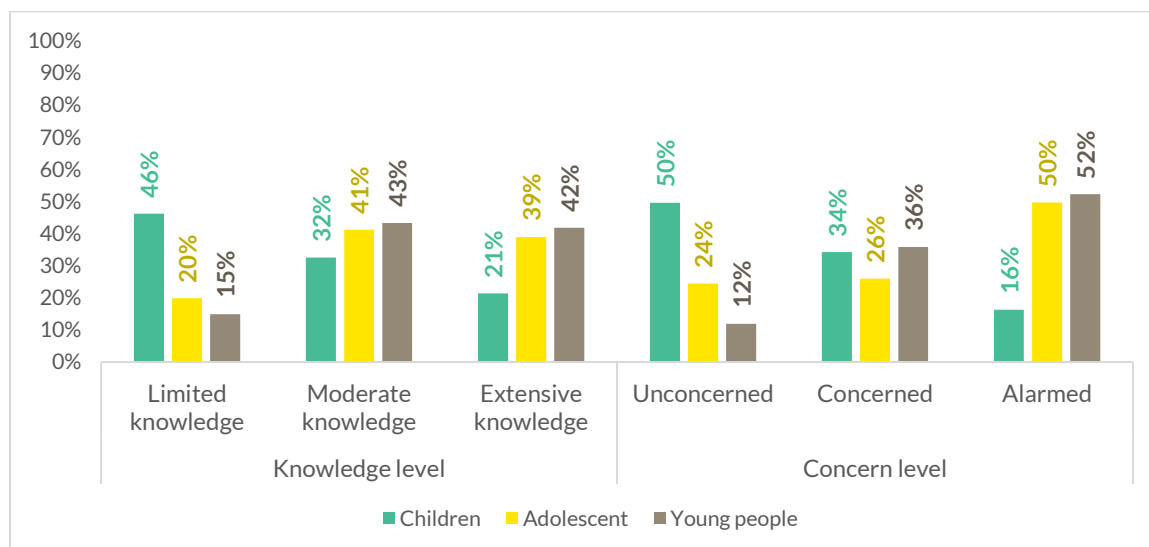
4.2.1 General Knowledge on Climate Change

Children, adolescents, and young people rated their knowledge and concerns about climate change on a scale from 0 to 10. Figure 2 shows that most children (46%) have limited knowledge on climate change, followed by 32% with moderate knowledge, and 21% with extensive knowledge. For adolescents the knowledge distribution is more evenly spread, with 41% possessing moderate knowledge and nearly the same percentage, 39%, having extensive knowledge with only 20%

ranking themselves with limited knowledge. Young People have a stronger understand of climate change, with 43% having moderate knowledge and 42% with extensive knowledge.

Regarding concern on climate change, 50% of children report that are unconcerned about climate change, 34% are concerned, and a smaller percentage (16%) feeling alarmed. On the other hand, 50% of adolescents are alarmed about climate change and young people in line with adolescent are alarmed about climate change (52%).

FIGURE 2: LEVEL OF KNOWLEDGE AND CONCERN ABOUT CLIMATE CHANGE



Among the surveyed **children**, the average self-rated score for their **knowledge** about climate change was **4.85 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 self-rated score of **4.25 out of 10** (Table 4).

The interviewed children's statements on climate change provide a revealing glimpse into their depth of understanding. Their observations capture tangible effects, with one 9-year-old girl noting, "Climate change makes the weather unpredictable, like unexpected downpours out of season." highlighting the unpredictability of current weather patterns. Delving into broader ecological concerns, another 10-year-old boy mentions, "To me, 'climate change' evokes the thought of habitats, which we are actively endangering." This sentiment not only underscores the environmental effects but also the human role in such changes. Furthermore, their comprehension extends to health, with a poignant remark from an 11-year-old-boy, "Climate change represents a transformation in our environment, exposing us to numerous hazards that threaten our health." emphasizing the personal, direct consequences they anticipate from a shifting climate.

Moreover, children in the country are observing firsthand the tangible impacts of climate change, from altered weather patterns to the degradation of natural resources. They recognize human activities, like pollution from factories and vehicles, as significant contributors. One boy, aged 10, remarked, "I have seen changes in the climate, the weather, and the crops in the village that are barely growing."

When it comes to the **adolescent**, the average self-rated score for **knowledge** about climate change increases to **6.21 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 self-rated score of **6.66 out of 10** (Table 4).

The adolescents' responses during interviews paint a vivid picture of their perceptions of climate change, which they understand as a complex issue deeply intertwined with various aspects of human life. Not just a distant environmental challenge, climate change, in their eyes, is an imminent threat that directly impacts their daily lives. A 12-year-old girl's reflection captures the overarching sentiment: "I feel our planet is deteriorating, witnessing the air and environment transform with each

passing day." The disruption of seasonal expectations is clearly felt, as another 15-year-old girl observes, *"When I hear 'climate change,' I immediately think of disrupted seasons. It's June, and we're still clad in sweaters."* Beyond environmental concerns, the stakes rise dramatically when considering the broader societal ramifications. The gravity with which they view the potential future is encapsulated in a chilling foresight from another 15-year-old girl, *"To me, climate change signifies a bleak future – one devoid of health, happiness, and playful children, replaced instead by illness, seclusion, conflict, and mortality."*

Moreover, adolescents exhibit varied experiences with climate change, some untouched and others deeply concerned about indirect effects. The link between food production and climate-driven health hazards emerges, with a 15-year-old noting, *"Chemicals in our food affect our health; soon, our well-being will suffer, diminishing our happiness."*

And lastly, in terms of the **young** people, the average self-rated score for knowledge about climate change is **6.46 out of 10**. Moreover, young people demonstrated the highest level of **concern** amongst the age groups, with an average self-rated score of **7.3 out of 10** (Table 4).

The interviews with young individuals reveal a commendable depth of knowledge and awareness regarding climate change and its multifaceted impacts. The 23-year-old man's observation that *"Changes in the Earth's temperature and climate will drastically reduce animal and plant life worldwide,"* underscores an astute understanding of the threat to global biodiversity. Similarly, the 21-year-old man's insight, highlighting how *"The transformation happening with the seasons directly impacts the diseases that surround us,"* showcases an ability to connect ecological changes to human health. This connection is further deepened by the 18-year-old woman who articulates the cascading effects of climate change, noting, *"Climate changes usher in a perilous environment, from earthquakes to floods, endangering lives and giving rise to new health threats."* Adding a comprehensive perspective, another 23-year-old man encapsulates the broader picture, remarking, *"The term 'climate change' reflects global alterations in the Earth's climate over time."* Collectively, their responses not only illustrate the pervasive impacts of climate change but also validate the impressive knowledge and understanding that today's Albanian youth holds about this global challenge.

TABLE 4: MEAN OF GENERAL KNOWLEDGE AND CONCERNS ABOUT CLIMATE CHANGE

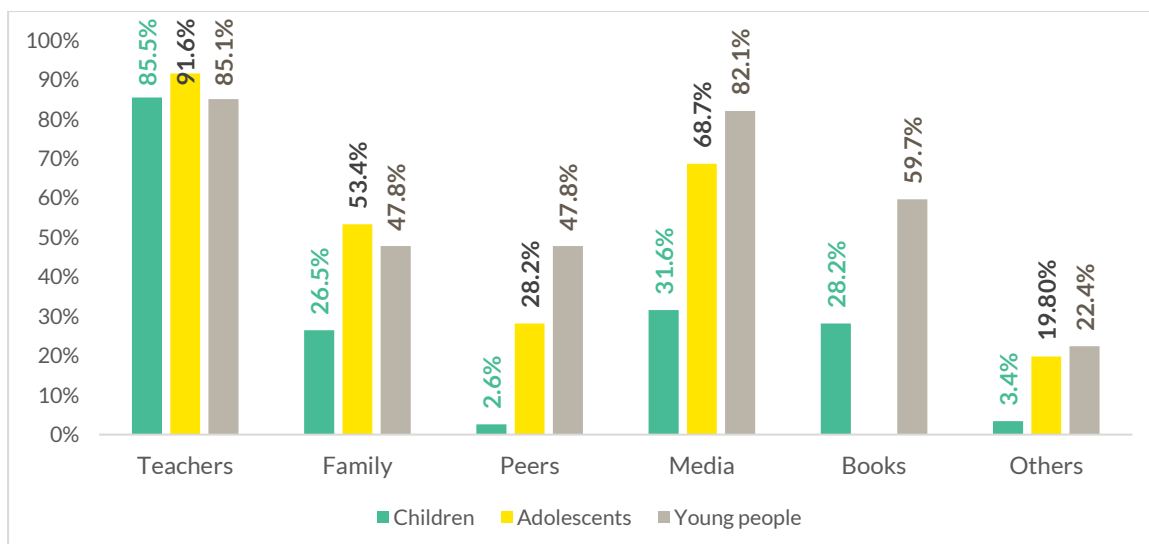
		N	Mean	SD
Children	Level of knowledge about climate change	117	4.85	2.96
	Level of concern about climate change	117	4.25	3.04
Adolescent	Level of knowledge about climate change	131	6.21	2.50
	Level of concern about climate change	131	6.66	2.94
Young people	Level of knowledge about climate change	67	6.46	2.17
	Level of concern about climate change	67	7.30	2.37

Overall, as age categories progress from children to young people, there's a noticeable decrease in limited knowledge and unconcern about climate change, and a corresponding increase in extensive knowledge and alarm about the issue.

4.2.2 Sources for knowledge's acquisition on climate change

The study examined the sources from which children, adolescents, and young people in Albania acquire their knowledge about climate change. **Teachers** emerged as the primary source of climate change knowledge for the participants across all three age groups. **The media** was another 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, with 28.2% of surveyed children and 59.7% of surveyed young people reporting books as an information resource (Figure 3).

FIGURE 3 CHILDREN AND YOUNG PEOPLE'S SOURCES OF KNOWLEDGE ON CLIMATE CHANGE



During KIIs, children shared insightful feedback, emphasizing the pivotal role of formal education in their grasp of climate change. The statement from the 9-year-old girl, *"My school introduced me to the concept of climate change,"* stands testament to the foundational place this topic occupies in the curriculum. Yet, education isn't confined to lectures and textbooks. The 10-year-old boy's vivid memory highlights the school's dynamic approach: *"Our school involves us in activities like recycling, celebrating Earth Day, cleaning our surroundings, and observing Bird Day. These activities draw us nearer to nature's heart."* Such immersive experiences go beyond pure academics, fostering a deep-rooted connection to the environment and an innate urge to safeguard it. Complementing school-based learnings, external media sources also enrich their knowledge. An 11-year-old elucidates this with, *"I've caught broadcasts on TV discussing floods in various countries now and then,"* underscoring the media's role in broadening their horizon about global environmental predicaments.

Interviewed adolescents revealed how both formal education and global activism have significantly enhanced their knowledge about climate change. One 15-year-old girl reminisced, *"In 6th grade, our science lessons were my first deep dive into climate change, and those teachings resonated."* The powerful impact of global activists, notably Greta Thunberg, is palpable in her subsequent reflection, *"After hearing Greta's detailed account, I realized there's so much more to grasp. Her revelations both alarmed and enlightened me."* Highlighting her own proactive approach, she emphasizes, *"School was the starting point of my climate change education, but my thirst for understanding didn't end there. I've actively sought out documentaries and readings to broaden my knowledge."* The adolescents' insights, as shared during the KIIs, accentuate the interplay between academic curriculum, influential activist voices, and self-driven exploration in expanding their knowledge about the climate crisis.

