

# Growing up in the Climate Crisis

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**Impact of Climate Change on Children and Young People in Lebanon-Akkar**



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## 1- Executive summary

Climate change has emerged as a devastating global phenomenon, causing widespread disruptions across the world. The Middle East stands out as a region projected to be severely affected by climate change. The impending crisis poses a significant threat to the well-being and future prospects of children and young people in Lebanon, a country already grappling with social, economic, and political challenges. This study comprehensively explores the impact of climate change on the younger generations in Lebanon, addressing various aspects such as education, employment, health, gender-based violence, food security, and water security. By capturing the perspectives of children and youth, this research aims to inform targeted interventions and policies to enhance their resilience, mitigate the adverse effects of climate change, and promote their overall well-being and future prospects.

This research used a mixed-method design with combined quantitative and qualitative data to comprehensively examine the impact of climate change on children, adolescents, and young people in Lebanon. Through a combination of key informant interviews and surveys, data was collected from children, adolescents and young people in highly exposed communities in Akkar, a district located in the northern part of Lebanon, recognized as one of the most exposed areas to climate change in Lebanon. To enhance the research, the study included Key Informant Interviews with caregivers to assess the intergenerational impact of climate change. Additionally, stakeholders who possessed knowledge about climate change and environmental stewardship were interviewed.

### How Climate Change Affects the Lives of Children and Adolescents in Akkar?

In the communities where children and adolescents reside in Akkar, the consequences of climate change have become all too familiar. Rising temperatures, relentless heatwaves, and dust storms are a constant presence in their lives. They have witnessed the devastating power of floods and heavy rainfall, displacing families and disrupting their surroundings. Droughts and wildfires, although less frequent, still leave a mark on their communities. The children's narratives recount the personal impact of climate change, from friends falling ill due to heat or contaminated water to grandparents' crops withering under the sun. They express concerns about environmental decay, pollution, infrastructure disruptions, and threats to food security.

Children's education is significantly impacted by climate change, specifically through extreme weather events like floods and droughts. These events create barriers that hinder their ability to attend school regularly. Children perceive that both girls and boys face equal challenges in accessing education due to extreme weather, with floods being particularly disruptive. Droughts also contribute to missed school days. Some children have even experienced displacement due to extreme weather, resulting in prolonged absences from school. Additional factors are highlighted such as thirst caused by droughts, health risks from extreme temperatures, and transportation difficulties during storms, heavy rainfall, and heatwaves, all of which further disrupt children's attendance and learning.

Children in the community are aware of how climate change affects food security and diet diversity. They perceive that climate-related factors have led to insufficient food supplies, lower food quality, and limited access to diverse and nutritious options. They observe people consuming damaged or moldy food and resorting to buying food from the market due to climate-related disruptions. The decrease in dietary diversity, with fewer food groups being consumed, is also noted. The qualitative responses from Key

Informant Interviews reinforce these perceptions, highlighting how climate change affects food security by compromising the quality of agricultural crops and leading to the consumption of contaminated and unhealthy food. They also mention the use of wastewater for irrigation, which can contaminate crops and contribute to food scarcity and poor food quality.

Children in the community have firsthand experience with the consequences of climate change on water security. They have encountered droughts and floods, which have had a significant impact on the availability and quality of water. The survey reveals that water supply has been reduced, with many children reporting receiving less water than usual. They also note that the water they do receive has a bad taste and foul smell, indicating compromised water quality. To cope with these challenges, community members have resorted to purchasing water bottles and tanks as alternative water sources. The interviews with key informants further highlight the issue, emphasizing the affordability of clean water and the health risks associated with consuming contaminated water.

Children hold varying levels of worry and experience a range of emotions when it comes to climate change. They express genuine concerns about its impact on their well-being, with a significant proportion feeling moderately to very worried. When asked about their specific concerns, children mention issues such as poverty, air pollution, and access to education, demonstrating their awareness of the broader societal implications. Emotionally, the majority of children express negative feelings like sadness, helplessness, anxiety, and fear, likely influenced by their understanding of the potential consequences of climate change. However, there is also a small percentage that expresses optimism, indicating resilience in the face of their worries. On the other hand, some children display a lack of concern or awareness, highlighting the need for educational efforts. The interviews further capture the children's worries, fears, and recognition of the potential for natural disasters.

Children perceive that climate change has varying impacts on gender-based violence and violence against children. They recognize instances of physical and emotional abuse during water collection and scarcity of food and water, with slightly different rates between genders. Girls are perceived to be more affected by early marriage and interruption of schooling due to climate change. The Key Informant Interviews highlight the belief that violence increases during climate change, particularly in relation to extreme heat, leading to domestic violence, aggression in public spaces, and violence during displacement or migration. Children express the vulnerability of young boys and girls, emphasizing the physical weakness of children and the higher risk faced by women in their homes.

Some children perceive girls as more vulnerable to climate change compared to boys, while others do not share this perception. They believe that girls are more likely to leave school and take on additional responsibilities to support their families during climate-related challenges. Additionally, girls and women are perceived to face a higher risk of food insecurity, increased labor demands, and health issues such as poor sanitation and hygiene during climate change.

### Key Findings from Children and Adolescents

#### **Environmental challenges:**

- Rising temperatures, heatwaves, and dust storms are constant in the communities, affecting the daily lives of children and adolescents.
- Floods, heavy rainfall, droughts, and wildfires have caused displacement, disrupted surroundings, and damaged crops.

#### **Impact on Education:**

- Extreme weather events hinder children's ability to attend school regularly, with floods and droughts being particularly disruptive.
- Displacement, thirst, health risks, and transportation difficulties further disrupt children's attendance and learning.

#### **Food Security and Diet Diversity:**

- Climate change has led to insufficient food supplies, lower food quality, and limited access to diverse and nutritious options.
- Consumption of damaged or moldy food and reliance on market-bought food have increased, leading to decreased dietary diversity.

#### **Access to water:**

- Droughts and floods have significantly impacted the availability and quality of water.
- Reduced water supply, compromised water quality, and the need to purchase alternative water sources have been reported.

#### **Children's Concerns and Emotions:**

- Children express genuine concerns about poverty, air pollution, access to education, and their overall well-being.
- Negative emotions like sadness, helplessness, anxiety, and fear are prevalent, along with some expressions of optimism and a lack of concern or awareness.

#### **Gender-Based Violence and Violence against children:**

- Climate change contributes to instances of physical and emotional abuse, with different rates between genders.
- Girls are more affected by early marriage and interrupted schooling due to climate change.
- Violence, including domestic violence and aggression in public spaces, increases during extreme heat and displacement.

#### **Perceptions of Gender Vulnerability:**

- Some children perceive girls as more vulnerable to climate change, facing challenges such as leaving school and increased responsibilities.
- Girls and women are believed to have a higher risk of food insecurity, increased labor demands, and health issues during climate change.

### How Climate Change Affects the Lives of young people in Akkar?

Young people in Akkar have observed higher temperatures, heat waves, dust storms, floods, heavy rainfalls, land degradation, and harsh winters, highlighting the environmental challenges caused by climate change. Through personal stories, the struggles faced by the young generation become apparent. Devastating consequences include the loss of entire crops to storms, frequent displacement during floods, and the constant need to rebuild lives. Water scarcity poses daily struggles, while severe storms have resulted in houses collapsing. Young people emphasize the detrimental effects on agricultural income, housing situations, water resources mismanagement, and the health and psychological well-being of individuals living in constant fear of disasters.

The perceived impact of climate change on employment among young people in Akkar reveals significant challenges and concerns. According to their perceptions, climate change has resulted in reduced employment opportunities for both unskilled and skilled labor. This reduction in employment options has had negative implications for the community, including increased work hours, reduced income, and heightened stress due to unfavourable work conditions. Moreover, a majority of young people believe that important employment sectors have been adversely affected by climate change. The actual impacts of climate change on youth employment are influenced by various factors. Adverse weather conditions, such as transportation disruptions, can hinder individuals from commuting to job interviews or workplaces, leading to missed opportunities. Extreme temperatures and inadequate facilities in workplaces can negatively impact productivity and job satisfaction. Climate-related hazards and damaged infrastructure pose safety risks and limit access to workplaces. Additionally, certain industries, such as outdoor labor and agriculture, are particularly vulnerable to the adverse effects of climate change.

Real-life experiences shared by young people in Akkar shed light on the profound impact of climate change on agriculture and food availability especially that the reliance on agriculture as a primary source of income exposes them to the direct consequences of unpredictable weather patterns, such as droughts, floods, and extreme temperatures. Farmers struggle with crop damage caused by winter frost, leading to significant financial hardships. Water scarcity forces them to use contaminated water for irrigation, compromising crop quality and raising health concerns. Rural communities heavily dependent on agriculture face additional challenges during climate-related events, making it difficult to access sufficient food. Agricultural workers bear the brunt of climate change, with droughts affecting crop yields and the use of contaminated water posing health risks.

Young people in Akkar express genuine worry and a sense of urgency about the consequences of climate change, feeling frustrated and disillusioned by the lack of awareness and understanding in society. The emotional toll is evident, with individuals experiencing fear and even feelings of depression and despair. They also express a sense of sadness and frustration regarding their perceived limitations in making a meaningful impact on climate change, feeling a desire for collective action and systemic changes. Young people often feel powerless and encounter societal constraints that hinder their ability to make a difference.

The perceptions of young people in Akkar bring to light the profound impact of climate change on economic gender-based violence. These individuals recognize the specific challenges faced by women in relation to economic opportunities and financial access. During climate change, a significant number of women are deprived of economic opportunities and earning an income, limiting their financial independence and hindering their ability to support themselves and their families. Additionally, many women lack access to crucial financial resources, such as banking services and loans, further restricting their ability to invest in education, start businesses, and improve their socio-economic status.

### Key Findings from Young People

#### **Environmental Challenges:**

- Young people in Akkar observe higher temperatures, heatwaves, dust storms, floods, heavy rainfall, land degradation, and harsh winters caused by climate change.
- These challenges have led to devastating consequences such as crop losses, frequent displacement, the need for constant rebuilding, water scarcity, and house collapses.

#### **Impact on Employment:**

- Climate change is perceived to have reduced employment opportunities for both unskilled and skilled labor.
- Negative implications include increased work hours, reduced income, heightened stress, and adverse effects on important employment sectors.
- Adverse weather conditions, transportation disruptions, extreme temperatures, inadequate facilities, safety risks, and vulnerabilities of certain industries contribute to the employment challenges faced by young people.

#### **Agriculture and Food Availability:**

- Young people in Akkar highlight the profound impact of climate change on agriculture and food availability.
- Unpredictable weather patterns, such as droughts, floods, and extreme temperatures, damage crops and result in financial hardships for farmers.
- Water scarcity forces the use of contaminated water for irrigation, compromising crop quality and raising health concerns.
- Climate-related events make it difficult for rural communities reliant on agriculture to access sufficient food.

#### **Emotional Impact and Sense of Agency:**

- Young people in Akkar express genuine worry, frustration, disillusionment, fear, sadness, and a desire for collective action regarding the consequences of climate change.
- They experience emotional tolls, including feelings of depression and despair, and perceive limitations in making a meaningful impact on climate change.
- Societal constraints hinder their ability to effect change and address the urgent need for systemic changes.

#### **Economic Gender-Based Violence:**

- Young people recognize the specific challenges faced by women in relation to economic opportunities and financial access during climate change.
- Many women experience limited economic opportunities and financial independence, restricting their ability to support themselves and their families.
- Lack of access to crucial financial resources further hinders women's socio-economic advancement



### Children and young people as agent of change

Many young individuals in Akkar show a strong desire to contribute to environmental causes, driven by personal beliefs, a love for biodiversity, and a desire to solve problems. Financial considerations and future career aspirations also play a role in their enthusiasm. However, some respondents express demotivation due to a belief that their actions won't make a difference, a lack of perceived responsibility, and time constraints.

Despite the majority not actively engaging in environmental practices, there is a small group of environmentally conscious individuals who have embraced sustainable habits such as eco-friendly transportation, waste sorting, energy conservation, and gardening. Lack of awareness, knowledge, physical limitations, and personal circumstances pose challenges to their involvement, but there is a strong desire among them to expand their understanding and take meaningful action.

Awareness, education, and behavioral changes are recognized as pivotal in empowering young people to combat climate change. Spreading knowledge, raising awareness, waste reduction, energy efficiency, alternative energy sources, and youth advocacy and activism are seen as important factors.

While some respondents have not made specific preparedness plans, a significant number have received disaster education and established emergency plans. Concerns about the government's response to climate change are expressed, with participants calling for increased awareness, clear regulations, enforcement mechanisms, transitioning to renewable energy, financial support, waste management, environmental protection, and efficient water usage. Children and young individuals acknowledge the role of child-focused NGOs in responding to the climate crisis, emphasizing awareness, education, environmental projects, advocacy, dialogue, collaboration, and partnerships.

Overall, it is evident that swift and decisive government action, along with the support of child-focused NGOs and other stakeholders, is crucial to effectively combat climate change and empower the younger generation to make a positive impact.

### The intergenerational perception of climate change

The findings of the study reveal diverse perspectives on the intergenerational perception of climate change and the actions taken by older individuals to address the current climate situation. The participants' views on responsibility for the climate crisis vary, with some attributing it to the industrial age generation and others pointing fingers at the new generation's lack of love for nature. These differing opinions highlight the complex dynamics of intergenerational relationships and individual perspectives.

In terms of actions taken by older individuals, there is a mixed response regarding support for children and youth in their fight against climate change. While some express a willingness to support and educate young people, there is a perceived lack of awareness and understanding among them. Participants recognize the need for guidance and resources to empower individuals to contribute effectively.

The study also sheds light on the participants' commitment to protecting their children's futures through various approaches. This includes raising awareness, promoting responsible environmental practices,

emphasizing the importance of education, and guiding children towards openness and community engagement. Participants acknowledge challenges such as societal inequality, economic conditions, and technological advancements, which may impact opportunities for future generations.

When it comes to engaging with elected politicians, there is a sense of scepticism and frustration. Many participants believe that officials lack knowledge, interest, and prioritize other issues over climate change. However, despite these challenges, some express a desire to pressure elected officials and hope for positive action, while others prioritize different concerns or feel disengaged from politics altogether.

### **Local Initiatives, Grassroots Movements and Areas of Support**

The stakeholders in Akkar demonstrate a strong recognition of the threat of climate change, particularly its impact on the vulnerable agricultural sector and the potential for desertification. There is a growing awareness and engagement among stakeholders, with a sense of urgency and the need for proactive measures. The stakeholders emphasize the interconnectedness between climate change and local economies, highlighting the importance of tailored approaches to adaptation and mitigation strategies. They recognize the risks faced by their communities, especially in rural areas heavily dependent on agriculture, and stress the need for comprehensive policies and governance to address the causes and effects of climate change.

In terms of specific goals and measures, stakeholders mention various areas of focus, including policy and governance, biodiversity and reforestation, personal and community actions, water resource management, and raising awareness. They also highlight successful initiatives such as forest protection, biodiversity conservation projects, and collaborations with organizations like the Ministry of Environment, UNDP, FAO, and WFP. Stakeholders emphasize the need for sustainable farming practices, studying the impact of pesticides on pollinators, and collaboration to safeguard agriculture and enhance infrastructure resilience. They emphasize the importance of comprehensive policies, adequate financing, public awareness, needs assessments, and planning for adaptation and resilience to deliver successful climate change initiatives.

Youth involvement is considered crucial, given their potential for leadership, creativity, and mobilization. Stakeholders recognize the need to empower and provide resources for young people to contribute effectively to climate action. While there is growing awareness of gender-specific needs, there is still a need for further efforts to ensure equal treatment and address the greater needs of women in climate change initiatives.

The areas of support identified include the need for increased priority given to climate change adaptation, awareness and training programs, financial incentives for institutional employees, rehabilitation and restructuring of local institutions, and international support in financing climate adaptation efforts.

### **Key Recommendations**

#### **1- Comprehensive Climate Change Education:**

Develop and implement educational programs that provide a comprehensive understanding of climate change, including causes, effects, coping mechanisms and environmental practices. These programs should target children, adolescents, and young people in schools and communities.

