Resilience Rising:

Youth Research Informing Global Climate
and Conflict Responses

Findings from Burkina Faso, Niger, Pakistan, the Philippines,
Somalia and Uganda

Kofi Annan
Foundation

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Summary

Climate change and **insecurity** are deeply interconnected challenges. Countries most affected by climate and environmental issues are often those suffering high levels of instability and insecurity, despite contributing minimally to the global climate crisis. The impacts of climate change can accelerate social, political, and economic instability, particularly in fragile regions. This, in turn, may exacerbate tensions, generate conflict, and could pose significant challenges to environmental governance. These issues **disproportionately impact youth,** 90%[1] of which live in conflict-affected nations. Despite young people's significant role in advocating for climate action and peace, they face systemic barriers, including ageism, which limits their political participation and access to opportunities. While a majority of global leaders have acknowledged the interdependence of peace and sustainable development, their responses have remained state-centric and fragmented. To effectively address the intertwined challenges of climate change, environmental degradation and instability, there is a need for more **inclusive multilateral cooperation** that amplifies youth voices and perspectives in decision-making.

Supported by the Global Challenges Foundation, the Kofi Annan Foundation collaborated with six youth-led organisations – Cercle Dev, Elman Peace Center, HIVE, KRIS for Peace, Suudu Andal, and the Uganda Muslim Youth Development Forum – and the Stockholm International Peace Research Institute (SIPRI) to conduct research amplifying youth voices in climate and security discussions. This initiative aims to address a significant representation gap by ensuring that young people, especially those from marginalised communities, are included in discussions that influence their future. It also underscores the importance of providing youth with the necessary support to advocate for their interests and those of future generations.

This research explores the intersection of climate change and conflict through the experiences of young people in six countries: **the Philippines, Pakistan, Somalia, Uganda, Niger, and Burkina Faso.** Led by young researchers from the Kofi Annan Foundation's Extremely Together network, the study emphasises marginalised youth perspectives and highlights success stories from local youth initiatives. The study specifically targets **vulnerable geographic areas** facing climate and security risks and focuses on young people from hard-to-reach communities and internally displaced persons (IDPs). Using both primary and secondary data, the teams conducted literature reviews, key informant interviews, focus group discussions, and surveys. To ensure a deeper understanding of the issues, the teams consulted traditional leaders, government officials, and international partners.

The research found that the combined effects of climate change, environmental degradation and insecurity create **overlapping vulnerabilities** for young people, particularly in regions dependent on climate-sensitive sectors like agriculture and fisheries. As extreme weather events increase and resources become scarcer, **competition** intensifies, undermining social cohesion and raising the risk of violent conflict. These conditions often lead to unemployment, poverty, and crime, further weakening community ties. **Women and girls** face heightened risks of sexual and gender-based violence and exploitation. In many places, the failure of governing institutions to provide basic services worsen the situation – creating a **governance** vacuum and an erosion of trust. This often

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1   Defined between 15-24 according to the source. (Global Center on Adaptation (GCA), 2021)

strengthens the influence of **armed groups and elites**[2] who exploit the weakened state, controlling resources to further their agendas.

As livelihood opportunities dwindle and governance structures falter, young people frequently turn to **migration**, facing threats such as human trafficking and conflict with host communities. **Armed groups** also become more attractive options to disenfranchised youth, offering a sense of stability and belonging in a deteriorating environment. Although many young people are aware of climate change and its impact, they often struggle to engage in meaningful community action due to security threats, lack of resources, and the necessity of prioritising immediate survival needs. Despite their potential to contribute to resilience-building efforts and adaptation strategies, youth are often **excluded from decision-making processes at all levels**. A coordinated, inclusive approach for addressing these interconnected challenges is more urgent than ever.

Through this research, young people have put forward a set of recommendations they believe can be tangibly implemented at various levels of responsibility – from grassroots initiatives to multilateral forums – to foster more inclusive and effective solutions:

1. Rethinking decision-making and accountability mechanisms
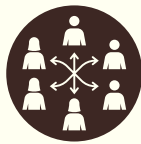
2. Promoting cross-disciplinary, intergenerational, and multilevel exchange

3. Strengthening gender-responsive adaptation

4. Encouraging sustainable and peace-sensitive finance

5. Supporting communities through training and skills development

6. Delivering climate and peace-sensitive emergency relief

These recommendations aim to reshape multilateral strategies to ensure long-term resilience and the meaningful participation of young people and those most affected by climate change and insecurity.

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2   Landowners, corporate groups that control industry, or other groups that control resources.

About

THE PARTNERS

THE KOFI ANNAN FOUNDATION (KAF)

SWITZERLAND

Learn more about the Foundation:
https://www.kofiannanfoundation.org/

The Kofi Annan Foundation is an independent, not-for-profit organization that works to promote better global governance and strengthen the capacities of people and countries to achieve a fairer, more peaceful world. One of the Foundation's key focus areas is promoting youth leadership in the context of preventing violent extremism which it works on with its Extremely Together initiative. Launched in 2016, the Extremely Together initiative collaborates with a global network of young people who help them respond to the increasing threat of recruitment and narratives of violent extremist groups. The network is made up of ten founding young leaders from around the globe and several country chapters led by local partners – the Philippines (KRIS), Pakistan (HIVE), Somalia (Elman Peace), Uganda (UMYDF), Niger (Cercle.Dev) and Burkina Faso (Suudu Andal). Through their initiative, Extremely Together aim to provide a sense of identity and purpose to young people worldwide, helping them act for positive change and peace in their communities.

STOCKHOLM INTERNATIONAL PEACE RESEARCH INSTITUTE (SIPRI)

SWEDEN

Learn more about SIPRI:
https://www.sipri.org/about

SIPRI is an independent international institute dedicated to research into conflict, armaments, arms control, and disarmament. Established in 1966, SIPRI provides data, analysis and recommendations, based on open sources, to policymakers, researchers, media and the interested public. Based in Stockholm, SIPRI is regularly ranked among the most respected think tanks worldwide. This project with GCF and KAF, which falls under the Institute's Climate Change and Risk Program, is part of SIPRI's efforts to contribute to timely and relevant research on youth, climate, peace and security.

CERCLE DEV

NIGER

Learn more about Cercle Dev:
https://cercledev.org/

The mission of Cercle de Réflexion et d'Action pour un Développement Local ("Cercle Dev") is to create the conditions for innovative local development based on the empowerment of local skills and resources in Niger. Since its creation in 2016, it has developed a country-wide network of 250 volunteers committed to enhancing local potential and empowering youth to become actors of change within communities living in rural and peri-urban settings. Cercle Dev supports youth leadership through their engagement in civic actions and violence prevention efforts, the promotion of volunteerism and their socio-professional integration.

ELMAN PEACE CENTER

SOMALIA

Learn more about Elman Peace Center:
https://elmanpeace.org

Elman Peace is a non-profit organization, founded in 1990 and is dedicated to promoting peace, cultivating leadership and empowering the marginalised brackets of society to be decision makers in the processes that ensure their wellbeing. It provides innovative, life-saving support to those in need and strive to create more enabling and progressive environments through its work. Elman Peace's philosophy on aid and development is centred on locally driven solutions from a committed and professional collective of compassionate people.

HIVE
PAKISTAN

Learn more about HIVE:
https://hive.org.pk/

Established in 2015, HIVE is a social-impact organization working to address issues of extremism and marginalization. HIVE strives to work for an inclusive, equal, and peaceful Pakistan through community-led research, facilitative grant-making, upstream mobilization, innovative campaigning, needs-based mentorship and participatory collaboration. Since its inception, HIVE has designed and administered over 500 trainings, 300 community engagement activities, 10 national-level campaigns and administered 100 grants to a diverse range of youth actors in more than 50 cities in Pakistan.

KRIS FOR PEACE
PHILIPPINES

Learn more about KRIS for Peace:
https://www.krisforpeace.org/

KRIS for Peace is a non-profit organization based in the Philippines that aims to promote peace through education by empowering young people to become pillars of peace in their own families, schools, and communities. It started in 2008 by building peace libraries, providing scholarships, and donating educational resources to young people affected by conflict and poverty. KRIS aims to strengthen the networks between the youth and its fellow civil society organizations through different projects, campaigns, and exhibits to showcase unity in the country despite differences between individual Filipinos.

SUUDU ANDAL
BURKINA FASO

Learn more about Suudu Andal: https://
bf.linkedin.com/company/suudu-andal

Suudu Andal ("Temple of Knowledge" in Fulfuldé) was created in 2016 to pursue the vision of contributing to a fairer, more inclusive, more united, and more prosperous world. By supporting youth and women's leadership and their participation in peace and development, Suudu Andal pursues its mission to create the conditions to "act together for a bright future in Burkina Faso".

UGANDA MUSLIM YOUTH DEVELOPMENT FORUM (UMYDF)
UGANDA

Learn more about UMYDF:
https://umydf.org/

Founded in 2011 by two young survivors of the 2010 attack on the Kyadondo rugby grounds in Kampala, Uganda Muslim Youth Development Forum (UMYDF) is a non-profit, faith-based peacebuilding and development organisation that seeks to address root causes and effects of violent conflicts through education, research, art, sports, gardening, dialogue, advocacy, and strategic communications.

THIS PROJECT WAS FUNDED BY:

THE GLOBAL CHALLENGES FOUNDATION (GCF)
SWEDEN

Learn more about GCF:
https://globalchallenges.org/

The Global Challenges Foundation is a Swedish non-profit organisation dedicated to raising awareness of global catastrophic risks and strengthening global governance to address these pressing challenges. Recognising that global catastrophic risks like climate change, weapons of mass destruction, and ecosystem collapse require global co-operation, the foundation fosters international collaboration and supports the improvement of the global decision-making architecture. The Foundation also plays a critical role in bridging science and policy and supports pioneering research. By doing so, it aims to improve global governance, which is essential to managing these risks.

ACKNOWLEDGEMENTS

Contents

ACRONYMS & KEY DEFINITIONS

ACRONYMS

ADF: Allied Democratic Forces
ASEAN: Association of Southeast Asian Nations
AS: Al-Shabaab
AU: African Union
BARMM: Bangsamoro Autonomous Region of Muslim Mindanao
BLA: Balochistan Liberation Army
CSO: Civil Society Organisation
EPC: Elman Peace Center
FGD: Focus Group Discussion
IDP: Internally Displaced Person

INGO: International Non-Governmental Organisation
KII: Key Informant Interview
NGO: Non-Governmental Organisation
SGBV: Sexual and Gender Based Violence
UN: United Nations
UNDP: UN Development Program
UNFCCC COP: UN Framework Convention on Climate Change Conference of the Parties
UNOY: United Network of Young Peacebuilders
UNICRI: UN Interregional Crime and Justice Research Institute

KEY DEFINITIONS

ADAPTATION:

The process of adjustment to actual or expected climate and its effects in order to moderate harm or exploit beneficial opportunities. This may include adjusting the way we live in response to our changing climate.

CLIMATE CHANGE:

A significant change in the Earth's climate. The Earth's temperature is rising as human activities release greenhouse gases that trap heat in the atmosphere. The term "global warming" refers to warmer temperatures, while "climate change" refers to the broader set of changes that go along with warmer temperatures, including changes in weather patterns, the oceans, ice and snow, and ecosystems around the world.

CONFLICT/ARMED CONFLICT:

When armed force is used by an organised actor against another organised actor, or against civilians, resulting in at least 25 battle-related deaths in one calendar year. The definition includes three types of conflict:

→ **State-based** conflict takes place between two states (inter-state conflict), or between one state and one or more rebel groups (civil conflict)

→ **Non-state** conflict is fought between two organised, armed actors, of which neither is the government of a state.

→ **One-sided** violence is perpetrated by an organised armed group, either a state's military forces or an armed group, against civilians.

COP AND UNFCCC:

The United Nations Framework Convention on Climate Change (UNFCCC) is an environmental treaty that nations joined in 1992, with the goal of stabilising greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous human interference with the climate system. Meanwhile, the Conference of the Parties (COP) to the UNFCCC is a yearly international climate conference where nations assess progress and determine next steps for action through the UNFCCC treaty.

ENVIRONMENTAL DEGRADATION:

The deterioration of the environment through depletion of resources such as air, water, and soil; the destruction of ecosystems and the extinction of wildlife. It is defined as any change or disturbance to the environment perceived to be harmful or undesirable.

ENVIRONMENTAL GOVERNANCE:
A system of laws, norms, rules, policies, and practices that guide the management and oversight of environment-related regulatory bodies. It involves government, business, and civil society, focusing on ensuring sustainability by managing human activities across political, social, and economic spheres.

INTERNATIONAL NON-GOVERNMENTAL ORGANISATIONS:
Not-for-profit organisations operating at the international, transnational, or global level with membership, participation, or presence in multiple countries.

MARGINALISATION:
When individuals or groups have limited access to essential services or opportunities, restricting their ability to fully participate in society. It is sometimes referred to as social exclusion.

MITIGATION:
Reducing the release of heat-trapping greenhouse gases into the atmosphere by cutting emissions from major sources such as power plants, factories, vehicles, and agriculture. Forests, oceans, and soils play a crucial role in absorbing and storing these gases, forming an important part of mitigation efforts.

MULTILATERAL INSTITUTIONS:
Structures, groupings or organisations involving actors from several countries who work together to coordinate policies and seek common interests.

MULTILATERALISM:
A process of organising relations between groups of three or more states. Beyond that basic quantitative aspect, multilateralism is considered to comprise certain qualitative elements or principles that shape the character of the arrangement or institution.

PEACE:
Most understood as the absence of conflict and freedom from fear of violence between groups of individuals. Beyond this basic understanding of the term, peace could also be interpreted as an environment conducive to personal fulfilment and well-being.

PEACE/CONFLICT SENSITIVITY:
A peace or conflict sensitive approach involves gaining and applying an understanding of the dynamics between an intervention and the context in which that intervention takes place to minimise negative impacts and maximise positive impacts of this intervention on conflict dynamics.

POLICY:
A set of ideas or plans that is used as a basis for making decisions, especially in politics, economics, or business.

SECURITY:
The state of being free from any danger or threat. In the context of this research, we understand security as the capacity of the state or other organisation to provide safety from danger to its citizens.

RESILIENCE:
The process of adapting well in the face of adversity, trauma, tragedy, threats, or significant sources of stress.

VIOLENCE:
The intentional use of physical force or power threatened or actual, against another person that either results in or has a high likelihood of resulting in injury, death, or psychological harm.

YOUTH:
Definitions of youth can be broad ranging. For this study, youth is understood as the transitional phase between childhood and adulthood[3], defined by the 18-35 age bracket.

3   (Kofi Annan Foundation, 2022)

Introduction to the research

YOUTH, CLIMATE AND PEACE
How do they connect?

Climate change and environmental degradation are undeniable realities and are considered among the biggest threats of the 21st century. Human activities – principally through emissions and greenhouse gases – have unequivocally caused global warming which, in turn, has drastically affected many weather and climate extremes worldwide.[4] Currently, we are on the path to double the 1.5°C rise in global temperature limit recommended by the UN.[5] More than half of the world's population – about 4 billion people – experience water scarcity due to drought or uneven rainfall for at least one month in the year.[6] Excessive emissions have led to approximately 90-95% of the world's population breathing air that far exceeds the safe pollution threshold calculated by the World Health Organisation.[7] This is accompanied by a severe increase in the number of illnesses, deaths, and climate-induced migration. As climate-related catastrophes multiply across the globe, the international community is scrambling to deliver adequate support to those most affected.[8]

4   (Intergovernmental Panel on Climate Change (IPCC), 2023)
5   (UN climate report: It's 'now or never' to limit global warming to 1.5 degrees, 2022)
6   (Merkonnen & Hoekstra, 2016)
7   (Health Effects Institute, 2020)
8   (United Nations Environmental Program, 2024)

In parallel, references to **conflict, dissent, and the breakdown of social cohesion** dominate current headlines. Across regions from the Sahel to South Asia, populations face rising levels of insecurity, driven primarily by intra-state conflicts. Recent trends[9] suggest the uptick in the number of state-based armed conflicts is to blame for the increased number of people in situations of extreme insecurity. Between 2010 and 2020, the number of intra-state conflicts rose to 56, nearly doubling from the end of the Cold War (30).[10] This increase coincides with a sharp rise in the number of refugees and forcibly displaced persons, from 41 million in 2010 to over 82 million in 2020.[11] However, the recent revival of inter-state conflict – notably with the Russian invasion of Ukraine and recent developments in the Middle East – has increased violence against civilians[12] and cast further insecurity on collective hopes of a more peaceful future.

> *Climate change and insecurity are intrinsically linked. Countries most affected by climate change and environmental degradation are often those facing significant insecurity.*

Notably, half of ongoing UN peace operations are concentrated in countries most exposed to climate shocks.[13] Despite having contributed minimally to the global climate crisis, these countries disproportionately suffer its impacts. Evidence shows that climate change and environmental degradation accelerate social, political, and economic instability which can further fuel violence if unaddressed.[14] In contexts where social cohesion and governance structures are already weakened by conflict, not only does climate change act as a risk multiplier with the potential to exacerbate existing tensions and grievances, but it also makes environmental governance hard to achieve. However, in some cases, cooperation around environmental and natural resource governance can emerge as a positive outcome, creating pathways for environmental peacebuilding.

A staggering 90% of the global **youth**[15] population[16] live in emerging or conflict-affected countries where climate change is a serious risk multiplier.[17] Young people – alongside women, girls, indigenous communities and other marginalised groups – bear the brunt of these global trends. Recognising this reality, youth have taken on a leading role in **influencing, demanding, and advocating** for more responsible and targeted action from global leadership. The Global Youth Statement,[18] presented during COP26, gathered input from over 40,000 young leaders who demanded their rights be guaranteed in global climate agreements. Youth leaders around the world have led organised action for climate, most famously with school strikes occurring in 150 countries.[19] Young people have also been at the forefront of advocating for peace and demanding accountability for violations of human rights in conflicts. Student protests for a ceasefire in Gaza,[20] Kenyan youth's anti-tax protests, or the Hong Kong Occupy movement are only a few recent examples of this. In fact, research has shown that 70% of Gen Zer's are involved in a social or political cause.[21]

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9   (Petterson, et al., 2021)
10   (Petterson, et al., 2021), (Gleditsch, Wallensteen, Eriksson, & Sollenberg, 2002)
11   (UNHCR, 2021)
12   (Pettersson, Davies, & Oberg, 2023)
13   (Stockholm International Peace Research Institute (SIPRI), 2021)
14   (Stockholm International Peace Research Institute (SIPRI), 2021)
15   Defined between ages 15-24.
16   A total of 1.8 billion.
17   (Global Center on Adaptation (GCA), 2021)
18   (UN Climate Change Conference of Youth (UCOY), 2021)
19   (Modeer & Otieno, 2022)
20   (Al Jazeera, 2024)
21   (Carnegie, 2022)

Despite this, young people continue to report **ageism** – discrimination based on age – which severely hampers their political participation, employment opportunities, health, and access to justice. Not only does this severely impact their wellbeing, but it also prevents governments and multilateral bodies from designing inclusive policies and services that are fair for all ages.[22]

While many **global leaders** have agreed that "there can be no sustainable development without peace and no peace without sustainable development,"[23] their approach to addressing these challenges remains fragmented and overly state-centred, rather than focused on human needs. Peace and climate are only beginning to be addressed together, with recent steps by high-level multilateral fora such as the UN Security Council or at the African Union level. However, real progress on addressing these cross-cutting vulnerabilities has yet to be made as the human-centred framing remains far too absent from current response planning. While governments play an undeniably important role in enacting change, "national-level thinking should not be the response to global threats."[24] Recent policymaking trends demonstrate that **effective solutions incorporate the perspectives of those most affected**. To ensure a secure future for generations to come, the research advocates for **more ambitious multilateral cooperation**, anchored in **meaningful youth engagement** and **representation in decision-making**, particularly in addressing pressing and compounding challenges from climate change and insecurity.

SNAPSHOT OF EXISTING LITERATURE

The nexus between youth, peace, and climate change has garnered increasing attention in global policy and research in light of the pressing challenges posed by environmental degradation and its impact on peace and security.

Bilateral relationships between climate and conflict, youth and climate, or youth and conflict have all been studied to varying lengths. In the *Environment of Peace* report,[25] SIPRI – one of the key partners in this project – retraces the linkages between rising levels of insecurity and worsening indicators of environmental degradation globally. More context specific studies like that of the UNICRI in Chad[26] shed light on local manifestations of violence in communities in regions most affected by climate change. Large-scale surveys like the *Peoples' Climate Vote*[27] showcase a clear concern for environment and climate-related issues amongst younger demographics. This is echoed in other publications like the UNDP's *Elevating Meaningful Youth Engagement for Climate Action*[28] which underscores the central role played by young people in tackling global emergencies and advocating for change. Together, these publications stress the importance of integrating youth perspectives into peacebuilding and climate action strategies.

While the existing publications provide valuable insights, most fail to comprehensively address the nuanced ways in which youth can contribute to both peacebuilding and climate resilience

22   (Modeer & Otieno, 2022)
23   (United Nations, 2015)
24   (Stockholm International Peace Research Institute (SIPRI), 2021)
25   (Stockholm International Peace Research Institute (SIPRI), 2021)
26   (UNICRI and Swissaid, 2022)
27   (UNDP, 2024)
28   (UNDP, 2022)

simultaneously. For example, the UN's *Common Agenda*[29] and *New Agenda for Peace*[30] highlight the crucial need to address climate concerns within conflict but do little to acknowledge the key role of youth in this. Similarly, of the three UN Security Council Resolutions shaping the Youth, Peace, and Security agenda, only one makes explicit reference to climate through the mention of "dangerous weather events."[31] A significant step back was also taken when the link between climate and peace was removed from the UN Pact for the Future earlier in 2024 following resistance from some UN Member States.[32]

Bridging these gaps requires more integrated research and policy frameworks that not only recognise that youth are disproportionately affected by climate change but support their dual role as both climate and peace actors. Discussions are already being led by some actors such as UNDP, SIPRI and Folke Bernadotte Academy through their guidance note *Beyond Vulnerability: A Guidance Note on Youth, Climate, Peace and Security*[33]. Building on these efforts, this report aims to drive these discussions forward, highlighting youth experiences by providing insights into their experiences and amplifying their perspectives as a key group on the frontline of the crisis but also at driving change.

METHOD

APPROACH

This research was designed to capture the lived experiences of young people at the nexus of climate and conflict and showcase their role in contributing to solutions. With the support of the Global Challenges Foundation (GCF), the Kofi Annan Foundation, SIPRI and young researchers from six countries co-designed a comparative study to be rolled out in the Philippines, Pakistan, Somalia, Uganda, Niger, and Burkina Faso. Each study was led by a team of young researchers from a local Chapter of the Kofi Annan Extremely Together network. The research process was led entirely by youth from these countries.

Central to this research is the idea of **perception** and how young people perceive vulnerabilities to climate change and threats to their safety. Whilst global policymaking is increasingly concerned with challenges faced by youth, young people are rarely provided with the space or tools needed to voice their concerns. Instead, there is a tendency to impose complex jargon and terminology on their experiences, often overshadowing their perspectives. This research seeks to address this gap by seeking out young people who are rarely consulted and providing them with a platform to discuss climate and security in a way that authentically captures their experiences. By doing so, it aims to ensure that youth are authentically represented and heard in the broader multilateral discourse on climate and security.

29   (United Nations, 2021)
30   (UN Department of Political and Peacebuilding Affairs, 2023)
31   (UN Department of Political and Peacebuilding Affairs, 2023)
32   (Farand, 2024)
33   (Folke Bernadotte Academy, United Nations Development Programme and the Stockholm International Peace Research Institute, 2024)

TARGET AREAS

In each country, the research teams chose to focus on areas that were especially vulnerable to climate change, environmental degradation, and insecurity. In many cases, these areas are confronted with extreme weather conditions (e.g., flash floods, droughts) coupled with political, ethnic, or land conflicts. The teams deliberately chose a mix of urban and rural areas to display the range of issues the different youths can be confronted with in these settings, and the actions they have taken.

Whilst these areas are at the heart of the climate and security issue, their populations are marginalised and often left out of development and policy discussions and exchanges. Interaction is frequently limited by their remote location, but external parties may also be dissuaded from visiting because of high security risks, government, or military restrictions, or for fear of provoking political tensions by appearing to favour the voice of one group over another. For example, reaching areas like Dori[34] in Burkina Faso, which has been cut off from the rest of the country due to insecurity on the roads, proved a significant challenge for the research team. Across the six countries, the teams worked deliberately to reach populations who are deeply impacted by the effects of climate change and insecurity. The researchers employed innovative and context-specific strategies to access hard-to-reach communities, including collaborating with local gatekeepers and community leaders to gain trust, obtaining formal permits from authorities, leveraging online surveys for areas with limited physical access, and, in high-risk regions, operating with local officials to ensure both safety and effective engagement.

TARGET GROUPS

The study targeted young people aged 18-35 affected by climate change or impacted by conflict, or both. A total of 1,150 young people were consulted, 1,036 (463 women and 573 men) of whom took part in surveys and 114 in in-depth interviews. In addition to focusing on hard-to-reach communities, the research placed emphasis on youth from disadvantaged backgrounds and minority groups. When relevant, studies also focused on IDP youth. Researchers also engaged participants across various education levels. Due to contextual factors and accessibility, some teams targeted more educated youth, and others worked with a broader cross-section of the population.

The teams also interviewed secondary participants outside the youth bracket to provide diverse perspectives on young people's roles and the gaps in addressing climate and security issues. All teams engaged community leaders or traditional and religious leaders, who play a key role in community-level conflict resolution. Several teams engaged government officials and local authorities, who provided insights from both climate and security standpoints. The teams consulted civil society organisations, climate and conflict experts, NGOs, activists, and international partners, as well as the UN and various INGOs. In the Philippines, the team reached out to private entities and think tanks.

TOOLS

This study is based on both primary and secondary research. Each country team conducted desk research to gather existing literature and relevant publications to their specific context.

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34   Accessibility to the town via the Kaya-Dori axis is hindered by terrorist group activity along the route. The Naré bridge located along the axis has been sabotaged several times by explosives and deadly ambushes regularly occur. Road traffic has therefore come to a halt of its own accord and only convoys secured by the armed forces currently venture onto the route to supply the town.

This included reviewing studies, reports, and data related to climate change, environmental degradation, and conflict dynamics. While resource availability varied among countries, this initial review established a foundational knowledge base to support primary research efforts. To gather primary data, the teams conducted Key Informant Interviews (KIIs), Focus Group Discussions (FGDs), and surveys, with each method tailored to address context-specific needs and vulnerabilities among target groups.

CHALLENGES

The teams faced several challenges in generating data and conducting the study:

→   **ACCESSIBILITY:**
The study aimed to capture the perspectives of young people in hard-to-reach areas owing to geographic remoteness or security concerns. In Uganda, researchers faced challenges accessing a conflict-prone region near the Democratic Republic of Congo, requiring staff to take safety precautions. Seasonal heavy rains also delayed data collection efforts. In Niger, securing military permits proved difficult for researchers targeting a high-risk area in Mandarounfa, which necessitated travel by convoy. Despite these challenges, efforts to engage these communities were well-received, as many felt overlooked by local authorities and other decision-making bodies. However, certain populations, such as those in militant hotspots in Pakistan, remained inaccessible.

→   **DISTRUST:**
All teams reported difficulties in approaching certain groups, either because of their perceived outsider status or cultural sensitivities. In Pakistan, research teams, who came from outside of the region, were mistakenly perceived as being government agents by some community members, requiring the teams to invest additional time in gaining trust and work alongside local community leaders to conduct interviews. Researchers also faced difficulties when approaching women in more conservative communities, despite efforts to respect cultural and social norms, such as deploying female researchers to facilitate women-only FGDs. In Somalia, cultural norms limiting women's public participation, safety concerns for female staff, and stringent safeguarding protocols further restricted the engagement of young women in the research.

→   **BRIDGING THE GAP BETWEEN LOCAL AND GLOBAL:**
A gap exists between the immediate, impactful change young people hope to see from participating in these processes and the expectations multilateral bodies often place on local communities to develop 'collaborative solutions' without adequately supporting these efforts. This misalignment of priorities can leave young people feeling that their local realities are not fully integrated into broader peace, climate, and conflict frameworks. Many respondents face immediate threats to their livelihoods, making it understandably difficult to connect their experiences within the broader framework of peace, climate, and conflict. To address this, researchers contextualised multilateral dynamics alongside local realities to clarify the study's purpose. In Uganda's Kasese district, for example, some survey participants anticipated that the study would lead to direct climate adaptation efforts in their area. In response, research teams worked to align expectations by explaining the study's goals and how its results would inform larger advocacy and policy efforts.

LIMITATIONS

The challenges encountered in the data collection have impacted the results of the study to varying degrees. The following limitations are acknowledged:

➔ **DISPROPORTIONATE GENDER REPRESENTATION:**
Challenges faced by some teams in reaching female participants may have limited the range of perspectives included in the research findings. Teams in Niger[35] and Somalia[36] were not able to achieve equal representation between women and men due to safeguarding rules and cultural norms restricting women's participation. Other teams, such as the Pakistani team, succeeded in engaging more female respondents, but observed notable differences in the depth of responses between women and men, particularly in the initial stages of data collection. Consequently, the findings may lean slightly toward male experiences of climate change and insecurity. However, these insights could lay a foundation for future research specifically focused on gender perspectives in climate and security, ideally led by researchers with strong connections to women in these remote communities.

➔ **PARTIAL REPRESENTATION OF MARGINALISED GROUPS:**
Limited access to certain geographies and the distrust among specific respondent groups means the study may not fully cover or represent highly vulnerable groups, despite researchers' best efforts to actively seek this. For example, groups living under Al-Shabaab (AS) control are underrepresented in the Somalia case study because of restricted access to those areas. In the few cases where respondents from these areas participated, they were wary of being recorded and suspicious of technology.[37] This is because AS often bans smartphones in their controlled areas, generating fear amongst those living there.

➔ **INTERPRETATION AND TRANSLATION:**
Surveys, interviews, and focus group discussions were conducted in the local languages. While this allowed respondents to share their experiences more comfortably in their own dialects, language barriers between researchers and participants may have resulted in misinterpreted nuances. This was particularly evident in Niger, where discussions were held in Hausa, a local dialect in Mandarounfa, making transcription challenging due to the regional accent and difficult-to-translate terms. All research teams were asked to translate their findings into English or French (oftentimes, their second language), which further risked losing nuances. Capturing the full depth of local experiences for a wider audience remains an inherent challenge in translation and research.[38]

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35 For FGDs, "A total of 20 focus groups were conducted, involving 140 individuals total, 105 men and 35 women aged between 15 and 35". For KIIS, "A total of 28 individual interviews were conducted with 26 men and 2 women".

36 The case study notes that "despite efforts to balance the gender of the data collection team, difficulties in recruiting young women and strict safeguarding rules led to only 29% female representation compared to 71% male."

37 Surveys were conducted on paper, when possible, to mitigate this fear.

38 Goitom, M. (2019). Multilingual Research: reflections on translating qualitative data. The British Journal of Social Work, 50(2), 548–564. https://doi.org/10.1093/bjsw/bcz162

→ **LIMITED LITERATURE BASE:**

The highly localised nature of this study made it challenging to access existing literature in the studied contexts for preliminary reviews. Research teams found it especially difficult to find reliable sources exploring the emerging and complex intersection of peace, climate, and youth in these local areas. Consequently, the case studies relied on a limited local literature base, balanced by an in-depth review of broader publications on the subject.

→ **OTHER AREAS OF INQUIRY:**

Important topics emerged during data collection that researchers were unable to explore fully due to limitations in time, space, and expertise. Notably, young people emphasised the significance of mental health support in coping with the impacts of climate change and insecurity, viewing the growing discourse around this topic as a positive development. Additionally, discussions highlighted the significant role of media and information sharing, which, for many young people, has become a central part of daily life. Youth raised with constant information access, such as many in the Philippines, recognise both its power and its risks, and how to use it effectively to shape global action. However, access varies, and, in countries like Burkina Faso, Somalia and Niger, many young people do not have the same connectivity, impacting their ability to fully engage in global dialogues. This study lays the foundation for deeper exploration of these issues.

Findings

CONTEXT

The study finds that each country's context is uniquely affected by the effects of climate change – often through a combination of extreme weather events and increasing resource scarcity. These challenges are accompanied by high levels of violence and insecurity, which both contribute to and are intensified by the instability associated with climate change.

Niger faces severe challenges from rising temperatures, deforestation, and water scarcity driven by pollution, irregular rainfall, and the drying of water sources. These climate change impacts disrupt agricultural and pastoral activities, harming production, and community incomes. Niger is ranked 10th on the 2024 Global Terrorism Index[39] and has experienced increased political and social instability following recent coups.

Burkina Faso is grappling with rising temperatures, deforestation, and water scarcity. This is severely threatening the country's economy which heavily relies on agriculture and livestock farming. The country is also facing its worst security situation in nearly a decade, primarily driven by terrorism, resulting in significant loss of life and mass displacement. Burkina Faso remains the country most affected by terrorism, ranking first in the 2024 Global Terrorism Index.[40]

39   (Institute for Economics and Peace, 2023)
40   (Institute for Economics and Peace, 2023)

Ranked 14th most vulnerable by the ND-GAIN index[41], **Uganda** suffers from erratic rainfall, floods, and droughts, which disrupt agriculture, causing food insecurity. The effects of climate change intensify resource competition, fuelling ethnic tensions and conflicts, especially in regions where the Allied Democratic Forces (ADF), an armed group linked with extremism and terrorism operates. The ADF has exploited socio-economic vulnerabilities and insecurity to bolster recruitment, capitalising on the vulnerability of displaced and unemployed youth.

Communities in **Somalia** face erratic weather patterns and reduced water availability, damaging agriculture and livestock. This, in turn, is worsening resource scarcity, fuelling competition, and increasing conflict and insecurity. Ongoing conflicts and political instability have also given way to aggravated humanitarian emergencies and large flows of IDPs throughout the region. The Islamist militant group Al Shabaab continues to pose a significant threat in Somalia.