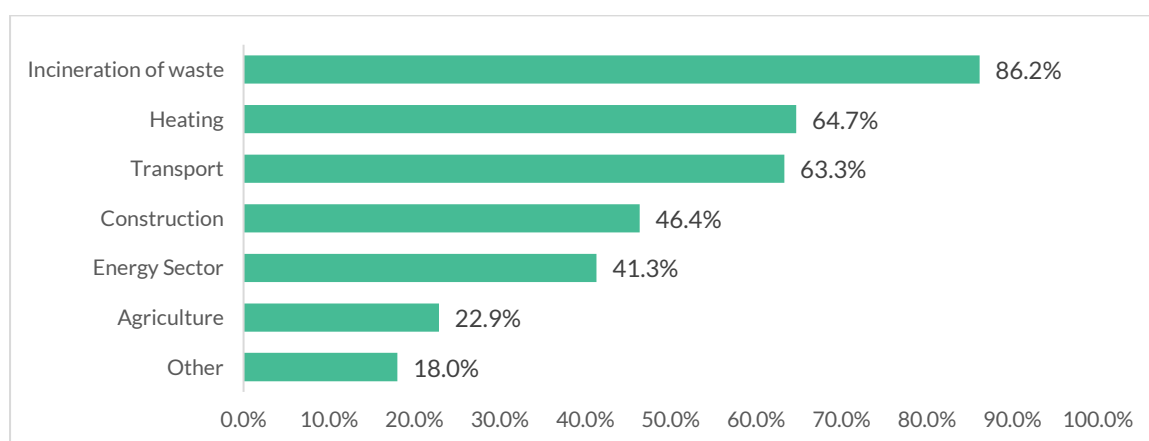
In their KIIs, young individuals conveyed how their school experiences largely shaped their understanding of climate change. A 23-year-old woman reflected on her dual sources of knowledge, noting, *"Nature Science classes intertwined with family dialogues illuminated the issue for me."* Another male participant, aged 19, pinpointed his formative years: *"During 9th and 10th grades, our geography sessions became catalysts for deeper discourse on the climate's transformation."* Meanwhile, a 24-year-old woman stressed the impact of her proactive pursuit of knowledge, mentioning, *"At age 15, I ventured beyond the classroom, participating in seminars that revolved around environmental stewardship and the changing climate."* Yet, an evident gap in their awareness emerged when discussing the mental implications of climate change. An 18-year-old woman admitted, *"My educational journey never ventured into the realm of climate change's psychological toll."* In tandem with her statement, another 18-year-old male remarked, *"While the mental effects of climate shifts weren't in my curriculum, I inherently sense its potential to stir emotional upheavals."* These reflections underscore the imperative for education that not only navigates the environmental consequences but also delves into the profound psychological impacts of climate alterations.

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 86.2% identifying it as a main culprit. Transport and heating were also identified as major contributors by children (63.3% and 64.7% respectively). The electricity also garnered considerable attention among children, with 41.3% recognizing its impact on climate change (Figure 4). Among the surveyed children, a significant percentage (51.1%) believe that climate change is predominantly caused by human factors. In contrast, a smaller percentage (22.3%) attribute climate change to natural phenomenon. Moreover, a considerable number of children (25.5%) perceive climate change as a result of both human actions and natural processes (Figure 7).

The interviewed children's insights, drawn from their discussions, underscore a profound grasp of the complexities surrounding climate change. Their comments lay bare the multifaceted origins of this crisis and delve into its cascading consequences on society at large. A 10-year-old boy comments on the glaring human negligence, observing, *"People are hurting nature by not knowing where to put trash. There's so much oil going into the water."* Expanding on this thought, the same boy pinpoints corporate motives as a significant problem, articulating, *"I think big companies care more about money than they do about us kids or the planet."* Further echoing this sentiment, an 11-year-old points to the widespread irresponsibility, noting, *"Lots of the bad weather we see is because some people and companies don't look after the planet right."* Building on this, the same child provides a vivid description of the domino effect initiated by such negligence, illustrating, *"Bad stuff in the air makes the weather go crazy. Like too much rain and then big floods. It ruins homes, fields, and makes life tough."*

FIGURE 4: MAIN CONTRIBUTOR TO CLIMATE CHANGE ACCORDING TO CHILDREN

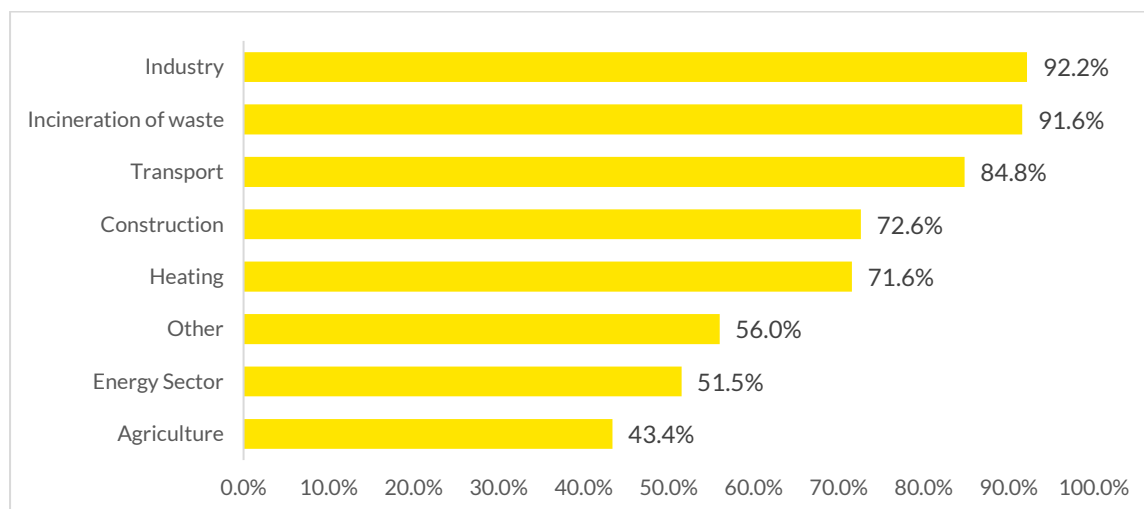


Surveyed **adolescents** showed a similar awareness of the impact of waste incineration and the industry sector's contribution, with 91.6% and 92.2% respectively identifying it as a main contributor. Additionally, transport was also identified as a major contributor by the majority of adolescents with a percentage of 84.8%. However, a lower percentage (51.5%) of adolescents attributed significant importance to electricity production. The construction sector received more recognition from adolescents (72.6%) than from children, suggesting a heightened understanding of the environmental impact of construction activities in this age group (Figure 5). Among the surveyed adolescents, 69.1% attributed climate change to human factors, only 6.5% to natural phenomena, and 23.6% recognize that climate change is a consequence of both human actions and natural occurrences (Figure 7).

From the insights shared during discussions, adolescents demonstrate an in-depth recognition of the human-induced factors propelling climate change. Their comments elucidate the myriad human activities adversely impacting the environment, pointing towards an evolved understanding of how these behaviors contribute to global warming. A 12-year-old girl earnestly remarks, *"We're the reason for the climate's change. We've got to use less plastic and switch to things like cardboard or cloth bags."* Delving into the technicalities, a 17-year-old observes, *"What we're seeing now, this rapid shift in our climate, it's because of the greenhouse gases we humans are pumping into the air."* Echoing a

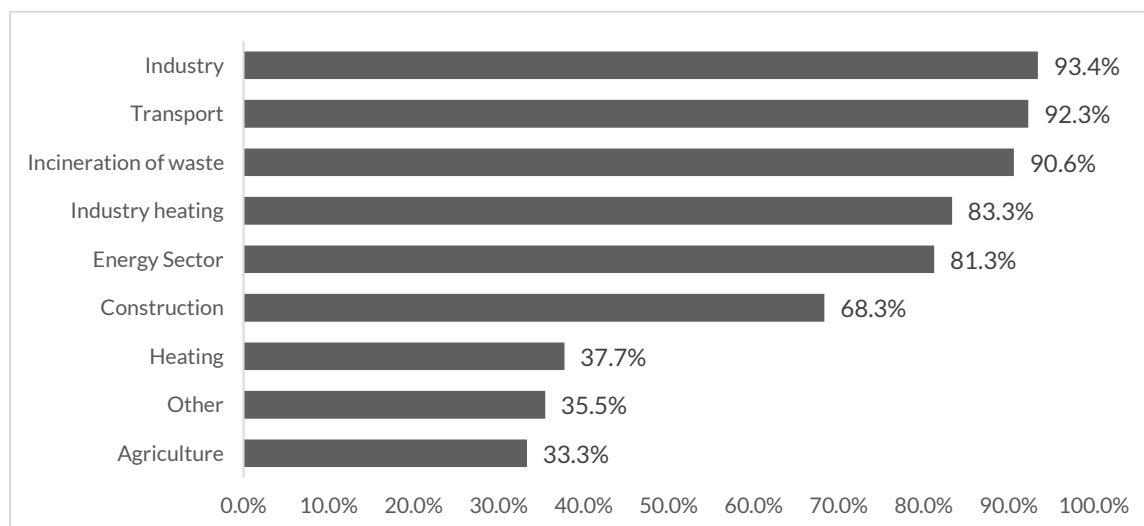
similar sentiment but detailing diverse contributing activities, a 15-year-old opines, "We're doing this to our planet. Whether it's not caring about where our trash goes, using too many fuels, or letting chemicals run into our rivers – it's all adding up."

FIGURE 5: MAIN CONTRIBUTOR TO CLIMATE CHANGE ACCORDING TO ADOLESCENTS



Surveyed **young people** displayed a similar level of concern regarding the waste incineration and the industry sector, with a striking 90.6% and 93.4% respectively recognizing their role in contributing to climate change. Unlike children and adolescents, a higher percentage (81.3%) of young people pointed to electricity production as a main contributor. The transport sector was also highly recognized by young people, with 92.3% attributing its role in climate change. Additionally, young people demonstrated a higher level of awareness of the industry heating's contribution, with 83.3% identifying it as a main contributor (Figure 6).

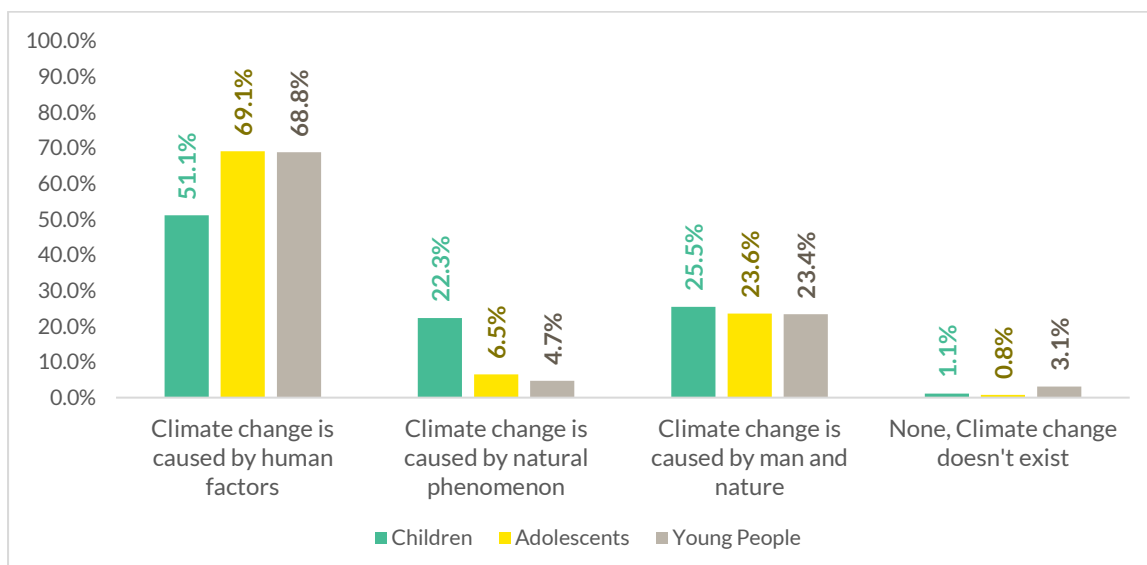
FIGURE 6: MAIN CONTRIBUTOR TO CLIMATE CHANGE ACCORDING TO YOUNG PEOPLE



The data also reveals that young people show the highest level of awareness, with 68.8% acknowledging that climate change is caused by human factors, 4.7% by natural phenomenon, and 23.4% perceive climate change because of both human actions and natural processes (Figure 7).