#### **2- Children and youth Mobilization**

Mobilize and empower youth in Akkar to initiate changes and raise their voice effectively, it is recommended to establish a Youth Climate Action Platform in collaboration with the government, civil society organizations, and relevant stakeholders.

### **3- Resilient Infrastructure and Transportation**

Upgrade and enhance infrastructure and transportation systems to ensure uninterrupted access to education during extreme weather events and to give a chance for workers to further commit to their profession

### **4- Inclusive and Gender-Responsive Education**

Promote inclusive and gender-responsive education that guarantees equal access for girls and boys.

### **5- Sustainable Agriculture and Climate-Resilient Farming**

Support the adoption of sustainable agricultural practices and provide assistance to farmers in implementing climate-resilient techniques.

### **6- Access to Diverse and Nutritious Food:**

Improve access to diverse and nutritious food by investing in local food systems and agricultural infrastructure.

## **2- Introduction**

In our current age, climate change has emerged as a devastating phenomenon, wreaking havoc across the world. The drastic changes in climate patterns are leading to severe droughts, floods, and extreme weather conditions in various countries. Among the regions projected to be most affected by climate change, the Middle East stands out, with the International Panel on Climate Change highlighting its vulnerability to the impending crisis<sup>1</sup>

Already facing inherent climate challenges, this Middle-East region is poised to experience exacerbated conditions due to global warming and climate change. Studies indicate that climate change may even trigger a permanent shift in the region's geography, rendering certain areas uninhabitable<sup>2</sup>. Such changes threaten to leave people without homes, on the brink of starvation, or facing perilous conditions that could result in loss of life.

While many parts of the Middle East are known for high temperatures and humidity, the projected rise in these conditions due to climate change will render the region increasingly inhospitable. Additionally, climate change is anticipated to escalate poverty levels and exacerbate financial struggles throughout the Middle East. For instance, agriculture, a significant income generator for many residents, will be severely impacted by rising temperatures and prolonged droughts, leading to the destruction of crops and leaving countless individuals without sustenance or income.

While the effects of climate change impact the global population, children and vulnerable communities are particularly susceptible to its devastating consequences. This holds true, especially for the residents of the Middle East, who face heightened vulnerability due to the region's susceptibility to extreme climate conditions and their aftermath. Furthermore, the Middle East region already grapples with various

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<sup>1</sup> MEI (2017). Climate Change: The Middle East Faces a Water Crisis.

<sup>2</sup> Lelieveld, J., Yiannis Proestos, Panos Hadjinicolaou, Meryem Tanarhte, Evangelos Tyrlis, and George Zittis. 2016. "Strongly Increasing Heat Extremes in the Middle East and North Africa (MENA) in the 21st Century." *Climatic Change* 137 (1–2): 245–60

challenges, including political instability, conflicts, and the refugee crisis. Climate change exacerbates these existing issues, adding another layer of complexity to the lives of children and young people. The compounding effects of climate change alongside ongoing social, economic, and political crises further threaten their education, exacerbating the already fragile educational systems in the region.

In Lebanon, the impact of the climate change crisis and environmental transformation on children and young people is a matter of great concern. The country, already grappling with numerous social, economic, and political challenges, now faces the compounding effects of climate change, which further amplify the vulnerabilities and risks faced by its younger generations. Lebanon, known for its diverse ecosystems, scenic landscapes, and rich agricultural heritage, is witnessing significant shifts in its climate patterns. Rising temperatures, altered rainfall patterns, and a higher frequency of extreme weather events are disrupting the environmental dynamics and presenting substantial threats to the well-being and future prospects of children and young people. In particular, the district of Akkar, situated in the North of Lebanon, has emerged as one of the areas most exposed to the impacts of climate change. Over the past two years, devastating wildfires have ravaged large expanses of pine forests in the region. Since 2021 alone, Akkar has witnessed a distressing loss of approximately 14% of its forested area, amounting to an estimated 21,000 hectares<sup>3</sup>. Additionally, heavy rainfall has caused many rivers in the Halba area, Akkar's capital, to flood, carrying waste and obstructing roads, while inundating houses and refugee tents<sup>4</sup>. These events demonstrate the pressing need for action to address climate change and protect the well-being of children and young people in Lebanon.

Against that backdrop, the **aim of this study was to comprehensively explore the impact of the climate change crisis and environmental transformation on children and young people in Akkar**. Through an in-depth analysis, we sought to understand the multifaceted challenges they faced, including the repercussions on their education, employment opportunities, health, mental health, gender-based violence, food security, and water security. Furthermore, we aimed to examine the gender aspect of climate change, investigating how it intersected with the experiences of children and young people. We explored their level of preparedness for climate change-related disasters, recognizing the importance of equipping them with the necessary knowledge and skills to respond to and recover from such events.

Additionally, **we explored their agency as climate change agents, acknowledging their capacity to contribute actively to addressing the climate crisis and advocating for sustainable solutions**. Navigating the complexities of climate change became even more challenging for children and young people when compounded with other social challenges. Therefore, our research considered the broader social context and the ability of children and youth to navigate climate change while facing other social hurdles. We aimed to capture their voices, ensuring their perspectives were central to our analysis, while also taking into account the varied perspectives on climate change within different generations. To gain a comprehensive understanding, we engaged with stakeholders from various sectors. By doing so, we aimed to understand the actions they had taken thus far to address climate change and safeguard the well-being of Lebanon's younger generations.

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<sup>3</sup> [www.globalforestwatch.org](http://www.globalforestwatch.org)

<sup>4</sup> National News Agency (November 2020)

By examining these factors, this research endeavored to generate valuable insights into the impact of climate change in Lebanon on children and young people. This knowledge will inform targeted interventions, policies, and strategies to enhance their resilience, mitigate the adverse effects of climate change, and promote their well-being and future prospects.

### **3- Methodology**

#### **Research Design**

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

#### **Sample Size and Data Collection Tools**

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

1. Key Informant interviews Interviews with children and adolescents: 10 KIIs were conducted with children and adolescents from Rural and Urban communities from Akkar area in Lebanon communities in Lebanon.
2. Key Informant interviews with young people: 6 KIIs were conducted with young people from Rural and Urban communities from Akkar area in Lebanon communities in Lebanon.
3. KIIs were conducted with 8 caregivers to explore the intergenerational impact of climate change.
4. Key Informant Interviews were held with 5 duty bearers, service providers, donors, and partners who were responsible for, or had knowledge of, climate change and environmental stewardship.
5. Survey: two surveys, one for children and adolescents and another one for young people were administered to collect quantitative insights alongside the qualitative component. The sample included 144 children aged 8-11, 142 adolescents aged 12-17, and 118 young women and men aged 18-24, selected conveniently from urban and rural communities in Akkar.

#### **Sampling Strategy**

The sampling strategy employed in this study was purposive sampling, specifically targeting communities in Akkar, Lebanon that are known to be highly exposed to the effects of climate change. Purposive sampling allowed for the deliberate selection of participants from these specific communities who could provide valuable insights into the impact of climate change on children, adolescents, and young people. By focusing on the communities most affected by climate change, the study aimed to capture the lived experiences and perspectives of individuals who are directly impacted by the environmental challenges in their daily lives. This sampling approach ensured that the data collected would be relevant and representative of the specific context under investigation, providing a comprehensive understanding of the climate change issues faced by the targeted communities in Akkar.

#### **Data Collection**

Data collection for this study involved the use of both surveys and Key Informant Interviews, which were administered through a combination of phone and face-to-face interviews. The survey was designed to collect quantitative data and was administered through MS Forms and was conducted either over the phone or in person, depending on the preferences and accessibility of the participants. The KIIs, on the other hand, were conducted with children, adolescents, young people, caregivers, and key informants. These interviews 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.

By incorporating a participatory approach using vignettes and short stories, this study sought to capture the lived experiences and perspectives of children, adolescents, and young people in relation to climate change. This method facilitated a deeper understanding of their individual stories, enabling a more nuanced analysis and interpretation of the data collected.

### **Data Analysis**

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

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

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

### **Ethical Considerations**

Ethical considerations were paramount throughout the research process to ensure the protection and well-being of all participants, particularly children and young people. Prior to data collection, a

comprehensive informed consent process was followed, where participants were provided with a clear explanation of the research objectives, procedures, potential risks and benefits, and their rights to voluntary participation and withdrawal. Consent forms were obtained from all participants, and for children and adolescents, additional consent was sought from their caregivers or legal guardians.

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

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

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

### **Limitations**

While this study aimed to provide valuable insights into the impact of climate change on children, adolescents, and young people in the targeted communities, it is important to acknowledge certain limitations that may have influenced the findings and interpretations.

Firstly, the sample selection process, although purposive, was limited to specific communities in the Akkar area of Lebanon that were deemed most exposed to climate change. As a result, the findings may not be representative of the entire population of children, adolescents, and young people in Lebanon or other regions. The generalizability of the study's findings should be interpreted with caution and may not be applicable to broader contexts.

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. The study acknowledges that the participants, being vulnerable themselves, may have faced challenges in isolating their vulnerability specifically in response to climate change. Other intersecting factors, such as socioeconomic conditions and access to resources, may have influenced their ability to address climate change adequately.

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 the impact of climate change on children, adolescents, and young people in the targeted communities. It highlights the importance of further research and interventions to address the identified challenges and develop strategies that promote resilience and well-being in the face of climate change.

## 4- Findings/ Discussion

### 4.1 Impact of Climate Change on Children aged 8-11 and adolescents aged 12-17 in Akkar

#### 4.1.1 Socio-Demographic Characteristics

In terms of gender distribution, the survey included 45% boys and 55% girls as participants. Moreover, the survey data indicated that the children primarily belonged to Lebanon (100.0%) and lived in rural communities in Akkar (100.0%). In terms of their family situations, a small percentage of children came from single-parent households (2.8%) or households headed by females (2%). It's worth noting that a significant portion of the surveyed children belonged to families with members who were chronically ill (35%) or elderly (20%). Additionally, a proportion of children had family members with disabilities, including physical disabilities (8%), psychosocial disabilities (3%), and intellectual disabilities (3%). Furthermore, 13% of the participants were either currently or had previously been involved in youth groups. Regarding their education, 96% of the surveyed children were currently attending formal education, while 4% had dropped out of school (Table 1). As for the Key Informant Interviews (KIIs), 10 children aged 10 to 17 participated, representing both urban and rural areas in Akkar.

Variables		n (%)
<b>Total Sample</b>		<b>N=286</b>
<b>Gender</b>	Male	129 (45.1%)
	Female	157 (54.9%)
<b>Family situation</b>	Single father/ mother	8 (2.8%)
	Female heading household	5 (1.7%)
	Members from minority groups	1 (0.3%)
	Unaccompanied minors	3 (1%)
	Members with physical disability	23 (8%)
	Members with psychosocial disability	9 (3.1%)
	Members with intellectual disability	9 (3.1%)
	Members chronically ill	100 (35%)
	Elderly members	56 (19.6%)
Other	4 (1.4%)	
<b>Participation in youth groups</b>	No	248 (86.7%)
	Yes	37 (12.9%)
	Not currently but participated in the past	1 (0.3%)
<b>Enrollment in formal education</b>	No	11 (3.8%)
	Yes	275 (96.2%)
<b>Current level for children enrolled</b>	Primary	158 (57.5%)



	Intermediate	94 (34.2%)
	At least some secondary	20 (7.3%)
	Finished high school	1 (0.4%)
	Technical	2 (0.7%)
<b>Highest level of education attained for children not enrolled in formal education)</b>	Primary	8 (72.7%)
	At least some intermediate	3 (27.3%)

Table 1: Socio-demographics characteristics of surveyed children

#### 4.1.2 Experienced climate change and perceived impact on children and the community

The data collected from the survey and Key Informant Interviews offers valuable insights into the climate change consequences experienced by children in their communities and sheds light on how children perceive the impact of these consequences on their lives. The findings indicate that a significant percentage of children have first-hand experience with various climate change-related events, providing a comprehensive understanding of their exposure. One striking observation from the survey data is the high prevalence of elevated temperatures, with 97% of children reporting this as a consequence of climate change. This underscores the ubiquitous nature of rising temperatures and highlights the widespread impact on the daily lives of children in the community. Similarly, a substantial proportion of children, 83%, reported experiencing heatwaves, indicating the intensified and prolonged periods of extreme heat that they have encountered. Another notable finding is the prevalence of dust storms, with 81% of children reporting their occurrence. Dust storms can have detrimental effects on air quality, visibility, and respiratory health, emphasizing the environmental hazards associated with climate change that children are exposed to. The data also reveals that a significant percentage of children, 75%, have experienced floods, indicating the vulnerability of their communities to increased precipitation and its subsequent impact. Heavy rainfalls were reported by 93% of children, further emphasizing the frequency and intensity of precipitation events that disrupt their lives and surroundings. Interestingly, the children reported a lower occurrence of drought by 40% and wildfires by 17%. This indicates that these climate change-related events are relatively less frequent or have been perceived as occurring with decreased frequency by the children (Figure 1).

In line with the survey, interviewed children provided also insights into their personal experiences of climate change impacts. They highlight a range of effects on health, agriculture, and water-related issues. One 10-year-old girl shared how her schoolmate frequently faints due to the heat, while another person she knows contracted cholera due to water contamination. Additionally, a 10-year-old girl mentioned her grandfather's experience of crop damage and withering due to extreme heat, resulting in a loss of harvest. An 11-year-old boy mentioned neighbors who experienced flooding and fell ill, requiring hospital visits.

Children in their community highlighted the significant impact of climate change on their lives, addressing various aspects of this issue. Firstly, they emphasized the direct effect of climate change on their daily routines, such as sudden shifts in weather patterns, including extreme heat and unexpected cold or rainy weather. These changes disrupt their regular activities and have tangible consequences. Secondly, they expressed concern about the vulnerability of children to environmental challenges, particularly flooding. Heavy rainfall leading to floods displaces families and disrupts their lives, which is a major worry for the children. Another significant aspect raised by the children is the experience of extreme temperatures, including heatwaves and temperature fluctuations. These conditions have detrimental effects on their well-being and health. The children also highlighted environmental degradation and pollution as concerns,

citing the adverse effects of air and environmental pollution on their health and well-being. Moreover, climate change impacts infrastructure, especially the electricity network, resulting in power outages that disrupt the daily lives and education of children. In addition, climate change negatively affects food crops, leading to their destruction and subsequently impacting children's access to a nutritious diet. Lastly, rising sea levels and coastal flooding pose significant risks to coastal communities. Children living in these areas face displacement and are often forced to leave their schools due to the impact of these events.

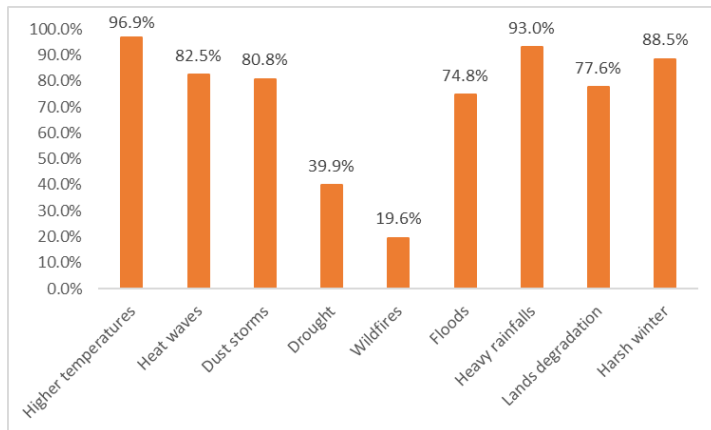


Figure 1: Climate change consequences experienced by children in their communities

The survey findings reveal that a significant proportion of children perceive the negative effects of climate change on their community, highlighting the widespread impact on various aspects of daily life. One notable observation from the survey data is that 93% of respondents reported a perceived decrease in crop yields, livestock productivity, or increase in crop failure. This indicates the detrimental impact of climate change on agricultural activities, which are crucial for the community's livelihood and food security. The high percentage underscores the widespread concern among children regarding the implications of climate change on agriculture. Furthermore, the data shows that 79% of children noted that some homes in their community required repair due to climate-related damages. This highlights the physical infrastructure damage caused by climate-related events, which can disrupt community life and lead to additional burdens on affected families. The survey data also points out that 66% of children mentioned that people in their community spent significant time cleaning after climate-related events. This highlights the additional labor and resources required to address the aftermath of such events, diverting time and effort from other activities and potentially affecting productivity and well-being. The perceptions of children regarding the loss of access to essential resources are also significant. For instance, 66% of children perceived a loss of access to sanitation, indicating the impact on hygiene and public health. Additionally, 86% perceived a loss of access to fuel, which can have implications for cooking, heating, and other energy needs. The striking figure of 95% perceiving a loss of access to electricity underscores the challenges faced by communities in maintaining basic services and functioning in the absence of reliable power sources. Similarly, 80.1% of surveyed children reported a perceived loss of access to water, emphasizing the impact on a fundamental resource necessary for daily life. Moreover, regarding the general impact of climate consequences on people's lives, a significant proportion of children, 34%, viewed it very negatively, while 54% perceived it mostly negatively. This highlights the

overall negative perception of climate change consequences and their profound implications for the well-being and quality of life of individuals within the community.