Pakistan's disastrous floods dominate the headlines every year. The floods, coupled with extended droughts, heatwaves, and dry conditions, have contributed to soil erosion, impacting agricultural productivity. Additionally, the country faces high levels of sectarian violence and internal conflict, particularly in Balochistan, where the Balochistan Liberation Army (BLA) has been in prolonged conflict with the government, which was a focus area for this research. Border security issues and violent extremism remain pressing concerns.

In **the Philippines**, extreme heat is severely affecting agricultural productivity, particularly seaweed farming. Deforestation, soil erosion, water scarcity, and economic hardships are prevalent, contributing to mass displacement and increased violence. Health issues such as diarrhoea and malaria are also on the rise. Islamist militancy in the southern region, where this research took place, along with territorial disputes and maritime security concerns, continues to contribute to the country's insecurity.

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41   (University of Notre Dame Global Adaptation Initiative, 2024)

PATTERNS OF VULNERABILITY AND VIOLENCE

The rapidly changing impacts of climate change, combined with security risks, create a range of vulnerabilities for young people in these regions. Together, these factors contribute to an environment increasingly susceptible to violence, often following a recognisable pattern of escalation.
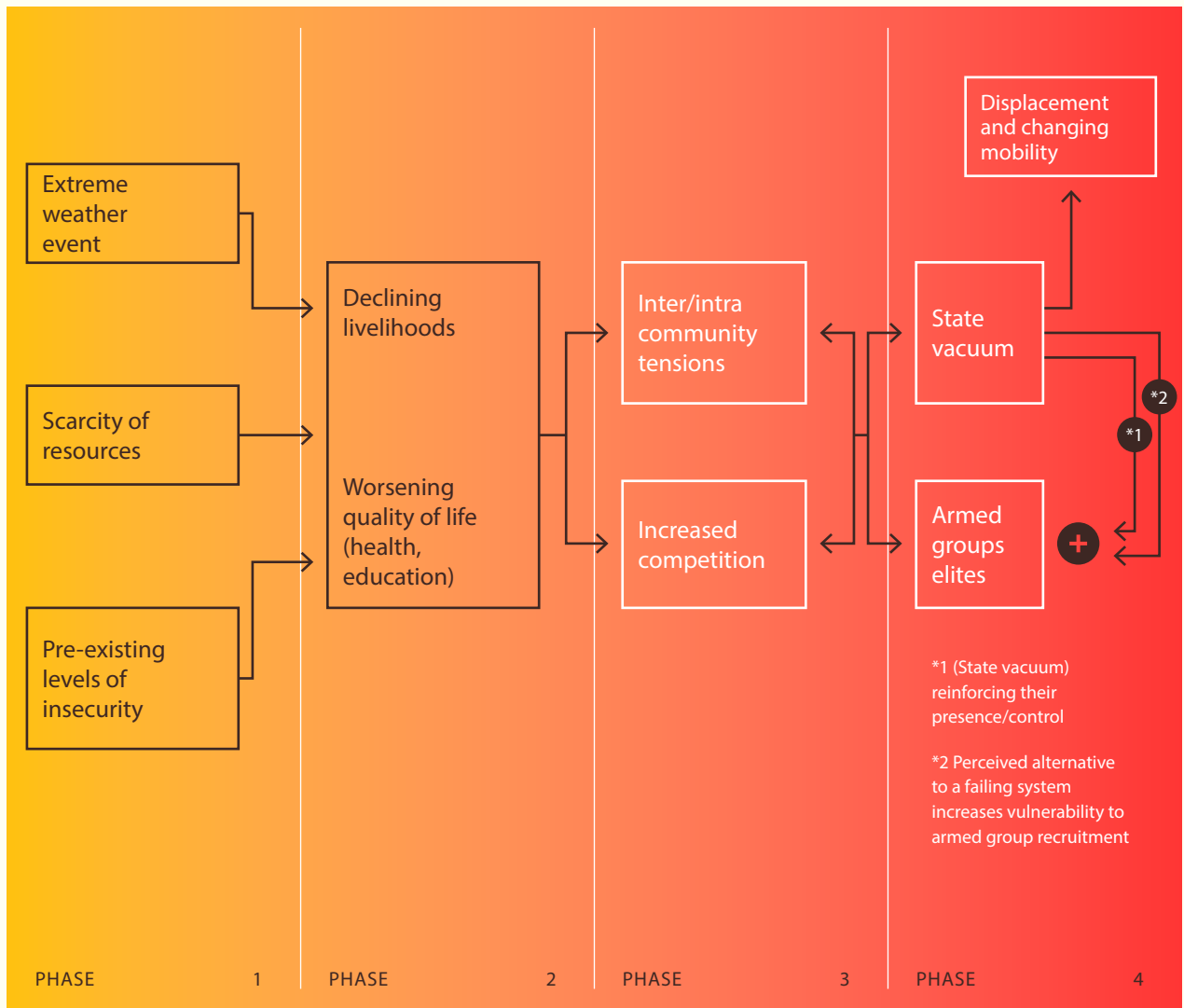
FIGURE 1 | Shows the mechanism of how climate change interacts with pre-existing insecurity and vulnerabilities to exacerbate competition for resources and community tensions.

These relationships must be understood in the wider context in which they occur, as they can take as many forms as there are actors. Outcomes may vary according to the social, political, and economic structures of each setting. Factors such as state presence, institutional strength, community resilience, social cohesion, climate severity, and external influence can either amplify or mitigate these dynamics.[42]

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42   (Stockholm International Peace Research Institute (SIPRI), 2023)

DECLINING LIVELIHOODS

Climate-related extreme weather events and the declining availability of resources, such as arable land and water, have significantly affected livelihoods. Most young people in the studied contexts rely on sectors that are climate-sensitive, including agriculture, fisheries, livestock, tourism, and forestry. Changes in weather patterns and resource availability have increased **uncertainty** and **fluctuations in income levels**. In Burkina Faso for example, prolonged droughts have left farmers weary of investing in their crops, fearing low returns. They also find themselves priced out of agricultural and livestock markets, which has generated a rise in **unemployment** amongst agricultural communities and **food shortages** across the country.

This increased uncertainty encourages **competition over resources and livelihoodd opportunities, undermines social cohesion,**[43] and **enhances the likelihood of violence** in contexts where security concerns are often already present Case studies in Uganda, Somalia and Niger show disputes arising over water points and grazing land, with conflicts between herders and farmers becoming more frequent. Unemployment and poverty resulting from decreased livelihood opportunities encourage crime and make young people vulnerable to organised violence. In Niger, for example, young people have taken to road ambushes to steal motorbikes and other valuables.

The findings also show that the adverse impacts of climate change and insecurity on livelihoods **disproportionately affect women and girls**. In the studied contexts, women's traditional caregiving roles mean they take on added responsibility during disasters and subsequent periods of hardship, leaving them open to increased risk. All six countries in the study noted that **risks of abuse and sexual and gender-based violence (SGBV)** grew with the onset of climate and security-related challenges. In Niger, researchers note that disruption to livelihoods has encouraged women to turn to sex work as an alternative source of income for their families. In the Philippines, women are perceived as more of a liability, increasing their chances of getting married off at a young age. FGDs in all six countries also noted that longer distances to collect water and firewood exposed women to abuse and serious health risks:

> *"It's the women who do the housework. Like fetching water and wood for cooking. Because of the drop in rainfall and desertification, they are suffering to carry out these tasks, which used to take less time."*

> Young woman from Dori, Burkina Faso

WORSENING QUALITY OF LIFE

Climate change and related extreme weather events further impact livelihoods and diminish young people's overall quality of life. School closures have emerged as a concerning trend in at least four of the six countries studied. In the Philippines, for instance, schools are closing due to extreme heat and are frequently repurposed as evacuation centres. Similarly, in Uganda's Kasese district, classes are frequently cancelled due to flooding. In Burkina Faso, schools are being closed for different reasons – more than 1 million children are no longer able to safely access education because of the growing security concern posed by armed groups.[44] The closure of schools has

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43 (Kahl, 2006)
44 (UNICEF, 2023)

had devastating effects on literacy rates and young people's ability to educate themselves.[45] This ripple effect reduces their capacity to grasp the complex impacts of climate change and insecurity on their lives, lowering the likelihood of communities taking constructive action to build resilience. The findings indicate that school closures have a gendered impact, as observed in Pakistan, where reduced educational access for women correlated with increased SGBV and domestic abuse during the 2022 floods.[46]

Four of the six studies mentioned **health issues**. In Pakistan, stagnant water from floods has led to an increase in vector-borne diseases and an escalating health crisis. In the Philippines and Sahel countries, limited access to maternal healthcare during emergencies has driven maternal mortality rates higher, particularly impacting young mothers. In Uganda, IDPs living in camps face limited access to healthcare and basic services which has increased malnutrition, maternal health risks, and communicable diseases. Beyond this, mounting stress and heightened expectations have taken a significant toll on young people's **mental health**. In Burkina Faso, burn out amongst young activists emerged as a concern, while Filipino respondents remarked on the mental strain from ongoing insecurity:

> *"During floods, it's challenging to manage both home and work.
> We worry about our family's safety and our livelihood."*

> Health worker from Datu Saudi Ampatuan, Philippines

A CRISIS OF GOVERNANCE AND STRUGGLE FOR CONTROL
Two competing dynamics emerge from these livelihood uncertainties:

1.   **EROSION OF TRADITIONAL FORMS OF GOVERNANCE:**
Worsening livelihood conditions and insecurity **affect the capacity of the state or any other governing institution to provide basic services** to its populations.[47] As pressure builds on governments and multilateral institutions to provide, aid itself has become a point of contention. In some instances, aid is instrumentalised to reinforce political allegiances, as was the case with basic supplies (i.e., tents and plastic sheets) during the 2022 floods in Pakistan. In other cases, aid distribution methods unintentionally deepen divides, without adequately considering the need for conflict sensitivity.

As state and local authorities face additional stress and fail to meet the needs of their population, they may also **struggle to address tensions** that arise from this volatile environment. Researchers in the Philippines, Niger and Somalia found that communities' strained relationship with governing bodies hindered conflict-resolution and fuelled further tensions between groups. Distrust in judicial systems led communities to seek alternative dispute-resolution methods, which at times only escalated conflicts.

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45   (Malala Fund, 2021)
46   Firsthand testimony by female participants of a FGD run by researcher Dera Murad Jamali.
47   (UNICRI and Swissaid, 2022)

2. EMERGENCE OF ARMED GROUPS:

This **vacuum of governance or the inability of government authorities to cater for their population** strengthens the position of armed groups and elites (e.g., big landowners in Pakistan's feudal system) who take **control** of coveted **resources** and opportunistically **utilise community vulnerabilities and grievances against authorities to their advantage.**[48] These groups attempt to replace governing structures by acting as service providers or offering relief to cement their own position within a community and extract gains.[49] This may be to expand their power, guarantee their own food security, or generate some form of income. In Somalia, for instance, water infrastructure (e.g. dam and canal projects) are being weaponised by AS to establish control over strategic areas and limit government penetration.[50] Armed groups may exploit climate-related pressures on communities to **boost recruitment of young people**. In Uganda, for instance, the ADF exploited weak governance and lack of community resilience to recruit young people, offering protection and income in exchange for loyalty.

DISPLACEMENT AND CHANGING PATTERNS OF MOBILITY

Climate-related migration has become an increasingly common option for young people when faced with these overlapping challenges. Declining livelihood prospects and quality of life, coupled with a complex struggle for productive resources have encouraged young people to leave their communities in search of better opportunities. Young respondents reported relocating to areas near their original homes, as well as undertaking longer journeys to urban centres—both of which expose them to various threats and vulnerabilities.

> *"Due to climate change young people have left their villages and come to town and started small businesses such as brewing alcohol, selling firewood, poultry farming, and selling food stuffs abandoning earlier livelihoods like brick laying, artisanal mining and crop farming."*
>
> Young woman from Bweera, Uganda

Young people often embark on these journeys **alone with little protection** or knowledge of what awaits them. In the Sahel, young men of working age are undertaking mass rural exodus towards urban centres, exposing themselves to theft, assault, or human trafficking along the way. On arrival, **conflict sometimes arises between displaced populations and host communities** when these new influxes are perceived to increase livelihood insecurity for the hosts[51], as highlighted in the case studies from Burkina Faso and Somalia.[52] **Competition over resources** also occurs, as seen with nomadic agropastoral communities that may encroach on land owned by other community groups due to increased mobility needs to provide pasture and water for their animals.

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48   (Nett & Ruttinger, 2016)
49   (Stockholm International Peace Research Institute (SIPRI), 2023, pp. 6-7)
50   (International Crisis Group, 2024)
51   (Stockholm International Peace Research Institute (SIPRI), 2023, p. 5)
52   Somalia's case study notes that "Nearly two-thirds (63%) of respondents experienced moderate to extreme conflict with host communities, underscoring the risk of escalating violence due to resource competition and strained social cohesion".

Climate-related migration has a **gendered dimension**, as evidenced in the case studies from Pakistan and Niger. Young men often migrate to cities or other areas in search of opportunities during crises. However, social norms often prevent young women from doing the same, leaving them in the affected areas with fewer options for escape or recovery. During crises, women, who may be without a primary breadwinner, are often left vulnerable to increased risk of SGBV.

INCREASED ADHERENCE TO ARMED GROUPS

When faced with limited livelihood options, young people may be lured to join armed groups – most often violent extremist organisations or criminal gangs – who offer **the promise of income stability, belonging, and protection**. In the contexts in which Extremely Together Chapters operate, the breakdown of social cohesion and pervasive insecurity strengthen the allure of these groups, as they present themselves as **alternatives to the failing systems** that have left these young people marginalised and without hope for a better future.

> *"When I joined them (AS) it felt like the only choice. It was fear but also it wasn't much of a choice because I saw this happen to others before that made it easier to agree. They promised safety for my family's small herd of goats, and they would not make them pay the taxes and that would allow my family to survive and eat. It also allowed me to have more freedom, being a part of them meant you could go anywhere that was otherwise restricted. I never thought what they were doing was right if I didn't join it would impact my family and I'm the only boy, my father is too old."*

Mahad, Young man from Afgoye, Somalia

The research also highlights a strong gender aspect within recruitment trends. Traditional expectations for young men to be providers make them particularly susceptible to recruitment, especially when opportunities for stable employment are limited or when traditional livelihoods, like farming or herding, are no longer sustainable due to climate change. Young men often become directly involved in violent activities whereas women are more likely to assume supporting roles. Women can also be perpetrators of violence, as was the case with Mahal Baloch, a young female student who conducted a suicide bombing attack on behalf of the BLA.[53] On average, however, women are disproportionately affected as victims of violence (e.g., SGBV, casualties, or injuries linked to armed group activity).[54]

53   (MM News, 2024)
54   (UN Women , 2024)

GAPS BETWEEN AWARENESS AND ACTION
Obstacles to organised youth action

In all six research contexts, surveyed youth displayed a **good general awareness of climate change**, its effects, and potential implications – with some drawing a clear distinction between the effects of climate change on one hand and environmental degradation on the other. These young people spoke clearly about how weather anomalies as well as alterations in annual rain and temperature cycles affected them. When it came to establishing a **link between climate and conflict**, a portion of young people could draw a distinction between the changing environment and social tensions, but many were **unclear on the causal relationship**.

The willingness and ability of young people to **get involved in initiatives** to address climate change or bolster community resilience did, however, vary by country and by group. In the Philippines' BARMM region, 64% of respondents said they participated in community clean-up initiatives. In Pakistan's Balochistan, young women have been notably active in leading relief efforts during climate-induced events. In other areas, young people faced more obstacles to getting involved in community action. For example, a young person leading a clean-up activity in Niger noted the lack of support from local authorities:

> *"When we voluntarily started this activity, it was very interesting and ambitious to the point where some people thought we were being paid. We were really ambitious, but the lack of support from the authorities or our partners meant that we couldn't do it. We made many complaints to the town hall, but to no avail."*

Young man from Kaffi, Lake Madarounfa District, Niger

Yet, the greatest obstacle to youth involvement is the **need to prioritise basic survival over contributing to climate-conflict issues**. When daily life revolves around securing food, water, and safety, there is little time or energy left for broader concerns. In the Philippines, for example, youth reported being preoccupied with direct security threats (e.g., electoral violence, armed groups, and land grabbing) over broader existential threats. Survey participants in almost every country showed themselves more receptive to discussions on **revenue-generating activities rather than broader discussions on climate policy and government.**

Lack of education and **illiteracy** also hinder the efficiency and quality of initiatives, as well as people's overall willingness to take part. Even when there is willingness to get involved, low levels of knowledge of **methods** to combat these problems and **limited access to material resources** are major obstacles to youth inclusion. For example, research in Uganda's Rwenzori sub-region demonstrated that youth education levels strongly correlate with their awareness and ability to respond to climate change, with those with higher education more likely to participate in climate initiatives.

Finally, **relief efforts, mitigation processes, and adaptation strategies** that are put in place by external actors or even communities themselves **rarely involve young people** or other marginalised groups. Youth often face stigma within their communities which can mean they find themselves excluded from major decisions. In Uganda's Kasese district, for instance, young people were excluded from consultations on a new agricultural adaptation strategy to address climatic shocks, as it was assumed their perspectives did not matter since they did not yet own land.

TOWARDS UNIFIED ACTION ON CLIMATE AND CONFLICT

While resilience and adaptation efforts are essential, they place the onus of change on local communities and strip the international community of its responsibilities. **Multilateral cooperation** should instead be promoted as the main vehicle for change. Yet, governments, civil society organisations, and the private sector often operate in **silos**, with their efforts sometimes undermining one another. This fragmented approach coupled with the **heterogenous application of international conventions** hampers effective action on climate-conflict issues. For instance, respondents shared how environmental laws protecting wetlands are being selectively applied in the Lake Victoria River basin with certain key plots offered to investors.[55]

Furthermore, current support structures – when in place – only **address symptoms rather than the root causes**. Current approaches resemble firefighting, with short-term relief activities taking precedence over sustainable reconstruction and rehabilitation. Although national governments and international bodies do provide emergency aid, they often fail to support long-term adaptation strategies which leaves communities vulnerable to recurring crises. Youth involvement could play a role in bridging this gap in engagement and action. Yet, young people are frequently excluded from discussions that directly impact their future—a point underscored by findings in this study.

Corruption and **poor governance** exacerbate these challenges. In Pakistan, for example, the national government's response to flooding has been criticised as inadequate, leaving local communities and philanthropists to manage recovery efforts. Respondents report that resources were distributed based on political allegiances and patronage politics rather than need. In Somalia, 78% of respondents identified the lack of strong institutions as a key factor contributing to violent conflict over natural resources. Weak institutional mechanisms fail to protect natural resources and adapt to climate change, leading to environmental degradation and competition for resources. Adding to this issue is the widespread availability of small arms, which intensifies intercommunal conflicts.

Conflict-affected regions receive disproportionately low per capita climate funding compared to non-conflict areas with similar needs, highlighting inequities in allocation.[56] UNEP's Adaptation Gap Report 2024 warns of a growing gap between adaptation needs and financial flows, urging stronger commitments in future climate pledges.[57] Young people often report that insufficient resources are allocated to climate initiatives, with government financing often mismanaged and international aid poorly targeted. Loans from multinational banks and international organisations are often project-based, lacking a **conflict-sensitive approach** – especially when it concerns youth. Capacity-building activities receive funding but without follow-up or support to implement the skills acquired.

Finally, **representation** on **information sharing platforms** is another critical consideration. The impacts of the climate-conflict nexus are often not accurately represented, and community-led initiatives are sometimes used as window dressing rather than to genuinely empower local voices. A visit by the UN Secretary-General to Balochistan, for example, did not include meetings with flood victims because of bureaucratic hurdles. This left affected communities without a platform to share their experiences and ideas. Similarly, in Uganda's Rwenzori sub-region, there is high media coverage of climate-related disasters, but local communities are given limited platforms to voice their concerns and share ideas for long-term solutions.

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55   Anecdote from a person in Uganda during findings workshop (11 June 2024).
56   (SIPRI, 2024)
57   (UNEP, 2024)

Recommendations

The global mismanagement of climate and security challenges highlights a crisis in multilateral governance, driven by poor funding allocations and a lack of long-term strategies. Consultations with young people from diverse backgrounds have shown that existing mechanisms for addressing climate and security threats are inadequate. The following recommendations emerged through the research and aim to guide multilateral stakeholders toward strategies that better address the long-term needs of those who are most impacted by climate change and insecurity.

1. RETHINKING DECISION-MAKING AND ACCOUNTABILITY MECHANISMS

CHALLENGE:
The age gap in decision-making resulting in the systematic exclusion of young people from discussions that shape their future. Ensuring genuine participation, rather than tokenism, remains a challenge, as does holding national and multilateral bodies accountable for their inclusivity commitments.

TARGET AUDIENCE:
Community leaders and local decision-makers (mayors, elders, traditional and religious leaders, influential persons), national policymakers and government bodies (youth ministries, ministries of the environment and defence), UN bodies and other multilateral institutions.

Involving youth at every level of decision-making is essential to creating policies and programs that address their specific needs. Efforts should go beyond the tokenistic involvement of young people often witnessed in many national, regional, and international fora.

→ **PROMOTING PLATFORMS FOR MEANINGFUL YOUTH ENGAGEMENT:**
Youth councils, advisory boards, and consultations with representatives of different youth groups are discussion formats that tend to drive youth-centric policy design and implementation – keeping in mind that some formats may be more adapted to certain contexts than others. However, to be truly effective, these must not be taken as stand-alone platforms but should be integrated into broader decision-making bodies to ensure senior leaders consider youth perspectives. Young people emphasised inter-generational exchange as key to decisions that benefit all of society, imagining the voices of women and marginalised youth as central features of these discussions. They also expressed frustration at the tokenistic involvement of young people in decision-making, demanding deeper engagement by decision-making actors. In Uganda, for example, surveyed youth expressed a keen desire to have more support from the government in implementation of climate and conflict adaptation strategies.

→ **FORTIFYING COMMUNITY LINKAGES:**
Youth involvement at the community level presents a promising entry point for fostering local resilience. However, respondents noted that discrimination within communities often limits young people's participation. Strengthening ties between youth-led bodies and community leaders could foster inclusion and develop youth credibility, enhancing community cohesion and resilience. Formal mentorship programs between youth and community leaders could help young people build credibility within their communities whilst giving them the chance to develop leadership skills in peace and climate action. This could also help bolster the credibility of women – and especially young women – who are all too often sidelined from formal community decision-making spaces. Contextual adaptation of these initiatives is essential; in Niger, participants recommended intergenerational dialogues to address shared resource management in the Lake Madarounfa region, including land and water, demonstrating the need for tailored, locally relevant solutions.

→ **LOBBYING FOR NATIONAL POLICY CHANGE:**
Young respondents also made it clear that grassroots efforts must be reinforced by national policies that support youth-led peacebuilding and climate resilience. Governments can institutionalise support by developing policies that are pro-youth, pro-climate, gender inclusive and peace sensitive. Examples include:

1. Developing policies that mandate community involvement in climate and resilience planning.
2. Earmarking funds for youth-led peace climate adaptation initiatives.

3. Creating conflict management systems people can trust by reinforcing judicial mechanisms. In Somalia, for instance, integrating Xeer[58] , a traditional conflict resolution method, into formal structures has bolstered confidence in formal conflict resolution and minimised the onset of tensions.

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58   Xeer is a traditional legal practice in Somalia from which Somali law draws its inspiration. Under this system, elders known as the "xeer begti" act as mediator judges to help settle court cases, taking precedent and custom into account. (Definition: Wikipedia).

→ **ESTABLISHING MULTILATERAL CONTROLS FOR YOUTH-INCLUSION:**
   Participants recommended that multilateral actors adopt standardised accountability
   mechanisms to ensure the proper integration of youth, peace, and climate concerns in
   policies and project plans at national and regional levels. This could take several forms:

1. Using multilateral institutions to ensure that member states not only adopt but also implement national climate and youth policies, as well as international treaties like the RAMSAR Convention on Wetlands.[59] The UN Population fund (UNFPA) or UN Youth Office could monitor youth policies, while other agencies such as the United Nations Development Fund (UNDP) and the United Nations Environmental Programme could oversee climate policy.

2. Establishing a universal periodic review, modelled after the Human Rights Council's accountability mechanism, to track climate, peace, and youth commitments within multilateral frameworks.

2. PROMOTING CROSS-DISCIPLINARY, INTERGENERATIONAL, AND MULTILEVEL EXCHANGE

CHALLENGE:
The siloed approach to information-gathering, knowledge sharing, and dialogue, with insufficient recognition of the links between climate and insecurity in international fora.

TARGET AUDIENCE:
Multilateral institutions including the UN, international and national donors, knowledge generating bodies (research institutes, think tanks, etc.), INGOs and NGO consortiums.

→ **ACKNOWLEDGING INTERLINKAGES AT THE MULTILATERAL LEVEL:**
   For exchange of any kind to succeed, multilateral institutions must first lay the groundwork
   for interconnected thinking in their own frameworks. The link between climate change,
   environmental degradation, and conflict must be fully recognised in international policies
   and frameworks. While this connection was acknowledged in the 2023 New Agenda for
   Peace[60], it was notably absent from the 2024 Pact for the Future.[61] Given the significant threat
   climate insecurity poses to youth, this relationship must become a central focus in peace,
   security, and climate policies across the board. This should include making climate insecurity
   an official agenda item at COP and ensuring it is addressed when the Pact for the Future is
   reviewed at the 83rd UN General Assembly. In addition, a promising initiative emerging from
   the COP processes is the Global Framework on Children, Youth, Peace, and Climate Security.

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59   (RAMSAR, n.d.)
60   "Where record temperatures, erratic precipitation and rising sea levels reduce harvests, destroy critical infrastructure and displace communities, they exacerbate the risks of instability, in particular in situations already affected by conflict. Rising sea levels and shrinking land masses are an existential threat to some island States. They may also create new, unanticipated areas of contestation, leading to new or resurgent disputes related to territorial and maritime claims. Climate policies and green energy transitions can offer avenues for effective peacebuilding and the inclusion of women, Indigenous communities, the economically disadvantaged and youth" (United Nations, 2023, pp. 6-7)
61   (United Nations, 2024)

The framework aims to address the intersection of children and youth engagement, peacebuilding, and climate action. It seeks to support and recognise the active role that children and youth play in promoting peace and security in the context of climate change.

→ **ENCOURAGING CROSS-DISCIPLINARY RESEARCH:**
International peacebuilding, humanitarian and development actors are increasingly moving to a nexus approach to tackling the world's most pressing problems. This interdisciplinary method has yielded positive results insofar as they have generated solutions that both address a crisis and its underlying issues. Young people called for continued investment in cross-sectoral analyses, as well as collaboration between private and public knowledge bodies at all levels. To ensure equity, clear safeguards must be established to prevent power imbalances or one actor exerting too much influence over the research outcomes. For instance, respondents in the Bangsamoro Region of the Philippines expressed interest in multilateral-funded cross-disciplinary research involving youth, elders, and experts as a way of making knowledge production comprehensive and inclusive.

→ **MAXIMISING REGIONAL SYNERGIES:**
Regional dialogue is crucial for sharing lessons on climate and security among actors facing similar challenges. It is also key to addressing cross-border conflicts that transcend national boundaries. Respondents proposed establishing multi-actor dialogue platforms to mediate resource disputes and share lessons. These dialogue platforms could lead to integrated peace and climate action plans, incorporating perspectives from youth, marginalised groups, and community leaders. Additionally, the creation of regional communities of practice would enable organisations in the environment and peace sectors to engage in mutual learning, joint problem analysis, and coordinated action. These could be co-facilitated by youth climate and peace networks like YOUNGO[62] and UNOY or led by regional bodies like ASEAN and the AU. INGOs could play a vital role in rallying regional actors and serving as impartial mediators in conflicts of interest. It should be noted that inter-regional learning is equally of value and could be a potential next step once regional synergies are solidified.

→ **BUILDING GLOBAL YOUTH EXCHANGE INFRASTRUCTURE:**
Existing peace-climate exchange platforms at the international level lack robust youth inclusion and do not adequately connect with multilateral decision-making. Young researchers recommend amplifying the reach and mandate of platforms[63] like the Global Coalition on Youth, Peace and Security, YOUNGO, and the Global Youth Biodiversity Network (GYBN) to strengthen youth representation and foster exchange with experienced decision-makers across sectors. Suggested actions include funding scholarships, supporting exchange programs focused on the peace-climate nexus, and investing in youth-peace-climate expertise within these structures.

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62   The Official Children and Youth Constituency of the UN Framework Convention on Climate Change
63   Examples include the Official Children and Youth Constituency of the UN Framework Convention on Climate Change (YOUNGO UNFCCC), the Global Youth Biodiversity Network (GBYN) led by the Convention on Biological Diversity (CBD), the UN Secretary General's Youth Climate Advisory Board or regional initiatives such as the Young Entrepreneur Exchange Project (YEEP) African Alumni.

3. STRENGTHENING GENDER-RESPONSIVE ADAPTATION

CHALLENGE:
Limited research on the gender dimensions of climate and conflict creates barriers to understanding the specific needs of women and girls, particularly in remote and underserved communities.

TARGET AUDIENCE:
International development organisations, governments, and community leaders

Empowering young women in climate adaptation and decision-making brings inclusive, sustainable, and effective strategies for building climate resilience, reduces gender-based vulnerabilities, and strengthens community resilience and conflict resolution.

→   **PROMOTE GENDER-RESPONSIVE RESEARCH:**
To address the knowledge gap, invest in context-specific research on the gender dimensions of climate and conflict, especially within marginalised and hard-to-reach communities. This approach can provide a better understanding of gender-specific needs and inform targeted adaptation strategies. Due to existing barriers, findings lean slightly towards male perspectives of climate change and insecurity. These insights could serve as a foundation for future research that centres gender perspectives on climate and security. Such studies would benefit from being led by researchers who have established trust and connections within women's networks in remote communities.

→   **ADOPTING GENDER-RESPONSIVE APPROACHES TO ADAPTATION:**
Involving women in local adaptation strategies helps mitigate risks linked to resource scarcity and gender-based violence, equipping them to protect their families and communities in times of crisis. In Uganda, findings showed that young women are more likely to be engaged in climate-sensitive activities such as subsistence farming, which are directly impacted by extreme weather events. Enhancing women's participation in climate action is a key pathway to achieving inclusive peace and security. This requires supporting grassroots women's organisations, recognising women's contributions to climate resilience, and ensuring their voices are central in climate negotiations and policy development.

4. ENCOURAGING SUSTAINABLE AND PEACE-SENSITIVE FINANCE

CHALLENGE:
International financial and grant-making systems often fail to meet the needs of affected communities and can exacerbate issues by neglecting to consider sustainability and peace-sensitivity. This ties into the issue of siloed information-gathering which shapes funding mechanisms for specific actions, and which may have unintended consequences in other areas.[64]

TARGET AUDIENCE:
International funding institutions, private sector industry, foreign affair offices of large donor governments, supra-regional funding bodies.

Finance plays a critical role in shaping how populations experience climate and security challenges. Governments, multilateral institutions, and private sector industries significantly influence vulnerabilities through their funding choices.

➔   **ALLOCATING FUNDS TO PREPARE FOR PREDICTABLE SHOCKS:**
The lack of resources to prepare for predictable shocks leaves communities vulnerable to severe impacts on their well-being and safety. Funders addressing the long-term effects of climate insecurity must also invest in building the capacities of local authorities and CSOs to equip communities for recurring shocks. Respondents suggested that proactive preparation can help mitigate the most detrimental effects of climate shocks, strengthening resilience and reducing long-term damage. Solutions must be driven by context-specific needs. In Pakistan, for instance, the threat of recurring floods would call for flood resistant infrastructure, improved drainage systems, community flood plans, and disaster risk insurance. In the Sahel, where agropastoral communities are suffering the effects of drought, funders could consider supporting water storage facilities, drought-resistant crops, or sustainable land management efforts.

➔   **MAKING INFORMED DECISIONS ABOUT FUNDING RESTRICTIONS:**
As funding shifts toward localised models, increased restrictions and earmarking has begun to hinder collaboration between the local and the global. Local actors have strong contextual knowledge but may require technical support from regional or international partners who are sometimes excluded from funding requirements as part of well-meaning but often poorly calculated efforts to decolonise aid. Other times, INGOs find it difficult to receive accreditations to operate in certain countries. Donors must therefore conduct thorough assessments of the peacebuilding landscape in concertation with communities to build funding structures that recognise synergies between actors.

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64   Examples include biodiversity conservation projects that undermine livelihoods (e.g. farming, fishing), or resource management projects that favour one community over another – both potential sources of conflict because of well-meaning initiatives.

➔ **REDEFINING FUNDING PRIORITIES:**
As discussed throughout this study, it is all too common for initiatives meant to address climate and security challenges to cause unforeseen harm and undermine community cohesion. Youth from Niger and Pakistan both expressed concerns about the misalignment of donor funding with local needs. They suggest that joint analyses by climate and peace experts should guide donor funding towards long-term initiatives that integrate climate adaptation, conflict resolution, peace-sensitivity, and community empowerment. Community consultations should also become a requirement for all donor-funded projects in fragile regions, ensuring funding priorities are aligned more closely with local needs.

➔ **CREATING ACCOUNTABLE DISBURSEMENT MECHANISMS:**
A lack of accountability often arises when funds are transferred from governments to grassroot actors. As previously illustrated in the case of Pakistan, funds and resources are sometimes used for political leverage, thus preventing communities who need it the most from receiving support. Transparent disbursement mechanisms that are integrated by donors into their funding schemes are essential to ensure proper use of aid funds. Examples offered by respondents include third-party audits, digital tracking, and independent observers (e.g., CSOs).

5. SUPPORTING COMMUNITIES THROUGH TRAINING AND SKILLS DEVELOPMENT

CHALLENGE:
Insufficient external support for communities, particularly young people, to not only adapt to the challenges they face and strengthen their resilience, but also to empower them to take the lead on developing locally led solutions to context-specific problems.

TARGET AUDIENCE:
National and regional governance, international and national development organisations, community-led NGOs, private sector businesses (specifically from climate-related sectors), funding mechanisms, grant making institutions.