Interviewed young people demonstrated a sophisticated grasp of the myriad causes behind climate change, highlighting the deep-seated nature of the problem. While some causes lie in the realm of individual behaviour, others point towards systemic challenges and larger-scale inefficiencies. A 21-year-old man reflects on the pervasive issue of littering, commenting, "To me, the root of the problem is us, the people. Just look around. From discarded water cans to those empty chip packets, it's everywhere. It's not just about one type of waste, it's the sheer volume of all kinds."

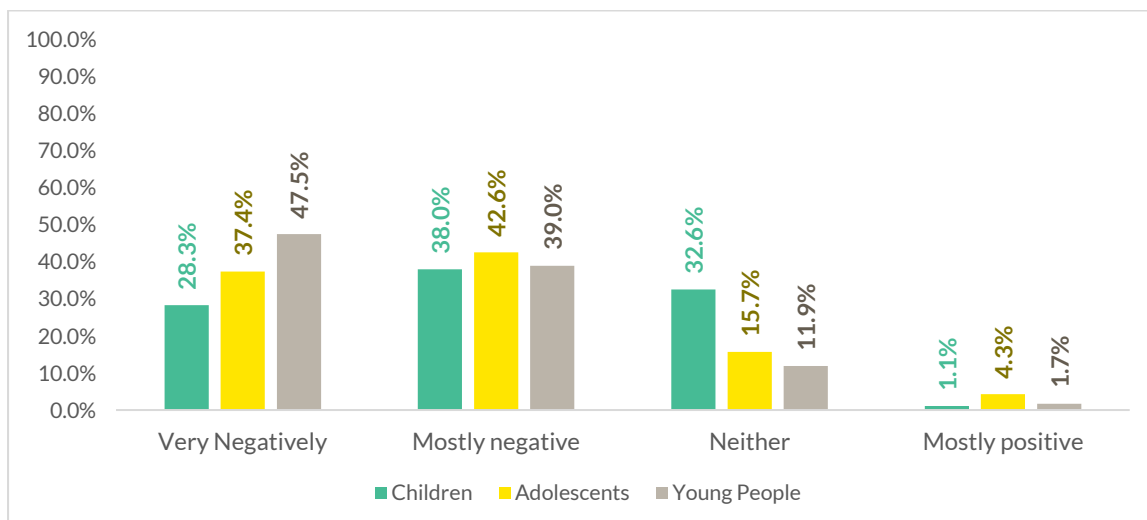
FIGURE 7 PERCEPTIONS OF CLIMATE CHANGE CAUSES



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

Among the children, 38%, perceived the climate change’s impact on the quality of life of children and young people globally as "Mostly Negative" and 28.3% as "Very Negative," emphasizing a prevailing view of adverse consequences on their lives due to climate change. Adolescents' perceptions of climate change's impact on their quality of life followed a similar trend with 42.6% perceived the impact as "Mostly Negative" and 37.4% as "Very Negative". The data for young people shows a similar pattern, with the majority (47.5%) expressing a "Very Negative" perception and 39% perceiving the impact as "Mostly Negative." (Figure 8)

FIGURE 8 PERCEPTION OF CLIMATE CHANGE’S IMPACT ON THE QUALITY OF LIFE OF CHILDREN AND YOUNG PEOPLE



The data shows that a majority of surveyed children perceive immediate impacts of climate change on illness (55.7%), land deterioration (41%) and malnutrition (40.6%). Almost one-quarter also express awareness of climate change's influence on mental health (26.3%). Additionally, 30.7% and 20.8% of children believe that climate change poses immediate risks to hazardous jobs for both girls and boys respectively. Furthermore, a smaller proportion of the surveyed children recognize climate change's impact on access to education for girls (15.7%) and boys (13.9%), and a slightly

higher portion perceive an immediate impact on school attendance decline for both genders (20.5% for girls and 22.9% for boys), reflecting their understanding of potential disruptions in educational systems. However, most children do not see direct connections between climate change and child marriage or violence against children. (Table 5)

The reflections of the **children** unveil a deep-seated awareness of the ways climate change will be molding their communities and, specifically, the lives of their peers. These young voices, echo a collective sentiment of change, anxiety, and resilience. A 9-year-old girl's simple observation, "Seasons won't feel distinct from one another anymore," suggests an underlying concern for traditional practices and festivities that children associate with specific seasons. Similarly, the fears of a 10-year-old boy about deteriorating air quality resonate with the anxiety shared by many of his peers, "There might come a time when we'll need masks just to breathe, reminiscent of the covid era, all due to unclean air." The wider implications of this shift in weather patterns are echoed by another 11-year-old, who recognizes the emotional toll of such unpredictability: "It's summer, yet it pours. This can make young ones like us sad because our plans, games, and outdoor fun are often thwarted by unexpected weather." Yet, not all perceive these changes as affecting their immediate environment. One 9-year-old comments, "It hasn't affected us," hinting perhaps at a protective community or a lack of visible change. However, an 11-year-old relates climate change directly to health and well-being, observing, "Climate change has ushered in diseases that put young people's lives at risk." The most striking, however, is the vivid imagery presented by another 11-year-old, who speaks to the heart-wrenching aftermath of severe climatic events: "After a flood or earthquake, the familiar patterns of our lives will be disrupted. We might not return home out of fear, playgrounds might be ruined, and schools might collapse."

TABLE 5: CHILDREN PERCEPTIONS ON THE IMPACT OF CLIMATE CHANGE ON THEIR LIFE

	Children					
	Not an Impact		Immediate Impact		Lifelong Impact	
	N	%	N	%	N	%
Illness	17	19.3%	49	55.7%	22	25.0%
Land deterioration	35	44.9%	32	41.0%	11	14.1%
Malnutrition	26	37.7%	28	40.6%	15	21.7%
Hazardous jobs for girls	48	64.0%	23	30.7%	4	5.3%
Mental Health	31	40.8%	20	26.3%	25	32.9%
Boys unable to access education	50	71.4%	16	22.9%	4	5.7%
Hazardous jobs for boys	54	70.1%	16	20.8%	7	9.1%
Girls unable to access education	52	71.2%	15	20.5%	6	8.2%
Physical Violence against boys	61	77.2%	13	16.5%	5	6.3%
Girl's school attendance decline	66	79.5%	13	15.7%	4	4.8%
Child marriage for boys	52	70.3%	11	14.9%	11	14.9%
Physical Violence against girls	60	76.9%	11	14.1%	7	9.0%
Boys school attendance decline	63	79.7%	11	13.9%	5	6.3%
Child marriage for girls	58	76.3%	10	13.2%	8	10.5%

The survey findings indicate that a significant proportion of surveyed adolescents see climate change as having an immediate impact on illness (53.6%) and malnutrition (47.4%). Moreover, surveyed adolescents' express concerns about limited health care access for both girls (30.5%) and boys (27%). They also recognize the immediate impact of climate change on mental health, with anxiety (61.5%) and sleep problems (40.6%) 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 (39.2% for girls and 40.6% for boys) and economic decline/poverty (43.2%). Additionally, adolescents acknowledge the immediate impact of climate change on limited access to education

for both girls (30.2%) and boys (22.1%), along with school attendance decline for both genders (30.9% for girls and 26.6% for boys) (Table 6).

Adolescents from the interviewed communities convey a deep and immediate understanding of the repercussions of climate change on their lives and those of their peers. Their testimonials are more than abstract fears, but immediate realities reshaping their everyday experiences. One 12-year-old vividly captures the sentiment, stating, *"The life of our community is under siege from climate change. Its ripple effects are everywhere – more diseases, unpredictable seasons, and polluted air that's hard to breathe."* Another young voice amplifies this, pointing out the multifaceted emotional costs, *"Our skies are no longer just cloudy; our spirits are too. Children, like me, are grappling with sadness, not just because of the unclean air, but the many diseases and uncertainties it brings."* A 15-year-old delves into the psychological aftermath, noting, *"It's not just about the environment; it's changing us too. There's heightened anxiety, a spike in violence, and intensified social challenges."* Perhaps the most evocative is the sober reflection from another adolescent, *"For two years, we wore masks, not just for a virus but because our very air betrayed us."* Adolescents perceive climate change impacts as universally equal, irrespective of gender. They believe that everyone, sharing the same environment, faces similar consequences. One 12-year-old girl remarks, *"It will have the same effect."*

TABLE 6: ADOLESCENTS PERCEPTIONS ON THE IMPACT OF CLIMATE CHANGE ON THEIR LIFE

	Adolescent					
	Not an Impact		Immediate Impact		Lifelong Impact	
	N	%	N	%	N	%
Anxiety	18	17.3%	64	61.5%	22	21.2%
Illness	5	4.5%	60	53.6%	47	42.0%
Malnutrition	14	14.4%	46	47.4%	37	38.1%
Land deterioration	17	15.5%	50	45.5%	43	39.1%
Economic decline/poverty	24	21.6%	48	43.2%	39	35.1%
Learning difficulties	32	32.3%	41	41.4%	26	26.3%
Sleep Problems	35	36.5%	39	40.6%	22	22.9%
Hazardous jobs for boys	42	41.6%	41	40.6%	18	17.8%
Hazardous jobs for girls	40	39.2%	40	39.2%	22	21.6%
Girls unable to access education	51	52.6%	30	30.9%	16	16.5%
Limited Health care for girls	41	43.2%	29	30.5%	25	26.3%
Emotional Violence against girls	57	57.6%	30	30.3%	12	12.1%
Girl's school attendance decline	49	51.0%	29	30.2%	18	18.8%
Discrimination against girls	43	47.8%	27	30.0%	20	22.2%
Suicide	35	40.2%	24	27.6%	28	32.2%
Emotional Violence against boys	60	61.2%	27	27.6%	11	11.2%
Limited Health care for boys	37	41.6%	24	27.0%	28	31.5%
Discrimination minority groups	47	54.7%	23	26.7%	16	18.6%
Boys unable to access education	55	58.5%	25	26.6%	14	14.9%
Violence against boys	64	65.3%	23	23.5%	11	11.2%
Child marriage for girls	64	67.4%	22	23.2%	9	9.5%
Violence against girls	64	68.1%	21	22.3%	9	9.6%
Boys school attendance decline	53	55.8%	21	22.1%	21	22.1%
Child marriage for boys	68	69.4%	21	21.4%	9	9.2%
Sexual Violence against girls	61	63.5%	20	20.8%	15	15.6%
Sexual Violence against boys	65	69.9%	18	19.4%	10	10.8%

A significant proportion of surveyed young people see a lifelong impact of climate change on malnutrition (41.4%), illness (50%), and limited health service capacity (53.6%). Surveyed young people also express concern about the lifelong impact of climate change on mental health, including depression (40.3%), anxiety (47.6%), and sleep problems (50.8%). Moreover, the data shows that surveyed young people are mindful of the long-term impacts of climate change on land deterioration (45.8%), pregnancy complications (48.3%), and learning difficulties (32.1%). 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 (35.2%) and group hostility (35.8%), 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 7).