In line with the survey findings, children’s responses also emphasize that climate change manifests in various ways in their community. They highlighted the agricultural challenges stemming from climate change. A 15-year-old girl mentioned, *"Drought and extreme weather conditions significantly affect crops, impacting the community and our access to food and resources."* Children acknowledge that climate change can lead to the emergence of diseases or exacerbate existing health conditions. While they perceive their own health impacts to be relatively minimal, they recognize the broader implications for the community's well-being.

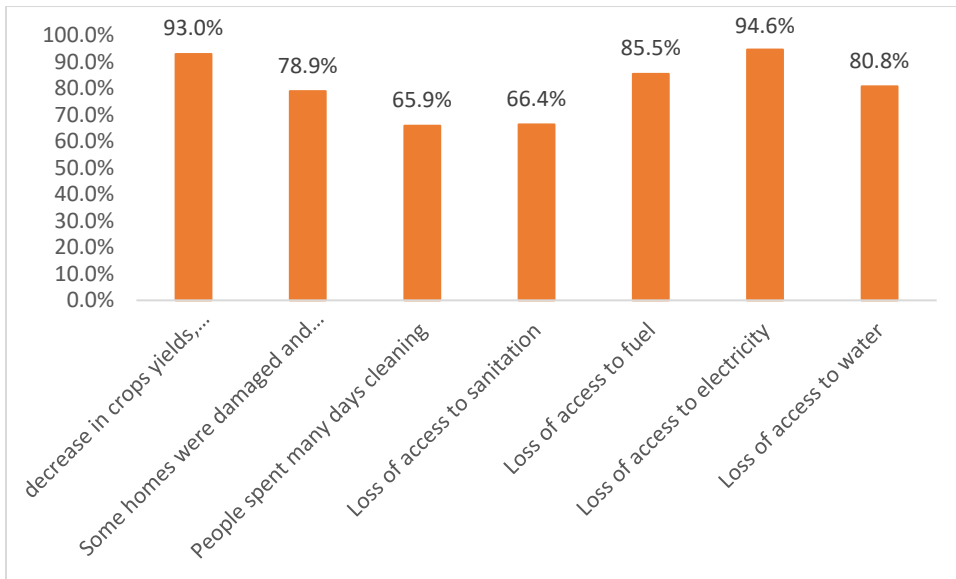


Figure 2: Perceived impact of climate change in the community

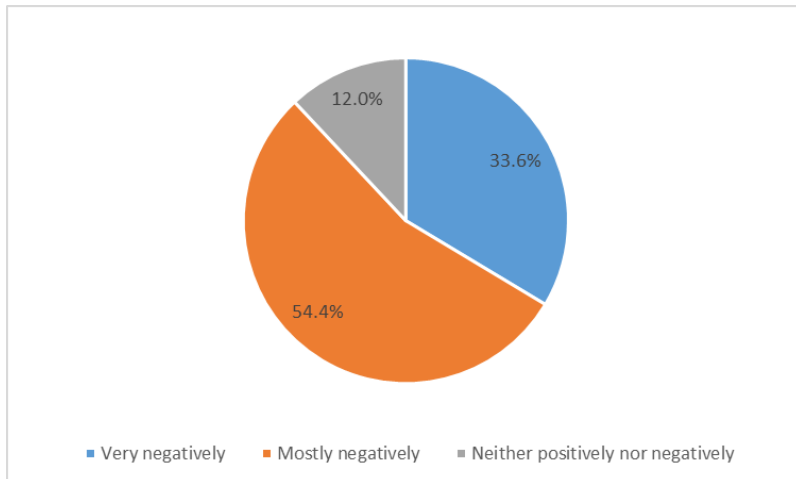


Figure 3: Perceived impact of climate change on people's life in the community

### 4.1.3 Perceived Impact on Education

The perceptions of surveyed children and adolescents reveal that climate change has a significant impact on their education, particularly in relation to extreme weather events such as floods and droughts. It is evident from the data that these events hinder their ability to attend school or lead to decreased school attendance. Interestingly, the survey results indicate that a majority of children, around 67%, believe that extreme weather events prevent or decrease girls' school attendance, while a slightly higher percentage, 69%, hold the same perception for boys. This highlights the widespread belief among the surveyed children that both genders are equally affected by extreme weather events when it comes to attendance to educational activities. Furthermore, the data reveals that floods have a considerable impact on school attendance. Approximately 60% of children perceive that floods affect girls' school attendance, and a slightly lower percentage, 59%, think it affects boys' attendance. This suggests that floods pose a significant barrier to consistent school attendance for both genders. Similarly, the survey findings indicate that droughts also have an adverse effect on school attendance. While the percentages are relatively lower compared to floods, 16% of children believe that both girls' and boys' school attendance is hindered by droughts. An alarming aspect highlighted by the survey is that a significant portion of children, 13% of both girls and boys, reported being forced to displace due to extreme weather events. This displacement leads to missed school days, and in some cases, even an entire school year. This finding underscores the long-term consequences of climate change on children's education and highlights the urgent need for action to mitigate the impact. According to the perceptions of all surveyed children, both girls and boys, it is believed that girls miss approximately 2.1 school days per month due to climate change, while boys miss around 2.2 school days per month. These figures provide a glimpse into the extent of educational disruption caused by climate-related factors, emphasizing the cumulative impact on learning outcomes for both genders (Table 2).

The qualitative responses from the survey further validate the significant impact of climate change on children's education within the community. Children's perspectives shed light on specific aspects of this impact. They emphasize that drought, for instance, leads to thirst, negatively affecting the mental and physical health of children, which may cause them to refrain from attending school and engage in work to secure money for purchasing water. Additionally, extreme weather conditions, whether hot or cold, pose health risks to children, and parents may prevent them from going to school to safeguard their well-being. The qualitative findings also highlight how storms, heavy rainfall, and heatwaves can hinder students' attendance at school due to transportation difficulties and safety concerns. Adverse weather conditions associated with climate change, such as storms and extreme temperatures, are mentioned to lead to health risks, making it difficult for children to attend school due to poor road conditions and concerns for their well-being. A child expressed their experience, saying, *"It affects, especially when there are storms and heavy rains. We get sick, and it becomes difficult for us to go to school due to poor road conditions and weather."* Moreover, climate change-related factors, including extreme weather events and transportation challenges, prevent many children from reaching school, with poor road conditions and limited transportation options contributing to reduced school attendance.

		n (%)
<b>Total Sample</b>		<b>N=286</b>
Extreme weather events prevents girls from going to school or decrease their school attendance	Disagree	88 (32.8%)
	Agree	180 (67.2%)

Extreme weather events prevents boys from going to school or decrease their school attendance	Disagree Agree	80 (30.8%) 180 (69.2%)
Floods prevents girls from going to school or decrease their school attendance	Disagree Agree	99 (39.9%) 149 (60.1%)
Floods prevents boys from going to school or decrease their school attendance	Disagree Agree	99 (41.3%) 141 (58.8%)
Droughts prevents girls from going to school or decrease their school attendance	Disagree Agree	194 (83.6%) 38 (16.4%)
Droughts prevents boys from going to school or decrease their school attendance	Disagree Agree	192 (83.8%) 37 (16.2%)
Girls forced to displace because of extreme weather events and miss school year/ school days	Disagree Agree	187 (86.6%) 29 (13.4%)
Boys forced to displace because of extreme weather events and miss school year/ school days	Disagree Agree	186 (86.5%) 29 (13.5%)
Average school days missed for girls	Mean ( $\pm$ sd)	2.08 ( $\pm$ 2.00)
Average school days missed for boys	Mean ( $\pm$ sd)	2.23 ( $\pm$ 2.01)

Table 2: Perceived impact on education

#### 4.1.4 Perceived Impact on Food Security and Diet Diversity

The survey data provides valuable insights into the perceptions of children regarding the impact of climate change on food security and diet diversity in their community. The findings suggest that children are aware of the adverse consequences of climate change on these important aspects of their lives. The high percentage of children, 93.5%, perceiving that people in their community receive less food than required due to climate change raises concerns about food availability and access. This perception indicates that climate-related factors, such as extreme weather events or crop damage, have led to insufficient food supplies in the community. It highlights the vulnerability of food systems to climate change and the potential risks of food insecurity. The perception that 71.5% of children observe people in their community consuming damaged or moldy food further emphasizes the negative impact of climate change on food quality. It suggests that climate-related factors may compromise the safety and nutritional value of available food, potentially posing health risks to individuals in the community. The finding that 93.8% of children perceive people in their community losing food and resorting to buying it from the market indicates the economic burden resulting from climate change-related disruptions. This highlights the increased dependence on purchasing food, which can strain household finances and limit access to nutritious food options (Figure 4). The data also reveals a concerning decrease in diet diversity, as perceived by the children. The reduced consumption of cereals, vegetables, fruits, meat, nuts, dairies, and oil/fats, as reported by the majority of children, indicates a decline in the variety of foods consumed in the community. This lack of dietary diversity has implications for nutrition and overall health, as different food groups contribute essential nutrients to a balanced diet (Figure 5).

The analysis of Key Informant Interviews aligns with the findings obtained from the survey data. According to the children's perspectives, climate change significantly affects food security, particularly through water pollution that impacts the quality of agricultural crops. As one girl, aged 10, noted, "Climate change affects food security as water pollution compromises the quality of agricultural crops, leading to the

*consumption of contaminated and unhealthy food."* This highlights the health risks children face when consuming contaminated crops. The responses also emphasize that climate change can result in food scarcity and poor food quality, limiting children's access to diverse and nutritious foods. A boy, aged 11, emphasized, *"Climate change affects food security by reducing the availability of food and compromising its quality. This puts children at risk of health issues due to limited access to diverse and nutritious food."* Additionally, the use of wastewater for irrigation, driven by climate change, can lead to crop contamination and the spread of diseases. Moreover, factors like crop damage and the use of toxic substances in farming, which are influenced by climate change, can result in economic losses and health risks for children, weakening their immune systems.

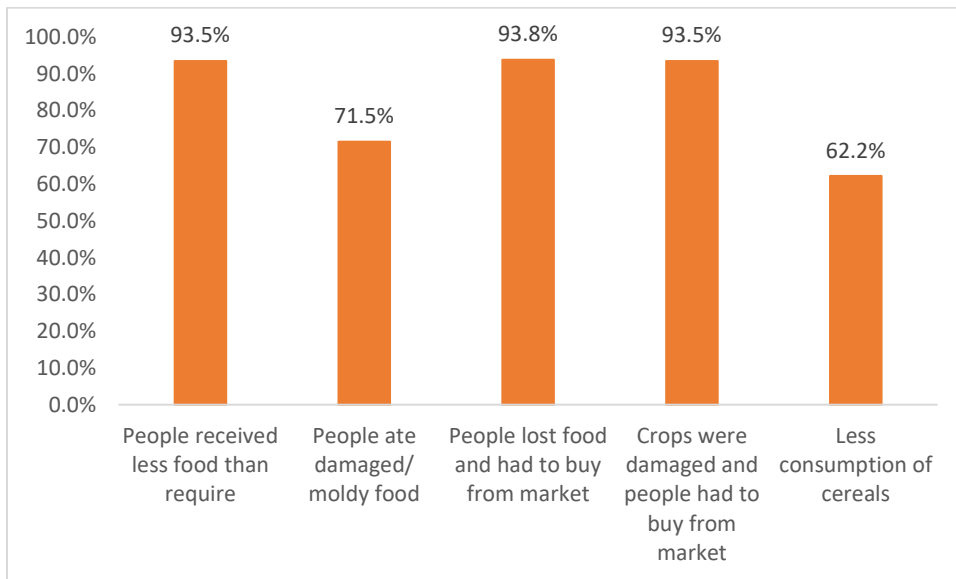


Figure 4: Perceived impact of climate change on food security

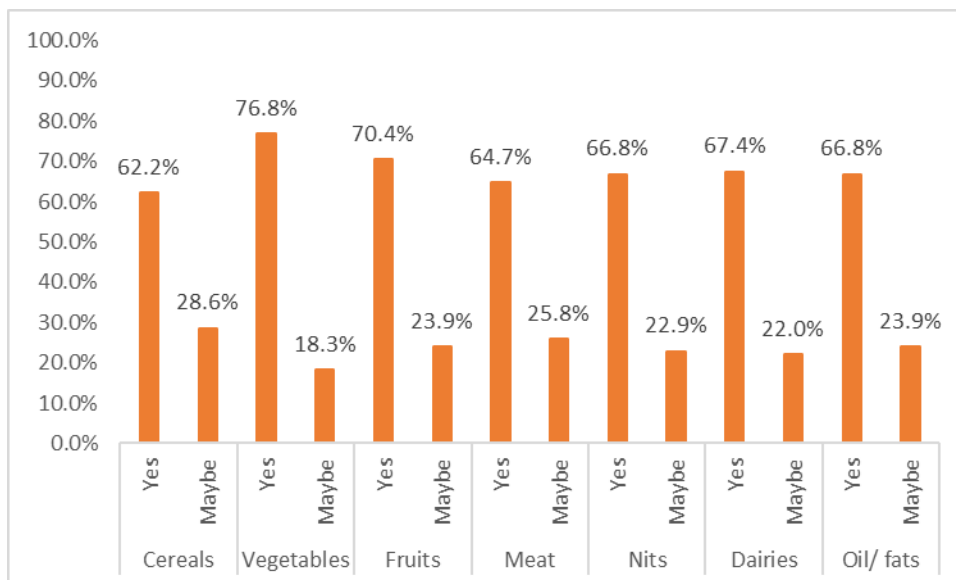


Figure 5: Perceived impact on diet diversity

#### 4.1.5 Perceived Impact on Access to Water

It is worth highlighting the difference between climate change issues such as drought and floods, and environmental issues linked to the quality of water such as the smell, the taste and the color. The first is natural and usually not controlled by humans, while the latter is manmade.

The survey data reveals that 55% of children surveyed have experienced drought or floods in their community. Among this group, 27% acknowledged that these events had an impact on water supply. Further analysis of this subset of children shows that 98% reported receiving less water than usual, indicating a significant reduction in water availability. Additionally, 63% mentioned that the water they did receive had a bad taste, while 50% noticed a foul smell in the water. These findings indicate compromised water quality as a result of the climate-related events, and the pollution of the surface and subterranean water, due to environmental issues related to the failing of the infrastructure system. In response to these challenges, 77% of the affected individuals resorted to purchasing water bottles, while 70% opted to buy water from unmonitored water trucking, highlighting the need for alternative water sources due to the impact on the community's water supply (Table 3).