➔ **INTERVENING STRATEGICALLY IN THE DESIGN OF ADAPTATION STRATEGIES:**
Effective resilience-building must be grounded in local knowledge, rather than externally imposed solutions. Youth suggested that international and national organisations should refrain from imposing ready-made solutions and limit their intervention to providing technical support like resource management, infrastructure development, and technology training. By enabling local youth to create their own adaptation strategies, this approach would empower communities to develop context-sensitive and tradition-aligned solutions. Needs-based assessments that are cross-cutting across genders and social strata would help deliver targeted interventions that support young people in a practical manner. These should acknowledge that needs can differ from one group to the next, with a special attention brought to women who are often left behind in the design of adaptation strategies. In the Philippines, for instance, respondents in the region of Mindanao expressed a need for training on sustainable agricultural practices tailored to the specificities of their landscapes.

→ **CREATING ALTERNATIVE SOURCES OF REVENUE:**
Time and resources are best spent developing livelihood opportunities for young people, particularly those without land or in vulnerable positions. Programs delivered by partners in Burkina Faso, which offer professional reconversion support for rural youth, have proven highly successful, becoming self-sustaining as older cohorts train their younger peers. To enhance these efforts, young people should also be given access to capital to start businesses, including green and smart agriculture ventures. Partnerships between NGOs and private companies specialising in renewable energy, sustainable agriculture, and smart technologies (e.g., such as solar power, wind energy, and sustainable fish farming) could drive this forward. Involving the private sector would facilitate technology transfer, equipping communities to tackle the challenges of climate change. It would also ensure new jobs are climate-resilient and contribute to long-term stability and climate goals. The Somali case study illustrates this: "While agri-business and small businesses offer potential in Afgoye's centralised role in agriculture, youth lack the resources to start businesses in relevant trade skills like metalworking, electronics repair, or tailoring. This underscores the need for investment in training programs and access to capital for enterprise development and skills training that are tailored to local needs and market demands."[65]

→ **ESTABLISHING IDP-SPECIFIC SUSTAINABLE LIVELIHOOD PROGRAMS:**
Sustainable livelihood programs specifically designed for displaced youth could help integrate them into the local economy, mitigate tensions with host communities, and minimise the risk of radicalisation. As was suggested by respondents in Burkina Faso and Somalia, providing these young people with employment in climate-resilient sectors (e.g., sustainable agriculture, water management, etc.) could potentially contribute to economic stability in regions affected by climate-induced migration. These efforts could be driven by national or regional governments, external NGOs, the private sector, or a combination of these actors to ensure lasting benefits for both IDPs and their host communities.

→ **FOCUSING ON THE WOMEN LEFT BEHIND:**
As the study reveals, common migration patterns often see men leaving their home communities in search of opportunities, while women, due to social norms, are left behind with limited mobility. Adaptation strategies and alternative livelihood initiatives must therefore address the distinct needs and vulnerabilities of women, particularly those in households where the primary breadwinner has migrated. For example, interviews in Niger showed that women rely on selling food items, a practice increasingly challenged by hot weather, forcing them to spend much of their limited income on preserving stock (i.e., purchasing ice), when more affordable, adaptive solutions could be implemented.

65   See page [x].

6. DELIVERING CLIMATE- AND PEACE-SENSITIVE EMERGENCY RELIEF

CHALLENGE:
The mismanagement of short-term emergency relief, its exploitation by local actors for personal gain, as well as its use in dividing communities, creating tension, and fuelling conflict.

TARGET AUDIENCE:
International humanitarian organisations who deliver aid, foreign governments and multilateral structures who disburse aid and sponsor interventions, branches of national governments in charge of organising relief.

➔ **ESTABLISHING CONTROLS:**

While long-term reform of global governance is necessary, participants in the study stressed that there should also be immediate attention brought to how we deliver short-term emergency relief. Poorly designed aid efforts risk escalating conflict and environmental damage. For instance, surveyed Somalian youth shared that the unequal distribution of resources between different crisis-affected communities in Afgoye has historically sparked animosity and, oftentimes, violence. Standardising climate- and peace-sensitive controls for all emergency plans could reduce these risks and help make the delivery of emergency aid more efficient. An easily implementable option would be a standard checklist developed with input from experts as well as youth and gender perspectives. Integrating community-based feedback mechanisms into relief plans can provide ongoing monitoring and adaptation throughout the implementation process.

➔ **DEVELOPING COMMUNITY ACTION MECHANISMS:**

Empowering communities through training, such as first aid and community organising, ensures their active involvement in emergency relief. Local governance structures[66] should play an active part in designing and delivering these trainings to ensure cultural acceptance and ownership. This approach strengthens local resilience and reduces the risk of aid being misused. For example, young respondents in Pakistan suggested that material goods donated by INGOs during the recent floods might not have been used by local officials for political gain had communities been more involved in the distribution efforts. Research has also shown that focusing training efforts on women heads of household tend to yield more altruistic decision-making in crisis situations.[67]

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66   Examples include religious leaders, indigenous councils, community organisers, etc.
67   (Gammage, Neetu, & Schaub) (Hathaway, 2016)

Conclusion

We now stand at a critical juncture, where the intertwined challenges of climate and security demand immediate, decisive action. Global stakeholders must prioritise solutions that not only address the environmental crisis but also foster peace and stability in the most vulnerable regions, accounting for the needs of the populations. This begins with empowering communities through training and awareness raising, ensuring climate- and peace-sensitive emergency relief, and integrating youth into decision-making processes. Embedding gender-responsive perspectives throughout these strategies is essential to ensuring that both women's and men's distinct needs and contributions are fully addressed. Young people, particularly those from marginalised communities and conflict-affected areas, are essential to building resilience and driving innovative approaches to these complex issues. Their inclusion is not optional—it is critical to shaping a sustainable and secure future. In parallel, we must strengthen collaboration between regional and global actors, advocating for cross-sectoral, intergenerational, and multilevel collaboration. Funding mechanisms should be redefined to ensure transparency, accountability, and long-term sustainability. As we move forward, we must commit to reshaping multilateral strategies to prioritise resilience, inclusion, and meaningful participation.

Together, we can forge a path toward a future where climate resilience and peace are within reach for all, through inclusive cooperation and a shared sense of responsibility.

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CASE STUDY **1**

Challenges linked to climate, environment and conflict in Burkina Faso
ANALYSIS OF THE PERCEPTION AND RESILIENCE OF YOUNG PEOPLE IN THE TOWN OF DORI IN THE SAHEL REGION

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ACRONYMS AND ABBREVIATIONS

CONAJEC National Youth Coordination for the Environment and Climate*

CSO Civil Society Organisation

FAO Food and Agriculture Organization of the United Nations

INSD National Institute of Statistics and Demography*

IPCC Intergovernmental Panel on Climate Change

MEEVCC Ministry of the Environment, Green Economy and Climate Change*

NGO Non-Governmental Organisation

OECD Organisation for Economic Co-operation and Development

RGPH General Population and Housing Census*

SDGs Sustainable Development Objectives

SWAC Sahel and West Africa Club

UNHCR United Nations High Commissioner for Refugees

UN United Nations

SIPRI Stockholm International Peace Research Institute

Executive Summary

The research aims to explore how marginalized young people are affected by the intersecting effects of climate change, environmental degradation, and violent conflict. The analysis is based on documents and data from individual interviews and focus groups conducted in Dori, located in the Sahel region of Burkina Faso. The findings reveal that young people in the northern region of Burkina Faso are acutely aware of these challenges. In terms of climate change, they reported rising temperatures and declining rainfall. Regarding environmental degradation, deforestation, surface water pollution, and soil erosion were the most frequently observed issues. Conflicts related to terrorism, disputes between farmers and herders, and land tenure were the most commonly reported forms of violence.

The research also highlights that climate change and environmental degradation are significant potential sources of conflict in the region due to their adverse impacts on socio-economic and environmental conditions, particularly for young people. The deterioration of these conditions exacerbates competition for natural resources, such as those between livestock farmers and crop farmers, while also increasing the vulnerability of young people. This vulnerability makes them more susceptible to involvement in illicit activities, banditry, and recruitment into armed terrorist groups.

Additionally, the study reveals that the ongoing security crisis, lack of resources, socio-economic vulnerability, and exclusion from decision-making processes hinder young people's ability to contribute meaningfully to efforts combating climate change, environmental degradation, and conflict. In response to these challenges, young people have proposed a range of recommendations. These include raising awareness among all stakeholders, building the capacities of young people, and advocating for their greater involvement in decision-making processes.

1. Introduction

Climate change, environmental degradation and conflicts and their causes are at the heart of political and scientific debates at the international level. This is particularly reflected in the fact that these issues were given a high profile in the sustainable development agenda. Africa, and sub-Saharan Africa is one of the region's most vulnerable to climate change[69][70][71], with extreme seasonal variability.[72][73] The region is also suffering from various forms of environmental degradation, for example pollution and soil impoverishment. In recent years, it has been plagued by terrorism and other forms of conflict such as land disputes, conflicts between herders and farmers, amongst others. Burkina Faso, a country located in the heart of sub-Saharan Africa, is particularly representative of this difficult climatic, environmental and security situation. In socio-demographic terms, the country has a predominantly young population. According to the National Institute of Statistics and Demography*[74] 77.9 percent of Burkina Faso's population is under 35 years of age, including 32.1 percent aged between 15 and 34.

69   WaterAid West Africa (2021). Climate change and water security in Burkina Faso and Niger.)

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While much thought has been given to the causes and consequences of these aforementioned issues, little attention seems to have been given to the potential relationships between them. The resulting attempts to reconcile these seem to indicate an indirect relationship between climatic and environmental challenges and conflicts.[75][76][77][78][79] Overall, they indicate that climate change and environmental degradation could be sources of conflict through increased food insecurity and the weakening of livelihoods. Some authors point out that climate change-related violence also depends on changes in institutions, conflict management practices and resources.[80] Furthermore, existing analyses do not focus on young people's perceptions. This research therefore looks at young people's perceptions of the nexus between climate, environment and conflict. Specifically, it asks the following questions:

→ What issues linked to climate change and environmental degradation are young people observing?
→ What types of conflict do young people perceive?
→ How are young people affected by the combined effects of climate change, environmental degradation and conflict?
→ What are the solutions for making young people key players in the fight against climate change, environmental degradation and conflict?

To answer these questions, this case study was carried out in the town of Dori, capital of the Sahel administrative region of Burkina Faso. This region of Burkina Faso has some of the most difficult climatic and environmental characteristics in the country. It is also the epicentre of the security crisis that the country has been experiencing for almost a decade, marked mainly by terrorism. The study combines qualitative and quantitative analyses, based on a literature review, individual interviews and focus group discussions. Overall, 178 young people (84 women and 94 men) took part in the discussions. Of these young people, 125 (42% of whom were young women) took part in individual interviews in the town of Dori, 28 (64% of whom were young women) took part in two focus group discussions in Dori and 25 (52% of whom were young women) took part in a discussion workshop in Ouagadougou. The main results of the analyses varied.

Firstly, the analyses show that climate change, environmental degradation and the conflicts observed in the Sahel region of Burkina Faso are increasing the socio-economic vulnerability of populations, particularly young people. Secondly, climate change and environmental degradation are perceived as a likely source of conflict. This is all the more true given the influence that the consequences of climate change and environmental degradation can have on conflicts. Finally, it should be noted that stakeholders are mobilised at local and national level to tackle these scourges, even though they face important and cross-cutting difficulties. Young people in particular are faced with limited accreditations, inadequate funding for their activities, lack of access to

75   SWAC/OECD. (2010). Security implications of climate change in the Sahel: policy perspectives.
76   FAO. (2021). Burkina Faso, Mali and Niger - Analysis of conflicts related to natural resources in the three Liptako Gourma countries: Synthesis note. Rome. doi:https://doi.org/10.4060/cb7446fr
77   Ackern, P. V., & Detges, a. A. (2022). Climate change, vulnerability and security in the Sahel: Three scenarios for Burkina Faso, Mali and Niger to 2050
78   Pacillo, G., Kangogo, D., Madurga-Lopez, I., Villa, V., Belli, A., & Läderach, P. (2022). Is climate exacerbating the root causes of conflict in Mali? A climate security analysis through a structural equation modeling approach. Front. Clim. 4(849757). doi:10.3389/fclim.2022.849757
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80   Ackern, P. V., & Detges, a. A. (2022). Climate change, vulnerability and security in the Sahel: Three scenarios for Burkina Faso, Mali and Niger to 2050.

decision-making frameworks and processes, poverty and a lack of employment. Faced with these difficulties, young people and many other stakeholders have put forward proposals to enable them to play their full role as key players in this crisis.

2. General Context of Burkina Faso

Burkina Faso is a sub-Saharan African country in the heart of West Africa. It is a landlocked country with no access to the ocean. The country is bordered by Mali to the north and west, Niger to the east, and Benin, Côte d'Ivoire, Ghana and Togo to the south.

The country has three climatic zones: the Sudanian zone in the south, the Sudano-Sahelian zone in the centre and the Sahelian zone in the northern part of the country, which includes the Sahel administrative region.[81] Burkina Faso's climate is generally characterised by high temperatures and low rainfall. According to Burkina Faso's Ministry of the Environment, Green Economy and Climate Change (MEEVCC[82]), average annual temperatures vary between 30 and 33°C from the north to the south of the country. Average annual rainfall ranges from 300 to 1,200 mm, also from the north to the south of the country.[83]

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81   Burkina Faso has 13 administrative regions: Cascades, Hauts-Bassins, Sud-Ouest, Boucle du Mouhoun, Centre-Ouest, Centre-Sud, Centre-Est, Est, Centre, Plateau Central, Nord, Centre-Nord and Sahel. These thirteen regions are grouped into three climatic zones, including the Sahel zone, which covers all or part of the North, Centre-North, East and Sahel regions.

82   From original French acronym (Ministère de l'environnement, de l'économie verte et du changement climatique)

83   Ministry of the Environment, Green Economy and Climate Change (MEEVCC). (2021). Communication on adaptation to climate change in Burkina Faso.

Similar to other global contexts, Burkina Faso's climate situation appears to be deteriorating as a result of climate change. According to the MEEVCC* (2021), climate projections indicate that temperatures will rise by 2°C by 2030, 2.4°C by 2050 and 3°C by 2080. These temperature rises will lead to an increase in pockets of severe drought by 2050. These unfavourable climate projections pose a serious threat to the country's economy, which is relies heavily on the primary sector. Agriculture and related activities, as well as livestock farming, account for the vast majority of employment for Burkina Faso's working population. The number of poor people, who will represent 43.2 percent of the population in 2021[84] is likely to increase in such a context.

From a demographic point of view, Burkina Faso has a high growth rate, with an estimated average annual rate of 2.93 percent between 2006 and 2019, according to the final results of the fifth RGPH[85] The country's population mainly consists of young people and women. According to figures from the fifth RGPH, 64.2 percent of the population is under 24 and 77.9 per cent is under 35. According to the same source, 51.7 percent of the population are women. The majority of Burkina Faso's population lives in rural areas, with only 26.1 percent of the total population living in urban areas.[86]

In terms of security, the country is experiencing the worst situation in its history for nearly a decade. This security crisis is mainly propelled by terrorism, which is the main cause behind the large loss of human life and the massive, forced displacement of populations. According to the Global Terrorism Index 2024 , Burkina Faso recorded a 17 percent drop in terrorist attacks in 2023 but has become the country most affected by terrorist activity, with a 68 percent increase in the number of deaths totalling 1,907 in the previous year.[87] As of 31 March 2023, according to the UNHCR Burkina Faso (2024), the country had 2,062,534 internally displaced persons (IDPs), 52 percent of whom were from the Sahel region. The five major IDP host regions, in numerical order, are the Sahel, Centre-North, North, East and Boucle du Mouhoun. The country also hosts a large number of refugees, estimated at 39,483 as of 31 March 2024. The majority of these refugees (38,440, or nearly 97%) are from neighbouring Mali, and 70 percent are in the Sahel region.

In addition to the dire security situation, Burkina Faso has also had a particularly turbulent political history since independence. The country has experienced political instability marked by repeated coups d'état. Between 1966 and 2023, the country recorded eight military coups d'état, to which was added the constitutional coup d'état of 31 October 2014. In 2022 alone, the country experienced two military coups, the last of which brought to power the current President, Captain Ibrahim TRAORE, who enjoys widespread support among the population. Since then, a number of political measures have been taken, including the suspension of the activities of the political parties and the creation of the Alliance of Sahel States with Mali and Niger.

84   National Institute of Statistics and Demography (INSD). (2022b). Principaux résultats de l'étude sur la pauvreté et les conditions de vie des ménages en 2021.

85   Fith General Population and Housing Census (RGPH) to be carried out in 2019. (INSD, 2022a).

86   National Institute of Statistics and Demography (INSD). (2022a). Fifth general population and housing census of Burkina Faso. Retrieved from https://www.insd.bf/fr/file-download/download/public/2071

87   Institute for Economics & Peace. (2024). Global Terrorism Index 2024: Measuring the Impact of Terrorism. Sydney. Retrieved from https://www.visionofhumanity.org/wp-content/uploads/2024/06/GPI-2024-web.pdf.

3. Research Area and Methodology

This section presents the research area, and the approaches used. Firstly, it presents the study area, highlighting its socio-demographic, climatic, environmental and security characteristics. Secondly, it presents the methodological approaches used to conduct the study.

3.1 PRESENTATION AND JUSTIFICATION OF THE RESEARCH AREA

The case study in Burkina Faso focused on the Sahel region, specifically on the town of Dori, the regional capital. This area was selected for research due to its distinct demographic, climatic, environmental, and security features. According to the latest general population census conducted in 2019,[88] the region has the second-highest fertility rate in the country, with an average of 6.6 children per woman. The total population of the Sahel region was estimated at 1,098,177 in 2019, with 49.29 percent being women. Additionally, 88.25 percent of the population resided in rural areas, 46.28 percent were under the age of 15, and 97.3 percent identified as Muslim. Dori, the town at the

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88   National Institute of Statistics and Demography (INSD). (2022a). Fifth general population and housing census of Burkina Faso. Retrieved from https://www.insd.bf/fr/file-download/download/public/2071

center of the study, stands out with the largest urban population in the region, accounting for just over 36 percent.

The region also had the highest infant mortality rate in 2019 (72.7%), particularly among women (77.5%). The literacy rate for people aged 15 and over in the region is by far the lowest in the country (only 12.5%), especially among women (only 9.21%). What's more, 76.5 percent of children aged between 6 and 16 in the region have never attended school by far the highest rate in the country. The employment situation in the region is also of note, with the lowest rate (22.8%) in the country in terms of the employed workforce and the highest rate of unemployment as defined by the ILO (17.1% and 21.3% for women). The combined rate of unemployment and potential labour force is also the highest in the country (60.9%), especially among women (69.1%). These initial findings are indicative of the enormous socio-economic and demographic challenges that contribute significantly to the vulnerability of the region's population.

The town of Dori is located in one of the hottest and driest regions of Burkina Faso, characterized by the lowest annual rainfall in the country and a very short rainy season. It also has the least vegetation and green cover, which is further strained by the demands of the region's population. According to INSD (2022a), in 2019, 85.4 percent of households in the region relied on wood as their primary source of energy for cooking, ranking the region third among Burkina Faso's thirteen regions in terms of wood usage. Access to water is another significant challenge in Dori, with 19.5 percent of the population still dependent on unimproved water sources, such as wells, dams, and rivers, further compounding the area's environmental and resource constraints.
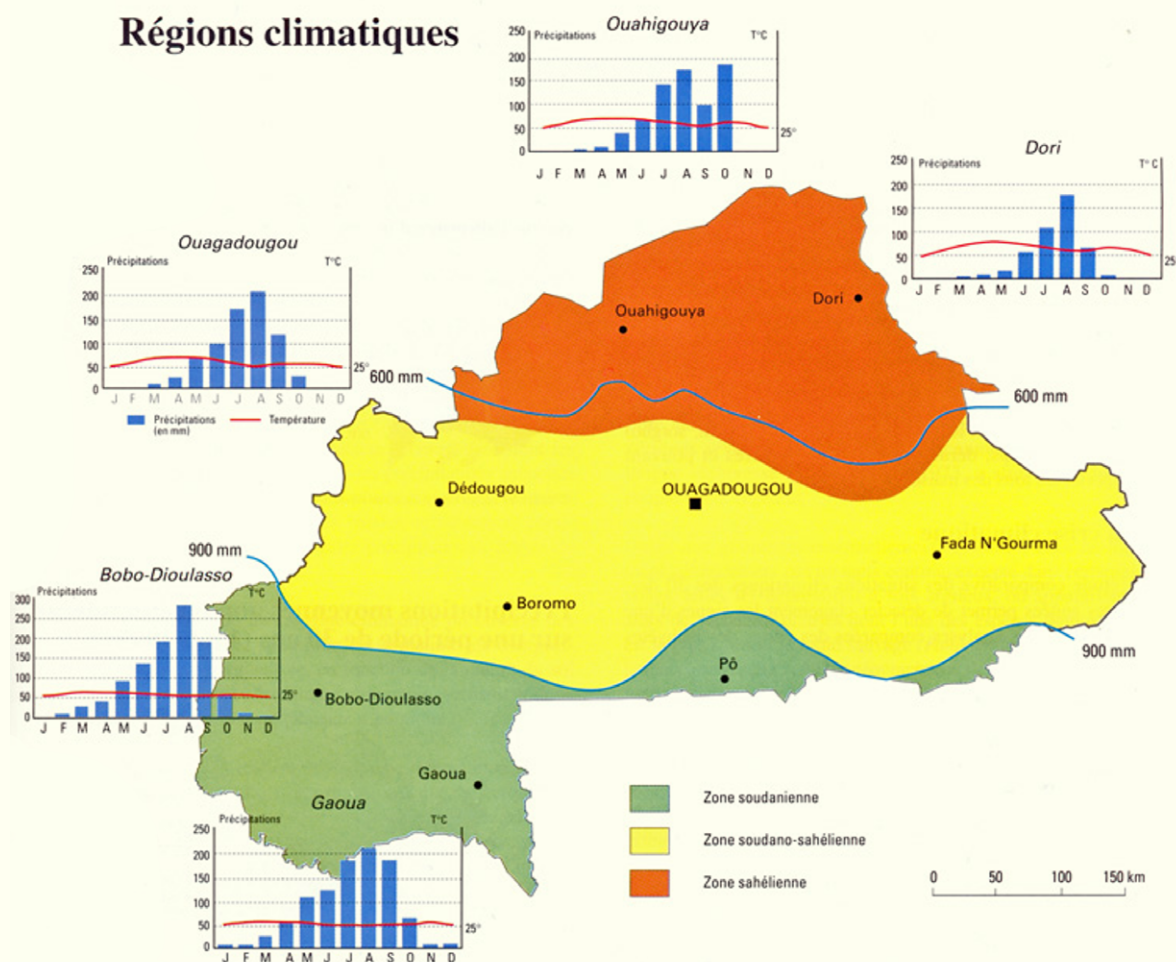
The Sahel region, particularly the town of Dori, has been at the epicenter of Burkina Faso's security crisis, which has persisted for nearly a decade and is marked by widespread terrorism. Because of its geographical location, this area has been the hardest hit by terrorist activities and served as the initial entry point for their spread throughout the country.

The Sahel region, located in the tri-border area of Burkina Faso, Mali, and Niger, has been a hotspot for armed terrorist groups since the early 2010s. According to the UNHCR, it recorded the highest number of internally displaced people in the country, with 501,961 as of March 31, 2023, and the largest number of refugees, 27,752, as of March 31, 2024. Due to the ongoing security crisis, access to the town of Dori by land has become nearly impossible, severely restricting the movement of people and goods. To mitigate this, transportation is reliant on military convoys organized by the country's authorities, as armed terrorist groups continue to dominate the region.

3.2 METHODOLOGICAL APPROACHES

The methodological approach of this research was organized into four stages. The first stage involved a literature review, which provided the framework for conceptualizing, guiding, and conducting the analysis. The second stage focused on generating data from the research target. In the third stage, the collected data was processed, and finally, in the fourth stage, the processed data was analysed.

The case study employed a mixed methods approach, combining both quantitative and qualitative data. Quantitative data was gathered through individual interviews with 125 young women and men, aged 18 to 35, all of whom were residing in the town of Dori during the research period. Qualitative data was obtained from focus group discussions with 28 young people, a discussion workshop with 25 participants, and interviews with key resource persons and institutions. Both the focus groups and workshops included young women and men aged 18 to 35.

3.2.1 DATA COLLECTED FROM YOUNG PEOPLE AGED 18 TO 35

The primary focus of this research is on young women and men aged 18 to 35. As shown in Figure 1, a total of 178 young people participated in the data collection, comprising 84 women and 94 men. These participants can be divided into two main groups. The first group consisted of 153 young people (including 71 women) who took part in interviews and focus groups conducted in the town of Dori. The second group involved 25 young people (including 13 women) who are engaged in climate, environment, and peace issues. This latter group was gathered in Ouagadougou for a brainstorming workshop.
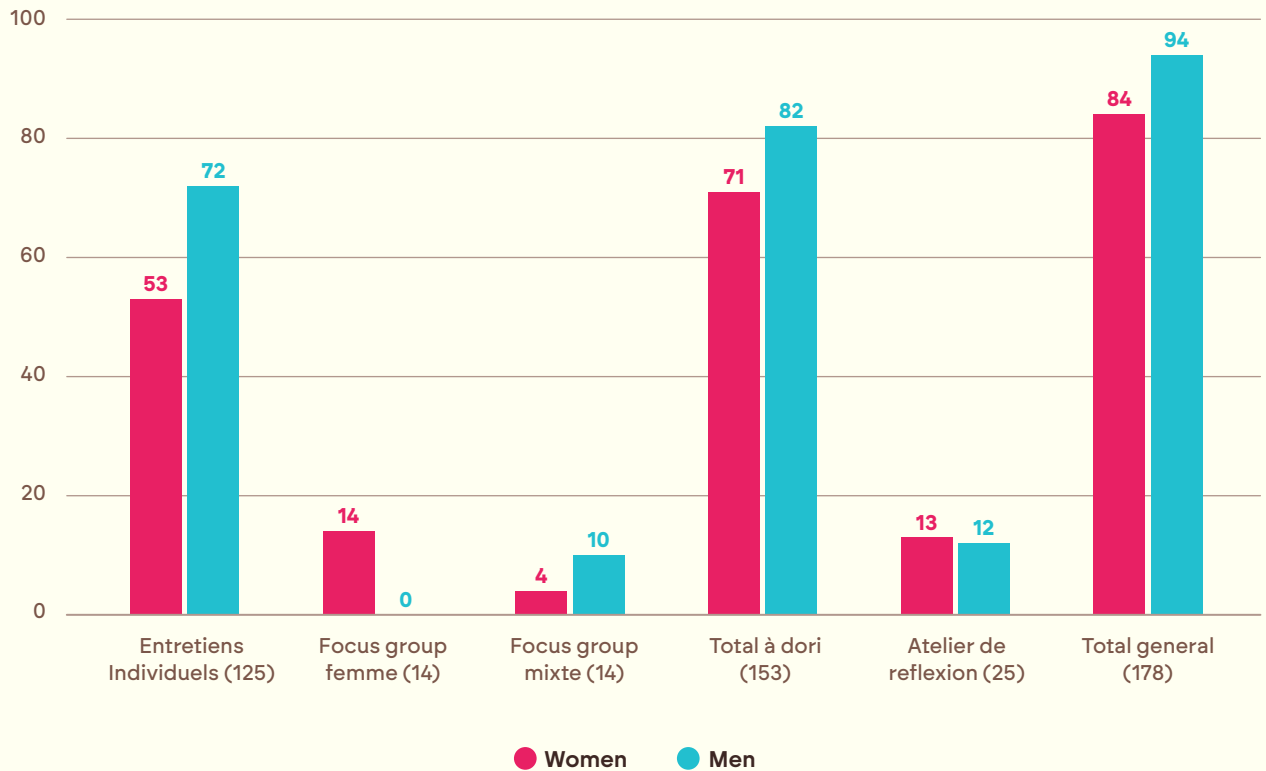
FIGURE 1 | Breakdown of young respondents
Source: data from the Burkina Faso case study (May and June 2024)

Figure 2 provides a breakdown of the young people interviewed individually based on their circumstances in the town of Dori. In total, 125 young people, including 53 women (42%), participated in these interviews. The majority of the participants were either locals, originally from Dori, or internally displaced persons (IDPs) who had fled their hometowns due to terrorism. Of the 125 participants, 115 fell into these two categories, with 66 (53%) being locals and 49 (39%) being IDPs. Notably, more than half of the women interviewed were indigenous to the town. Additionally, 1 refugee and 9 young people who were neither indigenous nor IDPs were interviewed. These individuals were in Dori for professional reasons.
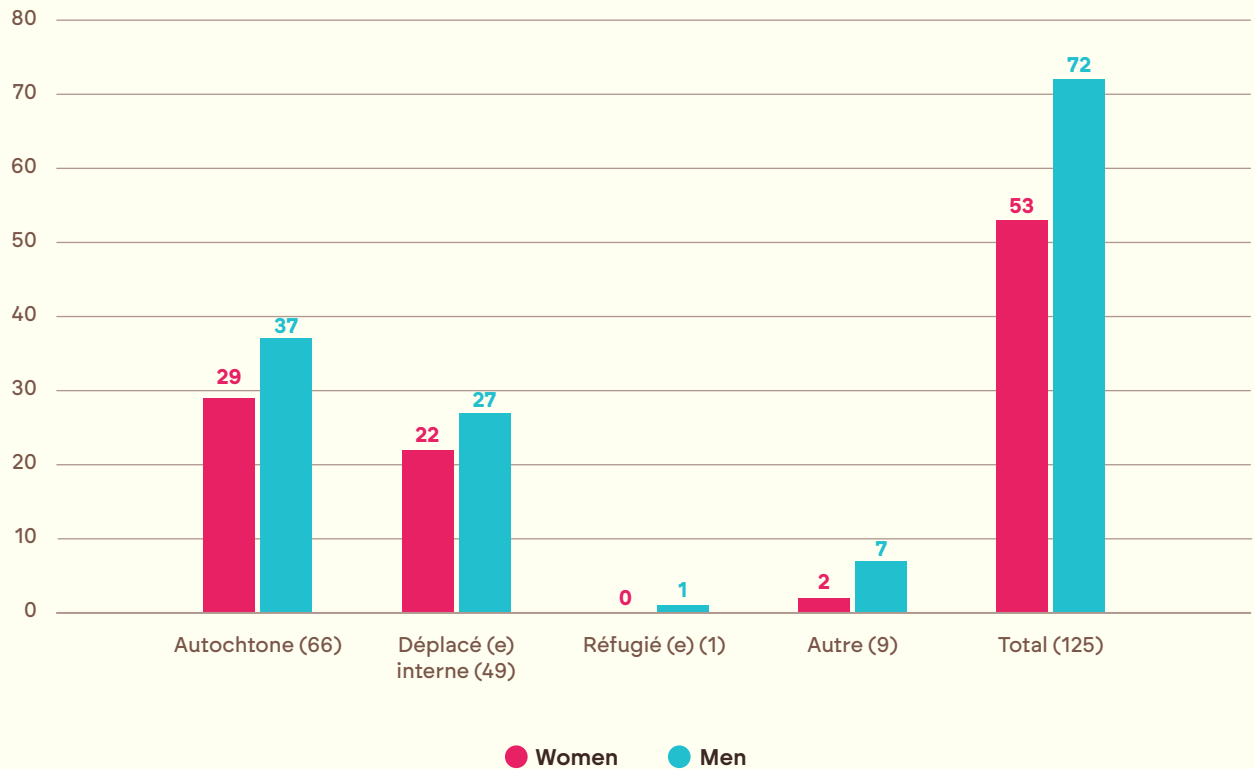
FIGURE 2 | Breakdown of young people in individual interviews according to their situation in Dori
Source: data from the Burkina Faso case study (May 2024)

3.2.2 INTERVIEWS WITH RESOURCE PERSONS AND STRUCTURES

In addition to gathering data from young people aged 18 to 35, several individuals and institutions with expertise in climate, environmental, and peace issues were consulted. In Dori, three key interviews were conducted with prominent figures: a notable member of the customary chieftaincy, a Muslim religious leader, and an officer from the regional environment department. In the capital, Ouagadougou, key interviews were held with the National Youth Coordination for the Environment and Climate (CONAJEC), while meetings were also arranged with institutional representatives from the United States Institute of Peace, CILSS, and other relevant organizations.

4 Analysis of Research Results

This section presents and discusses the main findings of the research in Burkina Faso, addressing four key areas. First, it explores young people's perceptions of climate change, environmental degradation, and conflict. The second part analyses the specific effects of climate change and environmental degradation on conflict. The third section examines the combined impact of these environmental factors on conflict dynamics. Finally, the fourth section focuses on potential solutions to address the interplay between climate change, environmental degradation, and conflict.