Young people's perspectives on climate change reflect a profound understanding of its multi-dimensional effects on their communities and the lives of their peers. One young man, aged 23, draws attention to health and ecological impacts, emphasizing the impending "*changes in the human organism and biodiversity's deformations.*" His concerns extend to food scarcity as he highlights potential "*problems in agriculture.*" Another young voice, a 21-year-old man, articulates the emotional and psychological toll of shifting weather patterns, alluding to the "*instability of time*" and lamenting the ensuing "*mental deterioration.*" He perceives this atmospheric unrest as an unsettling reflection of the collective emotional state, suggesting that the planet's changes have profound implications for human mental well-being. An 18-year-old woman brings the narrative closer to home, presenting a vivid snapshot of environmental degradation in her locality, marked by unchecked pollution, deforestation, and looming natural disasters. The conversation deepens when focusing specifically on the younger generation. A 19-year-old woman sketches a devastating scenario where a child's world is decimated by a flood, emphasizing the emotional disarray caused by such drastic disruptions. Echoing earlier concerns, the 23-year-old man projects into the future, foreseeing potential physical "*deformations in newborns*" and signalling significant psychological upheavals for children and adolescents. Young people expressed diverse views on gender and climate change impacts. One woman feels girls may be more perceptive to changes, while two men believe its effects are universal, not gender specific. The summarized perspective: "*Girls might be more attuned, but climate's wrath is indiscriminate,*" encapsulates their sentiments.

TABLE 7: YOUNG PEOPLE'S PERCEPTIONS ON THE IMPACT OF CLIMATE CHANGE ON THEIR LIFE

	Young people					
	Not an Impact		Immediate Impact		Lifelong Impact	
	N	%	N	%	N	%
Limited Health service capacity	12	21.4%	14	25.0%	30	53.6%
Sleep Problems	13	21.3%	17	27.9%	31	50.8%
Illness	11	17.7%	20	32.3%	31	50.0%
Pregnancy complications	11	19.0%	19	32.8%	28	48.3%
Anxiety	11	17.5%	22	34.9%	30	47.6%
Land deterioration	13	22.0%	19	32.2%	27	45.8%
Malnutrition	11	19.0%	23	39.7%	24	41.4%
Depression	13	21.0%	24	38.7%	25	40.3%
Learning difficulties	15	26.8%	23	41.1%	18	32.1%
Suicide	24	42.9%	14	25.0%	18	32.1%
Economic decline/poverty	18	33.3%	19	35.2%	17	31.5%
Emotional Violence against boys	25	49.0%	11	21.6%	15	29.4%
Hazardous jobs for boys	22	39.3%	20	35.7%	14	25.0%
Group Hostility	21	39.6%	19	35.8%	13	24.5%
Girls unable to access education	27	51.9%	13	25.0%	12	23.1%
Sexual Violence against girls	31	58.5%	10	18.9%	12	22.6%

Hazardous jobs for girls	18	33.3%	24	44.4%	12	22.2%
Jobs for women	25	48.1%	16	30.8%	11	21.2%
Violence against boys	28	52.8%	14	26.4%	11	20.8%
Emotional Violence against girls	25	47.2%	17	32.1%	11	20.8%
Women financial access	30	58.8%	11	21.6%	10	19.6%
Partner violence	32	62.7%	9	17.6%	10	19.6%
Boys unable to access education	28	53.8%	14	26.9%	10	19.2%
Child marriage for boys	32	60.4%	11	20.8%	10	18.9%
Violence against girls	29	52.7%	16	29.1%	10	18.2%
Sexual Violence against boys	30	56.6%	14	26.4%	9	17.0%
Child marriage for girls	33	61.1%	12	22.2%	9	16.7%

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, 46.4% of children recognize the **big positive impact of walking/cycling**, similarly, 48.6% of children believe that **recycling** can have a big impact on mitigating climate change. Interestingly, 44.6% 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, 31.1% 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 56.6% of children perceive a big impact from the reduction of plastic. However, there are areas where more awareness-raising is needed. For example, only 20.2% of children see public transport as having a big impact. Similarly, 28.4% of children believe donating clothes can have a big impact, while a considerable 35.1% see no impact at all (Table 8).

The insights from the interviewed children reflect a profound understanding of mitigation solutions to counteract climate change, showcasing both their intuitive grasp of nature's mechanisms and their knowledge of human interventions. Central to their suggestions is the act of tree planting. As one child succinctly put it, there's a need *"to plant as many trees as possible."* This reflects a keen awareness of how trees act as natural carbon sinks, absorbing and storing carbon dioxide, thereby mitigating the effects of greenhouse gases. Their proactive stance towards community action is evident in the idea of forming *"our own groups"* to clean up local environments. This not only showcases a spirit of collective responsibility but also underlines the importance of direct local interventions in global challenges. Their sustainable mindset shines through in daily practices, with the call to swap plastic bags for cloth ones – a simple yet effective strategy to combat plastic pollution and its associated greenhouse gas emissions. The proposition to transition from pollution-intensive factories to renewable energy solutions like *"opening windmills"* showcases their grasp on the broader industrial implications on climate change. Additionally, their endorsement of electric vehicles over traditional fuel-powered ones further cements their insight into cleaner technological solutions.

Surveyed **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, 57.5% and 60.3%, respectively. **Recycling** was overwhelmingly acknowledged for its big impact (68.3%), showcasing a good understanding of waste management. Rational water use (60.3%) and planting (75%) were also perceived as highly impactful, reflecting their awareness of water conservation and afforestation's role in carbon sequestration. Solar panels and the use of energy efficient lighting garnered positive recognition, with 60.3% and 52% acknowledging their big impact, indicating a favourable attitude towards renewable and efficient energy solutions. Furthermore, waste reduction through food waste and plastic reduction were shown to have a big impact with 49.2% and 62.6% acknowledging their impact. Reducing air travel (55.5%) and firewood use (62.3%) can also have a big impact in reducing climate change. However,

there is room for improvement in raising awareness of sustainable fashion and responsible consumption, as only 38.5% recognized the impact of donating clothes.

Adolescents' insights underscore a comprehensive understanding of mitigation solutions to combat climate change. The idea proposed by a 12-year-old, emphasizing the division of environmental tasks among specific groups, reflects a nuanced grasp of resource management and the power of focused, collective action. Her suggestion emphasizes the importance of specialized care, from plant conservation to reducing vehicular emissions, indicating an understanding of diverse mitigation areas. The 17-year-old's emphasis on rethinking dietary choices, especially meat consumption, highlights a keen awareness of agriculture's carbon footprint. By linking meat consumption with both the climate crisis and broader environmental degradation, she showcases knowledge of one of the significant sectors contributing to greenhouse gas emissions.

The findings show that surveyed **young people** are actively engaged in understanding actions that can positively influence climate change. Among the activities surveyed, **walking, cycling, and recycling** emerges as a highly favoured practice, with a notable 50%, 56.1%, and 53.8% of young people acknowledging their significant impact on mitigating climate change respectively. Another prominent action recognized by young people is rational water use, with 50.8% acknowledging its importance in conserving water resources and addressing climate change. **Solar panels** in the city (47.8%) and **planting** (64.6%) are also viewed as impactful practices. Additionally, waste reduction (54.7%) and composting (41.5%) 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 (29.7%) and less air travel (30.6%) are perceived to have a comparatively lower impact (Table 8).

The perspectives of young individuals highlight a remarkable depth of understanding regarding mitigation solutions to counteract the consequences of climate change. A 23-year-old man's call for individuals to recognize the interconnection between personal actions and their impact on the wider community and even their "families and relatives" highlights a nuanced grasp of the ripple effect. His emphasis conveys an understanding that mitigation isn't just about grand gestures but is deeply rooted in the everyday decisions individuals make, reflecting a micro-level approach to a macro-level problem. The 18-year-old's preference for cycling over pollution-causing vehicles showcases a proactive approach towards emissions reduction. Furthermore, the same 23-year-old man's identification of critical climate change contributors— "deforestation, the greenhouse effect, industrial centres, and human impact" — signifies an informed understanding of the multifaceted nature of the crisis. By emphasizing the reduction of these factors, he is effectively outlining a roadmap of priority areas for mitigation efforts.

TABLE 8: PERCEPTIONS OF ACTIVITIES THAT CAN HAVE AN IMPACT ON CLIMATE CHANGE

		Children N=117	Adolescent N=131	Young people N=67
Walking	Big Impact		57.5%	50.0%
	No impact at all		11.0%	12.1%
Cycling	Big Impact		60.3%	56.1%
	No impact at all		7.9%	10.6%
Walking/ Cycling	Big Impact	46.4%		
	No impact at all	24.5%		
Public transport	Big Impact	20.2%	42.1%	46.2%
	No impact at all	29.8%	12.4%	4.6%
Recycling	Big Impact	48.6%	68.3%	53.8%
	No impact at all	12.1%	8.7%	3.1%
Energy efficient light bulbs	Big Impact		52.0%	39.7%
	No impact at all		4.0%	7.9%

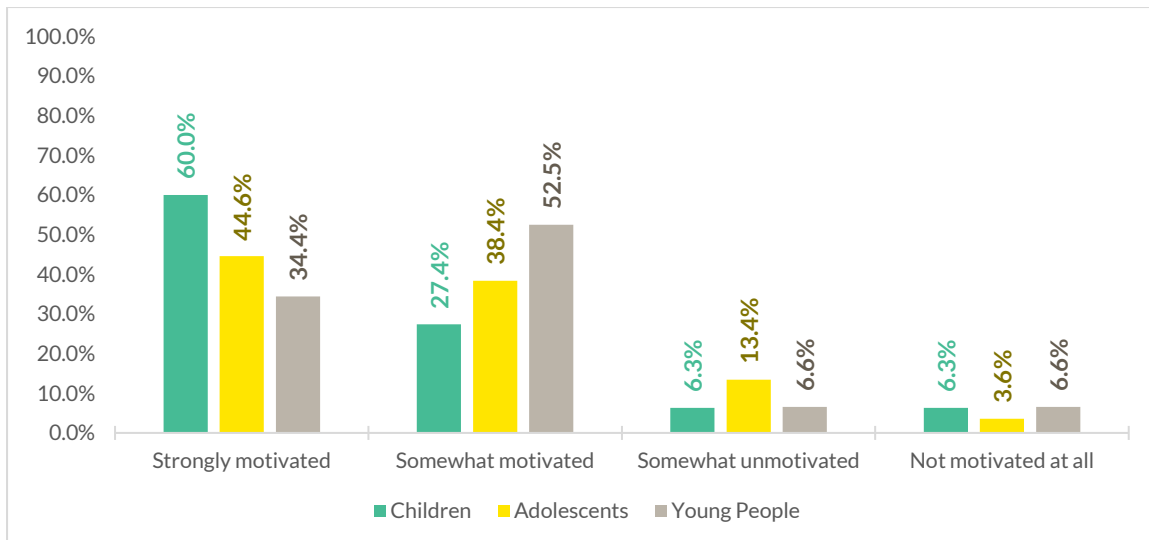
Organic food	Big Impact		49.2%	39.7%
	No impact at all		8.2%	11.1%
Collection of garbage	Big Impact			51.6%
	No impact at all			4.7%
Solar panels in the city	Big Impact			47.8%
	No impact at all			9.0%
Rational use of water	Big Impact	44.6%	60.3%	50.8%
	No impact at all	14.9%	5.8%	7.7%
Planting	Big Impact		75.0%	64.6%
	No impact at all		4.8%	4.6%
Waste reduction	Big Impact			54.7%
	No impact at all			9.4%
Composting	Big Impact			41.5%
	No impact at all			9.2%
Energy efficient appliances	Big Impact			34.9%
	No impact at all			9.5%
Donating clothes	Big Impact	28.4%	38.5%	29.7%
	No impact at all	35.1%	21.4%	18.8%
Food waste reduction	Big Impact	31.1%	49.2%	39.1%
	No impact at all	29.1%	10.2%	15.6%
Reduction of plastic	Big Impact	56.6%	62.2%	47.7%
	No impact at all	16.0%	10.1%	9.2%
Digitization of operations	Big Impact			24.2%
	No impact at all			14.5%
Solar panels at home	Big Impact		60.3%	38.8%
	No impact at all		8.3%	9.0%
Less air travel	Big Impact		55.5%	30.6%
	No impact at all		8.4%	8.1%
Firewood use	Big Impact		62.3%	40.0%
	No impact at all		6.6%	6.2%