The Key Informant Interviews further complement the survey findings regarding the impact of climate change on children's access to water in the community. For example, a boy, aged 16, highlighted the issue of affordability, stating, *"There is a significant problem with water in our community as it is contaminated. Some people are compelled to buy water, while others cannot afford it, resulting in the consumption of contaminated water"*. A boy, aged 14, emphasized the health risks associated with the compromised water supply, stating, *"This may force us to drink contaminated water or lead to water scarcity, and not everyone can afford to provide drinking water, which will have a negative impact on their health and lead to diseases like cholera."* Another girl, aged 10, emphasized the contamination of water sources in the community, saying, *"Yes, there is a significant problem with water in our community as it is contaminated. For instance, due to contaminated water, worms and impurities may be present, which compels us to buy water."* This corroborates the survey finding that water sources are contaminated, leaving individuals with no choice but to purchase water or consume polluted water.

		n(%)
<b>Total Sample</b>		<b>N=286</b>
Experiencing drought/ flood	No	126 (44.7%)
	Yes	156 (55.3%)
Since when (n=156)	Few months ago	103 (36%)
	Last year	19 (6.6%)
	During winter time	21 (7.3%)
	All year long	7 (2.4%)
	2 years ago	4 (1.4%)
	Few days ago	2 (0.7%)
Does it impact your household water supply? (n=156)	No	107 (72.8%)
	Yes	40 (27.2%)
Type of impact (n=40)	Received less water	39 (97.5%)
	Water had a bad taste	25 (62.5%)
	Water had a bad smell	20 (50%)

	Water had a bad color	29 (72.5%)
Response to the impact (n=40)	Use water from untreated sources	25 (62.5%)
	Buy bottled water	31 (77.5%)
	Buy water tanks	28 (70%)

Table 3: impact on water security

#### 4.1.6 Perceived impact on Environmental Sanitation and Dignity

The survey findings on environmental sanitation highlights the perceptions and emotions of children regarding the cleanliness and waste management in their area. A significant proportion of children, 79%, reported that their area is always with lots of rubbish, indicating a prevalent issue of poor waste management. In contrast, only 20% perceived their area as free from rubbish, and 48% occasionally witnessed cleanliness. The impact of this environmental sanitation issue on children's emotions is notable. An overwhelming majority of 83.6% expressed sadness, indicating the negative emotional impact of living in an area with abundant rubbish. A striking 92.7% expressed anxiety about diseases, reflecting their concerns about the health risks associated with unclean environments. Furthermore, the data reveals a range of other emotions and worries among children regarding environmental sanitation. Some children reported feeling disgusted and fearful of insect-borne diseases, while others mentioned challenges related to dust and expressed fears, nervousness, and worry about diseases, allergies, and their future. Some children even mentioned contemplating immigration when they grow older, reflecting the severity of their concerns and the desire for a cleaner environment (Figure 6).

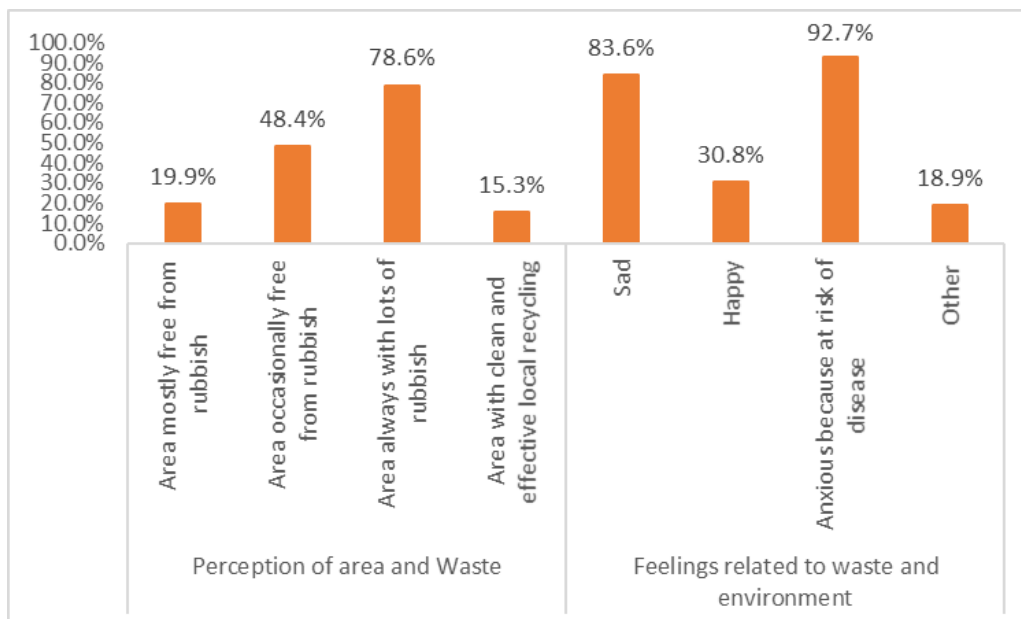


Figure 6: Perceived environmental sanitation and emotions related



#### 4.1.7 Perceived Impact on Health

When asked about the perceived impact of climate change on health in their community, the children provided insightful responses. A significant number of children, 82% acknowledged that climate change contributes to increased air pollution. They understand that this can have detrimental effects on respiratory health and overall well-being. Additionally, an overwhelming majority of children, 92%, recognized that climate change leads to an increase in waterborne diseases. They understand that changes in precipitation patterns, flooding, and water contamination can contribute to the spread of diseases like cholera and diarrhea. Moreover, the children were aware of the strain climate change places on health services. A staggering 93% of them expressed their perception that climate change leads to an increased demand for healthcare services. They understand that climate-related health conditions and extreme weather events require additional medical assistance and resources. Furthermore, 90% of children highlighted the potential impairment of access to health services due to climate change. They recognize that infrastructure damage, disruption of healthcare facilities, and limited availability of medical resources during climate-related emergencies can hinder their access to essential healthcare (Figure 7).

The analysis of Key Informant Interviews provides insightful quotes that complement the survey findings regarding the perceived impact of climate change on children's health in the community. Participants share their observations on the increase in climate-related diseases, including respiratory illnesses and water-borne diseases like cholera. One girl, aged 10, mentions, *"Severe heat sometimes leads to dizziness. Extreme cold also leads to illnesses. Cholera has emerged due to water contamination."* Similarly, a 14-year-old boy notes, *"I notice an increase in diseases and viruses such as cholera, flu, gastrointestinal and respiratory illnesses."* These quotes align with the analysis, highlighting the association between temperature fluctuations, polluted air, and the occurrence of respiratory illnesses. The participants also express concerns about an increase in cancer cases, potentially linked to climate change.

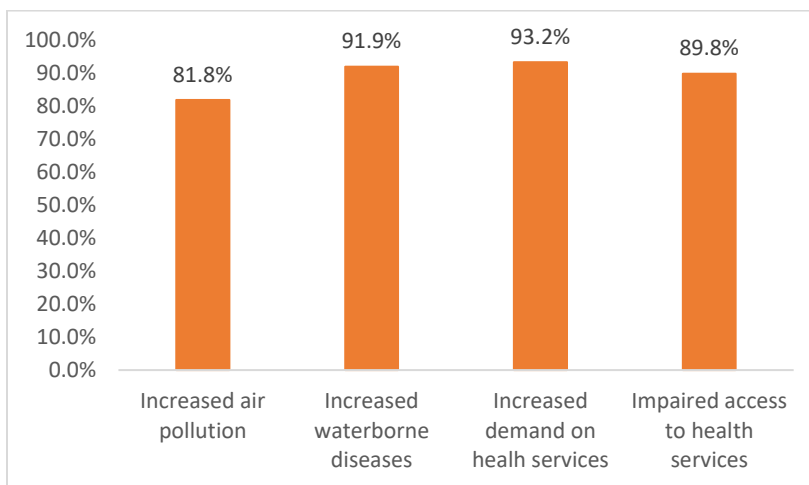


Figure 7: Perceived impact on health

#### 4.1.8 Perceived Impact on Mental Health

The findings on children's mental health regarding climate change reveals varying levels of worry and a range of emotions experienced by the participants. The findings show that a significant proportion of children express concern about climate change, with 35% being a little worried, 29% moderately worried, and 28% very worried (Figure 8). This indicates that a considerable number of children perceive climate

change as a significant issue affecting their well-being. When asked about their first concern regarding climate change, the responses highlight various areas of apprehension. The most common concerns include poverty (33%), air pollution (25%), and access to education (16%). These concerns reflect the children's awareness of the broader societal impacts of climate change, such as its potential to exacerbate poverty and hinder access to essential resources and opportunities. Regarding climate-related emotions, the data indicates a strong prevalence of negative emotions among children (Figure 9). The majority of respondents express feelings of sadness (91%), helplessness (63%), anxiety (91%), and fear (78.9%). These emotions likely stem from their understanding of the potential consequences of climate change, including environmental degradation, natural disasters, and their personal experiences of its impact on their communities. However, there is a small proportion of children (22%) who express optimism, suggesting a glimmer of hope and resilience despite their concerns. The presence of anger (44%), guilt (26%), shame (30%), and hurt (38%) indicates a deep emotional response to the perceived inaction and negative consequences of climate change. Finally, 22% of the children surveyed expressed a lack of concern towards climate change and its impact on the planet. (Figure 10).

The analysis of the KII responses reveals a diverse range of attitudes and emotions towards climate change and its impact on the planet. As one child expressed, *"I feel worried, especially since we are unaware of what will happen to our planet in the future."* This sentiment reflects a genuine concern and uncertainty about the future. Moreover, the fear of natural disasters as a consequence of climate change is evident in statements such as, *"I have concerns about the occurrence of natural disasters like hurricanes and floods."* This fear stems from the recognition that these events can have devastating effects on both the planet and human lives. Conversely, some children display a lack of worry or ignorance towards climate change. As one participant stated, *"I don't think about the issue at all; it's not a significant concern for me."* This lack of concern may stem from a lack of awareness or understanding of the magnitude and urgency of climate change. Furthermore, the analysis highlights the presence of individuals with a moderate level of concern or limited awareness. One respondent mentioned, *"I don't know what global warming is."* This lack of knowledge underscores the importance of education and raising awareness about climate change to foster a more informed and engaged society.

The children's responses reveal a profound sense of helplessness in the face of climate change. They express feelings of powerlessness and frustration, acknowledging the immense scope of the crisis Earth is currently confronting. Despite their awareness and concern, they perceive themselves as lacking the means, resources, and knowledge to make a substantial difference. This overwhelming sense of helplessness is evident in their yearning for assistance and support, as they grapple with the enormity of the problem and their limited personal agency. For instance, a 10-year-old girl articulates her complete powerlessness, especially as a child, expressing a heartfelt desire to contribute but feeling ill-equipped to do so *"I wish I could help, but I don't have any tricks up my sleeve"*.

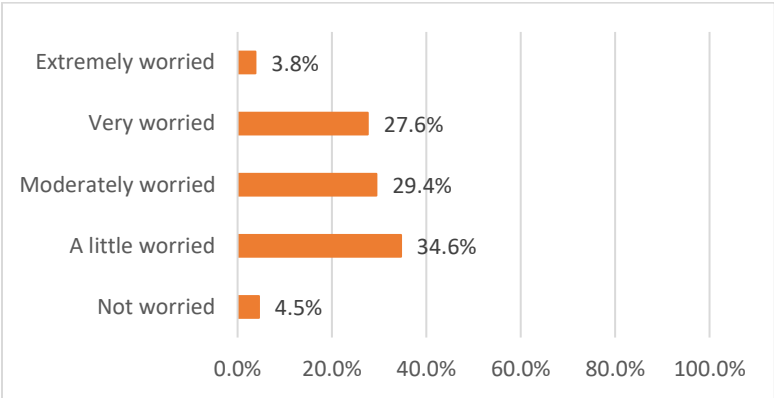


Figure 8: Level of worry reported by children

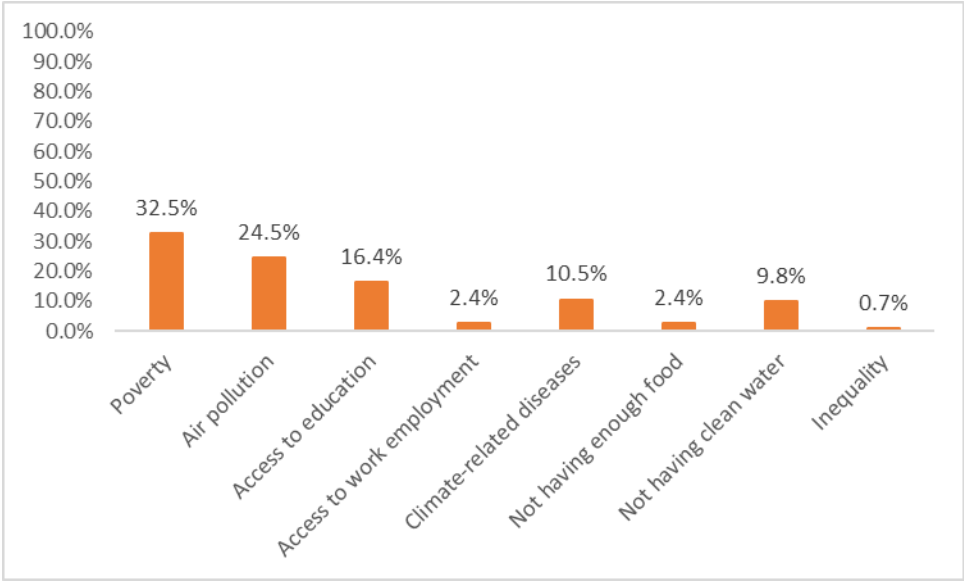


Figure 9: First concern on climate change

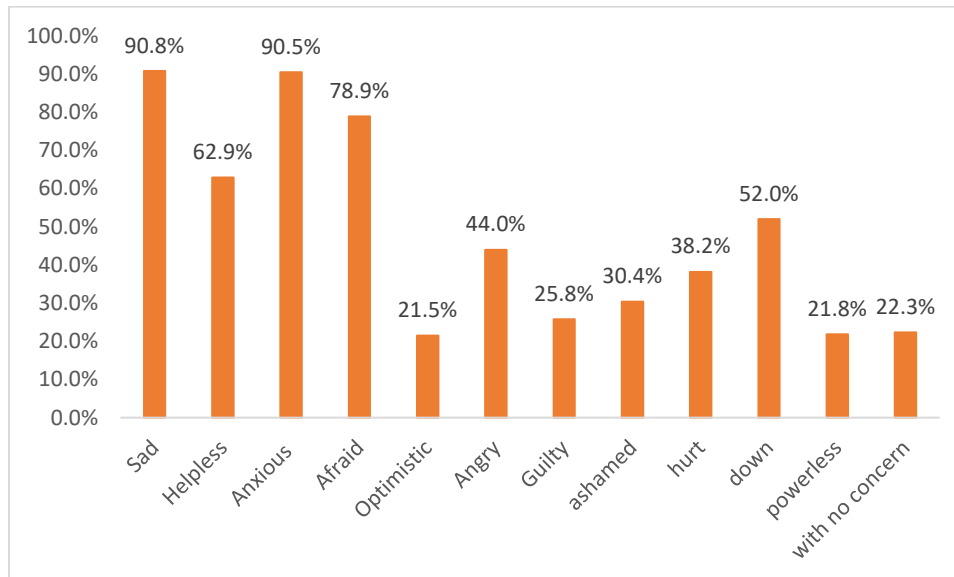


Figure 10: climate emotions reported by children

#### 4.1.9 Perceived Impact on Gender-based violence and violence against children

The survey findings indicate that children may have limited knowledge on gender-based violence (GBV) and may find it difficult to share their experiences due to the sensitive and personal nature of the topic. According to the surveyed children, during water collection, approximately 8% reported that women and girls experience physical abuse, while 7% reported the same for men and boys. Furthermore, 14% of children reported emotional/verbal abuse of women during water collection, while 14% reported emotional/verbal abuse of men and boys. These percentages suggest that children recognize the occurrence of gender-based violence during water collection, although the rates may slightly differ between genders.

When it comes to the scarcity of food and water, approximately 6% of children perceived that women and girls experience physical abuse, compared to 7% who believed the same for men and boys. Additionally, 15% of children reported emotional/verbal abuse of women, while 16% reported emotional/verbal abuse of men and boys when food and water are scarce. These figures emphasize the children's perception that resource scarcity resulting from climate change contributes to an increased risk of gender-based violence.