4.1 YOUNG PEOPLE'S PERCEPTIONS OF CLIMATE CHANGE, ENVIRONMENTAL DEGRADATION AND CONFLICT

4.1.1 PERCEPTIONS OF CLIMATE CHANGE AND ENVIRONMENTAL DEGRADATION

As shown in Figures 3 and 4, both young men and women demonstrated a solid understanding of climate change and environmental degradation. Regarding climate change, young people most frequently cited rising temperatures as the primary effect they observed (Figure 3), followed by a decrease in rainfall, and lastly, irregular or poor distribution of rain. It is noteworthy that each of

these effects was recognized and understood by more than half of the young people in this study. These observations align with broader trends in Burkina Faso, where increasingly hot days and nights and a decline in cumulative annual rainfall have been recorded.[89]

Additionally, it is worth noting that young women, on average, were more likely to mention decreasing rainfall than young men. This could be explained by the fact that women are typically responsible for water-related tasks in households, making them more attuned to changes, such as the water levels in various springs.
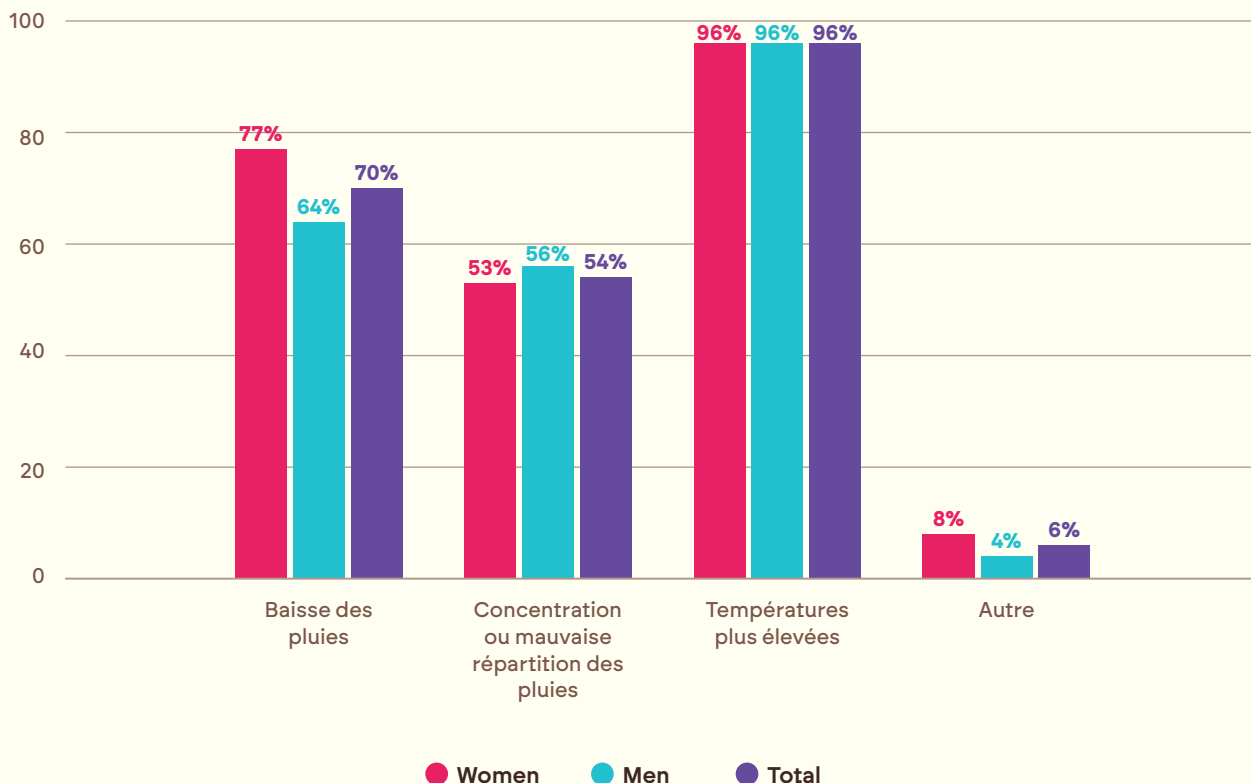
FIGURE 3 | Climate change phenomena observed by the young people interviewed
Source: data from the Burkina Faso case study (May 2024)

Regarding environmental degradation, Figure 4 highlights that the most frequently observed effects, in order of importance, are deforestation, surface water pollution, and soil erosion, each of which is noted by more than half of the young participants. Other observed effects, though to a lesser extent, include the decline in groundwater levels, the reduction of wild animal species, and the depletion of fish stocks.

It is worth noting that young women reported a higher observation of effects such as soil erosion, surface water pollution, and declining water tables. This can be explained by the fact that women are often responsible for fetching water from rivers, lakes, and wells, making them more likely to notice these environmental changes firsthand.

89   WaterAid West Africa (2021). Climate change and water security in Burkina Faso and Niger.
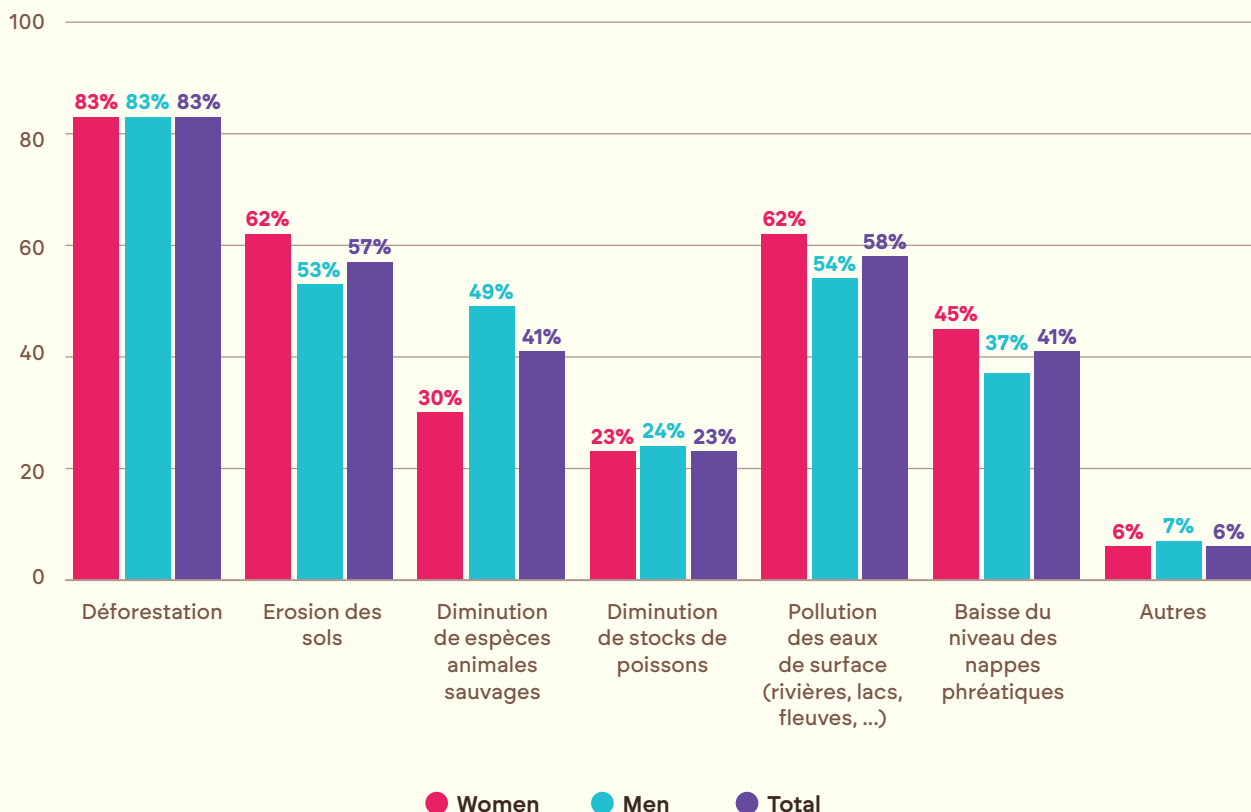
FIGURE 4 | Environmental degradation observed by young people

Source: data from the Burkina Faso case study (May 2024)

The effects of climate change and environmental degradation are particularly harmful to the population, especially young people. Interviews conducted with individuals and groups have highlighted several significant consequences. Many young people are facing increased unemployment and poverty, with some explaining that income-generating activities dependent on rainfall are slowing down or halting altogether due to environmental changes, leading to the loss of productive natural resources. This has also driven migration and rural exodus, as local opportunities diminish. Health issues are becoming more widespread, and agricultural production is in decline, as one young interviewee noted, ***"people can no longer make a profit from good harvests,"*** illustrating the challenges in maintaining livelihoods.

Moreover, the impacts of climate change and environmental degradation appear to affect young women and men differently. As shown in Figure 5, a third of young people believe these effects impact young men and women in distinct ways. Young men are primarily affected by the drop in income due to the slowdown in agricultural activities, which they are heavily involved in. Conversely, young women are more affected by reduced access to essential resources like water and firewood and face heightened health risks, especially during pregnancy. Surveyed young people also pointed to the rise in zoonotic and insect-borne diseases, with the spread of mosquitoes posing a significant health threat, particularly for pregnant women.
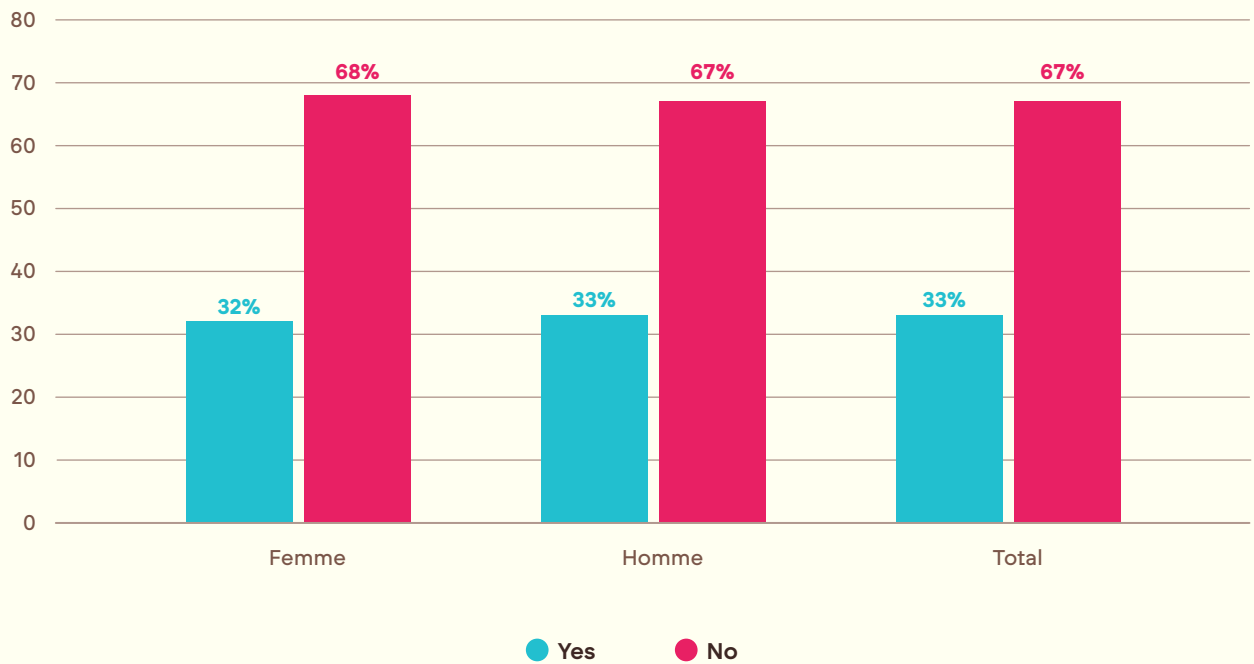
FIGURE 5 | Perceptions of the differentiated impact of climate change and environmental degradation on young men and women.
Source: data from the Burkina Faso case study (May 2024)

Speaking of the differentiated impact of climate change and environmental degradation, one focus group participant said:

> *"It's the women who do the housework. Like fetching water and wood for cooking. Because of the drop in rainfall and desertification, they are suffering to carry out these tasks, which used to take less time".*

A young man told her that men are more affected because:

> *"Men are the ones who do more farming and livestock rearing".*

4.1.2 CONFLICTS AND TENSIONS IN THE RESEARCH AREA

The young people interviewed identified various types of conflicts (Figure 6), with terrorism being the most significant, mentioned by almost all participants. Following terrorism, the most commonly reported conflicts were between farmers and herders, land disputes, ethnic or religious tensions, and inheritance conflicts. The trends observed by young men and women generally align with the overall findings of the study, although some young men also mentioned conflicts related to access to natural resources.

According to the young people, several underlying factors contribute to these conflicts, exacerbating socio-economic vulnerabilities:

➔   **CAUSES OF TERRORISM:**

→ Poverty and the quest for easy money.
→ Unemployment, underemployment, and social inequalities.
→ Ignorance, illiteracy, and poor education.
→ Feelings of abandonment, absence of authority, and marginalization/stigmatization.
→ Trafficking of drugs, humans, animals, and other illicit activities.
→ Injustice, intolerance, and the desire for revenge.
→ Manipulation and misunderstanding of religion. One young participant remarked:

> *"We are all Muslims here, but some people talk about religion with the wrong knowledge, and some people listen to them."*

➔   **CAUSES OF FARMER-HERDER AND LAND CONFLICTS:**

→ Disregard for designated grazing areas.
→ Scarcity of plant and water resources.
→ Free-ranging animals.
→ Uncontrolled occupation of pond beds.
→ Limited agricultural land and poor land use.
→ Usurpation of land titles and ignorance of the law.

➔   **CAUSES OF COMMUNITY CONFLICTS (ETHNIC OR RELIGIOUS):**

→ Manipulation and misunderstanding of religion.
→ Loss of cultural values (such as joking kinship) and traditional conflict management mechanisms, along with the legacy of older conflicts.

These drivers highlight the complex socio-economic and cultural dynamics that fuel the various types of conflicts in the region, according to the perspectives of the young people involved in the study.
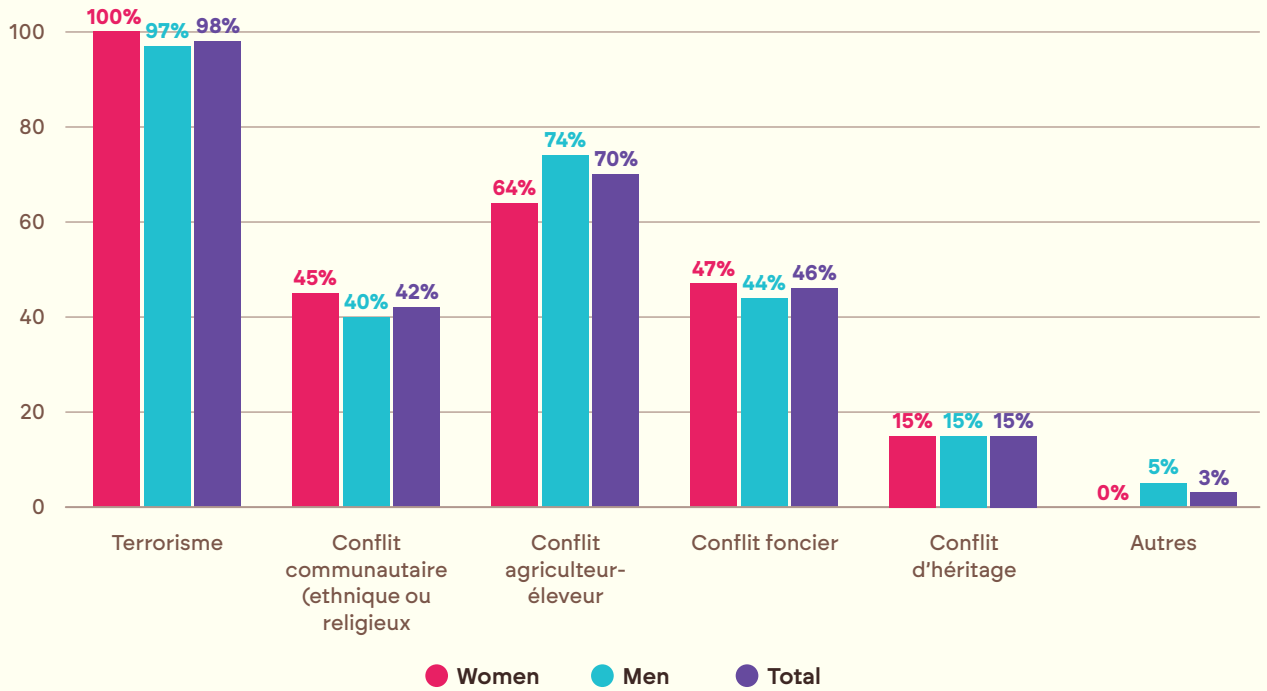
FIGURE 6 | Existing conflicts according to the young people interviewed

Source: data from the Burkina Faso case study (May 2024)

The existence of these conflicts has varied consequences for young men and women, as highlighted by 40 percent of young respondents (Figure 7) and supported by focus group discussions. Young men are more likely to suffer from killings and recruitment, whether forced or voluntary, by terrorist groups, and they are generally more involved in direct conflict. In contrast, young women are often victims of sexual abuse, early and/or forced marriages, and are more frequently forced to drop out of school due to these conflict-related pressures.
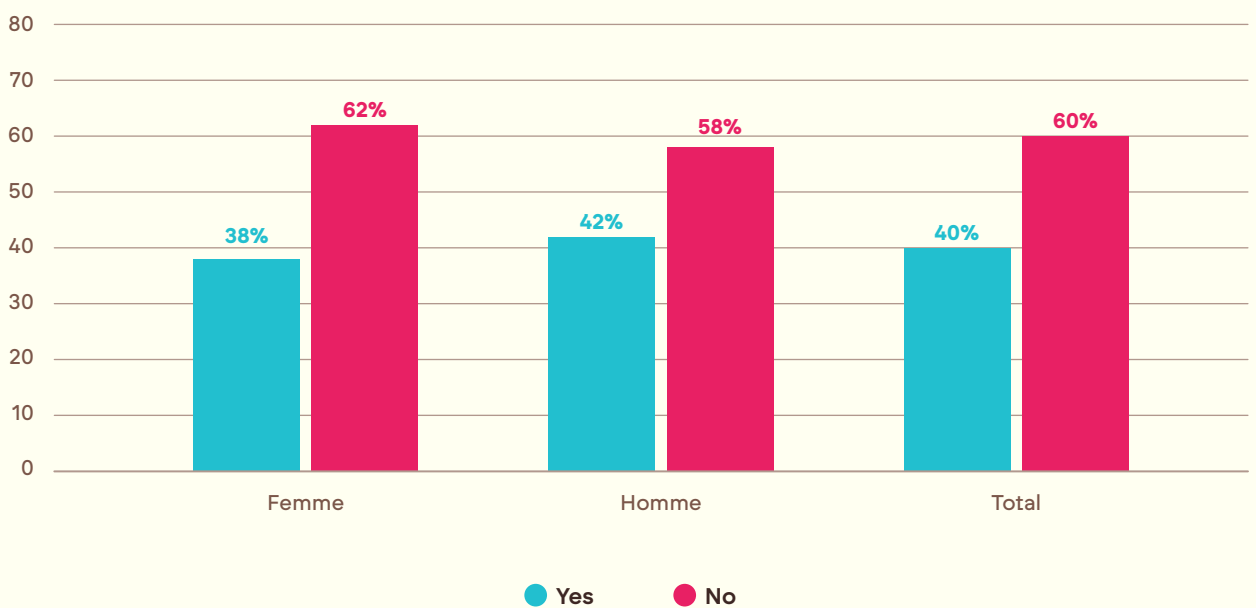
FIGURE 7 | Perception of the differential impact of conflict on young women and men

Source: data from the Burkina Faso case study (May 2024)

4.2   INFLUENCE OF CLIMATE CHANGE AND ENVIRONMENTAL DEGRADATION ON CONFLICTS

Many young people and informed actors view climate change and environmental degradation as potential sources of conflict. According to Figure 8, one-third of young respondents believe that climate change and environmental degradation could threaten peace and security in the Sahel region. One interviewee noted that *"climate change generates conflicts of interest between farmers and herders, as well as conflicts over natural resources."*

*Another young person highlighted that **"climate change can lead to the loss of grazing land and farmland, resulting in unemployment and poverty among young people, which in turn can lead to crime and violence."** A young woman in a focus group added, **"the lack of water resources can lead to conflicts around water points."***

This connection between climate, environmental challenges, and conflict appears more pronounced among young women (38%) than among young men (31%). This disparity is likely because disputes over access to water, especially at watering points used mainly by women, tend to affect them more directly.
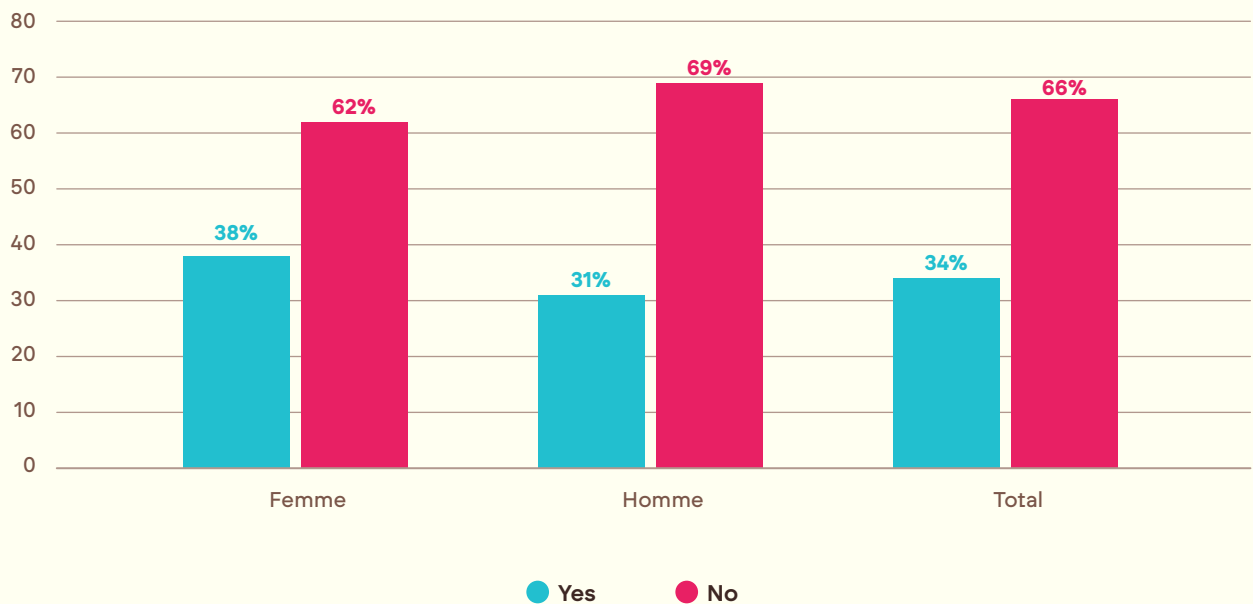
FIGURE 8 | Young people's perception of the link between climate change, environmental degradation and conflict

Source: data from the Burkina Faso case study (May 2024)

Overall, Figure 8 indicates that only a minority (34%) of respondents view climate change and environmental degradation as direct causes of conflict. However, the data underscores the significant threat these issues pose to stability and peace in the Sahel region. A deeper analysis reveals a clear relationship between the effects of climate change, environmental degradation, and the root causes of conflict. Climate change and environmental degradation in the Sahel are driving up unemployment and poverty among young people, reducing agricultural production,

and depleting natural resources, thereby intensifying competition for the remaining resources. These outcomes are frequently cited by young people as underlying causes of conflicts such as terrorism, land disputes, and farmer-herder clashes.

Research supports this link between climate variability and conflict, showing that environmental degradation contributes to conflict by destabilizing livelihoods, altering living conditions, and exacerbating food insecurity.[90] [91] [92] In particular, Sahelian countries face a heightened risk of violent conflict due to the socio-economic vulnerabilities created by climate change, given their heavy reliance on rainfall.[93] The SWAC/OECD (2010) report also highlights that deteriorating socio-environmental conditions, combined with weakened State authority, are expanding the influence and recruitment capacity of armed groups in Burkina Faso. Furthermore, the FAO (2021) identifies climate change as one of the main structural, long-term drivers of conflict in Burkina Faso, Niger, and Mali.

4.3 THE COMBINED IMPACT OF CLIMATE CHANGE, ENVIRONMENTAL DEGRADATION AND CONFLICT ON YOUNG PEOPLE

The combined impacts of climate change, environmental degradation, and conflict are likely to exacerbate the socio-economic vulnerability of young people in Burkina Faso's Sahel region, affecting several key areas:

→ **Increasing poverty**: Climate change, environmental degradation, and conflict are collectively driving youth poverty. Disruptions in rainfall, loss of farmland, and forced displacement due to conflict are severely affecting farming and livestock breeding, the region's main economic activities. Many young people are experiencing reduced income, and some have lost the ability to continue these activities altogether.

→ **Reduced opportunities and increased unemployment**: These challenges have created significant obstacles to productive investment and economic development in the region. Many initiatives have been halted or relocated, leaving young people with fewer opportunities. Additionally, armed groups have blockaded the region, preventing young people from seeking opportunities elsewhere, thus exacerbating unemployment.

→ **Shift to non-decent and/or illicit activities**: As traditional economic activities such as agriculture, livestock farming, and trade diminish, many young people are turning to alternative activities to survive, including banditry, drug trafficking, and prostitution, particularly among displaced persons.

→ **Human exploitation**: The loss of traditional livelihoods has also created conditions ripe for human rights violations, particularly among young women. Desperate for resources, many women face indecent proposals, including exchanging help or goods for sex.

90   SWAC/OECD. (2010). Security implications of climate change in the Sahel: policy perspectives.

91   Anab, O. G., Andrew, E. Y., & Kheira, T. (2021). Climate, Peace and Security Fact Sheet: Sahel (2021). Stockholm: SIPRI. Retrieved from https://www.sipri.org/publications/2021/partner-publications/climate-peace-and-security-fact-sheet-sahel-2021

92   Kheira, T., Katongo, S., Anne, F., Elisabeth, L. R., Asha, A., Kyungmee, K., Florian, K. (2023, December). Climate, Peace and Security Research Paper: Insights on Climate, Peace and Security. Stockholm: SIPRI. Retrieved from https://www.sipri.org/publications/2023/partner-publications/climate-peace-and-security-research-paper-insights-climate-peace-and-security

93   Anab, O. G., Andrew, E. Y., & Kheira, T. (2021). Climate, Peace and Security Fact Sheet: Sahel (2021). Stockholm: SIPRI. Retrieved from https://www.sipri.org/publications/2021/partner-publications/climate-peace-and-security-fact-sheet-sahel-2021

→ **Impact on education**: Extreme weather events, such as violent winds and rains, as well as conflict, including terrorism, have led to the destruction and closure of educational infrastructure. Many schools in the Sahel region have been forced to shut down, leading to temporary or permanent interruptions in schooling. This disruption is also linked to the early or forced marriage of young women. Additionally, extreme temperatures make learning more difficult, further impacting education.

→ **Impact on health**: The destruction or closure of health facilities due to extreme weather or conflict, combined with a loss of income from reduced economic activities, limits access to quality healthcare. Furthermore, extreme weather events like flooding, drought, and dust storms contribute to respiratory diseases and illnesses such as cholera and dengue fever, which thrive in such conditions. Young people often bear the burden of caring for vulnerable populations, including the elderly, pregnant women, and those with chronic conditions like sickle cell anaemia, diabetes, or hypertension, whose health problems worsen with extreme climatic phenomena.

4.4 SOLUTIONS TO THE INTERCONNECTED ISSUES OF CLIMATE CHANGE, ENVIRONMENTAL DEGRADATION AND CONFLICT

In response to the challenges posed by climate change, environmental degradation, and conflict, various stakeholders are involved to different extents in the research area. These stakeholders include the State, represented through its infrastructures, the army, and local volunteer groups (Volunteers for the Defence of the Homeland), as well as civil society organizations (CSOs), NGOs, youth groups, local religious and customary authorities, and respected community elders. Their activities primarily focus on security and anti-terrorism efforts, raising awareness, reclaiming degraded land, reforestation initiatives, mediation, job training and providing equipment support for young people, constructing boreholes, applying traditional conflict resolution methods, and organizing convoys for goods and people.

The impact of public policies and programs aimed at helping young people respond to these challenges is perceived differently. According to Figure 9, just over half of the young respondents believe that these policies and programs have enhanced their capacity to cope with the challenges. However, 2 percent of young people feel that the policies have hindered their ability to respond. Meanwhile, 41 percent of respondents were uncertain, likely due to a lack of awareness or familiarity with these policies and programs.
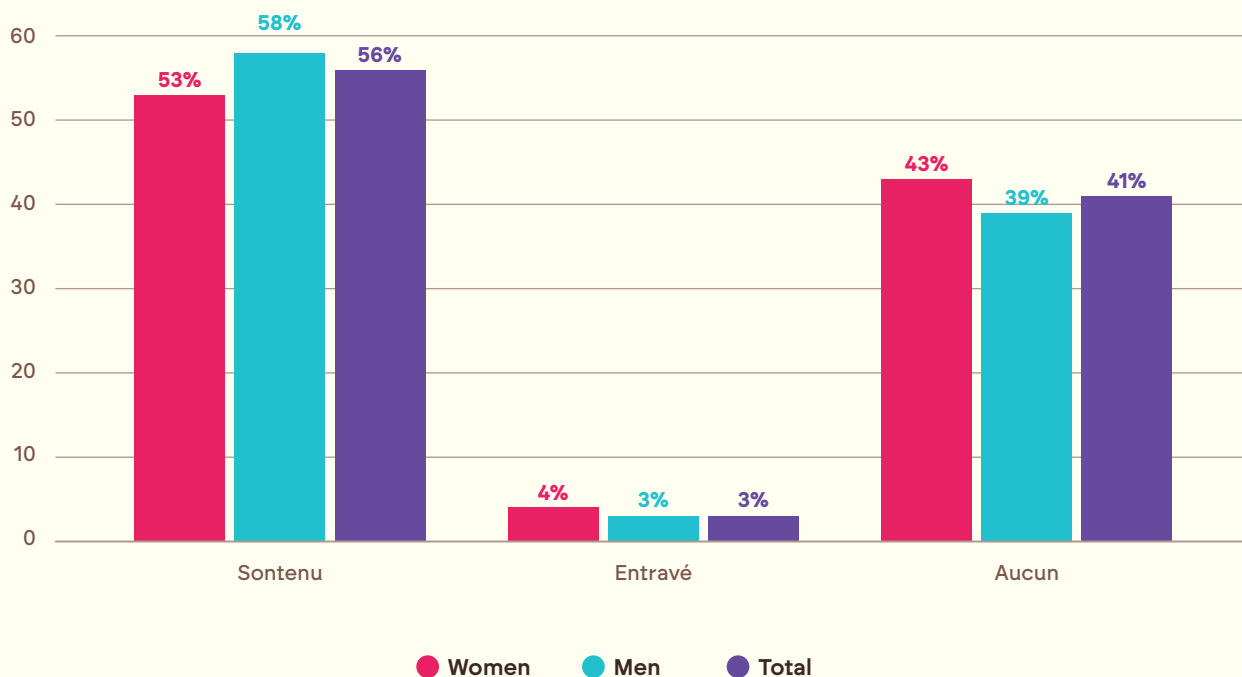
FIGURE 9 | Perceived impact of policies and programmes on young people's coping skills
Source: data from the Burkina Faso case study (May 2024)

Despite the numerous initiatives aimed at addressing climate change, environmental degradation, and conflict in the Sahel region of Burkina Faso, including those led by young people, several obstacles persist. Young people in the region cite challenges related to poverty, unemployment, insufficient material and financial resources, a lack of awareness about the real issues, ongoing insecurity, limited involvement in decision-making processes, poor coordination of efforts, and inadequate training and skills. Additionally, young leaders who participated in a workshop in Ouagadougou identified further difficulties such as burnout among association leaders, bureaucratic hurdles, language barriers that limit access to international opportunities, and the withdrawal of donors from Burkina Faso.

Nevertheless, young people proposed a range of solutions to address these challenges. The proposed actions are aimed at different target groups—namely the government of Burkina Faso, its technical and financial partners, civil society organizations, and community leaders. The key proposals include:

→ **Encouraging and supporting environmental education programs** to raise awareness about climate and environmental issues.
→ **Supporting community projects and encouraging local businesses** to invest in sustainable development initiatives.
→ **Developing action plans that include specific measures to address the needs of vulnerable young people.**

→ **Supporting youth entrepreneurship**, especially initiatives focused on environmental sustainability.
→ **Building the capacity of young people involved in civil society organizations** (CSOs) to fight climate change, protect the environment, and promote peace.
→ **Recognizing and promoting youth organizations and leaders engaged in these issues.**

→ Promoting volunteerism within large NGOs to provide young people with valuable experience and knowledge.

→ **Creating more spaces for discussion and reflection** among young people on climate, environment, and conflict issues.

→ **Improving access to finance for young people to support their initiatives.**

→ **Pooling resources on the ground** to enhance the effectiveness of existing projects.

→ **Focusing on monitoring and evaluation** to better capitalize on the impact of youth-led actions.

→ **Facilitating youth participation in international** initiatives aimed at combating environmental degradation.

→ **Strengthening youth advocacy** activities to give young people a stronger voice in these issues.

Additionally, several proposals were specifically directed at the government of Burkina Faso, including:

→ **Offering vocational training programs** tailored to the specific needs of young people, especially young women.

→ **Increasing reforestation efforts** and ensuring rigorous monitoring of planted trees.

→ **Integrating and reinforcing environmental and climate themes in school curricula** to spark greater interest among young people.

→ **Involve young people in decision-making processes** and promote dialogue between them and traditional and religious leaders.

→ **Engage younger generations early** by raising awareness about environmental issues.

5. Conclusion

This case study focused on the town of Dori in the Sahel region of Burkina Faso, where data was collected from 178 respondents aged 18 to 35 through individual interviews and focus groups. The findings highlight several key observations. Young people reported rising temperatures and declining rainfall, with poor temporal distribution, illustrating the effects of climate change in the region. Additionally, various forms of environmental degradation were identified, with deforestation, surface water pollution, and soil erosion being the most significant. Other concerns include a drop in the water table and a decline in animal species. The region is also facing multiple conflicts, with terrorism being the most prominent, followed by conflicts between farmers and livestock breeders, as well as land and community disputes.

These climatic, environmental, and conflict-related challenges have severe socio-economic consequences for the local population, contributing to increased poverty and unemployment due to the loss of economic activities and shrinking job opportunities. This, in turn, has led to the rise of illicit activities and banditry and has negatively impacted education. As a result, many young people view climate change and environmental degradation as threats to peace in the area, fearing these issues will further exacerbate conflicts.

To effectively address these challenges and their harmful consequences, young people have put forward several recommendations, summarized as follows: (i) Raising awareness among all stakeholders, including children, to build collective consciousness about climate and environmental issues, (ii) Building the capacities of young people and enhancing educational programs to include more environmental education, (iii) Supporting youth socio-economic initiatives and involving them more in local and national decision-making processes, and (iv) Pooling efforts and resources to take more coordinated and effective action.