4.3 Practice

4.3.1 Taking actions on climate change

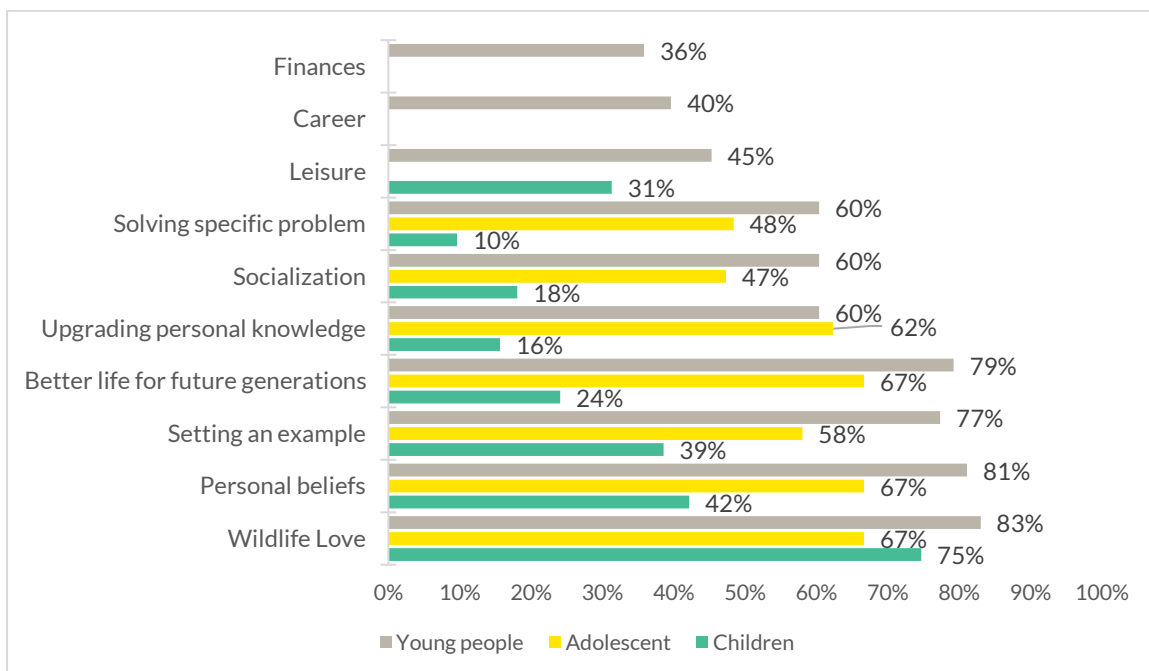
The survey results demonstrate a high level of motivation among children, adolescents, and young people regarding environmental concerns. Specifically, 87.4% of children, 83% of adolescents, and 86.9% of young people indicated that they are either strongly or somewhat motivated (Figure 9).

FIGURE 9: MOTIVATION TO ENGAGE IN ENVIRONMENTAL ACTIVITIES



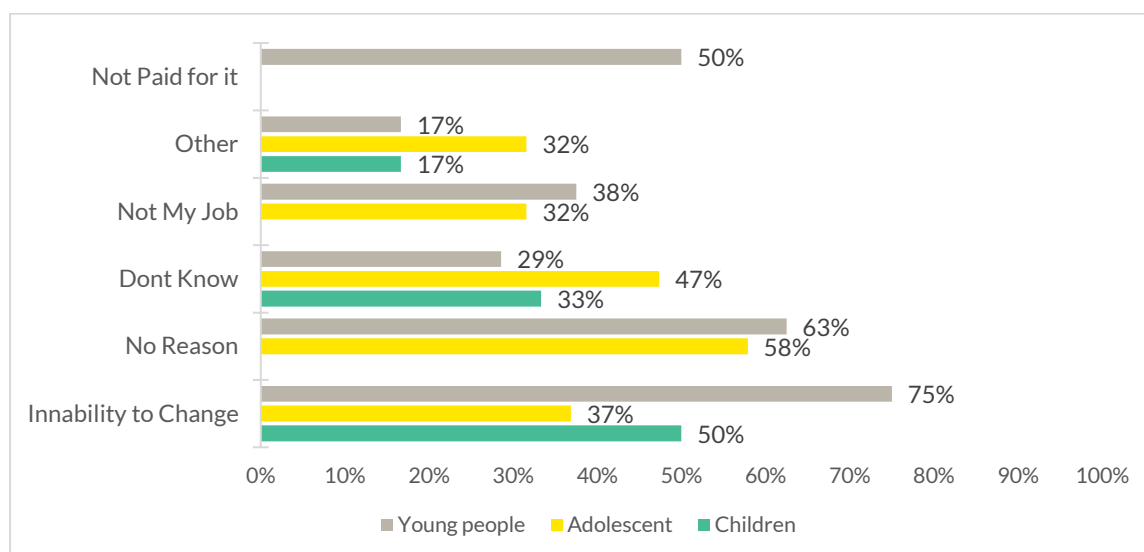
The reasons behind their personal motivations vary, but some common themes emerge. Across all age groups, personal beliefs serve as a notable driving force (42.2% to 81.1%) citing this as a significant motivator. The love for wildlife is another compelling reason, resonating strongly with 74.7% of children, 66.7% of adolescents, and 83% of young people. Moreover, a sense of social responsibility is prevalent with 58.1% of adolescents and 77.4% of young people expressing their desire to set an example for others. Additionally, 79.2% of young people feel strongly about working towards a better life for future generations, showcasing their concern for environmental sustainability (Figure 10).

FIGURE 10: SOURCES OF MOTIVATION



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 (75%) feel inhibited by the belief that they lack the ability to bring about meaningful change. Similarly, 50% of children, 36.8% of adolescents and 37.5% of young people express a sentiment of "Not my job" in addition to 50% of young people expressing "I'm not paid for it" indicating a need to clarify the shared responsibility in environmental efforts (Figure 11).

FIGURE 11: SOURCES OF DEMOTIVATION



Interviewed **children** harbour a profound understanding of the shared responsibility that climate change mitigation demands. Their conviction is captured in the words of a 10-year-old boy who asserts, *"I think that we are all responsible, even the mother and grandfather who are at home."* This motivation to act emanates from a belief that everyone, regardless of their station in life, plays a pivotal role in combating this global challenge. Such responsibility isn't limited to familial ties; it encompasses broader community entities. An 11-year-old boy emphasizes, *"Every responsible institution and every person that exists must focus on the environment as it is our life, after a clean environment lies a healthy life."* However, an evident demotivating factor punctuates the narrative: the absence of inclusive conversations. As one girl admits, *"No, I have not talked to anyone about this."* In essence, while many children are fuelled by a sense of shared duty, educational insights, and community actions, an awareness gap remains, potentially sidelining a fraction of this young cohort.

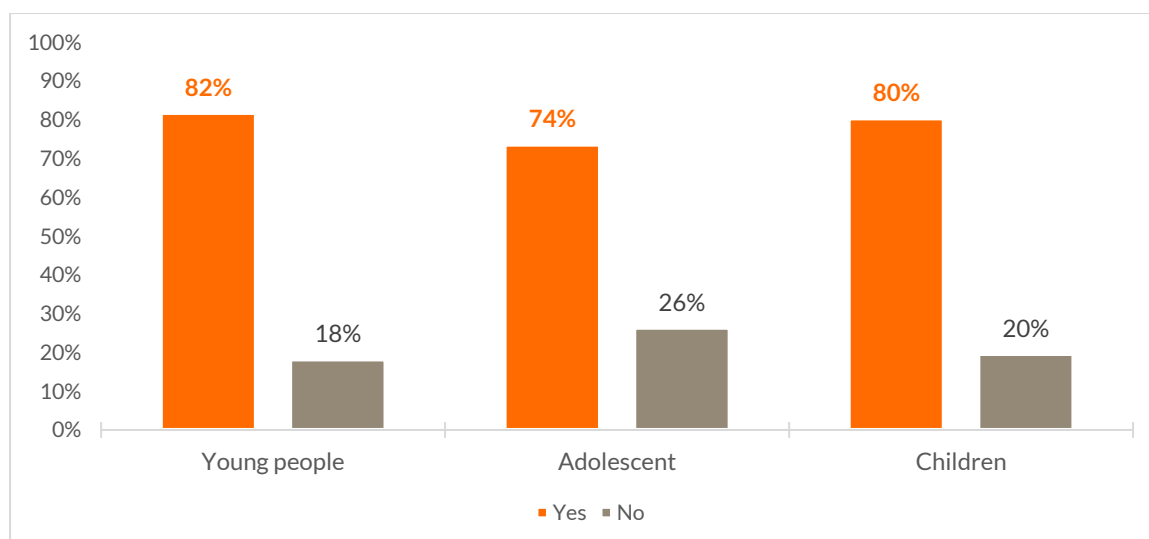
For many of the interviewed **adolescents**, the motivation is deeply personal. As one 16-year-old girl remarked, *"There is no motivation, I just have inner personal convictions."* However, for action to be impactful, they seek support and engagement. Many believe that a blend of personal responsibility and systemic change is crucial. As one thoughtful 15-year-old boy asserted, *"We all start to fight with our actions, because we are also guilty that the climate is changing. The biggest obstacle is that people are indifferent."* Equipping themselves with knowledge, employing technology, and an overwhelming desire for a safe future propels them forward. Yet, they're well-aware of the barriers, including societal indifference. Despite these challenges, the consensus remains: every individual bears the weight of responsibility. *"We, the adolescents, are responsible,"* says a 15-year-old girl, echoing the sentiment of many of her peers, *"But it is the role of the adults and the government to fight against the influential climate changes."*

Amidst the looming challenge of climate change, many young people feel powerless, with an 18-year-old lamenting, *"I can't do anything concrete at the moment."* He emphasized, *"Among the obstacles, not everyone sorts the garbage, there is no general compassion."* Despite the challenges, a united sentiment emerges everyone bears the responsibility. Another young voice affirmed, *"We are all responsible, although it comes from upbringing. We're harming ourselves by harming nature."* Amidst this collective responsibility, a warning remains: the young can speak, but the adult world must listen.