Concerning early marriage, girls were perceived to be more affected by climate change, with 7% of children reporting early marriage among girls compared to 4% reporting the same for boys. This observation underscores the potential vulnerability of girls in communities impacted by climate change, leading to social and cultural consequences. Similarly, climate change-induced factors were perceived to force an equal proportion of girls and boys to stop schooling, as reported by 12% of children. This suggests that climate-related challenges can hinder educational opportunities for both genders, further exacerbating social inequalities (Table 4)

The KIIs findings indicate that the children believe violence increases during climate change, particularly in relation to extreme heat. This heightened aggression can manifest in both physical and verbal forms of violence. Examples of violence mentioned include domestic violence within homes, acts of aggression in public spaces like streets, and violence experienced during displacement or migration. One quote from a

10-year-old girl highlights the connection between heat and violence: *"If a person feels hot, it can anger them and lead to verbally abusing and physically assaulting others. This violence occurs on the streets."* This suggests that high temperatures can trigger anger and aggression, which in turn contribute to violent behavior in public spaces. Children also recognize that violence can occur in various locations, including homes, schools, and streets. A 14-year-old boy explains, *"Violence can happen anywhere, be it at home, school, or in the streets."* This emphasizes that climate change-related violence is not limited to a specific setting but can affect individuals across different environments.

Regarding the groups at risk of violence during climate change, the responses highlight the vulnerability of children, especially young boys and girls. The physical weakness of children puts them at a higher risk of violence, as mentioned by a 14-year-old boy: *"Children and girls are more susceptible to violence because they are physically weaker."* Additionally, the theme of gender-based violence emerges, with a particular focus on the higher vulnerability of girls and women. A 10-year-old girl shares an example: *"Yes, violence increases, and a prime example is our neighbor who becomes angry due to the heat and ends up physically assaulting his wife and children."* This illustrates the heightened risk faced by women in their homes. The responses also suggest that youth, particularly young boys, may be more prone to aggression and violence, making them a potentially at-risk group. A 17-year-old girl states, *"Youth are more prone to aggression and violence towards each other."* This points to the importance of addressing the underlying factors contributing to aggression among young boys during climate change. While the children responses does not explicitly mention specific minority groups, it is crucial to recognize that they may face additional risks and vulnerabilities during climate change, including an increased likelihood of violence. Further research and perspectives are needed to explore the specific risks faced by women from minority backgrounds during climate change.

			n(%)
<b>Total sample</b>			<b>N=286</b>
During water collection/ fetching water due to climate change	Women/ girl physical abuse	Agree	15 (7.5%)
		Disagree	186 (92.5%)
	Men/ boy physical abuse	Agree	14 (7%)
		Disagree	186 (93%)
Women/ girl emotional and verbal abuse	Agree	27 (13.6%)	
	Disagree	171 (86.4%)	
Men/ boy emotional and verbal abuse	Agree	28 (14.2%)	
	Disagree	169 (85.8%)	
When the food is scarce due to climate change	Women/ girl physical abuse	Agree	12 (6.4%)
		Disagree	176 (93.6%)
	Men/ boy physical abuse	Agree	13 (6.8%)
		Disagree	177 (93.2%)
Women/ girl emotional and verbal abuse	Agree	30 (15.4%)	
	Disagree	165 (84.6%)	
Men/ boy emotional and verbal abuse	Agree	32 (16.4%)	
	Disagree	163 (83.6%)	

Early child marriage due to climate change	Girls	Agree	13 (7%)
		Disagree	173 (93%)
	Boys	Agree	7 (3.8%)
		Disagree	179 (96.2%)
Forced to leave school due to climate change	Girls	Agree	22 (11.7%)
		Disagree	166 (88.3%)
	Boys	Agree	22 (11.7%)
		Disagree	166 (88.3%)

Table 4: Perceived GBV and violence against children

#### 4.1.10 Gender vulnerability to climate change

Overall, the survey reveals that children may have limited knowledge on gender vulnerability and the intricacies of gender-based violence (GBV). The survey findings reveals that the majority of children (73.2%) do not perceive girls as more vulnerable to climate change compared to boys. However, a significant portion (26.8%) of the respondents do believe that girls are more vulnerable (Table 5). When it comes to the perceived impact of climate change on girls and women, the responses indicate that girls are more likely to leave school to help their families recover from climate consequences affecting agriculture production, household food access, and household income. This suggests that girls may bear a greater burden of responsibility in supporting their families during times of climate-related challenges. Approximately 66.0% of children perceive that girls are more likely to leave school to help the family recover when climate consequences affect agriculture production, while 63.3% believe the same when it comes to household food access (Table 5).

Furthermore, the data suggests that girls and women are more likely to skip meals if climate change reduces food availability (52.1%) and are more likely to fetch water when there is a need (43.8%). These findings indicate that girls and women may face a higher risk of food insecurity and increased labor demands due to climate change impacts. Additionally, the survey respondents perceive that girls and women are more likely to be affected by poor sanitation and hygiene (47.3%), and pregnant women are at an increased risk during climate change (46.7%). These findings highlight the specific vulnerabilities faced by girls and women in terms of health and well-being in the context of climate change (Table 5).

		N (%)
<b>Total sample</b>		<b>N=286</b>
Girls more vulnerable to climate change	No	145 (73.2%)
	Yes	53 (26.8%)
Girls are more likely to leave school to help the family recover when climate consequences affect the agriculture production/ farming	Disagree	87 (34%)
	Agree	169 (66%)
Girls are more likely to leave school to help the family recover when climate consequences affect the household food access	Disagree	91 (36.7%)
	Agree	157 (63.3%)
Girls are more likely to leave school to help the family recover when climate consequences affect the household income	Disagree	99 (42.7%)
	Agree	133 (57.3%)
	Disagree	104 (47.9%)

Girls/ women are more likely to skip meals if the climate change reduce the food availability	Agree	113 (52.1%)
Girls/ women are more likely to fetch water when there is a need	Disagree	117 (56.3%)
	Agree	91 (43.8%)
Girls/ women are more likely to be affected by poor sanitation and hygiene	Disagree	106 (52.7%)
	Agree	95 (47.3%)
Pregnant women are at increased risk during climate change	Disagree	106 (53.3%)
	Agree	93 (46.7%)

## 4.2 Impact of Climate Change on Young People aged 18-24 in Akkar

### 4.2.1 Socio-demographic characteristics

The socio-demographic characteristics of young people in the survey sample reveal that 48% are male, while 53% are female. The majority of young people (83%) are single, with a smaller proportion (16%) being married. Regarding their status in the country, 98% are citizens, while a small percentage (2%) are internally displaced. When examining the family situation, 13% of young people come from single father/mother households, 12% from female-headed households, and significant proportions have family members with specific needs, including those who are physically disabled (8%), psychosocially disabled (3%), intellectually disabled (2%), chronically ill (43%), or elderly (20%). In terms of community type, the majority of young people (98%) reside in rural areas, with only a small percentage (2%) living in urban areas.

In terms of current enrollment in formal education, 43% of young people in the study sample are currently enrolled, while the majority (57%) are not attending formal education. When examining the highest level of education attained, a small percentage (3%) are illiterate, while 28% have completed primary education. Approximately 30% have received at least some secondary education, and 14% have finished high school. A significant proportion (20%) have pursued post-secondary or university education, and 14% have obtained technical qualifications.

In terms of current employment, the findings indicate that only 14% of young people in the study sample are currently employed, while the majority (86%) are not currently employed. 6% of those employed work in agriculture.

During the Key Informant Interviews, a total of three young people, comprising three women and one man, participated in the study. The participants were selected from both rural and urban areas in Akkar, ensuring representation from diverse settings. Notably, one of the women who took part in the KIIs had a disability.

Variables		n (%)
<b>Total Sample</b>		<b>N=118</b>
<b>Gender</b>	Male	56 (47.5%)
	Female	62 (52.5%)
<b>Marital status</b>	Single	98 (83.1%)
	Married	19 (16.1%)
	Widowed	1 (0.8%)

<b>Status in the country</b>	Citizen	115 (97.5%)
	Citizen/community	1 (0.8%)
	Internally displaced	2 (1.7%)
<b>Family situation</b>	Single father/ mother	15 (12.7%)
	Female heading household	14 (11.9%)
	Unaccompanied minors	3 (2.5%)
	Members with physical disability	9 (7.6%)
	Members with psychosocial disability	4 (3.4%)
	Members with intellectual disability	2 (1.7%)
	Members chronically ill	51 (43.2%)
<b>Participation in youth groups</b>	Elderly members	24 (20.3%)
	No	110 (93.2%)
<b>Community</b>	Yes	8 (6.8%)
	Urban	2 (1.7%)
<b>Enrollment in formal education</b>	Rural	116 (98.3%)
	No	67 (56.8%)
<b>Highest level of education</b>	Yes	51 (43.2%)
	Primary	35 (29.7%)
	Intermediate	4 (3.4%)
	At least some secondary	22 (18.6%)
	Finished high school	17 (14.4%)
	Post-secondary / university	24 (20.3%)
<b>Employment</b>	Technical	16 (13.6%)
	No	102 (86.4%)
	Yes	16 (13.6%)

Table 5: Socio-demographic characteristics of surveyed young people

#### 4.2.2 Experienced climate change and perceived impact on young people and the community

The findings showed that 98% of the young people have observed higher temperatures in their area, indicating the warming trend in the region. Heat waves were also a prominent consequence, with 86% of the young people experiencing their effects. Dust storms were reported by 82% of the respondents, highlighting the environmental challenges faced due to climate change. Additionally, floods were a major concern, affecting 60% of the young people surveyed. Other consequences mentioned include heavy rainfalls (92%), land degradation (70%), and harsh winters (86%) (Figure 11).

The young people of Akkar have reported their personal experiences regarding the impact of climate change on their lives. One young man, aged 23, shared the distressing story of people he knows losing their entire crop to an untimely storm, resulting in devastating emotional and financial consequences. Another young man, aged 20, highlighted the constant cycle of displacement and uncertainty faced by those living near the river, who must evacuate their homes during floods, which takes a toll on their mental and financial well-being. A 23-year-old man described the frequent floods experienced by his relatives' village during winter, forcing them to leave their homes and rebuild their lives each time. A 24-year-old woman expressed the daily struggles caused by water scarcity in their region, with constant



worries about having enough water for basic needs. Another woman, also 24, shared the heartbreaking account of people she knows witnessing their houses collapsing during severe storms.

According to young people in Akkar, the climate consequences impact on community includes a decrease in crop yields and livestock productivity (91%), damaged homes requiring repair (73%), days spent cleaning up (62%), loss of access to sanitation (61%), fuel (84%), electricity (89%), and water (77%) (Figure 12). Young people perceive the overall impact on their lives and the community as mostly negative (52%) or very negative (39%).

Through young people’s perspectives, we gain a deeper understanding of the challenges they face and the ways in which their daily experiences are shaped by climate-related factors. One young man, aged 23, highlights the detrimental effects of erratic weather patterns on agricultural crops, which directly impacts the income of many youth in the community. This sentiment is echoed by a 24-year-old woman who emphasizes how severe weather conditions have worsened the housing situation, leading some families to relocate without access to electricity. Another young man, also 23, brings attention to the issue of water scarcity, attributing it not solely to climate change but also to the mismanagement of rainwater resources. Moreover, a 20-year-old woman raises concerns about the health implications of climate change, such as increased skin dryness, and the psychological impact of living in constant fear of disasters.

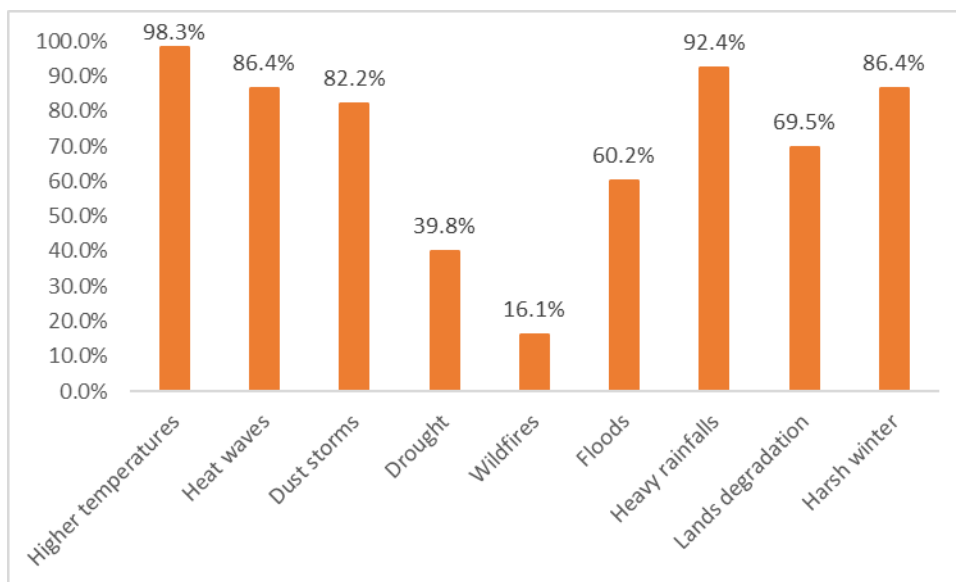


Figure 11: Experienced climate change consequences in young people communities

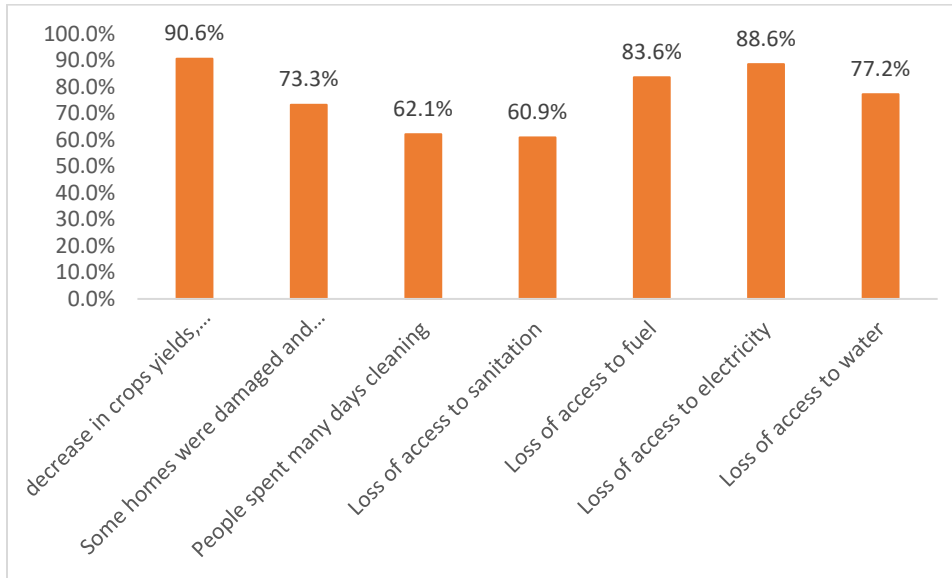


Figure 12: Young people's perceived impact of climate change consequences on community

#### 4.2.3 Perceived Impact on Employment

The perceptions of young people in the community shed light on the perceived and actual impacts of climate change on employment. According to their perceptions, climate change has led to reduced employment options for both unskilled (58%) and skilled labor (53%). Additionally, they report increased work hours (35%), reduced income (57%), and increased stress with unfavorable work conditions (60%). The majority (63%) also believe that important employment sectors have been negatively impacted by climate change.

In line with the survey findings, the impact of climate change and environmental degradation on youth access to jobs and the labor market is influenced by several factors, as highlighted by the KIIs findings. Transportation disruptions due to adverse weather conditions can hinder young individuals from commuting to job interviews or workplaces, potentially leading to missed opportunities. Extreme temperatures and inadequate facilities in workplaces can affect productivity and job satisfaction. Climate-related hazards and damaged infrastructure can pose safety risks and hinder access to workplaces. Certain industries, such as outdoor labor and agriculture, are more vulnerable to the adverse effects of climate change. One participant expressed concern about the missed job opportunity due to deteriorating conditions, emphasizing the impact on individuals' employment prospects. The impact of inadequate facilities on work quality and the risks posed by extreme weather events were also acknowledged. Additionally, the effects of high temperatures on work quality were highlighted, particularly for laborers and farmers.