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CASE
STUDY   **2**

Niger: The impact of climate change, environmental degradation and conflict in Mandarounfa

ACRONYMS AND ABBREVIATIONS

AS Al-Shabaab

CDSF Defence and Security Forces

NSAG Non-State Armed Group

UNHCR United Nations High Commissioner for Refugees

NGO Non-Governmental Organisation

CSO Civil Society Organisations

UNCCD United Nations Convention to Combat Desertification

Executive Summary

While climate change is not a direct cause of conflict, it does have a direct impact on natural resources and can cause many additional problems for human security. For example, climate change affects pastoral and agricultural calendars, disrupting production activities and community incomes. The numerous climatic crises have led people to adopt extreme strategies such as the abusive cutting of wood cover for energy, medicine, construction, etc. This destruction of already limited natural resources has reduced soil fertility and lowered agricultural productivity, leading to food insecurity. This demonstrates the vulnerability of communities to the harmful effects of climate change and environmental degradation.

In our study, most communities interviewed in Madarounfa commune recognize the impacts of climate change on local resources. Once an important landmark, Lake Madarounfa is now drying up, worsening the region's food production challenges and jeopardizing livelihoods. This strain is driving rural migration, cattle theft, and tensions between communities that depend on lake related activities. In some cases, women have turned to prostitution as a last resort for income.

Despite these hardships, communities show resilience and are actively seeking solutions to environmental challenges, with support from the government, community organizations, and civil society. Young people, in particular, are leading efforts to promote environmental awareness, eco-citizenship, and peace, while also participating in conservation initiatives. Many communities remain hopeful that, with training and support, they can adapt to these challenges and manage or prevent potential conflicts.

1. Introduction

Niger, a Sahelo-Saharan country with a hot, dry tropical climate, faces significant challenges from climate change, which is impacting the environment and natural resources. This situation has severe consequences on the livelihoods of Niger's primarily rural population, whose main activities focus on agriculture and livestock farming. Agriculture dominates Niger's economy, contributing 39.2% of the country's GDP in 2018.[94] However, environmental conditions are deteriorating rapidly. According to the United Nations Convention to Combat Desertification (UNCCD), key drivers of land degradation in Niger include irregular rainfall patterns—sometimes insufficient, other times torrential—that are unevenly distributed across time and space, as well as frequent, strong winds that erode the land. Environmental degradation in Niger takes various forms, such as desertification, deforestation, soil erosion, and the shrinking or drying up of water sources.

A study by the International Organisation for Migration (IOM) and the National Council for Sustainable Development in February 2021 revealed that 93% of respondents had observed recent environmental changes. The population identifies soil degradation, biodiversity loss, water scarcity, and recurrent droughts as the most severe environmental changes affecting their lives.

94   www.adaptationcommunity.net Niger's climate risk profile

The pressure on increasingly scarce resources is also sparking conflicts that undermine social cohesion and intensify the vulnerability of communities. Former United Nations Secretary-General Ban Ki-Moon (2007) described climate change as a root cause of conflicts between communities.[95] Intensifying this issue is the lack of socio-economic opportunities for young people, who represent the main labour force in agro-pastoral activities.[96] Young people, especially young women, are deeply affected by the intersecting impacts of climate and security crises. These challenges have led to rising levels of marginalization, unemployment, rural exodus, migration, idleness, banditry, and the development of criminal networks, including cattle rustling. These issues are especially acute in border areas with Nigeria, such as the Madarounfa and Guidan-Roumdji departments in the Maradi region. Armed bandit groups from Nigeria frequently cross the border at night, often targeting residents and taking refuge in wooded areas like the Baba Rafi Forest along the border. In 2021 alone, 2,735 animals and 91 individuals were kidnapped, with victims' families paying a total of 51 million CFA francs in ransom.

The power dynamics involved in managing shared resources raise critical questions about the roles young people and women could play in mitigating conflicts. This points to a need for participatory local management mechanisms that actively include marginalized groups, who are disproportionately affected by the impacts of climate change on both the environment and local conflicts.

Climate change, environmental degradation and societal tensions pose a serious threat to the country's economic and social development and undermine efforts to reduce poverty and promote sustainable development. Internationally, climate change is a growing concern due to its far-reaching impacts on human populations and ecosystems. Responses are being developed by local communities, civil society organizations (CSOs), researchers, and governments.

This study, titled ***"Impacts of Climate Change, Environmental Degradation and Conflict on Young People in the Madarounfa Department of Niger,"*** aims to analyse how marginalized young people are affected by the intersecting effects of climate change, environmental degradation and violent conflict. To achieve this objective, the following research questions are posed:

→ How do climate change and environmental degradation influence conflict or the risk of conflict in Niger, particularly in the Maradi region?
→ How are marginalized young people affected by the combined impact of conflict, climate change and environmental degradation?
→ How can we respond to the interconnected dynamics of climate change, environmental degradation and conflict, and support the strengthening of prevention and mitigation capacities in a changing environment?

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95   https://www.washingtonpost/com/wp-dyn/content/article/2007/06/15/AR2007061501857.html.Consulté on 31/05/2024
96   More than 80% of Niger's population is employed in the agricultural sector, according to Niger's climate risk profile. www.adaptationcommunity.net

2. Country Context

2.1   NATIONAL LEVEL

For nearly a decade, Niger has faced a security crisis exacerbated by the Libyan and Malian crises.
The tri-border area between Mali, Burkina Faso, and Niger is marked by high crime rates, attacks
by non-state armed groups, and escalating tensions between communities. Extremist groups, such
as Boko Haram in the Diffa region (active since 2015) and the Islamic State in the Tillabéry region
(active since 2018), have further destabilized the country. Additionally, organized crime, including
cattle rustling, kidnapping, and abduction, has surged, particularly along the Nigerian border in the
Tahoua and Maradi regions.

As in other Sahelian nations, Niger is also subject to the rigours of the climate – the rainy season
does not last more than three months, and rainfall is irregular from one year to the next, with
occasional floods causing major damage to activities and the meagre resources available.
Activities that are affected include the legendary transhumance caravan, nomadism, movement
of encampments around grazing areas in the dry season, livestock, off-season market gardening,
fishing and the practice of extensive and dispersed farming to ensure survival. Drought is the
biggest agricultural risk in Niger, with a high probability of occurrence and a severe impact on both
crop and livestock production.

Niger's rapid growing population, estimated at 3.7 percent in 2022 according to the World Bank[97] , with an average age of just 15 years old, intensifies human activities and accelerates environmental degradation such as air, water and soil resources. This is generating interand intra-community conflicts and increasing the vulnerability of Niger's mainly rural populations as result.

2.2   MARADI REGION

The Maradi region has a population density of 112.3 inhabitants per km^2, compared to Niger's national average of 18.6,[98] and is an important economic hub. The dominant activities are agriculture, livestock farming, trade and crafts, which are practiced traditionally and informally.[99] Agriculture and livestock farming allow the region to rank first in the export of livestock, hides and skins, second in cowpea production, and accounts for a fifth of the country's total cereal production. However, climate change and rapid population growth have increased challenges for traditional farming and herding practices.

In recent years, the phenomenon of landless farmers is becoming increasingly common. After inheritance, many families are forced to sell their inherited land, because they might not have enough to grow crops, and also because land is becoming increasingly expensive to develop and harvest. A study carried out in 2018[100] showed that "88% of the land is owned by the wealthy and the middle classes, while the poor in general, who represent 65% of the population, own only 12%." As the land becomes saturated, fallowing is no longer practiced and there are no more grazing areas. The only way for animals to move between hamlets, watering holes and small pockets of preserved grazing land is through a network of corridors. The result is friction and conflict, often fatal.[101] A case in point is the conflict between farmers and herders in Dandja,[102] which resulted in three deaths and seven injuries in November 2023.[103]

According to OCHA's March 2023 report, security incidents and casualties have risen compared to the same period in 2022, with 38 incidents and 85 victims recorded in the first quarter of 2023. This includes killings, injuries, abductions, and livestock theft. Ransom payments for abducted individuals are also common.

Since the beginning of the year, the humanitarian situation in the region has been dominated by the regular movement of Nigerian populations towards the Maradi region. These people are settling in localities along the border strip, particularly in the departments of Madarounfa and Guidan-Roumdji. Repeated incursions by armed groups have led to both internal and external migration of populations. There movements are at time also preventive as people try to escape the atrocities

97   https://datacommons.org/place/country/NER?utm_medium=explore&mprop=count&popt=Person&hl=fr. Accessed on 12 April 2024
98   INS 2021 projection
99   www.initiative3n.ne/maradi.php#:~:text=L Agriculture%2C0Livestock,the%20traditional%20and20informal. Accessed on 12 April 2024
100   https://hea-sahel.org/wp-content/uploads/2018/02/NE-profil-niger-ne-07-madaroufa-octobre-20097987208.pdfconsulté on 29 July 2024.
101   www.eda.admin.ch/countries/niger/fr/home/cooperation-internationale/strategie/zones-d-intervention/maradi.html. Accessed on 12 April 2024
102   Danja (Niger): is a village in Niger in the Maradi region on the RN9, the tarmac road leading to Nigeria via Dan Issa. The village is 13km from Maradi on the RN9.
103   Studio Kalangou, November 2023

of these armed groups. According to the UNHCR, 1,417 people (mostly women and children) from Nigeria have found refuge in the Maradi region.[104]

In response, Niger's Defense and Security Forces have been active, successfully preventing some incursions and returning stolen livestock when cases proceed legally. The region has been classified as a "Military Operations Zone," imposing restrictions on humanitarian access. For example, humanitarian workers in Madarounfa department, 20 km from the Nigerian border, must use military escorts, limiting the reach of aid operations in these vulnerable areas.

104   OCHA Niger Flash update 27 March 2024

3. Methodology and Case Study Selection

This study used qualitative research methods from the exploratory phase to data analysis, with data gathered through semi-structured interviews, focus group discussions, and field observation. The methodology prioritized a participatory approach, involving key players and community members from the areas studied to ensure inclusivity and relevance.

To lay the groundwork, the research began with a pre-survey to confirm the relevance of selected themes in the chosen location and to define a representative sample. This was followed by a literature review, which included online sources, relevant reports, articles, and audiovisual materials.

3.1 CASE STUDY SELECTION

The study focused on the commune of Madarounfa, located in the Maradi region. The commune is located around 20 km south of Maradi and 650 km east of Niamey, Niger's capital. The population is predominantly Haoussa people, with a minority of Peulh and Touareg agro-pastoralists who are predominantly Muslim. The main activities of these communities are agriculture, livestock farming, fishing and trade.

The municipality is home to the largest permanent surface body of water in the Maradi region. Lake Madarounfa is a significant socio-economic and cultural resource, spanning 524.32 hectares in normal conditions and up to 800 hectares during floods, with depths ranging from 1.5 to 5 meters. The lake has been designated a Ramsar site since December 2019 and holds unique value as a combined cultural and ecological site, encompassing the lake itself, the tombs of 99 saints[105] and a forest. The lake is a special ecosystem, unique to the area, and plays a vital role in the life of the local people, contributing to improving food security, providing a source of income for households and maintaining the ecological balance. It also plays an important function in meeting the water needs of local people and livestock. As described by religious leader from the Kaffi district,

*"Lake Madarounfa is a blessing, a protection, an identity and a symbol for us.
All our economic activities depend to a large extent on this resource. We grow
off-season crops, fish, produce livestock feed, water all the local animals,
engage in tourism, etc. In short, it means everything to us."*

However, this lake is under serious threat from climate change. During droughts, the lake shrinks causing losses in agricultural and fishing yields.[106] According to a local fisherman, *"the fishermen of Madarounfa, in Niger, rely on Lake Madarounfa for their livelihood and food. But both are threatened by drought"*.

This study specifically targets the five villages bordering the lake. These are the villages of Dan Toudou, Yan Radi, Gamdji, Saoulaoua and one of the districts of the urban commune of Madarounfa, called Kaffi. The five villages are inhabited by Haoussa communities and a minority of Peulh Muslims, whose activities include fishing, farming, livestock rearing and beekeeping. The five villages were chosen for their proximity with Lake Madarounfa and are therefore the direct victims of the lake's drying up.

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105   The tombs are located in and around the lake. The first manifestation of the saints' dates back to the dawn of time, while the last was 15 years ago (around 1990), according to tradition. It is the spirit of a saint that takes up residence on the site through an apparition of light visible at night, particularly on Thursday evenings. Following this "announcement", the local people build a tomb on the designated spot, which becomes the saint's living quarters. Ritual ceremonies and donations are then organized on this "sacred" site.
106   Ramsar fact sheet, May 2021.
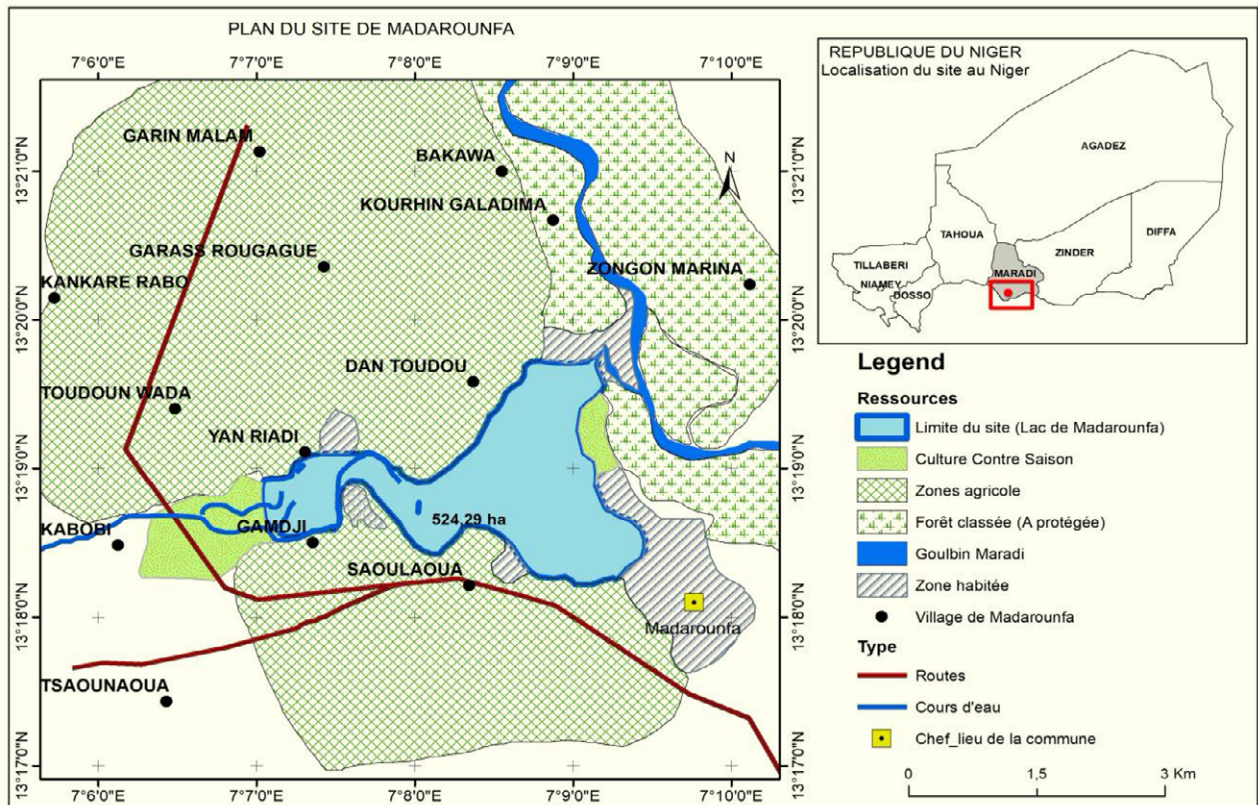
FIGURE 1 | Map of the region

The purposive sampling technique identified two main target groups for data collection: direct lake users (young farmers, stockbreeders, fishermen, beekeepers, and youth from civil society) and other stakeholders (religious leaders, traditional chiefs, landowners, NGOs, local government, and various community councils and commissions such as the Communal Land Commission, the Vulnerability Monitoring Observatory, the Departmental Land Commission, survey units, the Department of Agriculture, Livestock and the Environment, and the Departmental Youth Council.)

3.2   METHODOLOGY

Field data collection was conducted over four days in May 2024, facilitated by local focal points who assisted in assembling participants and organizing transport. Data was gathered through focus groups and individual interviews, supported by note-taking and audio recordings.

3.2.1 FOCUS GROUP DISCUSSIONS

The focus group discussions were conducted by two teams of two researchers, consisted of seven participants per group. A total of 20 focus groups were conducted, involving 140 individuals in total, (105 men and 35 women) between the ages of 15 and 35. The difference in the number of young men and women interviewed reflects the higher involvement of men in agriculture, livestock farming and fishing. Even if women are involved, it is through secondary activities such as the sale of agricultural and fishing by-products, the small-scale rearing of small ruminants, and the processing of agricultural products into food for consumption.

3.2.2 INDIVIDUAL INTERVIEWS

Four different interviews guides were developed according to the categories of people that were surveyed: one for youth groups, one for regular lake users, one for traditional leaders, religious leaders and landowners, and one for technical services and NGOs. In total 28 individual interviews were conducted with 26 men and 2 women. The low number of female interviewed reflects the limited presence of women in religious and customary leadership roles, as well as land ownership, which remains rare for women in Niger.

3.2.3 FIELD OBSERVATIONS

The research team visited the lake to observe and document the physical impacts described by respondents, capturing photographs to visually illustrate the changes and challenges affecting the lake and its surrounding communities.

4. Analysis of research results

4.1 THE EFFECTS OF CLIMATE CHANGE AND THEIR CONSEQUENCES

The study revealed that all five villages around Lake Madarounfa are experiencing the same effects of climate change, which impact agricultural productivity, water resources, and local livelihoods. Key issues identified include:

4.1.1 LATE ONSET AND EARLY STOP TO THE RAINY SEASON

Niger has a uni-modal rainfall pattern (only one rainy season a year) which normally runs from May to October. The Maradi region is one of the wettest every year. Classed as a Sahelian zone, it records an average rainfall of 300 to 600 mm.[107] The communities we met were unanimous in emphasizing the late start to the rainy season. Compared to a few years ago, there is a delay of several weeks each year. When contrasted with the 1991-2020 normal, cumulative rainfall is lower at all the weather service's stations, with the exception of Diffa.[108] This is having a negative impact on agricultural production as communities are no longer able to predict the rainfall, and sometimes

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107   Niger's National Climate Change Adaptation Plan, October 2022
108   CNSC_Niger_Bulletin_7_Bilan_2023_Climat-RESSOURCES_EN_EAU.

end up having to sow successive crops, as their first attempts usually fail because the rain is late to arrive. This has a direct impact on their means of subsistence during the dry season. In addition, during the discussions, one participant, a livestock breeder, stated that they were also experiencing insufficient rainfall compared to the community's needs. Watercourses were no longer being replenished properly, leading to drought, and impacts the watering of livestock. This, in turn forces livestock breeders to be more mobile and interact more with farmers. The proximity of livestock to cultivated land causes damages to farmer's fields and generates conflict between the farmers and livestock breeders.

The discussions also raised the issue of violent winds that often accompany heavy rains. The land, dried out by the droughts and smeared by the low rainfall, can no longer quickly absorb the exceptional torrential rainfall. This leads to flash floods and inundations that cause extensive damage to infrastructure, homes, crops and livestock. This increases the level of poverty among the local population, prompting migration. A farmer in Kaffi shared that heavy rains cause flash floods that inundate the gardens around the lake, wiping out all the effort and resources invested in a single day. In such situations, solidarity between the various stakeholders plays an important role. Support is given to victims as a gesture of compassion. From time to time, they receive support in cash or in kind from NGOs working in the area, but very rarely from the state.

4.1.2 INTENSE HEAT

During the interviews, the participants highlighted the increase in intense heat episodes as a major challenge facing the area. As one participant stated:

> *"Our big problem now is really the heat, we've never experienced such heat
> except in recent years, and this year is the worst".*

In 2024 Niger recorded peak temperatures of 47.2°C in Tillabéry, higher than in 2023 and the 1991-2020 normal according to the meteorological department. The Maradi region recorded a peak of 44.7°C in March 2024, while the average temperature was 43.2°C. All the regional stations recorded days where the maximum daily temperature reached or exceeded the 40°C threshold. People are having to cope with increasingly high temperatures, reaching levels never seen before. This rise in temperature, combined with other disruptions, is exacerbating the production challenges faced by communities. Higher temperatures make food preservation more difficult, leading to losses for women selling fish, fruits, and vegetables. The added expense for cooling or preservation reduces already minimal profits, impacting livelihoods, especially for women. Environmental degradation of resources

The majority of participants identified two main causes of the multifactorial degradation of the environment: climatic causes and anthropogenic causes (human action). The communities we met unanimously supported the hypothesis that climate change and certain human practices are having a negative impact on their resources. According to the manager of the Young Volunteers for the Environment association, the effects of climate change are leading to the depletion of resources, and young people are becoming increasingly aware of this.

4.1.3 ANTHROPOGENIC CAUSES

Among the causes attributed to human action, several key elements were identified by the participant such as **deforestation** through the uncontrolled felling of trees and **demographic pressure** which means that areas suitable for cultivation, grazing and fishing are becoming insufficient and weakened. The growth in human needs increases the pressure on resources. For example, land designated for fallowing, a traditional practice that is essential for soil regeneration, is no longer respected, leading to the continued ageing of the land. As one interviewee put it:

> *A portion of land that used to be given to one person is now divided between several people. What's more, there's no longer enough to fertilize the land now that fedherbia,[109] considered the main fertilizer, is disappearing."[110]*

According to the Director of Agriculture, the "*law of restitution*" is not being respected, because the communities no longer carry out fertilization; the same applies to irrigation. The law of restitution consists in restoring to the soil the nutrients removed during the harvest, using compost or fertilizer.

4.1.4 CLIMATIC CAUSES

Climatic changes are driving the disappearance of several animal and plant species, which has particularly affected local beekeepers. Concerned about their future, the beekeepers reported that honey production has become increasingly difficult as bee populations have sharply declined. This decline is linked to the loss or distance of plant species essential for bees' food and pollination.

Another major issue raised during the discussions was the shrinking and gradual silting-up of Lake Madarounfa, the main source of water for the area. A community leader explained, *"**This year, we are witnessing something unprecedented: the extraordinary separation of Gora and Madarounfa"** the local name for the two main parts of Lake Madarounfa. The lake is critically close to drying up completely, putting fish stocks at serious risk. The last time the lake reached this state was over 80 years ago, and no one alive today has seen it in such a condition.

During our visit, the traditional chief shared recent footage showing the lake's severely shrunken state. He noted that this change has deeply impacted the lives and activities of local residents.

The ongoing drought has rendered water resources fragile, leading to soil hardening and tree desiccation, which has made agricultural conditions increasingly challenging, especially for women. Farmers, fishermen, and herders now face the difficult task of sharing the last remaining water resource as it steadily diminishes, straining livelihoods and resources in the community.

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109   Fedherbia is a plant found in semi-arid zones, but its phenology is reversed in relation to the rains. It buds at the end of the rainy season, fructifies and grows during the dry season, then loses its leaves at the start of the new rainy season. At the juvenile stage, the stomata close very quickly in response to moderate edaphic drought, demonstrating a drought-avoidance strategy (Olivier Roupsard, 1997, Écophysiologie et diversité génétique de fedherbia albida, CIRAD).
110   Interview conducted with a traditional leader in dan Toudou on 18 May 2024

4.2 IMPACT OF CLIMATE CHANGE AND ENVIRONMENTAL DEGRADATION ON YOUNG PEOPLE

Respondents highlighted that environmental degradation is causing significant hardships for the community of Madarounfa, particularly impacting farmers, herders, and fishers. These groups, whose main sources of income are now at risk, are experiencing worsening poverty levels. Insecurity in the area further aggravates these challenges, especially for farmers, who are often unable to work their fields due to safety concerns. Similarly, herders can no longer drive their livestock into certain pastoral areas due to frequent thefts.

The study identified several key impacts: reduced agricultural yields, lower incomes, food shortages, rural exodus, and migration to other regions or neighbouring countries. These issues affect all residents of the five villages studied but particularly weigh on young boys. Young girls also feel the impact, as the products they typically process become scarcer and more expensive.

The lack of economic opportunities and activities for young girls and boys sometimes leads them to engage in risky behaviour and harmful practices such as theft, prostitution and drug use. Faced with this deterioration in their sources of income, many young people both girls and boysturn to migration. Young men often head north to Agadez's Djado gold-panning sites, or to Nigeria, Mali, and as far as Algeria and Libya, seeking better prospects. Young girls, in contrast, tend to migrate to regional capitals, where they work as housekeepers or beggars. Some women migrate further to countries like Ghana and Benin for housekeeping or petty trading. This female migration trend is new to the area and has harmful consequences for social cohesion and household stability. Group discussions and interviews revealed that this exodus is destabilizing families, sometimes leading to divorce. Environmental pressures also contribute to girls dropping out of school, as parents who face declining incomes and reduced food supplies often need their children to help in family businesses. Only one village, Saoulaoua, seems to be relatively unaffected by this phenomenon of migration among young people. This is due, firstly, to the fact that it is a sparsely populated village, and there are not enough young people to leave and empty the village of its workforce. Also, the situation seems less precarious than in other villages because this community is less affected by the spectacular shrinking of the lake. This has not greatly hindered the normal functioning of production activities.

The village of Saoulaoua seems to be an exception to this migration trend. As a sparsely populated community, Saoulaoua has fewer young people leaving, and its production activities have been less impacted by the shrinking lake, allowing for more stable livelihoods.

According to majority of those interviewed, women and girls are a very vulnerable group. As one community leader from Yen Radi explained,

> *"Women are the most vulnerable, firstly because social pressure forces them not to move, meaning they must stay put no matter the situation, especially if they have children. Those who do leave often resort to begging, which brings its own disadvantages."*

Young girls and women play an essential role in the marketing of agricultural and fishery products produced by men around the lake. However, they are bearing the brunt of the shrinking of Lake Madarounfa, which is leading to a drop in yields from these activities. They are also experiencing increased difficulties in their traditional activities of raising small ruminants. Feeding livestock is becoming increasingly expensive, and it is no longer safe to let animals graze in the bush because of the frequent thefts in the area.

4.3   IMPACT OF CLIMATE CHANGE AND ENVIRONMENTAL DEGRADATION ON CONFLICT

The farming, fishing, and livestock-raising communities around Lake Madarounfa consistently reported that climate change is worsening the availability of essential resources, including water, farmland, and grazing areas. A livestock farmer from Gamdji highlighted the critical issue:

"The reduction in water resources and straw in grazing areas is the crux of the problem we're facing with other groups in the area. Just a few years ago, we never worried about water or feed, especially with the lake being permanent. Of course, there were disputes, but not like now, when the lake has dried up and bandits make it unsafe to graze or water animals freely."

The scarcity of resources has led to drops in productivity, income, and overall livelihood security across communities. In this increasingly vulnerable environment, competition for limited resources fuels frustration and resentment, particularly among young people. This has created conditions where some are turning to illegal or violent means, further intensifying a climate of tension and instability, and raising the risk of escalating conflicts.

The main conflicts reported by respondents in the villages surrounding the lake are inter-communal mainly by cattle theft, sometimes leading to acts of violence between the various groups of actors in the community. Armed livestock theft, especially of small ruminants, has become a serious challenge, making it difficult for communities to protect their animals. Traditional herding practices, where livestock graze during the day and are brought home to huts each night, are under threat as the presence of bandits limits the areas herders can safely access. These conflicts involve the five Haoussa communities living around Lake Madarounfa, who are farmers, herders and fishermen, as well as a community of Peulh herders from a neighbouring village located around ten kilometres away. A significant risk exists for these inter-ethnic tensions to explode, as Haoussa farming communities often blame the Peulh agro-pastoralist communities for livestock theft rather than attributing it to the armed bandits that operate in the region.

In addition to conflicts over cattle rustling, another recurring source of tension between these same communities concerns the damage caused by Fulani cattle to the fields and gardens of Haoussa populations. The women interviewed suspect that these intrusions are sometimes premeditated, as they occur more frequently at night. During the day, the rare animals caught in the act are taken to the pound, where their release is conditional on payment of a tax and compensation by the owner of cattle, for the damage caused – only if this is claimed by the owners of the damaged crops. Although violent conflicts have not yet broken out, Haoussa farmers are becoming increasingly frustrated by this repeated damage. This situation fuels a latent tension between these two communities, with the risk of violent escalation at any moment.

On the lake, fishing communities claim to be victims of damage caused by animals around their fishing nets. In addition, the shrinking of the lake has led animals to move closer to the fishing grounds. Their passage makes the water muddier, which considerably complicates fishing and even crop irrigation A local fish seller shared that her days without any fish to sell have grown more frequent, impacting her livelihood of over 23 years. Though tensions exist between fishermen and farmers, traditional and religious leaders have so far managed to prevent these interactions from escalating into open conflict.

Despite these mounting pressures, there appears to be relative social cohesion within the farming and herding communities, who report limited conflicts within their own fields and grazing areas. While cases of violence between farming communities and livestock breeders over grazing animals or crop damage are common in the broader Maradi region, these incidents have not significantly impacted the Madarounfa area. Here, the local land commissions play an essential role in maintaining peace, providing mediation and helping manage land-use disputes effectively.

4.4   RESPONSES TO CLIMATE CHANGE, ENVIRONMENTAL DEGRADATION AND CONFLICT

The communities of Madarounfa feel largely powerless in the face of these cumulative challenges they face, especially with the growing insecurity in the area and the ongoing military operations. Since 2019, several incursions by non-state armed groups have led to kidnappings and cattle theft across the department, sparing only the commune of Djirataoua. Since the area has become a military zone of operations, which is synonymous with restrictions on freedom of movement, economic activities have been affected. Limited resources, lack of knowledge, and the worsening effects of climate change have left locals feeling they have few options to improve their situation. This sense of frustration is compounded by what they perceive as a low level of responsiveness from the government. The environment department and local management committees are attempting to regulate access to resources, but these efforts fall short of alleviating local concerns. Administrative authorities, however, remain open to collaborating with partners who can provide meaningful solutions.

Despite these challenges, young people in Madarounfa demonstrate resilience. In Saoulaoua, for instance, youth work collecting clay from the lake for brick-making, contributing to local construction. In Kaffi, young volunteers regularly sweep and clear waste from the lake's banks to reduce waterborne disease risks. However, these initiatives struggle with sustainability due to limited material support. One young volunteer in Kaffi shared,

> *"When we started, it was exciting and ambitious. People even thought we were being paid. But without support from the authorities or partners, we couldn't continue. We've made many complaints to the town hall, but nothing has come of it."*

Similarly, in the village of Gamdji, young people have organized themselves into night patrols to try and prevent cattle theft – a recurring scourge that greatly affects small-scale domestic or hut rearing enterprises and comprises an important source of income for women. These night-time surveillance patrols deter and inform the security forces and are encouraged by local leaders. The village chief says that these initiatives are much appreciated, as they bring young people and

village leaders closer together. It is a way for them to keep abreast of the activities in which young people are involved in, but also gives young people a reason to stay in the village to help make property safer.

In other communities, people regularly dig new water passages as the rainy season approaches to limit flooding and direct run-off towards the lake. The local youth council has been proactive, mobilizing young people for environmental protection initiatives, including tree planting and conservation awareness, with support from the environmental department and civil society organizations (CSOs) in the area.

CSOs are also working to raise awareness about climate change, promoting the adoption of climate-sensitive crops and sustainable agricultural practices to preserve the environment. These efforts align with Niger's National Adaptation Plan, adopted in October 2022, which advocates for community-based adaptation to climate impacts.

4.5   YOUTH-LED RESPONSES

The participants involved in the research display a strong understanding of the disruption affecting their lives. Their proposed solutions are aimed at building responses that are adapted to the reality of their environment, in the face of climate-related changes they are experiencing. They aim to build on knowledge and initiatives that are already existing within the communities. At the same time, they request support for the efforts they are undertaking, or within the framework of programs and projects set up by the State and other players/organizations working in the area. Key actions include preserving and protecting the environment, improving security, promoting peaceful coexistence between communities, empowering young people and involving women in management committees. The president of the youth council remains firm on the fact that the management of local resources must involve the entire community without exclusion. He also emphasized that everything concerning Lake Madarounfa must be dealt with by the five villages in collaboration with the departmental environment directorate.

The CSOs involved in protecting and preserving the environment emphasized the commitment and meaningful participation of young boys and girls. They noted that grassroots perspectives—especially those of youth, women, and marginalized groups—must be shared with national and international decision-makers to ensure policies address community needs effectively. To support this, they emphasized the importance of capacity building and broad access to national strategies on climate adaptation.