4.3.2 Practicing mitigation solutions

A significant proportion of respondents from all three age groups (80% of children, 74% of adolescents, and 82% of young people) **participate and engage in actions** that contribute to environmental preservation and sustainability (Figure 12).

FIGURE 12: PARTICIPATION IN ACTIVITIES THAT IMPACT THE ENVIRONMENT



The data provides valuable insights into the behaviours and actions of **children** in relation to various environmental practices. Water consumption sees the highest regular practice at 88.0%, followed closely by energy consumption efficiency at 85.5% and walking at 81.2%. On the other end, waste sorting and spreading awareness have high rates of rare or no practice, at 64.1% and 61.5% respectively. Donating clothes has a mixed response with 49.6% practicing regularly, but 38.5% rarely or not at all. The use of plastic bags is also diverse in practice, with 26.5% avoiding them often, but 49.6% rarely or never doing so (Table 9).

Interviewed children's remarks reveal a deep understanding of climate change mitigation. They emphasize both individual acts, like choosing to "walk" or avoiding "plastic bags," and collective efforts, such as tree planting. They also value practical education, engaging in school activities like "collecting garbage". Notably, they recognize broader issues, warning against agricultural "pesticides" and improper waste disposal. These insights suggest that young minds are not just aware but actively combating environmental challenges.

TABLE 9: CHILDREN'S PRACTICE OF MITIGATION SOLUTIONS TO REDUCE THE CLIMATE CHANGE'S IMPACT

	Children					
	Regularly / Often		Sometimes		Rarely / Not at all	
	N	%	N	%	N	%
Water consumption	103	88.0%	6	5.1%	8	6.8%
Energy consumption efficiency	100	85.5%	5	4.3%	12	10.3%
Walking	95	81.2%	2	1.7%	20	17.1%
Donate clothes	58	49.6%	14	12.0%	45	38.5%
Waste sorting	34	29.1%	8	6.8%	75	64.1%
Spreading awareness	32	27.4%	13	11.1%	72	61.5%
No plastic bags	31	26.5%	28	23.9%	58	49.6%

The Table 10 illustrates adolescents' efforts. Walking is the most frequent activity with 91.6% doing so regularly. Water consumption and energy efficiency follow at 80.9% and 71.8% respectively. On the contrary, bicycling has the highest rare or non-practice rate at 61.8%, with waste sorting and public transport also less common at both 40.5%. The practice of avoiding plastic bags and using public transport both have similar regularity and infrequency percentages, at around 39.7% and 40.5% respectively. Organic food consumption and donating clothes lie in the mid-range with 59.5% and 55.7% practicing often.

TABLE 10: ADOLESCENTS' PRACTICE OF MITIGATION SOLUTIONS TO REDUCE THE CLIMATE CHANGE'S IMPACT

	Adolescents					
	Regularly / Often		Sometimes		Rarely / Not at all	
	N	%	N	%	N	%
Walking	120	91.6%	5	3.8%	6	4.6%
Water consumption	106	80.9%	16	12.2%	9	6.9%
Energy consumption efficiency	94	71.8%	19	14.5%	18	13.7%
Organic food	78	59.5%	26	19.8%	27	20.6%
Donate clothes	73	55.7%	23	17.6%	35	26.7%
Avoiding plastic	61	46.6%	26	19.8%	44	33.6%
Spreading awareness	58	44.3%	25	19.1%	48	36.6%
Waste sorting	54	41.2%	24	18.3%	53	40.5%
Public transport	52	39.7%	26	19.8%	53	40.5%
No plastic bags	50	38.2%	27	20.6%	54	41.2%
Bicycling	38	29.0%	12	9.2%	81	61.8%

Interviewed adolescents show a keen awareness and proactive stance in addressing climate change. Many actively practice eco-friendly habits like proper waste disposal and minimizing plastic use, indicating a strong personal responsibility. However, their engagement in large-scale activities, like organizing tree-planting events, often hinges on financial support and external aid. This highlights the pressing need for enhanced institutional and governmental backing for such endeavours. As one adolescent mentions, they "clean the school territory" and plant trees whenever "funds or help" is available. Interestingly, while both male and female adolescents are believed to have the power to influence climate change mitigation, perceptions vary slightly. Some believe girls may have a more nurturing and responsible approach to the environment, but the consensus seems to lean towards the idea that both genders are equally capable and responsible in this fight against climate change.

An impressive 91% of young people prefer walking as an eco-friendly transportation method. Donating clothes and water conservation follow with 73.1% and 71.6% respectively. Bicycling, on the other hand, sees the least regular participation at 40.3%, and the highest rate of rare or non-practice at 37.3%. Energy efficiency in both general consumption and lighting are adopted by over 64% of the participants regularly. Practices like composting and spreading awareness have a near equal spread across all frequency levels, with just under half of the respondents doing them regularly (Table 11).

TABLE 11: YOUNG PEOPLE'S PRACTICE OF MITIGATION SOLUTIONS TO REDUCE THE CLIMATE CHANGE'S IMPACT

	Young people					
	Regularly / Often		Sometimes		Rarely / Not at all	
	N	%	N	%	N	%
Walking	61	91.0%	4	6.0%	2	3.0%
Donate clothes	49	73.1%	13	19.4%	5	7.5%
Water consumption	48	71.6%	12	17.9%	7	10.4%
Energy consumption efficiency	44	65.7%	14	20.9%	9	13.4%
Energy efficient lighting	43	64.2%	10	14.9%	14	20.9%
Growing Vegetables	41	61.2%	9	13.4%	17	25.4%
Public transport	40	59.7%	13	19.4%	14	20.9%
Organic food	39	58.2%	19	28.4%	9	13.4%
Collecting garbage	37	55.2%	11	16.4%	19	28.4%
Waste sorting	36	53.7%	9	13.4%	22	32.8%
Avoiding plastic	33	49.3%	18	26.9%	16	23.9%

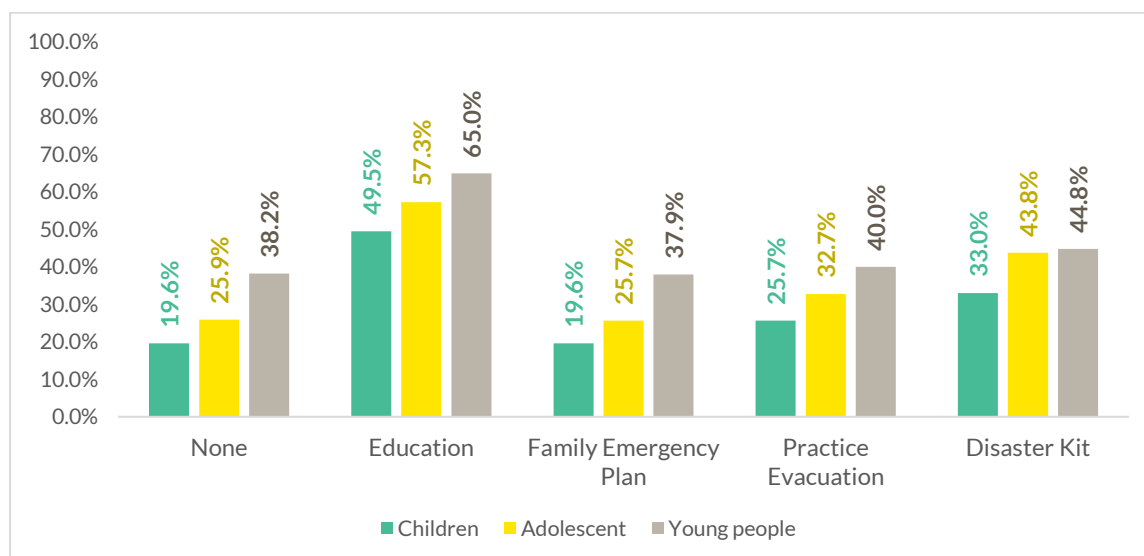
Composting	32	47.8%	12	17.9%	23	34.3%
Spreading awareness	30	44.8%	17	25.4%	20	29.9%
No plastic bags	29	43.3%	18	26.9%	20	29.9%
Bicycling	27	40.3%	15	22.4%	25	37.3%

Interviewed young people indicate limited community engagement in environmental actions, with a few remembering school activities: "a few years ago we did an activity for environmental pollution, we planted trees." Ongoing initiatives appear sparse, and there's a perceived lack of support: "I don't know any people, groups, volunteers who are helping this cause." The emphasis is on a unified, cross-generational approach: "All adults, children and the state should contribute." Gender perspectives on involvement vary; while one suggests "Girls are more active... especially the girls from the village," another believes "everyone is equal when it comes to saving the planet."

4.3.3 Preparedness to disaster

Across all age groups, 19.6% to 38.2% lack specific disaster preparedness measures. Education is a major influencer in preparedness with 49.5% of children, 57.3% of adolescents, and 65% of young people acknowledging its role. Actual evacuation practices vary: 40% of young people, 32.7% of adolescents, and 25.7% of children. Meanwhile, 44.8% of young people, 43.8% of adolescents, and 33% of children possess a disaster kit. Family emergency plans are more prevalent among young people (37.9%) than adolescents (25.7%) or children (19.6%) (Figure 13).

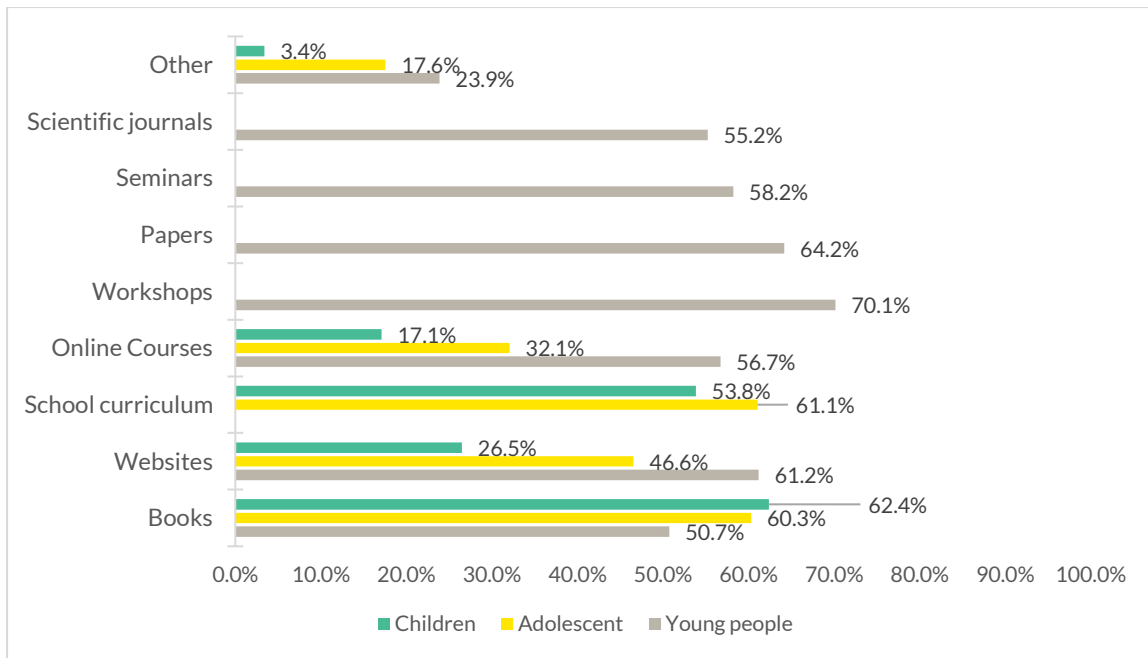
FIGURE 13: PREPAREDNESS TO DISASTER



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, youth groups, and school curriculum, while adolescents prioritize books, school curriculum, and websites. For young people, youth groups are the top choice, followed by workshops and lectures. (Figure 14).