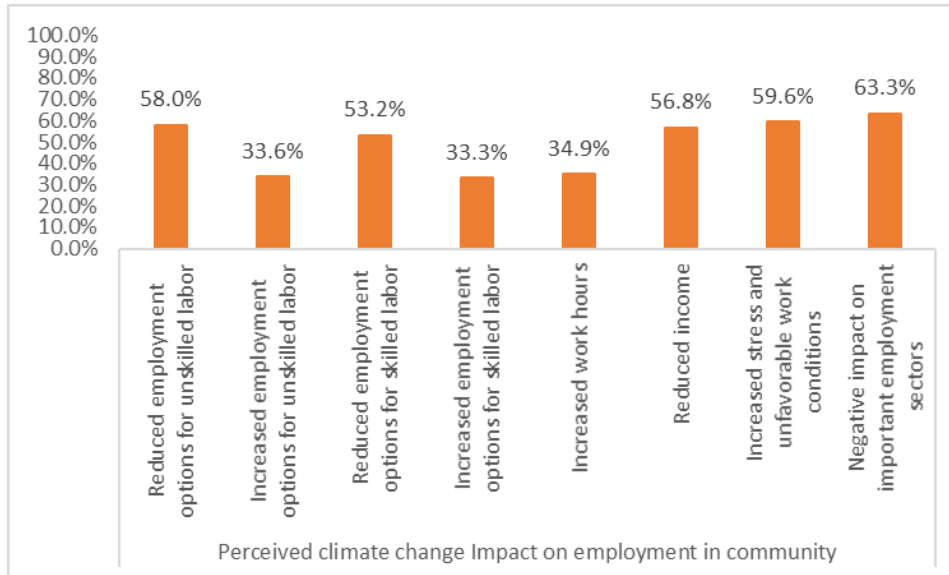


Figure 13: Young people's perceived impact of climate change on employment

#### 4.2.4 Perceived impact on agriculture

Real-life experiences shed light on how climate change disrupts agricultural activities, compromises the quality of crops, and affects the availability of food. One woman, aged 24, shared the financial struggles faced by farmers due to crop damage caused by winter frost. She mentioned, *"The winter frost in many occasions caused damage to agricultural crops of people we know, impacting them financially as they rely on agriculture as a primary source of income."* Another woman, also 24 years old, highlighted the issue of contaminated water used for irrigation. She mentioned a person she knows who had to irrigate their crops with sewage-contaminated water due to water scarcity. She explained, *"I know someone who cultivates organic vegetables and usually leaves them to grow naturally. However, in two seasons, they had to irrigate their crops with sewage-contaminated water due to water scarcity for irrigation purposes."* The vulnerability of rural populations and the challenges they face in accessing food during climate-related events were also emphasized. The same woman mentioned, *"Yes, it does affect, especially for those living in rural areas and relying on the land. When drought or floods occur, they either consume damaged crops or are forced to migrate, which makes it difficult to access food."* Furthermore, the impact on agricultural workers was mentioned by a 20-year-old woman. She highlighted the consequences of drought on agricultural crops and the use of contaminated water for irrigation. She stated, *"Yes, it affects, particularly due to drought. It damages agricultural crops and sometimes forces farmers to use sewage water for irrigation, which can spread diseases and epidemics. Those who work in the fields are the most affected by this."*

#### 4.2.6 Perceived impact on mental health

The responses from young people regarding their emotions and concerns about climate change paint a poignant picture. Overwhelmingly, sadness (89.8%), helplessness (61.9%), anxiety (91.5%), and fear (72.6%) are prevalent emotions among them. These emotions reflect the deep impact and concern they feel when contemplating the consequences of climate change (Figure 14).

Young people's responses regarding their concerns, emotions, and perceived limitations regarding climate change reflect a deep and personal connection to the issue. Many individuals express genuine worry and

a sense of urgency about the consequences of climate change. They recognize the gravity of the environmental challenges we face and the need for immediate action. As one young man aged 23 shared, *"I do feel a genuine sense of worry about the consequences of climate change."*

The emotional impact of climate change is evident in the responses, with individuals experiencing a range of emotions such as fear, anxiety, and even depression and despair. These emotions stem from the anticipation of potential disasters and the perceived threat to the future of the planet. While the intensity of these emotions may vary among individuals, many acknowledge feeling fear when contemplating the potential consequences. As one young man aged 23 mentioned, *"I feel fear when I think about the potential disasters, but not to the extent of terror and depression."*

Frustration and discouragement are common emotions expressed by young people when discussing climate change. They feel disappointed and disillusioned, particularly when considering the severity of the situation and the lack of awareness and understanding among society. Young people express deep concern for the Earth's future and a sense of frustration with the widespread ignorance surrounding climate change. As one young woman aged 24 stated, *"When I think about the severity of the situation and the future of the Earth, I feel discouraged, and what frustrates me the most is the widespread ignorance as if the issue doesn't even exist."*

Young people also express a sense of sadness and frustration regarding their perceived limitations in making a meaningful impact on climate change. They recognize that individual actions alone may not be sufficient to address the complex and global nature of the issue. This leads to a feeling of helplessness and a desire for collective action and systemic changes. As one young man aged 23 expressed, *"Of course, I feel sadness when I see myself unable to make a significant impact on addressing climate change."*

Moreover, young people often feel powerless and experience pressure to act in the face of climate change. They perceive the issue as overwhelming and encounter societal constraints that hinder their ability to make a difference. However, there is a strong desire to contribute, despite the perceived limitations. This highlights the need for supportive structures, collective efforts, and empowerment to overcome the sense of inability and effectively address climate change. As one young woman aged 20 mentioned, *"I am capable, but I don't know what I should do."*

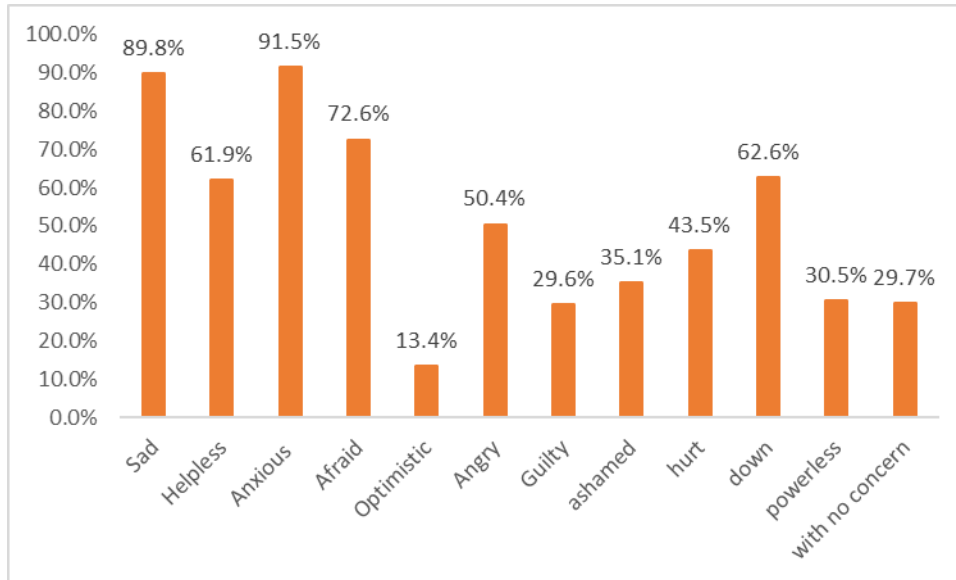


Figure 14: Climate emotions reported by young people

#### 4.2.10 Perceived impact on Economic Gender-Based violence

A significant 21.2% of surveyed young people report that women are deprived of economic opportunities and earning an income during climate change. This means that a considerable portion of women experience barriers and limitations when it comes to accessing and benefiting from economic activities. These barriers can hinder their financial independence, restrict their ability to support themselves and their families, and limit their overall economic empowerment. These challenges are further exacerbated by the impacts of climate change.

Moreover, young people say that 19.0% of women are deprived of access to financial resources during climate change. This indicates that a considerable percentage of women lack the necessary means to secure financial stability, access banking services, and obtain loans or other financial resources. Without access to financial resources, women face increased difficulty in investing in education, starting businesses, and engaging in economic activities that could improve their socio-economic status. The deprivation of financial resources further perpetuates economic inequalities and restricts women's ability to adapt and thrive in the face of climate change challenges.

These numbers shed light on the perceptions of young people who are increasingly aware of the gendered impacts of climate change on economic gender-based violence. Young individuals recognize the specific challenges faced by women in relation to economic opportunities and financial access, which are further compounded by the environmental and socio-economic consequences of climate change.

### 4.3 Children and young people as agent of change

#### 4.3.1 Motivation to engage in environmental activities

The survey results reveal significant numbers that provide valuable insights into the motivations and demotivation of young people in Akkar regarding environmental engagement. First, a noteworthy 50% of respondents indicate being strongly motivated to engage in environmental activities, while an additional

39% express some level of motivation (Figure 5). This indicates a substantial proportion of young people who are interested and willing to contribute to environmental causes.

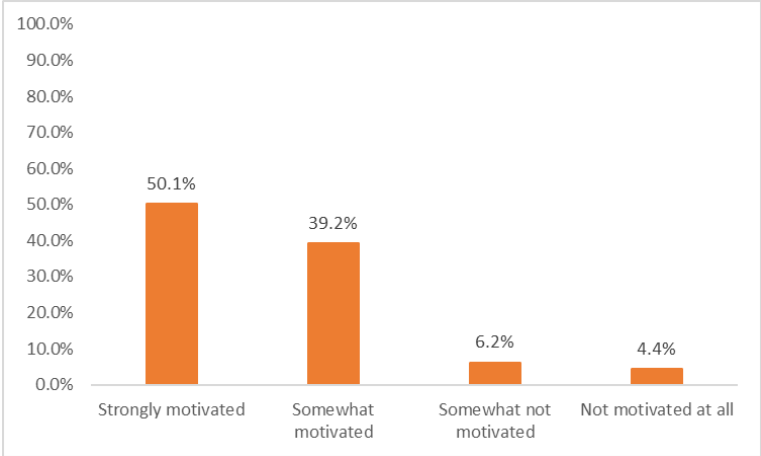


Figure 15: Motivation to engage in environmental activities

When examining the sources of motivation, personal beliefs emerge as the primary driver, with 85% of respondents citing them as a key motivator. This suggests that young individuals have a strong sense of personal responsibility and conviction towards environmental issues. Additionally, love for biodiversity (86%), the desire to solve specific problems or meet specific needs (93%), and upgrading personal knowledge (90%) are high-ranking factors motivating their engagement. Furthermore, it is noteworthy that 84% of respondents consider finances as a source of motivation. This highlights the recognition among young people of the potential economic benefits and opportunities associated with environmental activities. Similarly, career aspirations (86%) demonstrate a link between environmental engagement and future professional endeavors, indicating the potential for sustainable career paths in environmental fields (Figure 16).

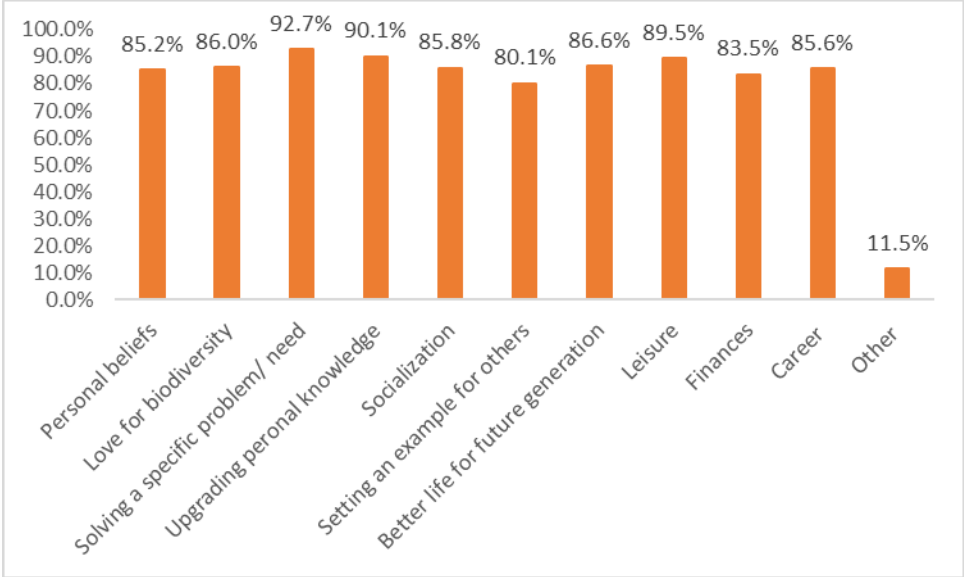


Figure 16: Sources of motivation

On the other hand, there are significant factors contributing to demotivation. A notable 44% of respondents believe that their actions cannot make a difference, which underscores the need for empowerment and awareness-raising efforts to instill confidence in the potential impact of individual actions. Moreover, the perception that environmental responsibility is not their job or responsibility (32%) indicates the importance of addressing misconceptions and fostering a sense of shared responsibility among young people. The overwhelming majority of 83% report being too busy with school or family responsibilities, reflecting the need for flexible and accessible opportunities for environmental engagement that can accommodate their other commitments (Figure 17).

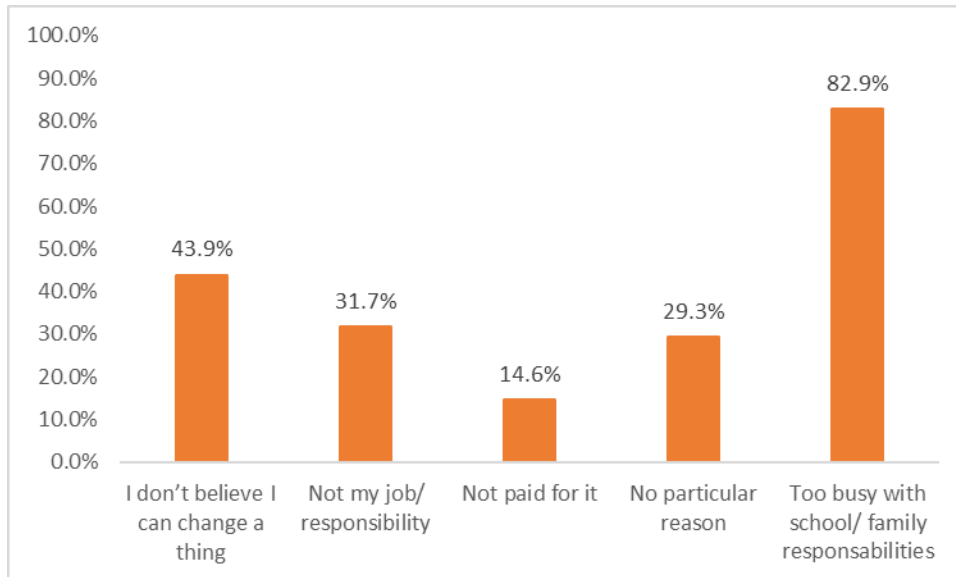


Figure 17: Sources of demotivation

Young people and children’s perceptions emphasize several key factors that are crucial in empowering and motivating them to take action against climate change. One prominent aspect is the need for awareness and education. Young people highlight the importance of raising awareness among young people about the dangers, impacts, and risks associated with climate change. By providing them with knowledge and understanding, they can be motivated to take action. As one young man stated, *“Media should educate young people about the negative impact of climate change so young people start to worry about their future.”* Children also expressed the need for shedding light on the issue and educating them on how to deal with it, as well as explaining the dangers of climate change. Furthermore, children stressed the need for comprehensive information about climate change and its impacts. They expressed the importance of incorporating climate change into educational programs. A 16-year-old boy highlights this, stating, *“Knowing the negative impacts of climate change through incorporating it into educational programs.”* This highlights the significance of raising awareness, providing educational curricula, and guidance from experts to enhance children's understanding and empower them to make informed decisions.