TABLE 1 | Recommended actions based on the various data collected

ACTIVITIES/ACTIONS	COMPONENTS	STAKEHOLDERS
Developing agricultural and pastoral activities	→ Intensifying farming and grazing practices → Developing agricultural value chains → Intensifying market gardening → Developing production spaces for girls and women → Training in climate-sensitive production	Farmers, livestock breeders, women's groups, technical agricultural and livestock services
Managing natural resources	→ Preserving and regenerating vegetation → Refurbishing water resources and infrastructure → Desilting the lake → Increasing the lake's fish count → Efficiently channelling water during the winter season	Local authorities, technical services, communities
Training and capacity building	→ Training on the effects of climate change → Training young people in eco-citizenship → Implementing mitigation strategies for the negative effects of climate change → Training young people in sales techniques, and how to process and preserve local produce → Training in mediation and negotiation → Skillset training for girls and women → Revitalizing community structures (land commission, community early warning structure, local infrastructure management committee) → Developing mentoring programs for young girls and boys to encourage them take part in decision-making	Training centres, NGOs, technical services, local and traditional authorities, young people, VSOs
Raising awareness and mobilizing young girls and boys	→ Raising young people's awareness on the importance of their involvement in intensive production → Increasing literacy amongst girls and women → Building an entrepreneurial culture and spirit among young girls and boys → Organizing community actions → Sensitizing on behaviours to adopt in the event of animals wandering in the fields	Local authorities, youth associations, NGOs/community associations

ACTIVITIES/ACTIONS	COMPONENTS	STAKEHOLDERS
Modernizing infrastructure and equipment	→ Supporting the use of solar instead of electric machines → Modernizing the fishing industry → Renovating the fish farm	Local authorities, fishermen, technical services
Security and surveillance	→ Creating a local 'vigilance brigade' to protect and preserve the environment → Raising awareness around proper etiquette for lake usage	Local authorities, environment, communities, youth organizations
Direct support for production activities	→ Investing in fish feed → Planting seeds that are sensitive to climate change	Fish farmers, technical services

5. Conclusion

The study provides an alarming picture of the effects of climate change and environmental degradation on rural communities in the Maradi region of Niger. Young people, especially girls and boys, are among the most affected by these climatic changes. The main impacts are the late onset of the rainy season, intense heat, drought and environmental degradation. These environmental changes have a critical impact on young people who struggle to find alternative economic opportunities in this context. This leads to rural exodus, migration and idleness, and makes them more vulnerable to recruitment by bandit groups operating in the area. Whilst the discussions did not reveal whether any young people in the commune have already joined bandit groups, the worsening situation certainly presents a strong incentive.

The impact on girls and women is even more severe. Their income-generating activities are linked to those of men, leaving them without their own means of subsistence. When men migrate, women are left with the heavy responsibility of caring for their families on limited resources. Increasingly, women themselves are joining the rural exodus and migrating in search of work—a trend that raises concerns within the community, as it weakens family bonds. Even if women often return with money, they also return with a new way of life and a desire to return for the most part.

Faced with these major challenges, coordinated action is needed to enable these vulnerable communities to overcome the devastating impacts of climate change on their livelihoods. Young people are already starting promising local efforts with the support of traditional leaders and local authorities, but persistent challenges call for strengthened adaptation and resilience measures. It is critical to involve all members of society in close collaboration with local authorities. Key actions include raising awareness, offering training, promoting climate-sensitive and sustainable agricultural and pastoral practices, preserving natural resources, and providing targeted support for young people, especially girls and boys, to enable them to pursue alternative and resilient livelihoods.

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→ Studio kalangou, 07/November 2023, 3 dead and 7 injured: the toll of a conflict between farmers and herders in Dandja, Maradi

→ Youssouf Abdoulaye, VO Afrique, 8 May 2023, the retreat of Lake Madarounfa threatens entire communities in Niger.

Appendixes

APPENDIX 1 | Summary table of focus groups

FUNCTION	MEN	WOMEN	15-35	35+	OBSERVATION
Farmers	28	0	28	0	4 focus groups of 7 people with young farmers aged 15 to 35 in the 5 target villages
Breeders	28	0	28	0	4 focus groups of 7 people with young livestock farmers aged between 15 and 35 in the 5 target villages
Fishermen	28	0	28	0	4 focus groups of 7 people with young farmers aged 15 to 35 in the 5 target villages
Beekeepers	7	0	7	0	A focus group with young beekeepers. Group made up of young people from the 5 target villages
Regular users	0	28	28	0	4 focus groups of 7 young girls and women using the lake (in connection with the lake's activities) aged between 15 and 35 in the 5 target villages
Young men	14	0	14	0	2 focus groups with young boys aged 15-35
Young women	0	7	7	0	1 focus group of young women aged 15-35
Total	**105**	**35**	**140**	**0**	
		140		**140**	

APPENDIX 2 | Summary table of individual interviews

FUNCTION	MEN	WOMEN	15-35	35+	OBSERVATION
Traditional Chiefs	5	0	0	5	5 individual interviews with the traditional chiefs of the 5 target villages
Religious Leaders	5	0	0	5	5 individual interviews with religious leaders in the 5 target villages
Landowners	6	1	1	6	7 individual interviews with landowners around the lake in the 5 target villages
National Guard	1	0	0	1	1 individual interview with a National Guard Officer
Departmental Land Commission (CONFODEP*)	1	0	0	1	1 interview with a representative of the Madarounfa departmental land commission
Livestock Directorate	1	0	0	1	1 interview with the representative of the Departmental Livestock Directorate
Vulnerability Monitoring Observatory	1	0	0	1	1 interview with the Vulnerability Monitoring Representative
Gendarmerie	1	0	0	1	1 interview with a representative of the National Gendarmerie
Red Cross	1	0	0	1	1 interview with the Red Cross Representative
NGO Yau da Gobé	0	1	1	0	1 interview with the representative of the local NGO Yau da Gobé
Departmental Youth Council	1	0	1	0	1 interview with the President of the Local Youth Council
Environmental Ministry	1	0	0	1	1 interview with an Environmental Representative
Young Volunteers for the Environment	1	0	1	0	1 interview with the executive secretary of the Young Volunteers for the Environment Association
Youth Network Against Climate Change	1	0	0	1	1 interview with the Network Chairman
Total	**26**	**2**	**4**	**24**	
		28		**28**	

**CASE
STUDY** **3**

Uganda: Navigating Climate Challenges and Conflict

**YOUTH PERSPECTIVES AND LOCAL REALITIES ON
YOUTH, CLIMATE CHANGE AND CONFLICT NEXUS IN THE
RWENZORI SUB-REGION**

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ACRONYMS

ADF: Allied Democratic Forces

CBOs: Community-Based Organizations

CCFU: Cross-Cultural Foundation of Uganda

CSOs: Civil Society Organizations

DRC: Democratic Republic of Congo

ESA Hub: East and Southern Africa Hub

FGDs: Focus Group Discussions

FARDC: Armed Forces of the Democratic Republic of Congo

ICGLR: International Conference on the Great Lakes Region

KCCA: Kampala Capital City Authority

MISR: Makerere Institute of Social Research

MoGLSD: Ministry of Gender, Labour, and Social Development

MRV: Measurement, Reporting, and Verification

MWE: Ministry of Water and Environment

NDP III: Third National Development Plan

NGOs: Non-Governmental Organizations

NPA: National Planning Authority

NOSP: National Oil Seeds Project

NDC: Nationally Determined Contribution

NCCP: National Climate Change Policy

OHCHR: Office of the High Commissioner for Human Rights

OSSREA: Organisation for Social Science Research in Eastern and Southern Africa

REDROC: Regional Early Warning and Response Operations Centre

UIA: Uganda Investment Authority

UNDP: United Nations Development Programme

UNODC: United Nations Office on Drugs and Crime

UPDF: Uganda People's Defence Forces

URN: Uganda Radio Network

USAID: United States Agency for International Development

WB: World Bank

Executive Summary

Climate change in Uganda is not just a future concern, it is a pressing issue that is already deeply impacting socio-economic and political stability. Ranked 14th most vulnerable by the ND-GAIN index[111], Uganda faces severe climate impacts exacerbated by poverty and reliance on climate-sensitive sectors like agriculture. The Rwenzori sub-region, in particular, experiences significant vulnerability, with youth being the most affected. This study explores the complex relationship between youth, climate change, environmental degradation and conflict, highlighting the urgent need for innovative strategies to enhance resilience and reduce susceptibility to extremist recruitment.

Erratic rainfall, floods, and droughts disrupt traditional agriculture, leading to decreased incomes and food insecurity. Many young people migrate for better opportunities, weakening social safety nets and increasing vulnerability. Climate change exacerbates resource scarcity, heightening competition and tensions, especially among youth. The region's history of conflict further complicates these challenges. The interplay between climate change, environmental degradation and violent conflict is evident, with increased resource competition exacerbating ethnic tensions and conflicts. Poor governance and limited economic opportunities hinder adaptation efforts, amplifying the impacts of climate change and increasing the likelihood of conflict. The study reveals a strong correlation between climate change impacts and youth vulnerability. Education and economic opportunities are crucial for enhancing resilience. There is a significant gender dimension, with young women facing higher exploitation risks and barriers to participation in decision-making processes. The findings underscore the importance of youth in shaping inclusive policies and fostering community engagement to address these challenges.

The study highlights the urgent need for comprehensive, youth-centered strategies to address the interconnected challenges of climate change, conflict, and socioeconomic instability in Uganda. Implementing the recommended measures can enhance resilience, reduce vulnerability, and promote sustainable development in the Rwenzori sub-region.

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111   The ND-GAIN Country Index summarizes a country's vulnerability to climate change and other global challenges in combination with its readiness to improve resilience. The index is composed of two key dimensions of adaptation: vulnerability and readiness.

1. Introduction

Climate change and its effects on socio-economic and political stability pose a complex challenge in Uganda, particularly in the Rwenzori sub-region. This issue is closely linked to youth vulnerability and the rise of violent extremism. According to the ND-GAIN index Uganda ranks as the 14th most vulnerable country to climate change with readiness score[112] of 163.[113] This vulnerability is worsened by the high poverty levels and a heavy reliance on climate-sensitive sectors such as agriculture, water, fisheries, tourism, and forestry.[114]

Uganda is already grappling with the harsh realities of climate change, including shifting weather patterns, declining water levels, and an increase in extreme events like flash floods and droughts. These occurrences have severe socio-economic consequences, particularly for vulnerable communities. Environmental degradation—caused by deforestation, overgrazing, and pollution—further contributes to poverty. It reduces crop yields, causes water shortages, and depletes

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112   The high vulnerability score and low readiness score of Uganda places it in the upper-left quadrant of the ND-GAIN Matrix. It has both a great need for investment and innovations to improve readiness and a great urgency for action. Uganda is the 14th vulnerable country and the 163rd readiest country. Uganda has worst scores in social readiness comprising social inequality, education, innovation and ICT infrastructure.
113   University of Notre Dame. (2021). *ND-GAIN Country Index 2021*. Notre Dame: University of Notre Dame.
114   World Bank Group. (2021). *Climate Risk Profile: Uganda.* Washington, DC: The World Bank Group

soil quality. This degradation not only lowers soil fertility but also increases sedimentation in waterways and raises the risk of flooding.

The primary aim of this study is to explore the lived experiences of young people at the intersection of peace, climate, and environmental challenges in Uganda. The research questions guiding this study include:

→   To explore the experiences of youth in the Rwenzori Sub-region in relation to climate change and environmental degradation.
→   To analyse the interconnectedness of climate change, environmental degradation, and conflict from the perspective of Ugandan youth.
→   To propose youth-centred policies and interventions that can mitigate the adverse effects of climate change and environmental degradation on peace and stability in Uganda.

1.2   THE NATIONAL SOCIOECONOMIC AND DEVELOPMENT CONTEXT OF THE YOUTH

Uganda is situated within a relatively humid equatorial climate zone, but its topography, prevailing winds, and water bodies create significant variations in rainfall patterns across the country. Average annual rainfall ranges from 800 mm to 1,500 mm, typically falling in two seasons in the south (March to May and September to November), and in one season in the north (April to October). The average daily temperature is around 28°C, but this varies with altitude, with temperatures reaching as low as 0°C in the highlands.)[115]

Over the past 30 years, there has been a statistically significant increase in temperature, rising by 0.52°C per decade, with serious implications for food security.[116] Agriculture, which accounts for about one-quarter of Uganda's gross domestic product and employs more than 70 percent of the labor force, is increasingly threatened by rising temperatures and changing rainfall patterns, leading to devastating impacts on livelihoods and food security.[117]

Deforestation, largely driven by the growing demand for agricultural land and fuelwood from the rapidly expanding population, is occurring at an estimated rate of 2.3 percent per year, contributing to soil erosion. Settlements and farming activities on steep slopes exacerbate the risk of landslides and further accelerate soil erosion.[118]

Ugandans are also grappling with the consequences of global warming and the increased frequency of extreme weather events, including both droughts and destructive floods.[119] Due to the country's high poverty rate (20.3%), low rural incomes, lack of income diversity, and dependence on rain-fed agriculture, Uganda and its people are particularly vulnerable to the impacts of climate change.

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115   Climate Service Centre Germany (2015). Climate-fact-sheet. Uganda. Updated version 2015. http://www.climate-service-center.de/products_ and publications/fact_sheets/climate_fact_sheets/index.php.en

116   Ibid

117   World Bank (2021). Climate Risk Profile: Uganda. World Bank Group.

118   UNDP (2013): Climate Profiles and Climate Change Vulnerability of the Mbale Region of Uganda: Policy Brief. http://www.undp-alm.org/sites/default/ files/downloads/tacc_mbale_climate_profiles_policy_brief_final.pdf

119   Andrew, A. (2021). Explaining the Kaese floods. InfoNile. 19 May

More frequent and severe droughts are likely to negatively affect water supply, biodiversity, and hydropower generation.[120]

Rapid population growth and the youth bulge are significant factors in Uganda's climate change discourse. Uganda has the second youngest population in the world, with 78 percent of its citizens under the age of 30 and 49 percent below 15 as of 2022.[121] Between 2000 and 2022, the youth population in Uganda grew at an average annual rate of 3.8 percent. However, educational outcomes remain concerning: in 2020, the primary school completion rate was just 40.2 percent, well below the Sub-Saharan Africa average of 63.2 percent and the global average of 86.7 percent.[122] Alarmingly, there has been little improvement in educational attainment over the last decade, with the primary completion rate essentially stagnant at 40.3 percent since 2012.[123]

The Youth Development Index[124] ranks Uganda 153rd out of 183 countries, reflecting significant challenges in education, employment, health, and political participation for young people. Socio-economic issues like unemployment, drug abuse, violence, and climate change further diminish the potential of Uganda's youth to become productive members of society. Young people face numerous hurdles in securing decent work, with the share of youth not in employment, education, or training (NEET) increasing by 3.6 percent between 2017 and 2021, partly due to the COVID-19 pandemic.[125]

Climate change and environmental degradation have exacerbated these challenges by disrupting agriculture, spurring migration, and creating food insecurity. Inadequate governance further hampers adaptation efforts.[126] Together, these factors increase the risk of conflict. Despite some progress, Uganda continues to face significant governance and security issues.[127]

Uganda is increasingly experiencing extreme weather events, including erratic rainfall, mudslides, and landslides, which have resulted in fatalities and property destruction.[128] Climate change impacts various sectors, such as agriculture, water, health, and settlements. Rising temperatures lead to more scorching days and fewer cold nights, while glaciers in the Rwenzori Mountains are rapidly receding. Torrential rains have caused devastating floods, resulting in erosion along riverbanks. More frequent droughts and changing temperature patterns are causing livestock mortality, exacerbating poverty (which affects 55.2 percent of the population) and food insecurity.

In conflict-prone regions like Karamoja and the Rwenzori sub-regions, climate change has intensified competition for resources, fueling tensions. Scarcity of land, water, and pasture has become a common source of conflict. Climate-induced migration, especially among youth, from rural areas to urban centers in search of better opportunities is on the rise. Vulnerabilities such as unemployment, displacement, and poverty makes young people more susceptible to violent extremism. In Kasese,

120   World Bank (2021).
121   UNDP Uganda. (2023). *UNDP Youth Initiatives for Uganda*. Kampala: UNDP.
122   http://sdg4-data.uis.unesco.org/
123   See Uganda: ILO Youth Country Brief, June 2023.
124   Global Youth Development Index Update Report 2023. Available at: https://production-new-commonwealth-files.s3.eu-west-2.amazonaws.com/s3fs-public/2024-04/commonwealth-global-youth-development-index-update-report-2023_d19495_0.pdf?VersionId=IMu_XWyj0uzq_9dZdjtSY07mYCPUWAza
125   ILO (2023). ILO Youth Country Briefs.
126   Kristalina Georgieva, V. G. (2022, March 23). *Poor and Vulnerable Countries Need Support to Adapt to Climate Change.* Retrieved from https://www.imf.org/en/: https://www.imf.org/en/Blogs/Articles/2022/03/23/blog032322-poor-and-vulnerable-countris-need-support-to-adapt-to-climate-change
127   BTI. (2024). *Uganda Country Report 2024*. Gütersloh: Bertelsmann Stiftung.
128   World Bank Group. (2021). *Climate Risk Profile: Uganda*. Washington, DC: The World Bank Group

for example, vulnerable youth have been recruited by the Allied Democratic Forces (ADF), a violent extremist group. The ADF exploits socio-economic inequalities, human rights abuses by security forces, and both perceived and real discrimination against Muslims.[129]

In response to climate change, Uganda has established a strong legal and policy framework, including the National Climate Change Policy (2015) [130] and the Climate Change Act (2021)[131]. These policies align with international agreements and set targets for reducing greenhouse gas emissions. The government has also integrated climate considerations into various sectors through supportive policies. However, the implementation of these policies faces significant challenges due to resource and governance constraints at both national and sub-national levels. Additionally, some policies, such as the National Youth Policy and Action Plan, do not explicitly address climate change, despite its considerable impact on young people's lives.[132]

1.2.1 CHOICE OF RESEARCH AREA FOCUS AND METHODOLOGY
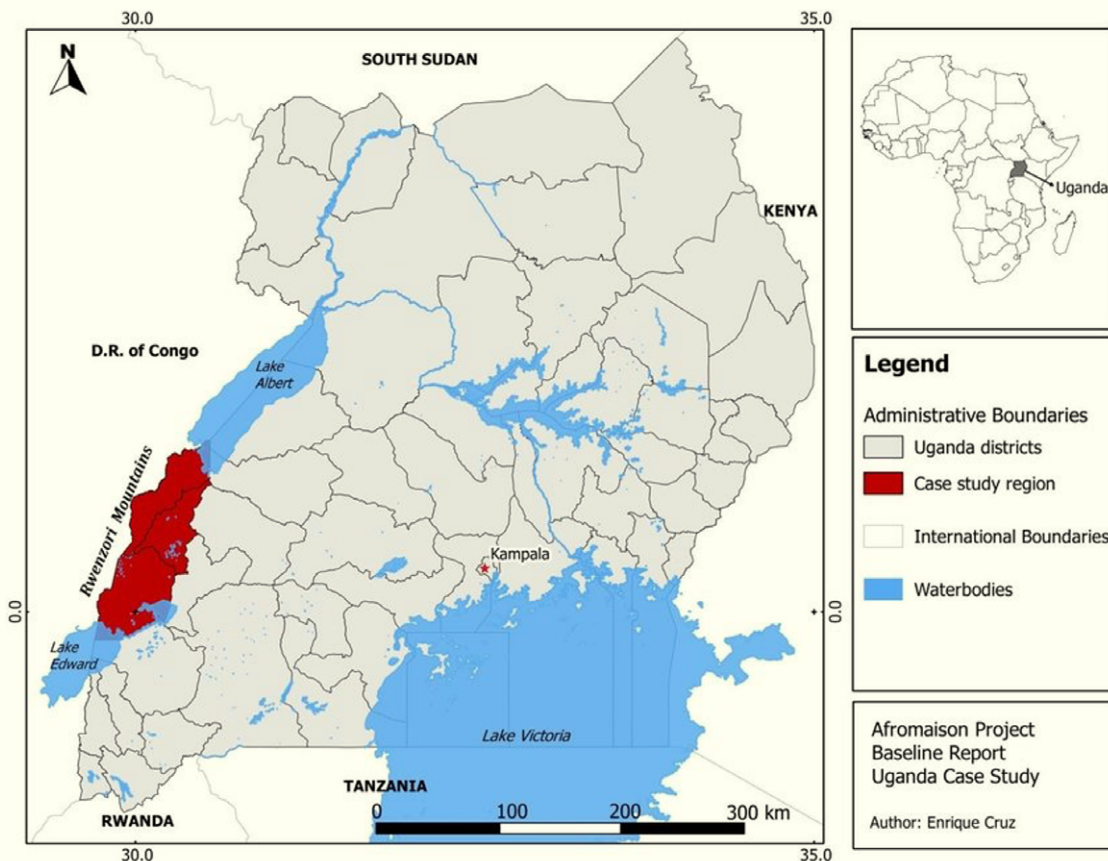
FIGURE 1 | Map of the Rwenzori sub-region[133]

129   Kofi Annan Foundation and Uganda Muslim Youth Development Forum (2024). Tackling Violent Extremism in Uganda: Lessons Learnt rom a Community Resilience Approach. https://www.kofiannanfoundation.org/publication/tackling-violent-extremism-in-uganda/

130   Ministry of Water and Environment (2015). Uganda National Climate Change Policy. MoWE, April 2015. Kampala.Available at: https://www.mwe.go.ug/sites/default/files/library/National%20Climate%20Change%20Policy%20April%202015%20final.pdf

131   https://ulii.org/akn/ug/act/2021/nn/eng@2021-12-31

132   MoGLSD (2016) Uganda National Youth Action Plan. Ministry of Gender, Labour and Social Development, Kampala. https://mglsd. go.ug/wp-content/uploads/2019/05/National-Youth-Action-Plans-2016.pdf

133   Source: Cruz, Enrique & Sutulov, Montserrat & Anderson, Ashley. (2013). Baseline Report Rwenzori Region Case Study, Afromaison Project.

→ **PRESENTATION AND JUSTIFICATION OF THE RESEARCH AREA FOCUS:
THE RWENZORI SUB-REGION**

The Rwenzori sub-region has a long history of political insurrection, violence, and conflict, making it one of the most conflict-affected areas in Uganda's history.[134] The sub-region is composed of nine districts: Kabarole, Kasese, Bundibugyo, Ntoroko, Kyenjojo, Kyegegwa, Bunyangabu, Kamwenge, and Fort Portal City in mid-western Uganda, with a projected population of over 3.35 million in 2024.[135]

The region has been marked by historical, socio-economic, and political tensions, leading to deadly clashes between ethnic communities. These tensions have been exacerbated by patronage politics and the recognition of traditional kingdoms.[136] The Rwenzori sub-region remains fragile and conflict-prone, with frequent armed rebellions and an influx of refugees from the Democratic Republic of Congo (DRC). Between January and June 2022, the region received 10,686 refugees.

Long-standing ethnic tensions persist among the Batoro, Bakonzo, Bamba, and Basongora communities, driven by cultural differences, political competition, land disputes, and demands for autonomy. Violent clashes, particularly involving the Bakonzo, have resulted in the loss of life, especially among young people. These vulnerabilities are further exacerbated by climate change and environmental variability, which destroy livelihoods, damage property, and displace communities.
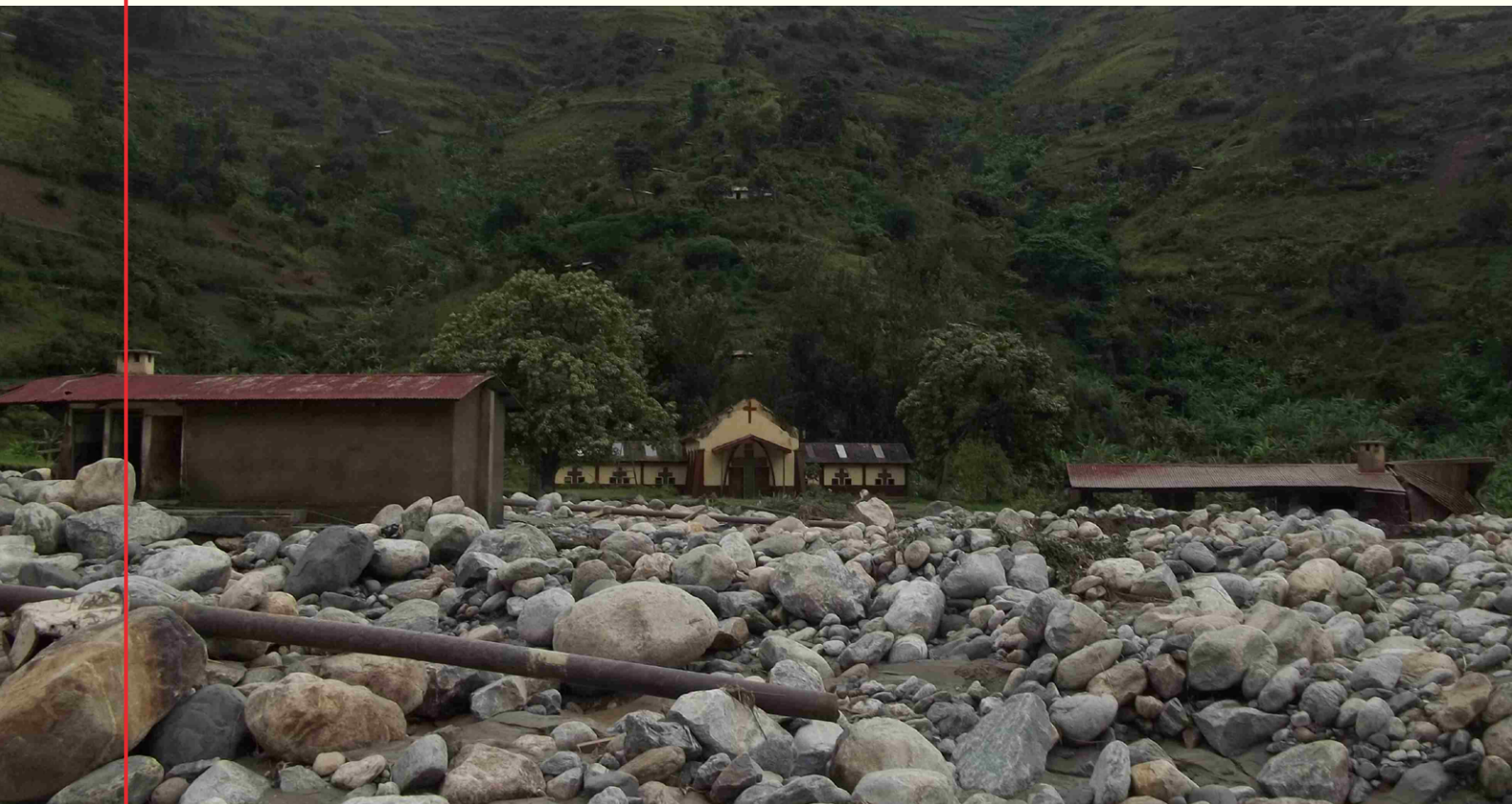
134   Titeca, A. R. (2016). Beyond ethnicity: the violence in Western Uganda and Rwenzori's 99 problems. *Review of African Political Economy, Vol. 44(151)*, 131-141.

135   UBOS. (2019). *Statistical Abstract.* Kampala: Uganda Bureau of Statistics (UBOS)

136   In 1967, a new constitution proclaimed Uganda a republic and abolished the traditional kingdoms. This was after consistent demands were raised by the population in Buganda, to restore the traditional ruler and reinstate the Buganda kingdom's political power. In 1993, the incumbent National Resistance Movement (NRM) government recognised and restore traditional rulers.

➔ **VULNERABILITIES TO VIOLENT CONFLICT**

The Rwenzori sub-region has a long history of brutal rebellion[137], and prevailing socio-economic vulnerabilities, such as youth unemployment (13.3%) and unresolved grievances, have created fertile ground for extremist groups to recruit young people. The government's past security operations in Kasese have been criticized for heavy-handed tactics, which have fueled resentment and pushed more people toward extremism.[138]

Since independence, the Rwenzori sub-region has been plagued by conflict. Key historical conflicts include the:

1962-1982

Rwenzururu rebellion[29]

1982-1987

Rwenzururu Freedom Movement

1988-1994

National Army for the Liberation of Uganda (NALU)[31]

1984-1986

National Resistance Army/Movement (NRA/M) guerrilla war[30]

1996-2002

Allied Democratic Forces (ADF) insurgency
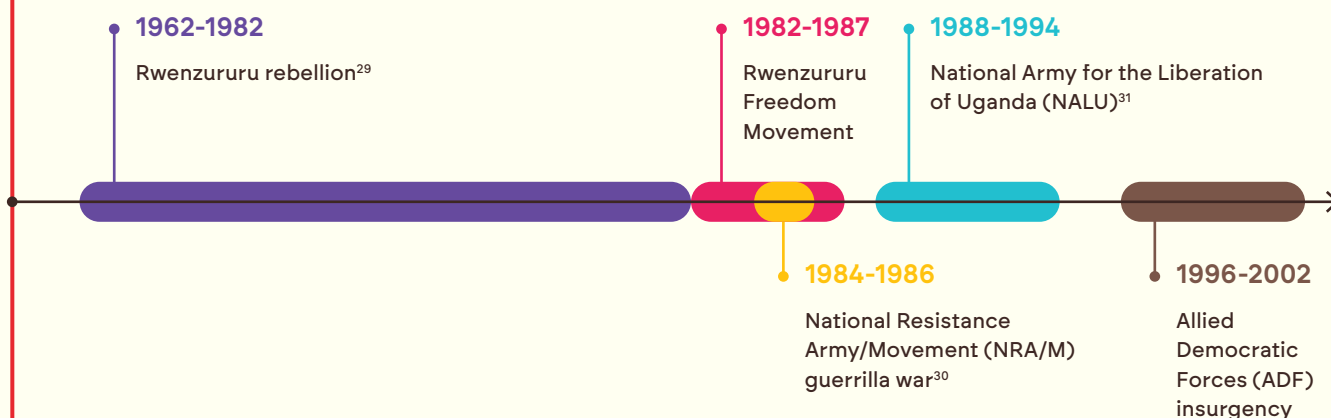
More recent violence includes the deadly Kirumila Mutima, a rag-tag ethnic militia incursions in the districts of Bundibugyo, Kasese, and Ntoroko[142] which left more than 100 people dead.[143] Additionally, the 2016 post-election violence in several sub-counties that left more than 50 people dead, hundreds of homes razed and thousands displaced.[144] In November 2016 violence between the Uganda's People's Defence Force and the Rwenzururu kingdom royal guards which claimed the life of more than 155 people.[145]

The instability in the Rwenzori sub-region, compounded by unrest in the Democratic Republic of Congo (DRC), has been fueled by the ADF, a rebel group that has posed a major threat to regional peace for the past two decades. Formed around 1995-96 by people dissatisfied with

137   Reuss, K. T. (2017, July 4). *Uganda: Why the unrest in Rwenzori is far from over.* Retrieved from https://africanarguments.org: https://africanarguments.org/2017/07/uganda-why-the-unrest-in-rwenzori-is-far-from-over/

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143   Human Rights Watch. (2014, November 5). Uganda: Violence, Reprisals in Western Region. Retrieved from https://www.hrw.org: https://www.hrw.org/news/2014/11/05/uganda-violence-reprisals-western-region

144   Human Rights Watch. (2016, July 15). Uganda: Lethal Response to Killings. Retrieved from https://www.hrw.org: https://www.hrw.org/news/2016/07/15/uganda-lethal-response-killings

145   Human Rights Watch. (1998, June 10). HRW Condemns Deadly Attack By Ugandan Rebels On School Children. Retrieved from https://www.hrw.org: https://www.hrw.org/news/1998/06/10/hrw-condemns-deadly-attack-ugandan-rebels-school-children

the government's treatment of Muslims, the ADF initially aimed to overthrow the Ugandan government. The group was a fusion of two ideologically distinct elements: the National Army for the Liberation of Uganda (NALU), which was mainly composed of Christian Bakonjo-Baamba people seeking autonomy, and the Islamic Salafi Foundation, which protested the government's attempts to control Islam.[146]

The ADF established bases in the Rwenzori Mountains, using the difficult terrain to their advantage before expanding into the DRC, where they capitalized on remnants of local armed groups. Between 1996 and 2001, the ADF wreaked havoc on Western Uganda, particularly in the districts of Kasese, Kyenjojo, Bundibugyo, and Kabarole, displacing large portions of the population.[147] One of the most horrific incidents occurred in 1998 when over 80 students were burned alive during an ADF attack at Kichwamba Technical Institute.[148] In total, more than 1,000 people were killed, and over 150,000 were displaced during this period.[149]

Although the ADF was eventually driven out by the Ugandan military, its remnants fled to the DRC, where they set up camps in the Ituri Province and continued to orchestrate deadly attacks. Some reports have linked the ADF to international terrorist groups, including the Islamic State.[150]

In November 2021, the UPDF and the Armed Forces of the Democratic Republic of Congo (FARDC) launched a joint offensive, codenamed *"Operation Shujaa"*, aimed at neutralizing the ADF in Eastern DRC.[151] This operation was prompted by renewed ADF attacks in both Uganda and the DRC.[152] Despite these military efforts, the ADF remains a significant threat to regional peace and security.[153]

The ADF has been linked to several deadly attacks on civilians, particularly in 2023. In June, the group was responsible for the *Mpondwe Lhubiliha Secondary School* attack in Kasese, where 42 students were killed.[154] In October, they ambushed and killed two foreign tourists and their local tour guide in Queen Elizabeth National Park.[155] Additionally, the ADF raided a village in Kamwenge District, killing 13 people[156], and carried out another attack near Lake Edward in November of the same year.[157]

146   Hansen, S. J. (2023, December 7). *Terror in Uganda: what's driving the Islamic State-linked rebels.* Retrieved from https://theconversation.com: https://theconversation.com/terror-in-uganda-whats-driving-the-islamic-state-linked-rebels-218628

147   Vlassenroot, K. T. (2012). Rebels without borders in the Rwenzori borderland? A biography of the Allied Democratic Forces. *Journal of Eastern African Studies*, 154-176.

148   (Human Rights Watch, 1998)

149   Ibid

150   O'Farrell, C. W. (2024, March). Media Matters: How Operation Shujaa Degraded the Islamic State's Congolese Propaganda Output. *COMBATING TERRORISM CENTER*, pp. 19-21.

151   Daily Monitor. (2023, December 2). *Operation Shujaa: UPDF face infrastructure hurdles in Ituri, Eastern DR Congo.* Retrieved from https://www.monitor.co.ug: https://www.monitor.co.ug/uganda/news/national/operation-shujaa-updf-face-infrastructure-hurdles-in-ituri-eastern-dr-congo-4451716

152   Parliament of Uganda. (2023, January 26). *Defence Minister gives assurance on Operation Shujaa in DR Congo.* Retrieved from https://www.parliament.go.ug: https://www.parliament.go.ug/news/6422/defence-minister-gives-assurance-operation-shujaa-dr-congo

153   Congo Research Group and Ebuteli. (2022). Uganda's Operation Shujaa in the Democratic Republic of Congo: Fighting the ADF or Securing Economic Interests? New York: Center on International Cooperation.