FIGURE 14: PREFERRED SOURCES FOR CLIMATE CHANGE INFORMATION

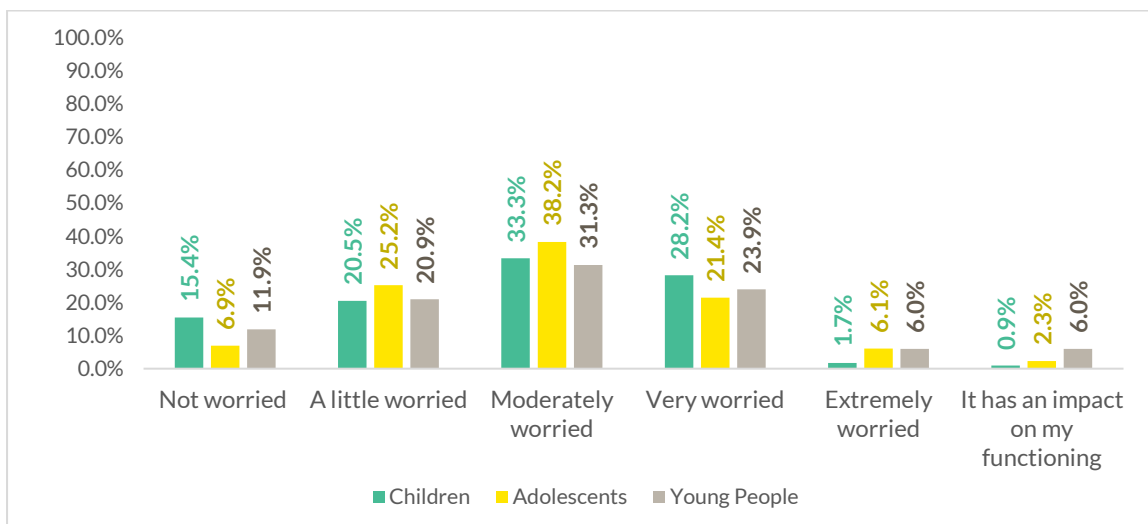


4.4 Impact of Climate Change on Mental Health

4.4.1 Climate emotions

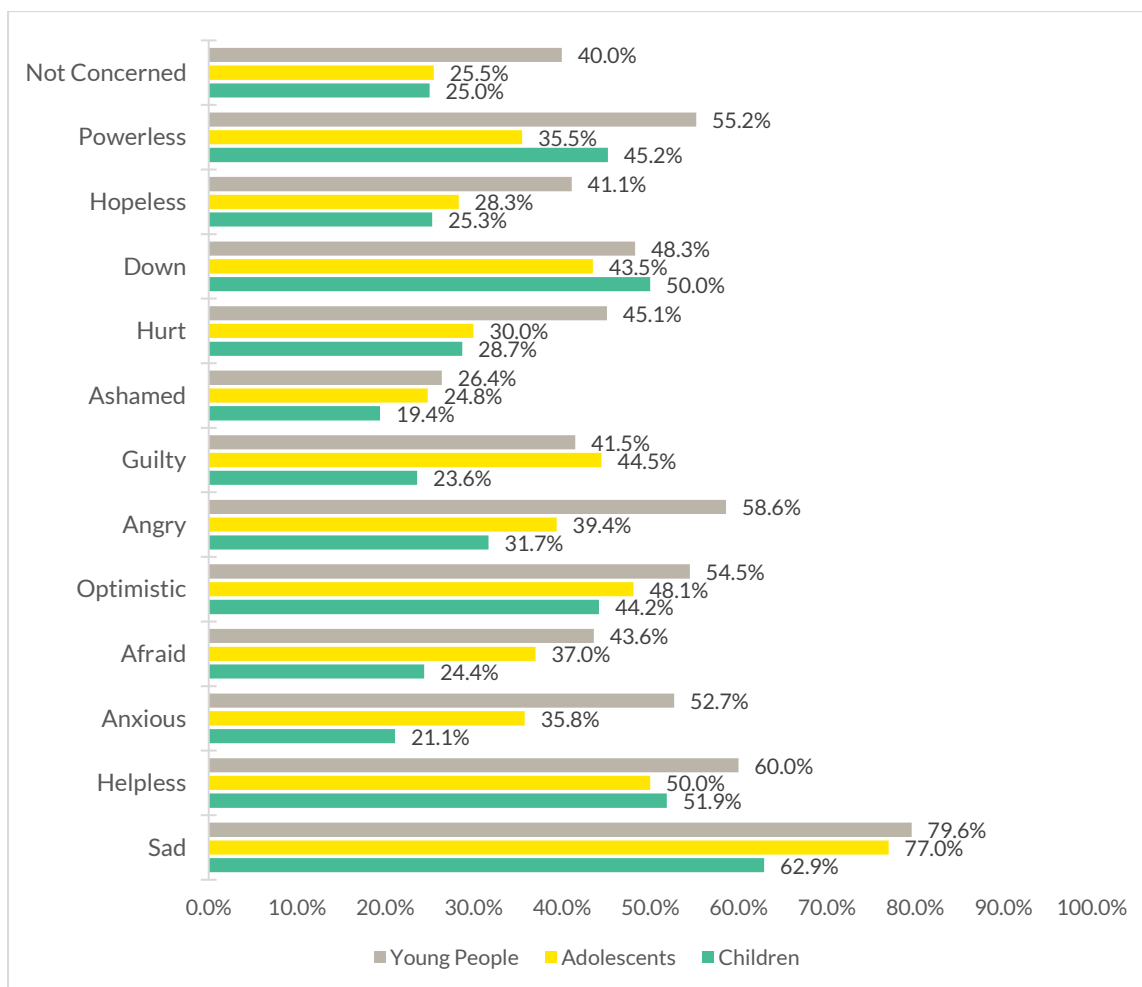
When it comes to worries about climate change, most respondents fall into the "moderately worried" category, with significant percentages ranging from 33.3% for children to 38.2% for adolescents and 31.3% for young people. A notable proportion of young individuals are also "very worried," with percentages ranging from 21.4% to 28.2%. Only a small minority, particularly young people (6%) and adolescents (6.1%), express being "extremely worried" about climate change (Figure 15).

FIGURE 15: LEVEL OF WORRIES OVER CLIMATE CHANGE



A substantial number of respondents feel "sad" about climate change, with percentages ranging from 79.6% for young people, 77% for adolescents, and 62.9% for children. "Helpless" feelings are also prevalent, with high percentages across all age groups, ranging from 50% to 60%. Additionally, "optimism" is relatively common, with percentages ranging from 44.2% to 54.5% (Figure 16).

FIGURE 16: CLIMATE EMOTIONS



The looming threat of climate change casts a shadow over the mental well-being of **children**. Many of them, like the 9-year-old girl, voice deep-seated concerns, saying, *"I am worried about these changes."* Their fears are often rooted in tangible events, with one boy revealing, *"I am feeling scared because recently there have been many earthquakes."* While some aim for optimism, uncertainty underpins their sentiments, as voiced by a 10-year-old: *"I'm not afraid, because I don't know how things in the future can be."* Daily conversations reflect a gamut of emotions, from guilt to sadness, indicating that the environmental crisis doesn't just affect their physical world, but their emotional landscape too. Yet, amidst the apprehension, there's a palpable desire to take action and be part of the solution.

The climate crisis is exerting a significant impact on the psychological well-being of **adolescents**. The range of emotions experienced spans from fear and anxiety to hopelessness and desperation. As one 15-year-old girl put it, *"When you read scientific facts...you get a feeling of fear, anxiety and uncertainty about the future."* Despite this gloom, discussions that revolve around potential solutions bring solace, illustrating the therapeutic power of dialogue. As another shared, *"simply talking together is helping me overcome the anxiety."* Yet, there remains a conspicuous sense of helplessness, encapsulated by the confession, *"I am hopeless. Because there are no initiatives in our country."* Interestingly, while some adolescents find strength in collective actions and discussions, others hint at avoidance as a coping mechanism. Amidst this emotional tumult, figures like Greta Thunberg become symbols of hope and pressure, underlining the gravity of the crisis. The underlying narrative is clear: adolescents bear the emotional brunt of the climate crisis, making communal discussions and actions imperative to their mental well-being.

The climate crisis is manifesting in the mental landscapes of **young individuals**, influencing their emotional well-being. While some are troubled by immediate impacts like natural disasters, others are distanced unless regularly exposed to the topic. As one respondent puts it, *"In some cases I am*

concerned, because the climate is what we face every day." But there's a shared sense of frustration for many about perceived inaction: "I only see negativity by not doing anything," states another participant. Feelings of powerlessness are evident, yet there's hope in collective action, with some inspired by figures like Greta Thunberg. For coping, small support groups in educational settings seem beneficial. While not everyone feels the weight of climate anxiety, the value of social support, from friends or family, is highlighted. Being part of the climate dialogue offers solace for many: "It definitely does me a lot of good to talk... Makes you feel better!"

4.5 Perception of responses to climate change

4.5.1 Perception of the government response

Across different age groups, approximately one-third of participants believe their climate change concerns are overlooked. Specifically, 39.5% of children, 33.3% of adolescents, and 34.6% of young adults express dissatisfaction with the acknowledgment of their worries. Additionally, a significant number feel that governmental actions are inadequate: 44.9% of children, 25.3% of adolescents, and 41.8% of young adults. Furthermore, 59.3% of young people, 37% of adolescents, and 28.6% of children report distress over their concerns being dismissed. In essence, a notable proportion across all age groups feel both unheard and anxious about the insufficient response to the climate crisis.

On a positive note, a significant portion of respondents trust the government's commitment to shielding youth from climate impacts, with 58.6% of children, 47.6% of adolescents, and 37.3% of young adults expressing confidence in these efforts. However, scepticism remains. Many suspect the government might exaggerate their climate initiatives' effectiveness: 40.6% of children, 37.6% of adolescents, and 55.6% of young adults harbour these doubts (Table 12).

TABLE 12: PERCEPTION OF THE GOVERNMENT RESPONSE TO CLIMATE CHANGE

	Children N=117	Adolescent N=131	Young people N=67
Protecting children and young people, the country and future generations	58.6%	47.6%	37.3%
Doing enough to avoid a climate catastrophe	44.9%	25.3%	41.8%
Can Be Trusted	43.9%	39.6%	40.4%
Lying about the effectiveness of the actions they are taking	40.6%	37.6%	55.6%
Taking children and young people's concerns seriously enough	39.5%	33.3%	34.6%
Failing children and young people in my country	30.9%	41.2%	65.3%
Dismissing children and young people's distress	28.6%	37.0%	59.3%
Betraying children and/or future generation	25.4%	32.6%	54.0%

Adolescents conveyed a deep understanding of the pivotal role both national and international authorities hold in curbing climate change and ensuring a sustainable future. Their insights, grounded in a youthful yet profound understanding, called for more definitive action. One 12-year-old girl succinctly articulated her vision, saying, "We need our government to enact and enforce more climate laws." The push for renewable energy was also palpable. Others advocated for a shift to energy-efficient sources like solar and wind, and championed measures to combat the rising sea levels. Awareness and education emerged as essential themes. A 15-year-old voiced the collective sentiment, stating, "We need wide-reaching campaigns and initiatives that educate everyone, making us all understand our role in this fight." Moreover, adolescents expressed a clear vision for the government's priorities. They stressed the necessity of definitive environmental laws, with one participant asserting, "Our focus should be on creating laws that protect our natural habitats – our mountains, our forests, and our wildlife. We also need to work closely with environmental organizations and involve students in cleaning and conserving our land."