Financial support emerges as another significant aspect. Young people express the need for financial incentives or backing to encourage their engagement in climate change initiatives. They believe that financial support is essential in enabling them to take meaningful steps and make a significant impact. As one young man mentioned, *“Young people need awareness and they need financial support that*

*encourages them to take steps.*" Collaboration and government involvement are also highlighted. Young people recognize the need for assistance from NGOs and the government in tackling climate change. Collaboration between individuals, organizations, and the government is seen as vital in providing the necessary resources, programs, and policies to support their initiatives. As one young woman stated, *"NGOs and the government should help us."* Some children shared also a sense of helplessness, citing the absence of support from the community in facilitating their actions to combat climate change. Boy 14 expresses this sentiment, saying, *"There is nothing that helps the youth in my community to take any action to stop climate change."* This indicates a potential gap in resources, motivation, or opportunities for young individuals to engage meaningfully, highlighting the need for collective efforts and support from various stakeholders.

Engagement and participation were also highlighted as crucial factors. Children expressed a strong desire to be actively involved in environmental activities. They want to contribute through hands-on initiatives, community projects, and practical actions that allow them to make a tangible impact.

#### 4.3.3 taking actions and practicing mitigation solutions

The survey results indicate that a small percentage (13%) of young people in Akkar have taken activities to protect the environment, while the majority (87%) have not engaged in such practices. However, among those who have taken action, several types of activities are practiced regularly, often, or sometimes. Walking is the most common environmentally friendly activity, with 93% of respondents reporting that they engage in it. Riding a bicycle or scooter (46%) and using public transport (67%) are also relatively common practices. Other activities include sorting waste (35%), using energy-efficient bulbs (61%), paying attention to water consumption (76%), and growing fruits/vegetables for their own needs (54%). While the numbers for certain activities, such as consuming organic food (39%) and avoiding plastic bags (39%), are relatively lower, a significant percentage of young people still participate in them. Additionally, activities like composting (25%), donating clothes (38%), and talking about ecology with friends and family (71%) are also mentioned.

It is worth noting that the data reveals variations in the adoption of different environmentally friendly practices. Some activities, such as paying attention to electricity consumption (77%) and to water consumption (76%) show relatively higher participation rates compared to others.



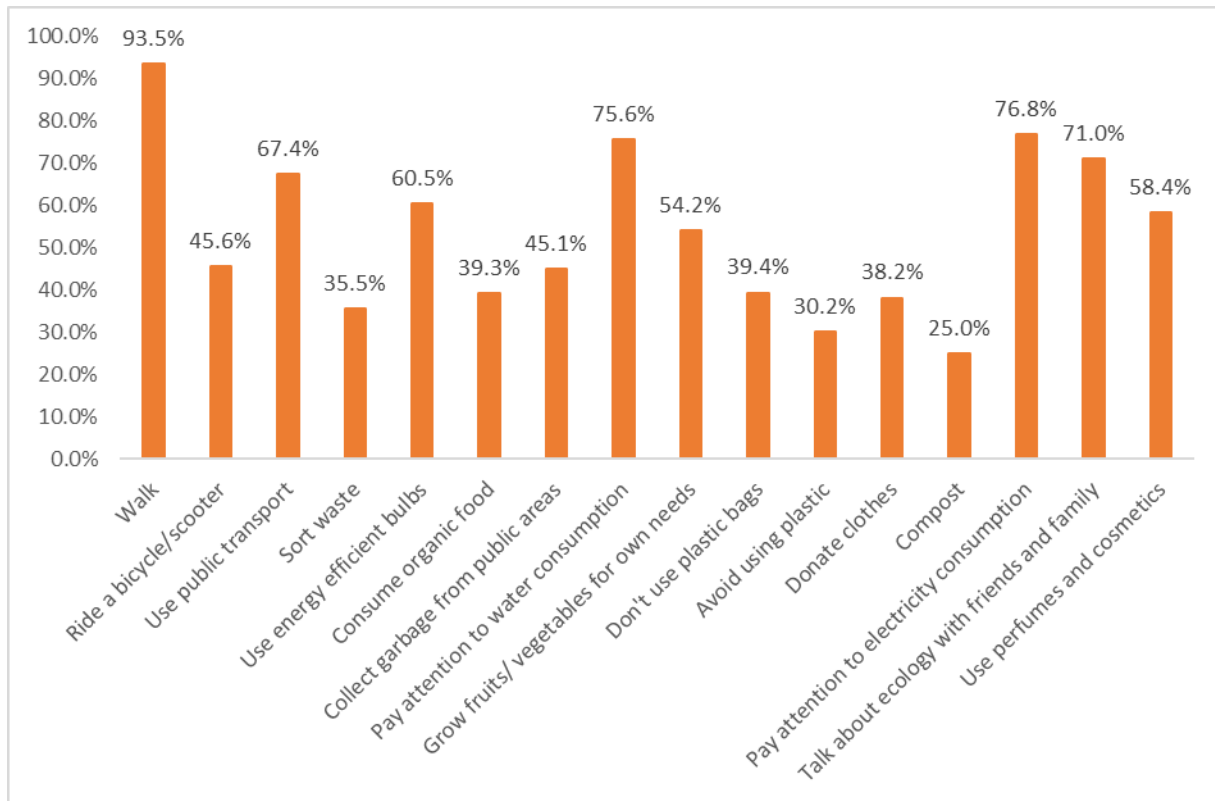


Figure 18: Practice of mitigation solutions

The young people and children’s responses provide insights into their actions and barriers regarding climate change. Some mentioned specific individual actions they are taking to reduce their climate impact. Waste segregation was highlighted by young people as an important step to minimize plastic and packaging consumption as a 24-year-old woman shares, *"I separate waste and avoid buying products that are excessively packaged or canned."* Additionally, the use of solar energy as an alternative to fossil fuels was mentioned by several respondents. A 23-year-old man states, *"We use solar energy to generate electricity at home."* The children’s responses revealed that their individual actions to reduce climate impact primarily revolved around practices such as not littering, cleaning up waste, and caring for gardens.

However, there are also barriers and limitations that prevent some young people and children from taking further action. A lack of knowledge about additional steps they can take were identified as significant obstacles as a 10-year-old girl said *"There are so many steps I take to reduce climate impact other than not littering randomly. The only hindrance is the lack of complete knowledge about the subject. The culture of dealing with climate change is not present in us at the moment."* Physical disabilities were mentioned as another constraint that hinders some children and young people from engaging in certain activities. A 20-year-old woman explains, *"I can't do anything... My disability prevents me from doing many things."* Personal circumstances, such as fear and restrictions imposed by family members, were also identified as limiting factors. Furthermore a 14-year-old boy expressed a sentiment of helplessness, stating, *"I am unable to do anything because the issue is bigger than me."* This response reflects a perception among some children that individual efforts may be insufficient in tackling the vast challenges posed by climate change.

When asked about what young people can do to avoid adding or contributing to climate change, several topics emerged. Awareness and education were highlighted as key factors in empowering youth to take action. Increasing their knowledge and understanding of climate change allows them to become advocates and educate their peers. A 23-year-old man suggests, *"The youth should increase their awareness about climate change and make efforts to spread awareness, even in simple ways, to their peers and younger generations."*

Behavioral changes were emphasized as a means for youth and children to contribute to climate change mitigation as a 10-year-old girl stated: *"We can sort waste, avoid random disposal of waste. We can form groups to clean the beach from plastic waste."* and a 24-year-old woman suggests, *"They can avoid causing fires, refrain from cutting down trees, practice waste segregation, use alternative energy sources, and promote the expansion of green spaces."* This highlights the importance of adopting sustainable practices such as waste segregation, energy conservation, and renewable energy sources to significantly reduce their carbon footprint. A 24-year-old woman suggests, *"They can avoid causing fires, refrain from cutting down trees, practice waste segregation, use alternative energy sources, and promote the expansion of green spaces."*

Youth advocacy and activism were also recognized as powerful tools for driving change. By engaging in protests, campaigns, and lobbying efforts, young people can influence policy decisions and raise awareness about the urgency of addressing climate change. Children can actively engage in local clean-up campaigns and initiatives, creating groups and teams for environmental action. By taking part in these initiatives, such as organizing clean-up activities and planting trees, children can foster a cleaner and more sustainable environment. An 11-year-old boy highlighted the potential for education and forming groups to work on environmental clean-up, emphasizing the importance of collective efforts.

When asked about young people in their communities taking mitigating action on climate change, there seemed to be a lack of awareness or active engagement among the respondents. This indicates a potential gap in knowledge and involvement within these communities. A 23-year-old man states, *"I do not know anyone, young or otherwise, who is working to improve and mitigate the impacts of climate change."* A few respondents mentioned their own participation in environmental activities. A boy- mentioned that some of his friends at school form groups and clean the roads. This highlights their proactive approach to keeping the community clean and demonstrates their commitment to taking action. Regarding the involvement of young women and men, there were varying perspectives. Some respondents suggested gender disparities in participation, with young women potentially being more engaged in climate change-related activities. Others mentioned that young men may prioritize other aspects of their lives or not consider the issue important.

#### 4.3.4 Preparedness to climate disasters

Interestingly, 9.2% of the respondents stated that they had not undertaken any specific plans for preparedness during the last five years. This suggests a lack of proactive measures taken to anticipate and mitigate potential disasters. On a positive note, 46% of the respondents reported receiving education on potential disasters at school or in youth groups. This signifies that a significant portion of children and young individuals have been exposed to valuable information and knowledge regarding potential disasters and how to respond to them. Furthermore, 42% of the respondents mentioned having a family emergency plan. This is an encouraging statistic as it indicates that a considerable number of families have taken the

initiative to establish strategies and guidelines for dealing with emergencies within their households. However, the survey revealed that fewer individuals have engaged in certain preparedness activities. Only 23% of respondents stated that they had practiced evacuation drills, while merely 14% reported preparing a disaster kit in the last five years.

#### 4.3.5 Children and young people's perception of government responses to Climate Change

The survey results paint a concerning picture of the perception of the government's response to climate change among children and young individuals. A significant 58% of respondents felt that their distress was being dismissed by the government, while 49% believed that the government was lying about the effectiveness of their actions. Moreover, a substantial 64% felt that the government was failing children and young people in their country, and 62% believed that they were being betrayed in terms of their future. Additionally, a notable 60% expressed a perception that the government had no control over natural resources and was unable to effectively respond to climate change.

In a country grappling with the climate crisis, participants have voiced their perspectives on the key focus steps the government should take. Their insights shed light on the urgency and necessity of addressing the issue. Amidst the climate crisis, the government stands at the forefront, and participants stress the significance of its role in driving effective solutions. One of the vital steps highlighted is the need for awareness and education among the population. A concerned woman, aged 24, emphasizes, *"Government must prioritize raising awareness as people suffer from complete lac of knowledge about this issue."* It is crucial to bridge the knowledge gap and ensure that citizens are well-informed about the magnitude and consequences of the climate crisis.

Regulation and enforcement emerge as another key focus step. Participants insist on the establishment of clear procedures, penalties, and enforcement mechanisms to deter environmental violations. A 23-year-old man expresses the need for stringent measures, stating, *"The government needs to establish clear procedures and enforce compliance, punishing those who violate environmental regulations and even those who do not contribute."*

Transitioning to renewable energy sources is identified as a critical step in combating the climate crisis. Participants advocate for financial support and reduced barriers to the adoption of alternative energy technologies. A 23-year-old man emphasizes the importance of government assistance, stating, *"Addressing this crisis by providing financial support for the use of alternative energy and allowing organizations to work without hindrance."* Waste management and environmental protection are also key areas of focus. A 10-year-old girl expresses the need for finding a solution to waste management, emphasizing the importance of proper waste disposal.

Water management and conservation are also highlighted as key priorities. Participants stress the importance of efficient water usage, reduction of wastage, and the implementation of sustainable water sources. A 24-year-old woman emphasizes the need for deliberate water conservation measures, stating, *"Conserve water and utilize rainwater and other sustainable sources in a scientific and deliberate manner to provide irrigation and drinking water."*

#### 4.3.6 Children and young people's perceptions of World Vision role in response to climate change

According to children, child-focused NGO like World Vision has a crucial role to play in responding to the climate crisis. The participants emphasized the importance of raising awareness and providing education

to children and young people about climate change. This sentiment is echoed by a 23-year-old man, who emphasizes the importance of organizing awareness sessions for parents and children. By engaging in informative sessions, dialogues, and workshops, World Vision can enhance understanding and knowledge about the causes, impacts, and potential solutions to climate change.

Another significant area highlighted by the respondents was the need for child-focused NGOs to initiate and support environmental projects and initiatives. They stressed the importance of practical solutions such as waste management, recycling, and clean-up campaigns. One participant specifically mentioned the role of awareness sessions and educational projects related to the environment, waste management, and recycling.

Advocacy and dialogue were also recognized as essential roles for child-focused NGOs. The participants believed that these organizations should actively engage in advocating for climate change mitigation and adaptation strategies. They emphasized the significance of fostering dialogue within the organization and facilitating discussions in broader communities.

Furthermore, collaboration and partnerships were seen as crucial elements in effectively addressing the climate crisis. The participants stressed the importance of child-focused NGOs working together with government agencies, local communities, schools, and other stakeholders. They believed that collective efforts and partnerships can maximize impact and implement sustainable initiatives.

NGOs and governments can employ several effective methods to collect opinions and feedback from children and youth on climate change. One of the key approaches mentioned by the respondents is conducting dialogue and awareness sessions. A 10-year-old girl suggests, *"These sessions provide an opportunity for children and youth to learn about climate change, its causes, and how to combat it. They also learn about preventive measures to solve problems caused by climate change and how to adapt and take necessary precautions to avoid severe losses in case of any disaster"*. Engaging schools and universities is also regarded as a crucial avenue for collecting opinions and feedback. A 24-year-old woman emphasizes the need to reach out to educational institutions and create informative seminars and dialogue sessions.

## 4.4 The Intergenerational Perception of Climate Change

### 4.4.1 Climate crisis responsibility and perception of intergenerational change

The interviewed caregivers reflect various perspectives on the generation responsible for the current climate situation. According to one man aged 51, *"The generation responsible for the current climate situation is the industrial age generation due to technological advancements, pollution, and overall development."* Another man aged 55 places the responsibility on the new generation, stating, *"The new generation is responsible for the current climate situation as they lack love for nature, leading to pollution and environmental degradation."* However, there is a divergence of opinions regarding the responsibility of the current generation. As one woman aged 52 points out, *"The current generation is responsible for the climate situation, although some believe the previous generation was more climate-aware."* This reflects the complexity of intergenerational dynamics and the varying perceptions of different individuals.

The participants' responses reflect different perspectives on the impact of older adults on social issues for future generations. Some participants highlight the responsibility of certain groups, such as the government, in their poor response to addressing social inequality, income disparity, and lack of

employment opportunities. As one man aged 51 states, *"Some categories bear more responsibility, especially corrupt individuals and the government, as there is no equality among individuals or even between regions."* This emphasizes the role of systemic factors in shaping social issues. On the other hand, some participants believe that as older adults, they have influenced social issues by raising awareness and striving for a better future for their children. As a 55-year-old man explains, *"Yes, we have influenced through awareness and demanding what is best for our children. For example, if I didn't receive an education, I will do the impossible to educate my children."* This highlights the personal commitment to providing opportunities for the next generation.

However, there is also an acknowledgment of the challenges faced in providing education and opportunities for the younger generation. A 52-year-old woman expresses concerns about the shortcomings in social and economic conditions, stating, *"Parents are mainly concerned about providing a decent living for their children. There is inequality because life used to be different and easier."* This suggests that external factors and historical circumstances may impact the opportunities available to future generations. There is also recognition of the negative impact that adults may have on the younger generation's future. As another 52-year-old man mentions, *"We will leave a negative impact due to our inability to improve their situation." This suggests a reflection on the limitations and difficulties faced in addressing social issues effectively".* Furthermore, the influence of poor choices, technological advancements, income disparity, and changes in the workforce are mentioned. The 52-year-old woman points out, *"Some individuals from our generation have influenced through their poor choices in terms of technology, income, and employment opportunities. Previously, there was more equality in the workforce."* This highlights the complex interplay of individual decisions and societal factors in shaping social issues.