154   Independent. (2023, June 26). *Kasese School Attack: UPDF yet to rescue abducted student.* Retrieved from https://www.independent.co.ug: https://www.independent.co.ug/kasese-school-attack-updf-yet-to-rescue-abducted-students/

155   Daily Monitor. (2023, October 17). *ADF rebels kill two foreign tourists, Ugandan in Queen Elizabeth park.* Retrieved from https://www.monitor.co.ug: https://www.monitor.co.ug/uganda/news/national/adf-rebels-kill-two-foreign-tourists-ugandan-in-queen-elizabeth-park-4404592

156   Daily Monitor. (2023, December 19). 10 killed in Kamwenge attack. *10 killed in Kamwenge attack.*

157   URN. (2023, November 1). *Suspected ADF Rebels Killed on Lake Edward.* Retrieved from https://ugandaradionetwork.net: https://ugandaradionetwork.net/story/suspected-adf-rebels-killed-on-lake-edward-

➔   **SOCIO-ECONOMIC VULNERABILITIES**

The majority of households in Rwenzori sub-region rely on farming for both income and employment.[158] Of the region's total area of 241,038 km^2, 197,100km^2 is the total land area, while water covers 43,938km^2. Agricultural land takes up 71.2 percent of the total land cover.[159] However, with a high population growth rate of 3 percent, land scarcity has become an increasingly challenging.[160] This convergence of issues – limited arable land, a rapidly growing population, and a youth bulge – raises concerns about the overexploitation of resources and land degradation.

The agricultural sector faces significant threats from environmental degradation and climate change, particularly affecting the most vulnerable farmers. Extreme weather events have damaged infrastructure, increasing transportation costs for goods, and disrupting the food value chain. This, in turn, limits and limits access to markets, directly impacting regional food security.[161] Some studies have documented the prevalence of conflicts over land access and use in the Rwenzori region, with tensions expected to rise as the growing population and the demand for jobs among the youth exacerbate these issues.[162]

These conflicts over land are deeply rooted in the existing socio-economic and political grievances.[163] In Kasese, for instance, the *Bakonzo*, a dominant ethnic group, are primarily farmers, while the Basongora are pastoralists.[164] Limited arable land, with over half the district designated as a protected conservation area, worsens these tensions. These have tragically resulted in violence between the two ethnic groups, including killings, livestock attacks, and property destruction.[165]

➔   **CLIMATE CHANGE VULNERABILITY**

The Rwenzori sub-region is rich in biodiversity and hosts a rich diversity of flora and fauna. It is home to a natural world heritage site, the Rwenzori Mountains, also known as the 'Mountains of the Moon'. However, the communities at the foot of the mountains suffer severe environmental challenges. Rapid population growth coupled with the over-extraction of copper and cobalt, degradation of the banks of river Nyamwamba, and deforestation on the slopes of Mount Rwenzori has exacerbated these issues.

158   UBOS. (2021). *Statistical Abstract 2021.* Kampala: Uganda Bureau of Statistics.
159   UIA. (2020). *Rwenzori Region Agriculture Sector Investment Profile.* Kampala: Uganda Investment Authority (UIA).
160   UBOS. (2023). Percentage Distribution of the Population by Special Interest Groups, for the censuses; 1969-2014 and projections. Kampala: UBOS.
161   Daily Monitor. (2021, January 20). *Food shortage looms in Rwenzori region.* Retrieved from https://www.monitor.co.ug/: https://www.monitor.co.ug/uganda/news/national/food-shortage-looms-in-rwenzori-region-1562326
162   Harris, K. (2008). Water and conflict: Making water delivery conflict-sensitive in Uganda. CECORE, REDROC, SAFERWORLD, YODEO.
163   Ibid
164   CDRN and KRC-Uganda. (2020). Networks for Peace: Preventing and resolving conflicts through early warning mechanisms in Africa. A case of the Basongora and Batuku Minority Communities in Rwenzori Sub-region in Uganda. Kampala: Community Development Resource Network (CDRN) and Kabarole Research & Resource Centre (KRC Uganda).
165   Independent Reporter. (2020, August 10). *Nine injured in fresh Bakonzo, Basongora clashes in Kasese.* Retrieved from https://www.independent.co.ug/: https://www.independent.co.ug/nine-injured-in-fresh-bakonzo-basongora-clashes-in-kasese/

In the last two decades, the sub-region has been experiencing changes in weather patterns and increasing climate-related challenges. The Rwenzori sub-region faces a stark reality due to climate change.[166] Unpredictable weather patterns in the Rwenzori region have been devastating.[167] [168] [169] Floods and torrential rains, once rare occurrences, are now recurring threats, with projections suggesting they will only become more frequent and intense.[170] In 2020, five rivers - Nyamwamba, Mubuku, Lhuburiba, Nyamughasani, and Sebwe - overflowed due to the heavy rainfall, resulting in devastating floods.[171] These floods displaced over 173,000 people, destroyed over 25,000 homes and caused widespread damage to infrastructure.

166   CCFU and INTO. (2021). *MELTING SNOW AND FLOODING RIVERS: Selected Cultural Heritage Sites at Risk from Climate Change in the Rwenzori region*. Kampala: Cross- Cultural Foundation of Uganda (CCFU) and International National Trusts Organisation (INTO).

167   Saabwe, C. (2021, March 20). *Kasese residents call for urgent action on flood risk*. Retrieved from https://can.ug: https://can.ug/2021/03/20/kasese-residents-call-for-urgent-action-on-flood-risk/

168   World Bank Group. (2021). *Climate Risk Profile: Uganda*. Washington, DC: The World Bank Group.

169   Ministry of Water and Environment. (2015). *Economic Assessment of the Impacts of Climate Change in Uganda*. Kampala: Ministry of Water and Environment.

170   World Bank Group. (2021). *Climate Risk Profile: Uganda*. Washington, DC: The World Bank Group.

        World Bank Group. (2022, July 27). *What You Need to Know About the Measurement, Reporting, and Verification (MRV) of Carbon Credits.* Retrieved from https://www.worldbank.org/en: https://www.worldbank.org/en/news/feature/2022/07/27/what-you-need-to-know-about-the-measurement-reporting-and-verification-mrv-of-carbon-credits

171   See CCFU and INTO. (2021).

The Rwenzori sub-region, characterized by steep slopes and a high population density, is highly vulnerable to soil erosion. The region faces significant deforestation, largely driven by illegal charcoal burning, which targets protected areas such as Queen Elizabeth National Park, Rwenzori National Park in Kasese, and Kibale National Park. Additionally, forest reserves like Nyabirongo and Ihandiro in Kasese District, and Sempaya Forest Reserve in Bundibugyo District, are also severely affected by this deforestation.[172] The wetlands have been degraded through reclamation and farming. There are common cases of murram, sand and stone extraction in various sub-counties in Kasese District, including Bwesumbu, Kyabarungira, Maliba, Bugoye, Kilembe, Kyarumba, Kyondo, Kitholhu, Ihandiro, Kisinga, Karusandara, Katwe, and Kabatooro, among others.

The region also faces a constant threat of landslides, while reduced rainfall and rising temperatures are putting food security at risk. Human activities are disrupting fragile ecosystems, with deforestation and unsustainable farming practices accelerating climate change and environmental degradation, thereby threatening the region's rich biodiversity.[173] The melting glaciers of the Rwenzori Mountains serve as a stark reminder of this crisis[174], with some predictions suggesting they could disappear entirely within the next 30 years.[175] Rising temperatures have also contributed to wildfires that ravaged the Rwenzori Mountains National Park, stripping away large areas of natural vegetation and exposing bare rock, further destabilizing the fragile mountain ecosystem.[176]

172   https://rainforestjournalismfund.org/stories/extensive-deforestation-resulting-commercial-charcoal-firewood-production-across-rwenzori

173   G. Eilu, C. G. (2013). Impact of Climate Change on the Species of Restricted Range in Rwenzori Mountains National Park. Kampala: Makerere University.

174   Uchoa, P. (2021, March 30). *Uganda climate change: The people under threat from a melting glacier*. Retrieved from https://www.bbc.com: https://www.bbc.com/news/world-africa-56526631

175   R.G. Taylor, N. R. (2007). Climate Change and the Aquatic Ecosystems of the Rwenzori Mountains, Uganda. Expedition to the Rwenzori interim report summary. London: Dept. of Geography, University College, London.

176   Community Action for Humanity. (2021). *Greening Rewenzori for Climate Change*. Retrieved from https://cahuganda.org: https://cahuganda.org/our-projects/greening-rewenzori-for-climate-change/

2. **Methodology**

This study employed a mixed-methods approach, integrating both quantitative and qualitative data collection techniques. Quantitative data was gathered to profile respondents' demographics and related metrics, while qualitative methods provided deeper insights into the environments and factors contributing to youth involvement in violence, enabling the formulation of evidence-based recommendations. The study was conducted in Uganda's Rwenzori sub-region, specifically in Kasese District, Kabarole District, and Fort Portal City.

The primary focus was on youth aged 18-30, with additional input from district and municipal leaders, cultural institutions, security agencies, non-governmental organisations (NGOs), community-based organisations (CBOs), and other community leaders. A simple random sampling method was used to select youth participants considered vulnerable to the effects of climate change and at risk of radicalization by violent extremist groups, such as the ADF. The youth sample was randomly drawn from sub-counties and divisions in Kasese District and Municipality, resulting in a total of 204 individual youth interviews.
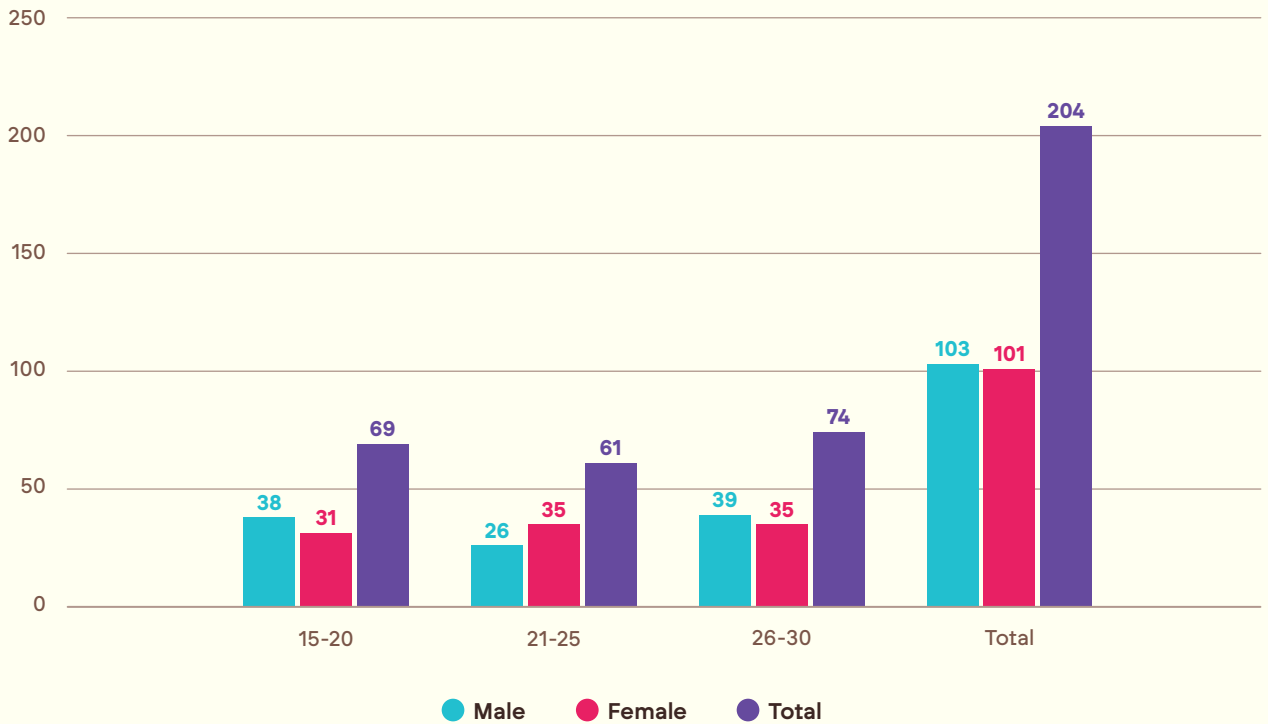
FIGURE 2 | Age and Gender Distribution of Respondents

Key informant interviews were conducted with district staff, elected leaders, local council representatives, religious and cultural leaders, and security agencies in Kasese and Kabarole Districts, as well as Fort Portal City.[177] Additionally, Focus Group Discussions (FGDs) were held with youth aged 18-30 in these same locations, with each FGD consisting of at least four male and four female participants.

The demographic profile of the youth from the Rwenzori sub-region who participated in the study included information on their age, gender, sources of livelihood, and education levels.

177   The interviews included two District Chairpersons, six District Council Members, two Resident District Commissioners, two Chief Administrative Officers, six District Officers (Commercial, Production, Environmental), two District Police Commanders, two District Internal Security Officers, two District Youth Councillors, two Sub-County Chiefs, two Religious Leaders, two Cultural Leaders, 12 Fort Portal Officials, and six National Level Representatives.

3. Findings

This section presents findings on youth perspectives on the impact of climate change on livelihoods, perpetrating factors of climate change, existing mitigating efforts, youth participation in climate change and peace efforts, responses to climate change, conflict and vulnerability, and discussion of findings.

3.1 YOUTH PERCEPTIONS OF CLIMATE CHANGE, ENVIRONMENTAL DEGRADATION AND CONFLICT

The study involved 204 respondents, consisting of 103 males and 101 females. The age distribution included 38 males and 31 females in the 15-20 age group, 26 males and 35 females in the 21-25 age group, and 39 males and 25 females in the 26-30 age group.

The primary sources of livelihood for youth in Kasese District reveal notable gender differences. As illustrated in Figure 2, petty trade is the most common activity, involving 55.9 percent of males and 70.7 percent of females, indicating a higher reliance on small-scale commerce among young women. Agriculture (crops) follows, with greater female participation (51.7%) compared to males (40.7 percent). In contrast, more males (15.3 %) are engaged in agriculture involving animals than

females (6.9 %). Other livelihood activities, such as beekeeping, fish farming, and artisanal mining, had minimal participation, underscoring the youth's reliance on more traditional income sources.

Regarding education, the majority of youth have completed primary education (50 percent of males and 54.8 percent of females), while secondary education completion rates are slightly lower (37.5% for males and 28.6% for females).
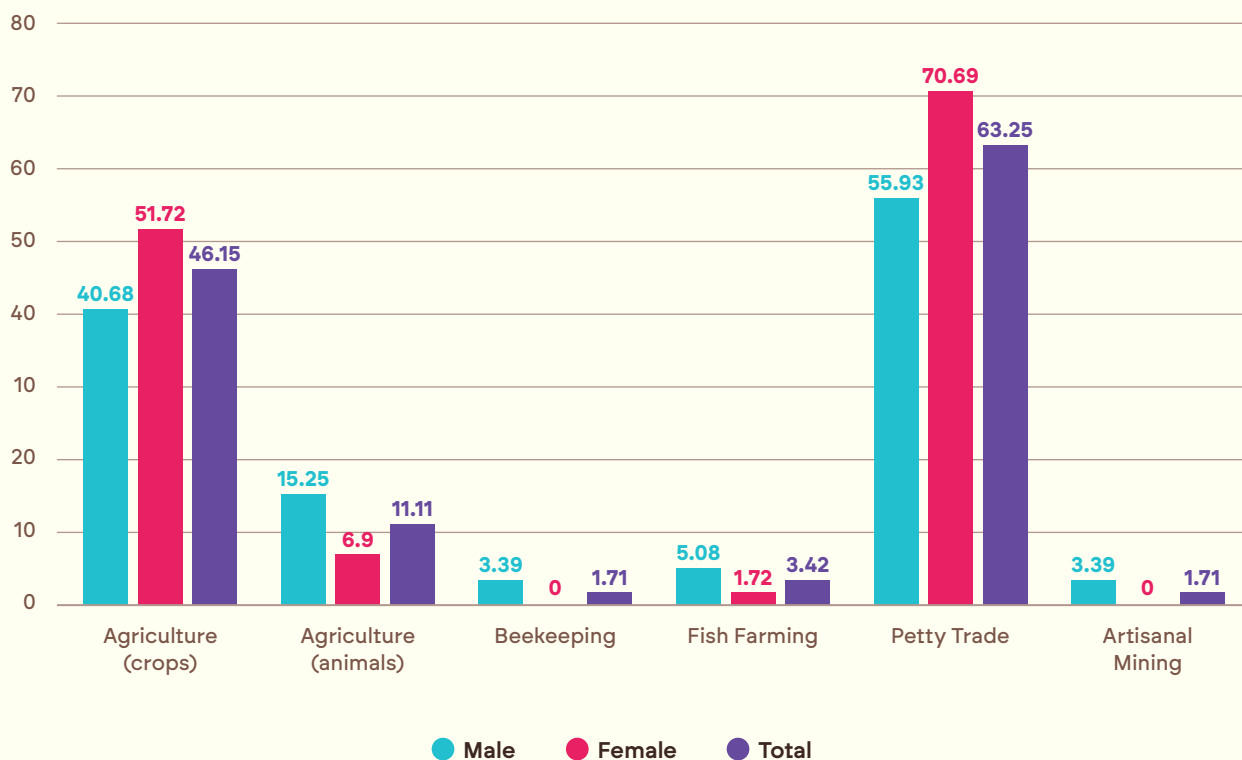
FIGURE 3 | Current Source of Livelihood or Income

The study found that a majority of respondents are aware of climate change, with 60.2 percent of males and 46.5 percent of females reporting being very aware, totaling 53.4 percent. Interestingly, a higher percentage of females (49.5%) are somewhat aware compared to males (35.9%), indicating differing levels of awareness between genders. The proportion of those not aware is nearly identical for both genders, at around 4 percent.

Further analysis revealed a statistically significant association between respondents' education level and climate change awareness (p-value = 0.0160). This suggests that higher education levels are correlated with greater awareness of climate change.

The study explored the personal experiences of young individuals in the Rwenzori region to understand the diverse ways climate change impacts their lives. The majority of respondents reported personally experiencing the effects of climate change, with 90.29 percent of males and 97.03 percent of females affirming this, for a total of 93.63 percent. The slightly higher percentage of females affected can be attributed to gender disparities in poverty and inequality. Women are more vulnerable to climate change due to structural inequalities across economic, political, environmental, and social systems. These inequalities result in limited access to education, work opportunities,

markets, finance, and technology. Women's reliance on small-scale commerce and farming—activities easily disrupted by climate-related disasters—further exacerbates their vulnerability. Climate-related disruptions, such as impediments to transportation and crop destruction, severely affect their livelihoods. The high percentage of respondents affected highlights the widespread impact of climate change in the region, with females reporting a slightly higher rate of experience.

As shown in Table 1, heavy rains are the most commonly reported manifestation of climate change, cited by 90.32 percent of males and 90.82 percent of females, totaling 90.58 percent. Prolonged droughts are also significant, affecting 72.04 percent of males and 68.37 percent of females (70.16% total). Other impacts, such as flash floods (48.17%) and the flooding of River Nyamwamba (29.32%), were also frequently reported.

Further analysis showed a statistically significant relationship between respondents' education level and the specific impacts of climate change they experienced (p-value = 0.009). Those with higher levels of education exhibited a greater adaptive capacity and experienced less vulnerability compared to respondents with lower education levels. This suggests that individuals with less education may struggle to transition to alternative livelihoods when their current enterprises are affected by floods or drought, primarily due to limited access to productive resources.

TABLE 1 | Specific Manifestations of Climate Change Experienced

MANIFESTATIONS OF CLIMATE CHANGE EXPERIENCED	MALE (%)	FEMALE (%)	TOTAL (%)
Prolonged Droughts	72.04	68.37	70.16
Flash Floods	46.24	50	48.17
Heavy Rains	90.32	90.82	90.58
Flooding of River Nyamwamba	29.03	29.59	29.32
Migration of Wild Animals in Queen Elizabeth NP	7.53	12.24	9.95
Physical Insecurity for Persons and Property	5.38	9.18	7.33
Food Insecurity	16.13	35.71	26.18
Frequent Crop Pests	1.08	7.14	4.19
Frequent Wild Fires	2.15	3.06	2.62
Erratic Rainfall	1.08	0	0.52
Landslides	11.83	12.24	12.04
Others (specify)	5.38	4.08	4.71

3.1.1 IMPACT OF CLIMATE CHANGE ON COMMUNITIES

Data from Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs) revealed that climate change has significantly impacted various aspects of community life in the Rwenzori sub-region. In agriculture, crops have been washed away by floods, leading to reduced production and the destruction of gardens, resulting in widespread hunger.

The loss of livestock, including pigs, goats, and poultry, due to climate change-induced floods and excessive heat, has further exacerbated poverty levels. Infrastructure has been severely damaged, with roads, bridges, hospitals, electrical systems, and other structures destroyed by floods. Mining activities have also been disrupted by flooding, discouraging investors and leading to a loss of valuable minerals. The fishing industry has suffered due to the destruction of roads and the contamination of water bodies. Additionally, the tourism sector has declined as fear of floods and the loss of natural attractions have discouraged visitors.

Many people have been displaced and forced to live in camps after losing their homes and land. KIIs and FGDs highlighted that the destruction of roads and bridges has made transportation difficult, isolating communities from goods, food supplies, and other essential services. Hospitals have been severely damaged or destroyed, compromising healthcare delivery. Schools have been relocated due to flooding, resulting in the loss of educational facilities and disruptions to education. Flooded markets have disrupted local economies and limited access to goods.

3.1.2 EFFECT OF CLIMATE CHANGE ON YOUTH LIVELIHOODS

The study explored the diverse impacts of climate change and environmental degradation on the livelihoods of young people (aged 18-35) in the Rwenzori sub-region. The findings are summarized in Table 2 below.

TABLE 2 | Effect of Climate Change on Livelihoods

EFFECT ON LIVELIHOOD	MALE (%)	FEMALE (%)	TOTAL (%)
Decreased agricultural productivity	74.19	72.45	73.3
Loss of livestock	18.28	20.41	19.37
Disruption of fishing activities	9.68	14.29	12.04
Destruction of infrastructure	52.69	46.94	49.74
Destruction of property	77.42	76.53	76.96
Limited access to clean water	18.28	21.43	19.9
Other (please specify)	12.9	11.22	12.04

According to Table 3, the quantitative findings from the youth revealed that the most significant impact of climate change on livelihoods is the destruction of property, including buildings, crops, and livestock, affecting 77.42 percent of males and 76.53 percent of females (76.96% total). Decreased agricultural productivity was another major issue, reported by 74.19 percent of males and 72.45 percent of females (73.3% total). The destruction of infrastructure, such as roads, bridges, and electric poles, as well as limited access to clean water, also posed significant challenges, with 49.74 percent of respondents experiencing infrastructure damage.

Notable gender differences emerged in the specific impacts experienced. For example, food insecurity was significantly higher among females (35.71%) than males (16.13%), reflecting a gender disparity in food-related challenges. This difference can be attributed to the distinct gender roles in food production, with women primarily responsible for food security but lacking ownership of productive assets such as land.

In an all-women FGD held in Mbunga sub-county, a young woman reported that:

> *"...climate change has led to destruction of property, loss of lives, shops were washed away. Many school going youths have stopped schooling due to lack of school fees. Most parents have lost their income generating activities.... Kilembe mines' structures were washed away by the floods. Our electric poles were also washed away by the floods last year and up to now we haven't been connected to electricity".*

The study also examined how climate change has necessitated shifts in occupation and lifestyle among the youth in the Rwenzori sub-region. The results highlight a minority of respondents have had to voluntarily change their occupation or lifestyle due to climate change, with 25.81 percent of males and 16.33 percent of females, for a total of 20.94 percent. For instance, in an all-women FGD held in Bweera, it was revealed that:

> *"Due climate change young people have left their villages and come to town and started small businesses such as brewing alcohol, selling firewood, poultry farming, and selling food stuffs abandoning earlier livelihoods like brick laying, artisanal mining and crop farming".*

Data analysis further revealed a statistically significant relationship between education level and the likelihood of changing occupation or lifestyle due to climate change (P-Value =0.0003). Respondents pursuing vocational training and university education are more likely to have changed their occupations or lifestyles compared to those with only primary or secondary education.

3.1.3 FACTORS PERPETUATING YOUTH VULNERABILITY TO CLIMATE CHANGE AND EXISTING MITIGATION EFFORTS

This study aimed to deepen the understanding of the intersection between youth, climate change, environmental degradation, and livelihoods in the Rwenzori sub-region by identifying the factors that perpetuate the challenges youth face in adapting to climate change and examining existing mitigation efforts. **Both genders overwhelmingly identified the lack of economic opportunities for youth (88.24%) as the primary factor contributing to vulnerability.** Limited access to education

and vocational training was also significant, with slightly more females (29.7%) affected compared to males (25.24%).

Further analysis revealed a statistically significant relationship between education level and the factors perpetuating youth vulnerability to climate change and conflict (p-value = 0.018). **This suggests that education plays a critical role in shaping young people's resilience and adaptability to climate change and conflict.** Youth with lower education levels are more likely to be vulnerable to the adverse effects of climate change and conflict. This can be attributed to factors such as limited knowledge about climate change mitigation strategies, restricted access to resources, and fewer opportunities for stable employment, leaving them more susceptible to economic and social instability.

3.1.4 NATURAL RESOURCES, ECONOMIC INSTABILITY AND CONFLICT

The relationship between natural resource dependency and economic instability is critical to understanding the challenges faced by youth in the Rwenzori sub-region. A significant majority of respondents (70 percent) rely on natural resources, such as land, rivers, swamps, forests, and lakes, for their livelihoods—primarily through agriculture, fishing, and forestry. **This dependence makes them especially vulnerable to climate change-induced phenomena, such as altered rainfall patterns, prolonged droughts, extreme weather events, and environmental degradation, all of which directly affect the productivity and availability of these natural resources.**

Conflicts over resources are frequent, with more females (23.76%) reporting a higher frequency than males (18.45%). The higher frequency among females suggests that women are more involved in or affected by resource conflicts, highlighting the need for gender-responsive resource management policies. Environmental disasters were identified as the primary cause of displacement, affecting 93.62 percent of respondents, with more females (27.72%) impacted compared to males (18.45%). This trend was common in rural areas, where many men had migrated to urban centers or were engaged in non-nature-dependent livelihoods, underscoring the need for gender-responsive disaster management and relief efforts.

The study identified key challenges related to natural resources, with land degradation (66.67%) being the most frequently reported issue, with similar rates across genders. This underscores the critical need for sustainable land management practices. Additionally, a significant negative correlation (r = -0.48, p < 0.01) between economic stability and reliance on unsustainable practices (such as deforestation, over-cultivation, draining swamps, and degrading riverbanks) indicates how economic pressures drive these harmful environmental practices.

Regarding the impact of political violence on the environment, more females (48.51%) reported a moderate impact than males (36.89%). Both genders also reported increased reliance on natural resources (52.94%) and unsustainable agricultural practices (57.35%) as a result of economic instability. When evaluating the effectiveness of governance structures in addressing political violence and instability, 63.73 percent of respondents perceived them as somewhat effective, with similar responses across genders. However, only a small proportion of youth—37.86 percent of males and 36.63 percent of females—were aware of local government programs aimed at mitigating the impacts of conflict.

Respondents recommended additional measures, with 75 percent of males and 77.23 percent of females emphasizing the need for community education and awareness programs for conflict prevention and peacebuilding.

3.2   EFFECTS OF CLIMATE CHANGE AND ENVIRONMENTAL DEGRADATION ON CONFLICT

This study explores the perceived influence of climate change on various forms of conflict in the Rwenzori sub-region, with a particular focus on gender differences. As shown in Figure 4, displacement due to environmental factors emerged as the most significant issue, reported by 63.11 percent of males and 76.24 percent of females, totalling 69.61 percent. This reflects a strong consensus that displacement caused by extreme weather events, such as the flooding of the River Nyamwamba, is a major concern. **Young women, in particular, perceive this issue more acutely, as it disproportionately affects livelihoods and leads to the destruction of property.**

FIGURE 4 | Perceived Influence of Climate Change Vulnerability on Conflict

Increased competition for land among community members was reported by 33.98 percent of males and 28.71 percent of females, indicating that males are more involved in land-related issues, possibly because young men are more engaged in the search for alternative land. Livelihood insecurity, leading to tension among community members, was highlighted by 39.6 percent of females and 26.21 percent of males, suggesting that females are more attuned to or affected by livelihood insecurities than males. Other concerns, such as competition for water (22.06%) and grazing land (13.24%), were reported at lower but still significant levels.

Additionally, 65.35 percent of females reported witnessing conflicts related to climate change, compared to 47.57 percent of males, resulting in an overall figure of 56.37 percent. This disparity suggests that females either witness more natural resource-based conflicts, such as clashes over water sources and land for grazing and cultivation or are more sensitive to recognizing them. Land conflicts in Kasese District manifest in two main ways. The first involves inter-boundary disputes, rights of occupancy, and misrepresentation in land sales, especially between the Uganda Wildlife Authority and surrounding communities that encroach on Queen Elizabeth National Park. The second dimension involves conflicts between cultivators and herders, such as disputes between Basongora pastoralists and Bakonzo agriculturalists, which often revolve around grazing land and water resources.[178] Conversely, 52.43 percent of males and 34.65 percent of females reported not witnessing such conflicts, accounting for 43.63 percent of the total population, a significant portion of the community. This gender disparity is explained by cultural norms and social gender roles that position women in household production and reproduction, making them more vulnerable to the impacts of climate change.

The study also explored perceptions of increased youth vulnerability due to climate change. A majority of respondents, 56.31 percent of males and 59.41 percent of females, believe that climate change has exacerbated youth vulnerability to poverty and radicalization, with a total of 57.84 percent. This belief is slightly more prevalent among females. On the other hand, 33.98 percent of males and 27.72 percent of females do not share this view, resulting in a total of 30.88 percent.

Residents in Kasese hold negative attitudes towards people forced to migrate due to floods, landslides, and environmental degradation, primarily out of fear that the migrants will occupy and claim their land. This fear creates tensions and conflicts within host communities, linking displacement, climate change, and conflict. In one all-male focus group discussion (FGD) held in Bwera, residents expressed concerns:

> *"We also have the fear that our land will be taken by people who were displaced and were put in camps on our land after being displaced. Given the earlier experiences, they may want to claim ownership over our land, given that they have nowhere else to go. However, we shall not allow that to happen; we will fight them to leave our land".*

Such sentiments highlight the motivation for conflict driven by displacement and land competition. Further analysis of Key Informant Interviews (KIIs) and FGDs revealed that resource competition has intensified due to climate change, leading to conflicts over land and resources. The Deputy Resident District Commissioner (RDC) of Kasese Municipality shared:

> *"Disputes between residents and the government over Kilembe Mines Hospital and between the Basongora and Bakonzo ethnic groups over grazing land exemplify how limited resources can ignite tensions."*

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178   Tinkasimire, C. B., Mwine, J. and Musinguzi, P. S. (2023). The Extent to Which Land Conflicts Affect Food Security: A case of Kasese District, Western Uganda. Journal of Research Innovation and Implications in Education, 7(1), 31 – 42.

The tensions arise from the Basongora's loss of grazing land to Bakonzo cultivators and wildlife conservation efforts, which have denied them access to water, dry-season pastures, and other pastoral resources. This situation has persisted for over 10 years.

These conflicts are often exacerbated by displacement and loss of livelihoods, making resource allocation and land use hotspots for disputes. Displaced and unemployed youth are particularly at risk, with extremist groups like the ADF exploiting their desperation by offering financial rewards and employment. These groups provide material benefits, such as money, clothes, and food, to attract recruits. The promise of employment and financial stability is a powerful lure for vulnerable young people who are not employed.

Additionally, climate change has intensified existing political violence and ethnic tensions, primarily due to competition for increasingly scarce resources. These conflicts become worse during prolonged droughts when the Basongora struggle to find pasture for their animals, leading them to graze on Bakonzo crops, sparking violence. The RDC of Kasese Municipality explained:

> *"The displacement of people due to flooding and landslides further exacerbates tensions. Communities like those in Kanyangeya, relocated to camps, face acute competition for resources and space, increasing resentment from host communities and the potential for violence."*

The study also revealed that political figures often exploit these tensions for personal gain, as evidenced by the conflict over the relocation of Kilembe Mines Hospital. The hospital, located in the River Nyamwamba catchment area, has been repeatedly damaged by flooding. A decision was made to relocate and construct a new facility, but delays have caused discomfort in the community due to a lack of access to health services. There are political tensions, with accusations against top district leadership for allegedly undermining efforts to relocate the hospital and provide supplies to displaced persons, possibly due to political rivalries. In an FGD in Kasese Municipality, participants noted:

> *"Political leaders use flooding as an opportunity to advance their interests, leading to disputes and unrest. They mishandle aid and resources intended for displaced populations, which can lead to political violence, as seen in the competition for relief supplies."*

3.3   RESPONSES TO CLIMATE CHANGE ADAPTATION AND MITIGATION

3.3.1 STATE AND CSO-LED RESPONSES CLIMATE CHANGE ADAPTATION AND MITIGATION

The study also examined the various initiatives and efforts undertaken by local governments and civil society organizations (CSOs) in the Rwenzori sub-region to mitigate the impacts of climate change. The most notable effort was awareness campaigns, with 36.76 percent of respondents acknowledging these initiatives. Females reported slightly higher involvement (38.61%) compared to males (34.95%). Additionally, more young women (14.85%) than young men (11.65%) participated

in vocational training programs. This difference can be attributed to targeted efforts aimed at increasing women's participation in awareness and training programs in the areas covered by the study. The detailed findings are presented in Table 3.