Interviewed young individual, articulated a strong belief in the power of national and international governments to drive significant change. They expressed a collective vision for an aggressive

stance on environmental protection and underscored several critical measures governments must undertake. One 18-year-old woman succinctly conveyed her concerns about pollution, stating, *“Our territories are marred by waste, and unchecked factories spew pollution. The government should be tightening controls.”* Awareness and collaboration emerged as recurring themes in these conversations. A 21-year-old young adult remarked, *“The government needs to be more present. From forums to campaigns, they need to lead the charge. By backing youth initiatives and partnering with environmental organizations, we can pool our resources for a greater impact.”* He further emphasized the importance of media in this struggle, pointing out, *“National television programs should spotlight this crisis. It's time to mainstream the discussion.”* Highlighting the role of incentives in driving change, he added, *“Businesses can be game changers. The government should roll out incentives for enterprises that champion sustainable practices. Let's reward those who genuinely prioritize our planet.”*

4.5.2 Perception of the NGOs response

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

Adolescents and young people emphasized the need for NGOs to take children and youth's opinion regarding climate change. They suggested that NGOs can do so by directly approaching children and youth through giving them questionnaires and surveys. A 21 year old man stated:

“Organizations should seek direct opinions from the ground level.” On the other hand, some suggest that they can do so by creating group activities with the kids that are climate oriented and have them share their concerns and thoughts about the matter. A 12-year-old girl said: *“Imagine us in a serene setting, surrounded by trees. There, ask us about our climate concerns, and let's engage through climate-themed games. Organize meetups in such nurturing environments.”* Moreover, other have also suggested that NGOs can hold conferences and fundraisers to raise awareness for climate change and get the youth's opinions. A 23-year-old man highlighted: *“Let's leverage online petitions, host fundraisers, and conduct conferences to bring climate awareness to the forefront.”*

When it comes to the role a child-focused NGO like World Vision should play in responding to climate change, adolescents and young people believe that their role should mainly focus on raising awareness by implementing campaigns and creating projects that teaches and support youth in finding solutions that can reduce climate change. A 15-year-old girl outlined her vision, stating, *“NGOs should launch projects that amplify climate awareness and equip us with tools to address emerging challenges. They should also foster youth groups and green initiatives, like tree planting, to install a proactive spirit.”* Echoing this sentiment, a 21-year-old man added, *“Organizations like World Vision can empower youth by raising awareness among both children and their parents. They should foster youth groups dedicated to this cause. Through advocacy, gathering opinions, collecting signatures, and even organizing peaceful youth-led protests, they can truly make a difference.”* Furthermore, the notion of NGOs serving as a bridge between youth and policymakers was championed by a 19-year-old woman who emphasized, *“Child-focused NGOs should take our concerns directly to the municipality or even higher government bodies. Our voices, especially as they represent the future, need to be heard at decision-making tables.”*

4.6 The intergenerational perception of Climate Change

4.6.1 Perception of the climate crisis responsibility

Caregivers' perceptions reveal a deep-seated concern about the escalating climate crisis, its causes, and the perceived inertia in effectively tackling it. One prevalent theme in their feedback is the acknowledgment of human activity, particularly in industrialized societies, as a major driver of environmental degradation. As one respondent aptly noted, *“We use resources as if they are infinite, increasing our impact on the earth.”* This sentiment conveys the unbridled consumption characteristic of modern societies.

There's also a palpable frustration with the lack of tangible action and the deficiency of positive role models. A respondent's disillusionment is evident in their words: *“No one is giving a good example that we should follow; everyone is just talking.”*

Another recurring theme is the challenge posed by economic constraints. The pressing nature of daily survival and economic challenges for many means that long-term concerns, even as significant as climate change, take a backseat. As one caregiver succinctly put it, *"Economic opportunities prevent us from addressing such issues; entire communities... are not interested in addressing problems when they can barely make a living."*

However, amidst the concerns, there's a call for collective responsibility and collaboration. The need for unity in the face of a global issue shines through in the assertion that the *"governments of countries should work closely... the main common goal must be one."* This underscores the perception that while the challenges are multifaceted, so must be the solutions: collective, unified, and global.

4.6.2 Actions taken by caregivers to address the climate crisis

The feedback from caregivers underscores a strong emphasis on the pivotal role of personal accountability and intergenerational guidance in addressing the climate crisis. Caregivers recognize their duty not only to foster sustainable habits in their day-to-day lives but also to pass on these values to the younger generation. Their actions extend from household habits to community involvement.

Leading by example, caregivers highlighted hands-on practices that instil environmental stewardship in children. One caregiver illustrated this by noting, *"I have educated my children with a sense of responsibility towards the Earth... it is difficult, but not impossible."*

Beyond personal habits, caregivers also emphasized community involvement. One respondent suggested a collaborative approach, saying, *"Let each member of the village go out and plant trees and teach the children and ourselves that we must take care of nature."*

Education and continuous awareness emerge as recurrent themes in their feedback. Caregivers believe in the power of knowledge and its ability to inspire action. This is encapsulated in the idea that *"Young people should be constantly informed about environmental and climate issues."* Moreover, they recognize the institutions, such as families and schools, as conduits for this information and its practical application.

Additionally, caregivers call for increased access to resources and opportunities to further propel youth into action. One respondent highlighted the importance of *"Promoting awareness among the younger generations... Concrete projects related to recycling... Giving grants from governments and global organizations."*

In conclusion, caregivers emphasize a holistic approach to the climate crisis: personal responsibility, community involvement, and the powerful interplay between education and actionable resources. They recognize their role as torchbearers, leading the way for younger generations in the fight against climate change.

V. CONCLUSIONS

Like many nations, Albania stands at a pivotal moment in the fight against climate change. While the threats are tangible and escalating, the research also highlights a significant reservoir of concern, understanding, and willingness to act among its younger population.

Children, adolescents, and young adults have varied knowledge and concerns about climate change, with understanding deepening with age. Problems range from unpredictable weather and health threats for children to broader climate impacts and biodiversity loss for young adults. While children value tangible activities, adolescents resonate with global activism, and young adults interweave academic lessons with external workshops. Across the spectrum, a knowledge gap exists concerning the psychological impacts of climate change.

There's a distinct progression in understanding human-induced climate factors as age advances. Children mainly highlight visible issues like waste, while young adults accentuate systemic causes such as electricity production.

The negative consequences of climate change are universally acknowledged. The breadth of understanding widens from immediate environmental changes noticed by children to global effects understood by young adults. A unified perspective emerges: the younger generation actively engages in environmental conservation yet desires amplified support from institutions. The emotional toll of climate change is evident. Regardless of age, most young individuals feel a blend of sadness, helplessness, and concern, emphasizing the urgency of addressing climate anxiety.

Regarding response perceptions, there's a predominant sentiment of being sidelined in climate discussions. Even though a significant fraction views governmental actions as insufficient, trust in the government's dedication to protecting the young is evident. Both adolescents and young adults underscore the instrumental role of NGOs in bridging the gap between youth perspectives and policymaking.

Finally, caregivers perceive the climate crisis with great concern, emphasizing human-led degradation as a significant contributor. While they recognize economic hurdles, the overarching narrative leans towards global cooperation, personal responsibility, and continuous education to address the issue.

VI. RECOMMENDATIONS

Based on the findings, World Vision calls on local and national stakeholders in Albania 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. Recommendations are categorized as follows:

Education and information of the public:

- Integrate interactive climate change modules in school curriculums: Develop immersive and interactive learning experiences that educate students on the core principles of climate change, utilizing multimedia tools and practical experiments.
- Organize regular school workshops and study visits on sustainable practices: Host quarterly sessions where professionals in sustainability offer hands-on lessons on eco-friendly habits and practices.
- Encourage student-led climate change clubs and initiatives: Support establishing of school clubs dedicated to the environment, allowing students to lead projects and awareness campaigns.
- Offer training for teachers on climate science and sustainable practices: Equip educators with the most up-to-date knowledge on climate issues, enabling them to teach and inspire students.
- Build local capacity through climate change workshops and trainings.
- Foster partnerships between NGOs and schools: Encourage collaboration between educational institutions and NGOs for resource sharing, project execution, and awareness campaigns.
- Develop public awareness campaigns on climate change tailored to various age demographics: Design targeted messaging for children, adolescents, and adults, emphasizing age-relevant concerns and actionable steps.

Adolescents and youth engagement:

- Engage children, adolescents, and youth representatives in national climate strategy discussions: Invite and include younger voices in policy-making processes, ensuring their perspectives shape future actions.
- Organize annual climate summits focusing on youth-led solutions, debates, and networking opportunities.
- Foster platforms where caregivers and younger generations discuss climate change, facilitating the exchange of experiences, perspectives, and knowledge.
- Provide grants for youth-led climate action projects: Allocate funding specifically for initiatives conceptualized and driven by young people.

Mental health awareness related to climate change:

- Include emotional and psychological impacts of climate change in health education: Beyond the physical implications, delve into the emotional toll and ways to manage related stress and anxiety.
- Facilitate community-led support groups addressing climate anxiety: Establish safe spaces where individuals can share feelings, fears, and hopes regarding the environment, fostering a sense of community and mutual support.

Community resilience initiatives:

- Initiate community-based disaster preparedness drills: Organize regular community training sessions on dealing with climate-induced emergencies, enhancing local resilience.

- Support scientific research on climate resilience and adaptation: Fund and promote studies exploring innovative ways to adapt to changing climate conditions.

Accountability and transparency toward the public:

- Enhance transparency in government-led environmental projects: Regularly update the public on project progress, goals achieved, and future plans, fostering trust and participation.
- Encourage feedback from citizens on climate initiatives: Establish platforms where citizens can share thoughts, concerns, and suggestions regarding ongoing and planned climate-related projects.
- Encourage media houses to provide regular updates on climate action: Partner with media entities to offer consistent climate change coverage, raising public awareness and urgency.

Environmental conservation and urban sustainability initiatives:

- Prioritize reforestation and afforestation initiatives: Launch nation-wide tree-planting campaigns and protect existing forests to combat carbon emissions.
- Strengthen flood defences in vulnerable areas: Identify flood-prone regions and invest in infrastructural defences like levees, drainage systems, and flood barriers.
- Develop community gardens and promote urban agriculture: Encourage and support neighbourhoods to establish shared gardening spaces, promoting local produce and community bonding.
- Develop public spaces with eco-friendly designs: When constructing parks, squares, and recreational areas, incorporate sustainable materials and environmentally friendly infrastructure.
- Design urban areas to be more resilient to rising temperatures: Incorporate green spaces, shade-providing trees, and heat-reflective materials in urban planning.

Sustainable business practises:

- Support local businesses engaged in sustainable practices: Offer incentives to businesses implementing green practices, driving economic growth alongside environmental responsibility.
- Enhance waste management systems and promote recycling: Modernize waste management facilities, facilitate community recycling programs, and run awareness campaigns on waste reduction.
- Provide incentives for renewable energy installations: Offer subsidies or tax reductions for homes and businesses that adopt renewable energy sources.

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