#### 4.4.2 Actions taken by older persons to address the current climate situation

The responses highlight a lack of significant support for children and youth in their fight against climate change. As one 51-year-old man expresses, *"There is no one doing anything that I can support. None of the youth have any ideas about climate change or its causes, so there is no battle to fight against climate change."* This suggests a lack of awareness and understanding among young people, which hinders their ability to take action. While some participants express a personal willingness to support and educate youth about climate change, there is uncertainty about how to do so effectively. As a 55-year-old man admits, *"I wish to help, but I don't know how."* This highlights the need for guidance and resources to empower individuals to contribute to the cause. Furthermore, there is a recognition of the lack of cultural awareness and understanding of climate change. As a 48-year-old woman states, *"No, this issue is not present in our culture yet."* This indicates a gap in knowledge and awareness within society, emphasizing the importance of education and raising awareness about climate change and its impact.

The responses from adults reflect their commitment to protecting their children's futures through various actions and approaches. One participant, a 51-year-old man, emphasizes the importance of awareness and education, stating, *"We protect our children's future through awareness, education, and providing solutions to address the challenges."* He stresses the need for regional and global awareness about the risks of climate change. Another participant, a 52-year-old woman, highlights the role of teaching children about waste disposal and cleanliness, saying, *"I try to promote awareness and prevent them from littering on the ground or in nature, and encourage them not to waste water and electricity."* This demonstrates the importance of instilling responsible environmental practices from an early age. Education is seen as a

crucial tool for securing a better future for children. The same woman adds, *"I try to protect their future by encouraging them to pursue education because it is their only weapon, and by raising awareness about climate change and waste separation."* This highlights the empowering role of education in equipping children with the knowledge and skills to address environmental challenges.

In terms of guiding children's behavior, a 48-year-old woman expresses her approach, stating, *"As parents, we try to guide them in the right direction and raise their awareness about what we are conscious of, directing them towards openness rather than isolation."* This underscores the importance of fostering open-mindedness and community engagement. Furthermore, the commitment to protecting children extends beyond environmental aspects. A 39-year-old woman shares her efforts to keep her children away from addictive technologies and encourage community involvement. She states, *"I try my best to keep them away from addiction to cell phones and video games and encourage them to engage in activities in the community."*

The interviewed caregivers showed varying levels of engagement at the community level for environmental stewardship. One participant, a 51-year-old man, expresses a lack of issues or opportunities to support, stating, *"I don't have a problem with supporting, but the problem is there is nothing to support."* This suggests a limited awareness or tangible initiatives related to climate change support in his community. Another participant, a 55-year-old man, acknowledges physical limitations but still expresses willingness to offer verbal assistance, saying, *"I can't physically participate because I have a disability, but I can offer verbal assistance."* Despite his constraints, he demonstrates a commitment to providing support within his capabilities. Some participants express a desire to support if circumstances change or opportunities arise in the future. They highlight their willingness to contribute when the need arises. This reflects a readiness to engage in support efforts, demonstrating a proactive stance toward making a difference. There is also a recognition of the lack of awareness or tangible actions in the community regarding climate change support. Participants note the absence of issues or initiatives related to environmental concerns, suggesting a gap in understanding or prioritization of these issues within their communities. It is important to note that participants differentiate between general support and support specifically related to environmental issues. While they may be engaged in other areas of support, such as social or economic issues, the responses suggest a potential lack of active involvement or awareness specifically related to climate change and environmental sustainability.

The responses indicate a degree of skepticism and frustration when it comes to pressing elected officials to take action on climate change. Many participants express a lack of belief in the effectiveness of pressuring officials due to their perceived lack of knowledge or interest in the issue. One participant, a 51-year-old male, states, *"We don't pressure because most of the elected MPs and ministers lack the knowledge about climate change. They don't have the necessary culture and knowledge."* This highlights a perceived barrier in influencing officials' decisions due to their limited understanding of climate change. Another participant, a 55-year-old man, mentions the perception of corruption or bribery that hinders effective pressure on officials, saying, *"People are being bribed to elect the officials, so how will they pressure them?"* This suggests a belief that external factors such as corruption undermine the ability to exert influence on elected politicians. There is also a recognition that climate change is not considered a priority by elected officials or society. A 52-year-old male participant states, *"No, we don't pressure because this issue is not essential, and no one cares about it."* This reflects a perception that climate change is not given the attention it deserves in the political arena. However, despite these challenges,

some participants express a desire to pressure elected officials and hope for positive action. They recognize the importance of advocating for change and expect officials to take measures that benefit everyone. On the other hand, some participants prioritize other issues over climate change or feel disengaged from politics altogether.

## 4.5 Local Initiatives, Grassroots Movements and Areas of Support

### 4.5.1 Recognizing the threat of climate change

In analyzing the responses from stakeholders in Akkar, Lebanon, regarding the risks and impact of climate change, several key themes and insights emerge. The stakeholders express a shared concern about the vulnerability of the agricultural sector, particularly in relation to unpredictable weather patterns and the potential for desertification. One member of a municipality in Akkar highlights the significance of this issue, stating, *"There is a significant risk to agriculture and desertification because the weather has become unpredictable."* There is a growing awareness and engagement among stakeholders regarding climate change. They recognize climate change as a present issue, with some describing firsthand experiences of its effects. An activist working on climate change asserts, *"We are now in the midst of the event."* This indicates a sense of urgency and the need for proactive measures.

The engagement of stakeholders is evident in their acknowledgment of the risks faced by their communities, especially in rural areas heavily dependent on agriculture. A member of a municipality in Akkar points out, *"In the town of Samakia, we feel the risks of climate change more, especially since over 90% of our population works in agriculture."* This demonstrates the interconnectedness between climate change and local economies, highlighting the importance of tailored approaches to adaptation and mitigation strategies. There is a consensus among the stakeholders regarding the significant risk posed by climate change. This collective understanding provides a foundation for collaborative efforts to address the challenges and implement effective solutions. The responses indicate a general agreement on the need for comprehensive policies and governance to understand the causes of climate change and implement appropriate measures. One member of a municipality in Akkar emphasizes, *"This issue requires significant policies, national policies, because we need to understand the causes in order to address them."*

### 4.5.2 Specific goals, measures and successful initiatives

In terms of specific goals and measures to reduce the impact of climate change, stakeholders mention various areas of focus. These include policy and governance, biodiversity and reforestation, personal and community actions, water resource management and its infrastructure, and raising awareness. The responses highlight the importance of comprehensive policies, biodiversity conservation, individual and community actions, sustainable water management, and increasing awareness to encourage proactive measures.

In terms of successful initiatives, several examples are mentioned. These include efforts to protect forests and combat forest fires, projects focused on biodiversity conservation, and collaborations and partnerships with organizations such as the Ministry of Environment, UNDP, FAO, and WFP. However, it is noted that there have been limited successful initiatives, and some projects were not effectively implemented on the ground.

When it comes to safeguarding agriculture and making infrastructure more resilient, stakeholders emphasize the need for sustainable farming practices, studying the impact of pesticides on bees and natural pollinators, and collaboration through projects. They recognize the importance of understanding

the environmental impact of agricultural practices and adopting ecologically friendly approaches. The involvement of the Minister of Agriculture and various organizations reflects a commitment to supporting farmers and addressing the challenges in the agricultural sector.

To deliver successful and inclusive climate change initiatives, stakeholders mention several key elements. These include the need for comprehensive policies, adequate financing, raising public awareness, conducting needs assessments, and planning for adaptation and resilience. It is emphasized that these elements must come together and be integrated to achieve meaningful progress in combating climate change.

Overall, the insights from the stakeholders in Akkar, Lebanon, highlight their recognition of the risks and impact of climate change, as well as the urgent need for action. Their perspectives shed light on the importance of tailored approaches, collaborative efforts, and comprehensive policies to address the challenges posed by climate change. These insights can guide decision-makers, organizations, and communities in developing effective strategies and initiatives to mitigate and adapt to climate change impacts.

#### 4.5.3 Youth involvement and gender needs

According to interviewed stakeholders, Youth leadership and empowerment are of paramount importance when addressing the challenges posed by climate change. The active involvement of young people is crucial as they are the future generation who will bear the consequences of environmental degradation. Their global perspective and constant communication enable them to raise awareness and mobilize support for climate action. Young people possess the ability to think creatively, adapt to new approaches, and persuade others to join the cause. By empowering them and providing necessary resources, mentorship, and platforms, they can effectively contribute to shaping a sustainable future. *"The youth are the future. They possess vision and have a global perspective."* Said a municipality member in Akkar

In response to the question regarding the consideration of different needs between girls and boys, women and men, the narratives highlight various perspectives: One member of a municipality in Akkar acknowledges that each group has its own specific needs, with an emphasis on girls having more needs than boys. This recognition suggests an understanding of potential gender disparities and the importance of addressing them effectively. An activist working on climate change emphasizes the physiological and biological differences among individuals, indicating that human abilities and needs vary from person to person. This viewpoint stresses the need for personalized approaches rather than a uniform treatment for everyone. A member of a local organization working on climate change in Akkar honestly admits that while they strive to view both genders equally, they sometimes forget or overlook the greater needs of women. This acknowledgement highlights the need for increased attention and awareness in addressing gender-specific needs. On the other hand, a mayor from Akkar states that they consider the needs of each group and treat them equally but mentions the absence of specific plans in place. This response indicates a recognition of equal treatment but suggests a potential gap in terms of concrete actions tailored to address specific gender needs. Overall, these perspectives demonstrate a growing awareness of the importance of considering gender-specific needs and promoting equality and equity in climate change initiatives. However, there is still a need for further efforts to ensure that the needs of girls and women are adequately addressed in prioritization and planning processes.



#### 4.5.4 Areas of support

Amidst the discussions on institutional capacity for climate change adaptation, several key points emerged, underscoring the need for support in various areas. One prevalent theme was the perceived lack of priority given to climate change adaptation. Participants expressed concerns that climate change was not receiving the necessary attention from international organizations and government institutions. This sentiment suggests a gap in recognizing the urgency and importance of addressing climate change at an institutional level.

Another area that participants emphasized was the need for increased awareness and training programs. They recognized the prevailing ignorance and dismissive attitudes towards climate change within institutions and called for initiatives to enhance understanding and knowledge.

Financial incentives were also emphasized as a means to motivate institutional employees and support climate change adaptation efforts. Participants believed that offering financial rewards would encourage individuals to actively engage in adaptation projects and initiatives. This highlights the importance of recognizing and valuing the contributions made by employees in addressing climate change.

Additionally, participants stressed the need for the rehabilitation and restructuring of local institutions to effectively respond to climate change challenges. They advocated for providing technical equipment, financial support, and specialized training for personnel. This support would enable institutions to develop the necessary capabilities and resources to tackle climate change effectively.

Finally, all participants unanimously emphasize the need for international support in financing climate adaptation efforts. They highlight that their country requires assistance from international organizations and foreign entities to effectively tackle the challenges posed by climate change.

## 5- Recommendations

1. Strengthening education and awareness: Promote climate change education in schools and communities to enhance understanding, foster a sense of responsibility, and empower children and young people to take action. Raise awareness about the impacts of climate change, sustainable practices, and the importance of environmental stewardship. This recommendation can be divided into different levels:
  - **At system level:**
    - ◆ Work with the Lebanese Ministry of Education and Higher Education (MEHE), Ministry of Environment and others to endorse the green education approach in schools and learning spaces.
    - ◆ Establish specialized working group to set a clear framework for the knowledge, attitudes and skills needed for each age regarding the climate change, in addition to policies within the schools for environment friendly premises, curricula and modalities of teaching that will ensure building knowledge, raising awareness and the sense of responsibility towards the environment (for boys and girls and female and male teachers).
    - ◆ Build the capacity of the educational personnel on climate change related topics.
    - ◆ Ensure that the education system and teaching modalities are resilient enough to be adapted during extreme weather conditions to ensure children's ability to attend education programs and this reducing the impact of climate change.

- **At teachers and students' level:**

- ◆ Make sure teachers have access to knowledge and resources needed to understand climate change properly, its impact and possible solutions in Lebanese communities.
- ◆ Establish teachers and students' environmental groups at schools and community level and connect them with each other and other actors to plan accordingly.
- ◆ Capacitate teachers on different learning modalities (remote and face to face) to ensure students' ability to attend classes during extreme weather conditions.

- **At stakeholders' level:**

- ◆ Ensure schools are equipped with basic heating and cooling systems to avoid students' absence during cold storms and hot waves, and strengthen the wellbeing of students and teachers.
- ◆ Ensure schools are following the environmental framework (curricula, policy, trained staff, environment-friendly premises).
- ◆ Provide more than one option for safe transportation within the community for students and teachers to reach schools.
- ◆ Advocate to enhance the road conditions especially in rural areas (including Akkar).
- ◆ Target caregivers and other community members to raise their awareness on climate change and engage them in the development of knowledge, attitudes and behaviors that are environmentally friendly.
- ◆ Foster the concept of shared responsibility towards environment within the schools and avoid misconception.

2. **Enhancing resilience and adaptive capacity:** Develop and implement climate change adaptation strategies that prioritize vulnerable communities, especially those dependent on agriculture. This includes investing in sustainable agriculture practices, improving water management systems, and promoting climate-resilient livelihoods.
3. **Addressing gender-based violence:** Implement measures to prevent and respond to gender-based violence exacerbated by climate change. This includes promoting gender equality, empowering women and girls, and providing support services and safe spaces.
4. **Improving gender sensitive and safe access to clean water and food security:** Enhance water management systems, invest in water infrastructure, and promote sustainable agricultural practices to ensure access to clean water and improve food security. Address issues of water scarcity, contamination, and food quality.
5. **Encouraging youth engagement and empowerment:** Provide platforms and opportunities for young people to actively engage in climate action. Support youth-led initiatives, promote youth participation in decision-making processes, and provide resources and mentorship to enable their meaningful contributions.
6. **Encouraging persons with disability engagement and empowerment:** Provide capacity building and opportunities for PWD to actively engage in climate action. Promote PWD inclusion, Participation and decision-making process.

7. Strengthening policy and governance: Develop comprehensive policies and regulations to address climate change effectively. This includes integrating climate change considerations into national and local development plans, establishing monitoring and evaluation mechanisms, and advocate the enforcement of environmental regulations like the water resources management, waste water disposal, and solid waste management
8. Collaboration and partnerships: Foster collaboration among government agencies, NGOs, OPDs academia, and local communities to leverage collective expertise, resources, and networks. Promote multi-stakeholder partnerships to enhance the effectiveness of climate change initiatives and maximize impact.
9. Emphasizing on the importance of a holistic approach in addressing needs keeping climate change impact in mind.

## 6- Conclusion

It is evident that climate change poses significant challenges and threats to the well-being and future of children and young people in Lebanon, particularly in the Akkar region. The impacts of climate change are wide-ranging, affecting various aspects of their lives, including education, employment, health, gender-based violence, food security, and water security. Children and adolescents in Akkar are experiencing disruptions to their education due to extreme weather events, resulting in missed school days and potential displacement. Additionally, the changing climate has implications for food security, with limited access to nutritious food becoming a concern. Water security is also at risk, impacting health and sanitation. Moreover, climate change exacerbates existing vulnerabilities and inequalities, especially in relation to gender-based violence, with girls and young women facing increased risks and exploitation.

Addressing these challenges requires a comprehensive and collaborative approach. Governments, communities, and organizations need to work together to develop strategies that encompass education, sustainable livelihoods, healthcare, and infrastructure. It is crucial to invest in building resilience among children and young people in the face of climate change. Additionally, promoting gender equality and social inclusion should be integral to adaptation and mitigation efforts.

The findings of this study serve as a valuable foundation for further research and the development of targeted interventions. By understanding the specific impacts of climate change on children and young people in Lebanon, stakeholders can implement measures that protect and empower future generations, ensuring their well-being and ability to thrive in the face of climate challenges.