TABLE 3 | State and CSO-Led Responses to Climate Change Adaptation and Mitigation

EFFORTS BY LGS /CSOS	MALE (%)	FEMALE (%)	TOTAL (%)
Awareness campaigns on climate change adaptation and conflict resolution	34.95	38.61	36.76
Provision of vocational training and skills development programs	11.65	14.85	13.24
Implementation of community-based resource management initiatives	28.16	24.75	26.47
Youth economic empowerment and engagement programs	16.5	17.82	17.16
Youth participation in decision-making processes	4.85	2.97	3.92
Designing of youth-climate-sensitive policies	0.97	0	0.49
Localisation of climate change adaptation initiatives	2.91	1.98	2.45
Promotion of alternative livelihoods	3.88	6.93	5.39
Easy access to financing for youth	2.91	2.97	2.94
Other (please specify)	29.13	28.71	28.92

The data also reveals a statistically significant relationship between education level and the efforts undertaken by local governments or CSOs to address youth vulnerability to climate change and conflict (P-value = 0.000). Awareness campaigns and vocational training programs were the most prominent initiatives, particularly among those pursuing vocational training and university education.

The study also aimed to assess the effectiveness of these efforts in reducing youth vulnerability to climate change. Both genders rated these efforts as somewhat effective (50%), but a higher percentage of females (8.91%) than males (5.83%) found them to be very effective. Despite this, the overall perceived effectiveness of local government and CSO efforts remains low. Respondents with primary education were more likely to view these efforts as ineffective.

Additionally, the study gauged awareness of various climate change mitigation and adaptation projects in the Rwenzori sub-region, implemented by CSOs, local governments, and international partners, to enhance community resilience and promote sustainable development. The findings

revealed that more females (55.45%) reported awareness of these projects compared to males (49.51%). This higher awareness among women is attributed to their increased participation and targeted inclusion in climate mitigation and adaptation initiatives.

3.3.2 YOUTH-LED RESPONSES TO CLIMATE CHANGE ADAPTATION AND MITIGATION

This section presents the responses of youth in the Rwenzori sub-region regarding their involvement in climate change adaptation and mitigation. The findings show that most respondents are aware of climate change adaptation or mitigation programs, with 58.25 percent of males and 60.4 percent of females affirming their awareness, resulting in an overall awareness rate of 59.31 percent. The slight difference suggests that awareness is relatively evenly distributed across genders. However, participation rates in climate change activities are lower, with 33.98 percent of males and 31.68 percent of females participating, yielding a total participation rate of 32.84 percent. This indicates that while awareness is high, active involvement is less common, likely due to limited financial incentives.

FGDs and KIIs identified several measures that could effectively support youth in reducing their vulnerability. These include job creation programs to provide employment opportunities; scholarships and financial aid to enable education; income-generating projects such as animal keeping and bricklaying; counseling and mental health services to address the psychological impact of displacement; engaging youth in community activities to build a sense of purpose and belonging; and offering vocational training and skills development programs to enhance employability and income generation.

The results show that young people engage in a variety of climate change adaptation and mitigation activities, with tree planting being the most common (79.1%), followed by water conservation projects (29.85 percent) and riverbank restoration activities (25.37%). A majority of respondents found these youth-led activities somewhat effective (74.63%), with a higher percentage of females (21.88%) than males (14.29%) considering them very effective. Only males reported finding the activities ineffective (14.29%).

There is a strong willingness among youth to participate in future climate change activities, with 85.15 percent of females and 74.76 percent of males expressing interest, resulting in an overall willingness rate of 79.9 percent. Data from a female youth FGD in Kasese Municipality highlighted challenges such as the lack of financial and material resources:

> *"We (youth) lack the financial and material resources needed to implement our ideas. We are also not supported by the municipality with resources to implement our projects. This kills our morale."*

The primary motivations for participation include the desire to protect community resources (89.45 percent) and concern for the environment (66.33%), while the influence of peers or community leaders is minimal (3.52%), suggesting that intrinsic motivations are the strongest drivers of youth engagement.

Regarding training or education on climate change adaptation and mitigation, only 12.25 percent of respondents had received such training, with females (15.84%) more likely than males (8.74%) to have participated in these programs. This gap presents an opportunity for increased outreach and educational initiatives targeting young people. NGOs and CSOs (52%) and schools or educational institutions (60%) were identified as the main providers of training, with males more likely to receive training from community groups or leaders (55.56%). This reflects cultural biases and a lack of deliberate targeting of women in some interventions.

Youth overwhelmingly agreed on the positive impact of their involvement, with 65.35 percent of females and 54.37 percent of males strongly agreeing, for a total of 59.8 percent. Respondents also emphasized the need for more educational programs and training (58.82%) as well as increased funding and resources (57.84%) to further enhance youth participation.

3.4 COMBINED IMPACT OF CLIMATE CHANGE, ENVIRONMENTAL DEGRADATION AND CONFLICT ON YOUNG PEOPLE

The findings of this study reveal a complex interplay between demographic characteristics, educational attainment, gender roles, livelihood strategies, and climate change impacts that collectively shape the experiences and responses of youth in the Rwenzori Sub-region. This discussion highlights key themes from the study, comparing the results with existing research and exploring the implications for policy and practice.

The demographic profile of youth in the Rwenzori Sub-region—characterized by a young population, low educational attainment, and a high reliance on climate-sensitive livelihoods— significantly influences their vulnerability to climate change. The distribution of age and gender underscores the widespread nature of climate impacts. The youth's dependence on traditional livelihoods, such as petty trade, small-scale agriculture, and livestock rearing, makes them particularly vulnerable to climate shocks like droughts, floods, and landslides. Younger individuals (aged 15-20) are more likely to engage in informal activities, with limited adaptive capacity due to a lack of skills and resources. Consequently, they face higher levels of livelihood disruption and economic insecurity during climate-induced events.

Youth unemployment and underemployment further exacerbate their inability to adapt to climate change. Employment status significantly impacts the financial resources available for adaptation measures. Youth in precarious or informal employment, such as subsistence farming, are less likely to have the economic stability needed to invest in climate-resilient practices. This financial insecurity, combined with limited access to credit and financial services, restricts their adaptive capacity.

Economic pressures from climate impacts on agriculture have also driven youth migration from rural areas to urban centers, weakening traditional social safety nets and increasing vulnerability, particularly for those lacking stable employment opportunities in cities. These findings align with previous studies that emphasize the critical role of demographic factors—such as age, gender,

education, and employment status—in shaping climate vulnerability and resilience.[179] These factors influence how young individuals experience and respond to climate impacts.[180]

Despite these challenges, youth are recognized as critical agents of change in advancing climate resilience. Their involvement in advocacy, community-based adaptation projects, and innovative solutions demonstrates their potential to contribute to climate change mitigation and adaptation. However, to fully harness this potential, young people need greater access to resources, training, and decision-making platforms.[181]

A holistic understanding of youth demographics is essential for designing interventions tailored to different age groups and their unique challenges. The study highlights the importance of adopting a demographic-sensitive approach to climate adaptation and resilience-building. Policies that enhance youth education, create employment opportunities, and promote gender equality are crucial to reducing climate vulnerability. Moreover, integrating youth perspectives into climate governance can lead to more effective and inclusive adaptation strategies, leveraging the unique strengths of young people in addressing climate challenges.

3.4.1 THE ROLE OF EDUCATION IN SHAPING CLIMATE CHANGE AWARENESS AND ADAPTIVE CAPACITY

The study found a strong positive correlation between educational attainment and climate change awareness. Youth who have completed vocational training or university education are more likely to be aware of and able to adapt to the impacts of climate change. Education plays a crucial role in shaping youth awareness and adaptive capacity, enabling them to employ effective strategies to mitigate climate risks. In contrast, youth with lower educational levels (primary and secondary education) are less likely to be aware of climate change impacts and are more vulnerable to livelihood disruptions. This educational gap limits their ability to transition to alternative livelihoods when traditional occupations, such as farming, become unviable.

The study also revealed gender disparities in educational attainment, with young women facing greater barriers to accessing education and training. These barriers exacerbate their vulnerability to climate impacts and reduce their participation in community adaptation initiatives.

The findings align with existing research, which highlights education as a key factor in building resilience and adaptive capacity. Studies indicate that youth with higher educational levels are more likely to engage in climate adaptation activities, have greater access to information, and are better equipped to adopt new technologies and practices.[182] Education is instrumental in increasing awareness of climate change impacts and adaptation options. According to the Global Centre on Adaptation, climate education helps young people understand the effects of global warming, motivates them to take action, and enables them to make informed decisions. Educational institutions

179   Population Institute. (2024). *Population and climate change vulnerability: Understanding current trends to enhance rights and resilience*. Retrieved from https://www.populationinstitute.org/resource/population-and-climate-change-vulnerability-understanding-current-trends-to-enhance-rights-and-resilience/.

180   Zhai, L., & Lee, J.-E. (2024). Investigating vulnerability, adaptation, and resilience: A comprehensive review within the context of climate change. Atmosphere, 15(4), 474. MDPI. Retrieved from https://doi.org/10.3390/atmos15040474

181   Ibid

182   United Nations Development Programme. (2022). Three reasons climate change education is critical for adaptation and resilience.

provide a platform for peer learning, community awareness, and the implementation of practical solutions, which are crucial for local-level climate adaptation and resilience building. [183]

Youth in developing regions, with limited access to quality education, face heightened vulnerability due to reduced awareness of climate risks and limited ability to pursue alternative livelihoods. This correlation between education and adaptive capacity is evident in regions where climate adaptation efforts are integrated into educational programs, demonstrating the need for targeted educational interventions. The United Nations Development Programme (UNDP) emphasizes that countries with comprehensive climate education strategies tend to have higher adaptive capacities. For instance, investments in climate education in Namibia, Bhutan, and Zambia have transformed their education systems into key drivers of resilience, green growth, and transformational adaptation. These examples suggest that educational reforms targeting climate action can unlock significant long-term benefits in terms of economic resilience and sustainable development.[184]

Enhancing educational opportunities for youth, particularly in rural and marginalized areas, is critical for promoting sustainable adaptation and mitigation strategies.

3.4.2 GENDER AND CLIMATE CHANGE VULNERABILITY

Gender emerged as a crucial factor in determining vulnerability to climate change, with young women reporting higher levels of food insecurity, displacement, and livelihood disruptions compared to their male counterparts. These gender differences are shaped by traditional roles, limited access to resources, and exclusion from decision-making processes. The findings showed that young women are more likely to be engaged in climate-sensitive activities such as subsistence farming, which are directly impacted by extreme weather events. The high levels of food insecurity reported among females (35.71%) compared to males (16.13%) illustrate the gendered nature of climate impacts. Additionally, climate-induced resource scarcity exacerbates tensions and conflicts, disproportionately affecting young women due to their limited control over land and resources. The study found that women were more likely to report witnessing conflicts and experiencing displacement as a result of environmental factors.

These findings align with global research on gender and climate change, emphasising the need for gender-responsive policies that address the specific challenges faced by women in the context of climate change and conflict. For instance, the *Climate-Gender-Conflict Nexus* report by the Georgetown Institute for Women, Peace, and Security (GIWPS) highlights that women are often more vulnerable due to limited access to resources, exclusion from decision-making, and the traditional roles they are expected to fulfil, such as caregiving and managing household resources.[185] These roles become more challenging during climate-induced crises, leading to heightened food insecurity, displacement, and gender-based violence (GBV).

Women are not only more affected by climate change but also possess unique knowledge and skills for building climate resilience and promoting peace.[186] Enhancing women's participation in

183   See Global Center on Adaptation. (2022). Case Studies on Adaptation and Climate Resilience in Schools and Educational Settings.
184   United Nations Development Programme. (2022). Three reasons climate change education is critical for adaptation and resilience.
185   Georgetown Institute for Women, Peace, and Security (GIWPS). (2021). *The Climate-Gender-Conflict Nexus*.
       https://giwps.georgetown.edu/wp-content/uploads/2021/01/The-Climate-Gender-Conflict-Nexus.pdf
186   United Nations Framework Convention on Climate Change (UNFCCC). (2022). Implementation of Gender-Responsive Climate Action.

climate action is a key pathway to achieving inclusive peace and security. This requires supporting grassroots women's organisations, recognising women's contributions to climate resilience, and ensuring their voices are central in climate negotiations and policy development.[187]

3.4.3 LIVELIHOOD AND ECONOMIC INSTABILITY

Climate change has significantly impacted youth livelihoods in the Rwenzori Sub-region, with decreased agricultural productivity, property destruction, and limited access to clean water being the most frequently reported effects. The region's reliance on climate-sensitive livelihoods creates a cycle of vulnerability, where economic instability drives unsustainable practices, further worsening environmental degradation. The study shows that the destruction of property and infrastructure due to floods and landslides disrupts economic activities, leading to income loss and increased poverty. Young people, particularly those engaged in agriculture, reported high levels of livelihood disruption, with 73.3 percent indicating that decreased agricultural productivity was a major consequence.

This aligns with findings from the Food and Agriculture Organization (FAO), which reports that climate-related disasters account for over 26 percent of all economic losses in the global agriculture sector, disproportionately affecting small-scale farmers, pastoralists, and fisherfolk.[188] Youth's economic vulnerability is compounded by limited access to financial services, markets, and technologies, which restricts their ability to invest in adaptive strategies. Their heavy dependence on natural resources, coupled with a lack of alternative income sources, drives unsustainable practices such as deforestation and overgrazing. This further increases their vulnerability to climate impacts and weakens the resilience of local ecosystems.

Studies have shown that women face greater barriers in accessing resources, credit, and training opportunities, which makes it harder for them to adapt their livelihoods.[189] Gender inequality exacerbates economic vulnerability, as women are often excluded from decision-making processes and lack ownership of productive resources.[190] Consequently, young women experience heightened economic instability during climate-induced crises, further entrenching gender inequalities.

Diversifying income sources is crucial for reducing economic instability among youth. However, the findings indicate that youth in the Rwenzori Sub-region face significant barriers to livelihood diversification due to a lack of vocational skills, limited access to credit, and poor infrastructure. This lack of diversification leaves youth more susceptible to climate shocks, as they remain dependent on a single source of income.[191] This is consistent with research by Ellis (2000), who argues that diversification is a key strategy for managing risk and reducing vulnerability in rural economies. However, diversification options are often limited by structural barriers such as inadequate education and lack of institutional support, particularly in developing countries.[192]

The effectiveness of livelihood adaptation strategies is often undermined by policy and institutional gaps. In the Rwenzori Sub-region, there is a lack of targeted policies and programmes to support youth in building climate-resilient livelihoods. This finding is consistent with the United Nations

187   UN Women. (2023). Gender, Climate and Security: Sustaining Inclusive Peace on the Frontlines of Climate Change.

188   FAO. (2020). The impact of disasters and crises on agriculture and food security. FAO Report.

189   Nelson, V., et al. (2002). Uncertain predictions, invisible impacts, and the need to mainstream gender in climate change adaptations. Gender & Development, 10(2), 51-59.

190   UNDP. (2019). Gender and climate change: Overview of linkages and programmatic opportunities. UNDP Report.

191   Dercon, S. (2002). *Income risk, coping strategies, and safety nets*. The World Bank Research Observer, 17(2), 141-166.

192   Ellis, F. (2000). Rural Livelihoods and Diversity in Developing Countries. Oxford University Press.

Framework Convention on Climate Change (UNFCCC), which notes that many developing countries lack comprehensive climate adaptation plans that address the specific needs of youth and other vulnerable groups.[193]

The study's findings highlight the need for diversified livelihood strategies and economic empowerment programmes that reduce dependency on climate-sensitive sectors and promote sustainable resource management. Strengthening institutional support, improving access to climate information, and providing targeted financial services are critical for enhancing the economic resilience of youth.

3.4.4 CONFLICT AND RESOURCE COMPETITION

The intersection of climate change and conflict is a prominent theme in this study, with resource competition, displacement, and livelihood insecurity being major drivers of conflict in the Rwenzori Sub-region. Climate change exacerbates existing tensions over land and water resources, particularly between different ethnic and livelihood groups. The study found that climate change-induced resource scarcity has intensified ethnic tensions between the Bakonzo agriculturalists and Basongora pastoralists, often resulting in violent clashes. Disputes over grazing land and access to water are common, especially during prolonged droughts. Political actors have been known to exploit resource scarcity for personal or political gain, further inflaming tensions and undermining community resilience to climate impacts.

Climate change contributes to resource scarcity in several ways, including reduced water availability, soil degradation, and an increased frequency of extreme weather events, all of which disrupt agricultural production.[194] When these impacts coincide with weak governance structures and pre-existing social tensions, the risk of violent conflict rises.[195] Studies by Homer-Dixon (1999) and subsequent research highlight how competition over shrinking arable land and water resources in communities dependent on natural resources often escalates into violent conflict.[196] This is especially evident in the Rwenzori Sub-region, where climate-induced changes in rainfall patterns have reduced the availability of fertile land and pasture, fuelling tensions between agriculturalists and pastoralists.

The intersection of environmental change and social vulnerability creates a "perfect storm" for conflict, particularly in areas where land is already a contentious issue.[197] Raleigh and Urdal (2007) argue that ethnic polarisation and competition over scarce resources often drive local-level conflicts, especially in multi-ethnic regions. In the Rwenzori Sub-region, ethnic tensions between Bakonzo agriculturalists and Basongora pastoralists are exacerbated by climate-induced resource scarcity, leading to violent clashes over grazing land and water.[198]

193   UNFCCC. (2022). *Implementation of gender-responsive climate action.* https://unfccc.int/sites/default/files/resource/cp2022_06E. pdf

194   United Nations Environment Programme (UNEP). (2017). Preventing conflict through environmental management: A strategy for peacebuilding.

195   Buhaug, H., Gleditsch, N. P., & Theisen, O. M. (2014). *Implications of climate change for armed conflict.* In: Handbook on the Economics of Climate Change. Edward Elgar Publishing.

196   Homer-Dixon, T. (1999). *Environment, scarcity, and violence.* Princeton University Press.

197   Ibid

198   Raleigh, C., & Urdal, H. (2007). *Climate change, environmental degradation, and armed conflict.* Political Geography, 26(6), 674-694.

These dynamics align with the findings of Benjaminsen et al. (2012), who examined conflicts between pastoralists and agriculturalists in the Sahel region. Their research found that climate variability contributes to increased competition, often framed along ethnic lines. In such contexts, climate change does not directly cause conflict but acts as a catalyst, intensifying existing grievances and competition over dwindling resources.[199]

The findings emphasise the need for conflict-sensitive climate adaptation strategies that address resource competition and promote equitable resource management. Effective conflict mitigation and resource management strategies must be grounded in understanding the local socio-political context and include mechanisms for equitable resource distribution. Moreover, policies should prioritise inclusive governance and the participation of marginalised groups, including women and ethnic minorities, in resource management and conflict resolution.

3.4.5 YOUTH EFFORTS IN ADAPTATION AND MITIGATION

The engagement of youth in climate change adaptation and mitigation is increasingly recognised as a crucial element of sustainable climate action. The study findings show that youth in the Rwenzori Sub-region are actively involved in various adaptation and mitigation activities, such as tree planting, water conservation, and community awareness campaigns. However, the effectiveness and sustainability of these efforts are often hindered by a lack of resources, training, and institutional support. This section draws on existing research and literature to contextualise youth efforts in climate action, highlighting their roles, challenges, and potential.

Youth are uniquely positioned to contribute to climate adaptation due to their capacity for innovation, willingness to adopt new practices, and ability to mobilise communities. They bring fresh perspectives and energy to climate adaptation, often leading community-level initiatives focused on environmental restoration, sustainable agriculture, and disaster risk reduction.[200]

For example, youth-led organisations in Africa have been at the forefront of promoting climate-smart agricultural practices, such as agroforestry and the use of drought-resistant crops, to enhance food security and reduce vulnerability to climate shocks.[201] Research by Leavy and Smith (2010) supports these findings, noting that youth-led adaptation efforts can be transformative by shifting community perceptions of climate risks and promoting sustainable resource management. In Uganda, youth are increasingly involved in community-based adaptation projects, including rainwater harvesting and soil conservation, which have demonstrated positive outcomes in enhancing agricultural productivity and building local resilience.[202]

Similarly, research by Thew et al. (2020) shows that youth-led mitigation initiatives often emphasise the local context and provide co-benefits such as job creation and gender equality. For example, youth engagement in afforestation and forest management programmes in East Africa has

199   See Benjaminsen et al., (2012); and Raleigh & Urdal (2007).
200   United Nations Environment Programme (UNEP). (2019). Global Environment Outlook: Youth, Gender and the Environment.
201   Ibid
202   Leavy, J., & Smith, S. (2010). Future farmers: Youth aspirations, expectations and life choices. IDS Bulletin, 41(6), 44-51.

significantly improved biodiversity conservation and carbon sequestration while also creating employment opportunities for young people.[203]

The findings reveal a community highly aware of and affected by climate change, with significant gender differences in impacts and experiences. Addressing these challenges requires tailored interventions that enhance education, strengthen governance, and support sustainable practices. Empowering youth through education and economic opportunities can enhance their resilience and help mitigate the impacts of climate change and conflict.

The report underscores the importance of inclusive and holistic approaches to address the interconnected challenges of climate change, environmental degradation, and conflict in the Rwenzori Sub-region.

203   Thew, H., Middlemiss, L., & Paavola, J. (2020). Youth engagement in climate change action: Empowerment or tokenism?. Ecology and
        Society, 25(3), 1-10.

4. Conclusion

The Rwenzori sub-region faces a complex interplay of climate change, environmental degradation, and socio-economic challenges, making it one of the most vulnerable areas in Uganda. The sub-region is heavily dependent on climate-sensitive sectors like agriculture and livestock farming, which have been severely impacted by erratic rainfall, prolonged droughts, and frequent flooding. These adverse climatic conditions have resulted in reduced agricultural productivity, loss of livestock, displacement of communities, and the destruction of key infrastructure, including roads, bridges, and healthcare facilities. Nearly 93 percent of respondents in the study reported having personally experienced the effects of climate change, highlighting its widespread impact on livelihoods and socio-economic stability. Over 76 percent of respondents reported property destruction, while 73 percent cited decreased agricultural productivity.

The impacts are not uniform across all demographics, with significant gender disparities emerging. Young women face greater challenges than men due to their reliance on natural resources, lower economic resilience, and higher exposure to climate-related displacement and exploitation. Women also report higher levels of food insecurity and are more likely to experience climate-induced displacement, making them vulnerable to sexual exploitation and trafficking. These gendered impacts are largely attributed to structural inequalities that limit women's access to resources, economic opportunities, and decision-making processes.

Youth, who make up the majority of the region's population, are particularly vulnerable due to limited education, high unemployment, and a lack of alternative livelihood options. The study found a strong connection between climate change, resource scarcity, and conflict. Competition over limited resources, such as land and water, has heightened tensions between communities, often leading to violent confrontations. The interplay between climate change and conflict is further exacerbated by political manipulation and governance challenges, which make youth more susceptible to recruitment by extremist groups due to economic marginalization and social instability.

Despite these challenges, youth in the region are actively engaged in adaptation and mitigation activities, including climate-smart agriculture, community-based disaster risk management, and renewable energy initiatives. However, the effectiveness of these efforts is hampered by insufficient resources, inadequate policy support, and gendered social norms that restrict women's participation in decision-making processes.

To foster a more resilient and inclusive approach to climate adaptation and conflict prevention in the Rwenzori sub-region, several key areas of focus are recommended:

1. **Promoting Inclusive Education and Capacity Building:** Expanding educational and vocational training programs, particularly for young women and marginalized groups, will enhance climate change awareness and adaptive capacity.

2. **Developing Gender-Responsive Adaptation Strategies:** Gender-specific policies and programs can address the unique vulnerabilities of young women and promote their active participation in climate adaptation and mitigation efforts.

3. **Strengthening Livelihood Diversification and Economic Empowerment:** Promoting alternative livelihoods will reduce dependence on climate-sensitive sectors and increase resilience to climate shocks.

4. **Implementing Conflict-Sensitive Climate Adaptation Policies:** Addressing the root causes of resource-based conflicts through equitable resource management, community dialogue, and inclusive decision-making is crucial.

5. **Enhancing Youth Engagement in Climate Governance:** Supporting youth leadership and participation in policy development and implementation will ensure that young people have a voice in shaping climate action and governance structures.

CASE
STUDY **4**

Somalia: Environment for peace

CLIMATE CHANGE, YOUTH, AND THE NEED FOR HOLISTIC RESPONSE. AFGOYE, LOWER-SHABELLE REGION: SOUTH-WEST ADMINISTRATION.

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ACRONYMS AND ABBREVIATIONS

AS   Al-Shabaab

ATMIS   African Union Transition Mission in Somalia

FGS   Federal Government of Somalia

FMS   Federal Member States (Of Somalia)

HoA   Horn of Africa

SWSS   South West State of Somalia

NGO   Non-Governmental Organisations

SWALIM   Somali Water and Land Information Management

IDPs   Internally Displaced People

Executive Summary

This report examines the profound impact of climate change on youth in the Afgoye district, where environmental degradation, resource scarcity, and conflict are intricately linked. The study highlights the challenges faced by young people, who are disproportionately affected by the ongoing climate crisis and the related socio-economic instability. Afgoye's climate challenges, including drought, floods, and resource depletion, are severely impacting livelihoods. Agriculture and livestock, key economic drivers, are in decline due to erratic weather patterns and reduced water availability. The scarcity of resources, such as land and water, intensifies competition, exacerbating conflict and insecurity. Youth are particularly vulnerable, as they face diminishing economic opportunities, high unemployment, and exploitation in informal sectors. Marginalized youth, including women and internally displaced persons (IDPs), are especially affected, with many forced to turn to radical groups like Al-Shabaab, as these offer alternatives for income and security.

Youth responses to these challenges include participation in informal support networks and community-driven resource-sharing initiatives. However, their efforts are hampered by weak formal institutions, limited access to education, and lack of political inclusion. Despite a high awareness of climate change, youth lack the resources and training needed to engage in sustainable climate adaptation and leadership roles. Additionally, existing early warning systems, such as SWALIM [204], remain underutilized and ineffective in fully addressing local needs. The report underscores the urgent need for holistic approaches that integrate climate resilience, conflict resolution, and youth empowerment. Recommendations include fostering inclusive decision-making, expanding youth training in sustainable agriculture, and increasing investment in climate adaptation projects. By equipping young people with the tools to actively participate in climate solutions and peacebuilding, Somalia can mitigate the risks of radicalization and promote long-term stability in the Afgoye region.

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204   Somali Water and Land Information Management (SWALIM) is an information management program, technically managed by the Food and Agriculture Organization of the United Nations (FAO) in Somalia funded by a coalition of nations and aims to provide high quality water and land information, crucial to relief, rehabilitation and development initiatives in Somalia, to support sustainable water and land resources development and management. See https://www.faoswalim.org/node-30-page

1. Introduction

Somalia, a country that has been plagued by conflicts and humanitarian crisis for decades, is among the countries with some of the longest lasting conflicts. Somalia has been affected by political turmoil and unique challenges related to clan conflicts, poor infrastructure, insecurity and weak rule of law, fractured politics, as well as proliferation of arms among other challenges that have hindered development as well as served as obstacles to lasting peace. These challenges are further complicated by environmental degradation and climate change, dysfunctional and weak governance structures, violent extremism, and protracted economic vulnerability across the country.
The ongoing conflict has had a massive impact on the country's ability to cope with the effects of the climate emergency, which are already being felt. The 2011 drought had a severe impact on the Horn of Africa (HoA), but Somalia faced a devastating famine due to a combination of factors, including pre-existing vulnerabilities and ongoing conflict.[205]

As sea levels rise and floods, drought, and other natural disasters increase in Somalia, food insecurity also rises, which in turn threatens security—both directly and indirectly. Somalia's dependence on natural resources, particularly for pastoralism and agriculture, renders it exceptionally vulnerable to environmental changes, with vulnerabilities further exacerbated by the population's low adaptive capacity. A low adaptive capacity that is driven by factors such as

205   https://www.brookings.edu/wp-content/uploads/2016/06/03_nd_review_chapter3.pdf

but not limited to: poverty, which has reduced the ability to invest in resilient infrastructure; poor governance, which can explain why fragmented institutions struggle to implement appropriate and effective environmental policies; lack of climate education, leaving communities less aware of the risks posed by environmental changes, subsequently being less equipped with the knowledge and skills needed to adapt effectively.

The country has already witnessed a stark escalation in disruption of lives and livelihoods following climatic events such as rise in sea level leading to acidification and salinification of freshwater wells, and decline in ocean health and fisheries.[206] With a population of roughly 15 million people, 80 percent of whom are nomadic pastoralist, Somalia is ill prepared to withstand these shocks, adapt and mitigate; highlighting the importance of understanding the impact of climate change on livelihoods.[207] The rapid-onset disasters and long-term environmental degradation, such as soil degradation, deforestation, and desertification, have also led to economic hardship among groups that directly depend on renewable resources such as but not limited to; water, crops, forests, grazing land, accentuating gender inequalities and increasing competition over natural resources.[208]

In the face of resource scarcity, communities often lose their ability to generate the income needed to sustain their livelihoods, which in turn weakens social cohesion and local cooperation. In practice, limited resources lead to intense competition for access, eroding trust and collaboration among community members. This competition can escalate into conflict and violence over resource access. Al Shabaab takes advantage of the region's economic challenges and the youth's search for identity and purpose, offering the lure of financial security, a sense of belonging, and a distorted form of power through armed action—a dangerous but tempting path for many young people.

The lack of access to resources often forces people to migrate in search of better opportunities, weakening community bonds and disrupting established social networks. The resulting economic hardship also puts additional strain on social safety nets that are vital for communal solidarity and mutual assistance. Internally displaced women and girls are especially vulnerable to sexual and gender-based violence, both by armed men and civilians. The UN Special Representative has emphasized that the number of cases is "countless"[209] as victims are often invisible and inaccessible, with nowhere to report these crimes, and no one to turn to. The breakdown of the social fabric has also led to an increase in gender inequality and gender-based violence, as women become more isolated from their communities and more vulnerable to attacks while searching for resources.

The prospects for women and youth are dimmed by the environmental degradation, economic hardship, and the potential for renewed conflict always looming.

Youth in Afgoye respond to climate change by relying on strong social networks, mutual support, and community leaders for conflict resolution and resource sharing, compensating for the absence of formal institutions. They engage with influential figures and NGOs to access markets,

206   Karolina Eklow & Florian Krampe, supra note 6, at 10 ("Somalia is highly susceptible to the effects of climate change and extreme weather conditions, such as periods of extended drought, flash floods, erratic rainfall, disruption to the monsoon seasons, strong winds, cyclones, sandstorms and dust storms. Many extreme weather events have occurred in Somalia in the past 25 years.").

207   "Somalia's Economy at a Glance," CENTRAL BANK OF SOMALIA, (Jan 2009), https://web.archive.org/web/20090124192809/http:/somalbanca.org/economy-and-finance.html.

208   Id. *See also Cf.* Katherine J. Mach et. al., Climate as a risk factor for armed conflict, NATURE VOL. 571 193, 194, JULY 2019, HTTPS://WWW.NATURE.COM/ARTICLES/S41586-019-1300-6 ("Across the experts, best estimates are that 3–20 percent of conflict risk over the past century has been influenced by climate variability or change.").

209   United Nations Security Council. (2023). Report of the Secretary-General on the situation in Somalia. S/2023/600

distribute resources, and voice concerns about environmental challenges. Despite the limited presence of formal structures, these youth are well-informed about climate impacts such as water scarcity and infrastructure degradation, expressing frustration over the lack of government action. Mapping these responses is essential, as it highlights youth resilience and adaptation strategies, demonstrating the critical role of informal networks where formal systems are weak. Understanding these dynamics enables more effective interventions that build on existing community strengths, ensuring climate action aligns with local needs and promotes inclusive development.

This study addresses critical gaps in understanding how the intersection of climate change, environmental degradation, and conflict in Afgoye, Somalia, creates vulnerabilities for youth that undermine peace and security. It also examines the strategies youth have adopted to mitigate these challenges. While existing research highlights the link between climate change and conflict, the specific impacts on young people and the responses they and others deploy remain less understood. To bridge this gap, the research focuses on four main themes:

1. **Youth perceptions of climate change, environmental degradation, and conflict**
   → How do climate change, resource scarcity, and socio-economic challenges in Afgoye contribute to youth unemployment, vulnerability, and the risk of radicalization?
   → How do weak formal institutions and strong social networks in Afgoye influence youth resilience, resource conflicts, and community stability amidst challenges like climate change and marginalization?

2. **Influence of climate change and environmental degradation on conflicts**
   → How do conflicts related to land in Afgoye contribute to recurring violence and resource competition, and what factors exacerbate these tensions?

3. **Combined impact of climate change, environmental degradation, and conflict on youth**
   → How do these combined challenges affect the lives and opportunities of young people in Afgoye, particularly regarding land access, livelihood disruptions, and displacement?

4. **Responses to these interconnected dynamics of climate change, environmental degradation, and conflict, & the role of youth in these responses**
   → How does the disparity between climate change awareness and concrete action in Afgoye contribute to community frustration, and what measures are needed to bridge this gap and build trust between the government and the community?

This paper will begin by providing context on the situation in Somalia. It will then explore the study's methodological framework, explaining the rationale behind the case study approach and the methods used. Following this, the paper will present the findings, organized into four sections. The first section examines how youth perceive climate change, environmental degradation, and conflict. The second assesses the influence of climate change and environmental degradation on conflict. The third explores the combined impact of climate change, environmental degradation, and conflict on youth. The fourth section discusses responses to these interconnected dynamics and the role of youth in addressing them. Finally, the paper will conclude with a summary of the findings and offer recommendations for moving forward.

1.1   GENERAL CONTEXT OF SOMALIA

Somalia operates as a federal government consisting of six Federal Member States: Puntland, Galmudug, Hirshabelle, South West State of Somalia (SWSS), Jubaland, and the Banadir region, where Mogadishu, the capital, is located. Appointments to the Federal Government of Somalia (FGS) are made according to the "4.5 system" (four-point-five), which dictates that representation must be equal amongst the four major clans (the *Darood*, the *Dir*, the *Hawiye*, and the *Digil-Mirifle*), with all minor clans and non-clan affiliated people collectively having representation equivalent to half of one of these groups. The clan system is patrilinear and hierarchically structured, with the major clan families breaking down into clans, sub-clans, and sub-sub-clans. The clans are led by elders, who play governance, judicial and conflict resolution roles.
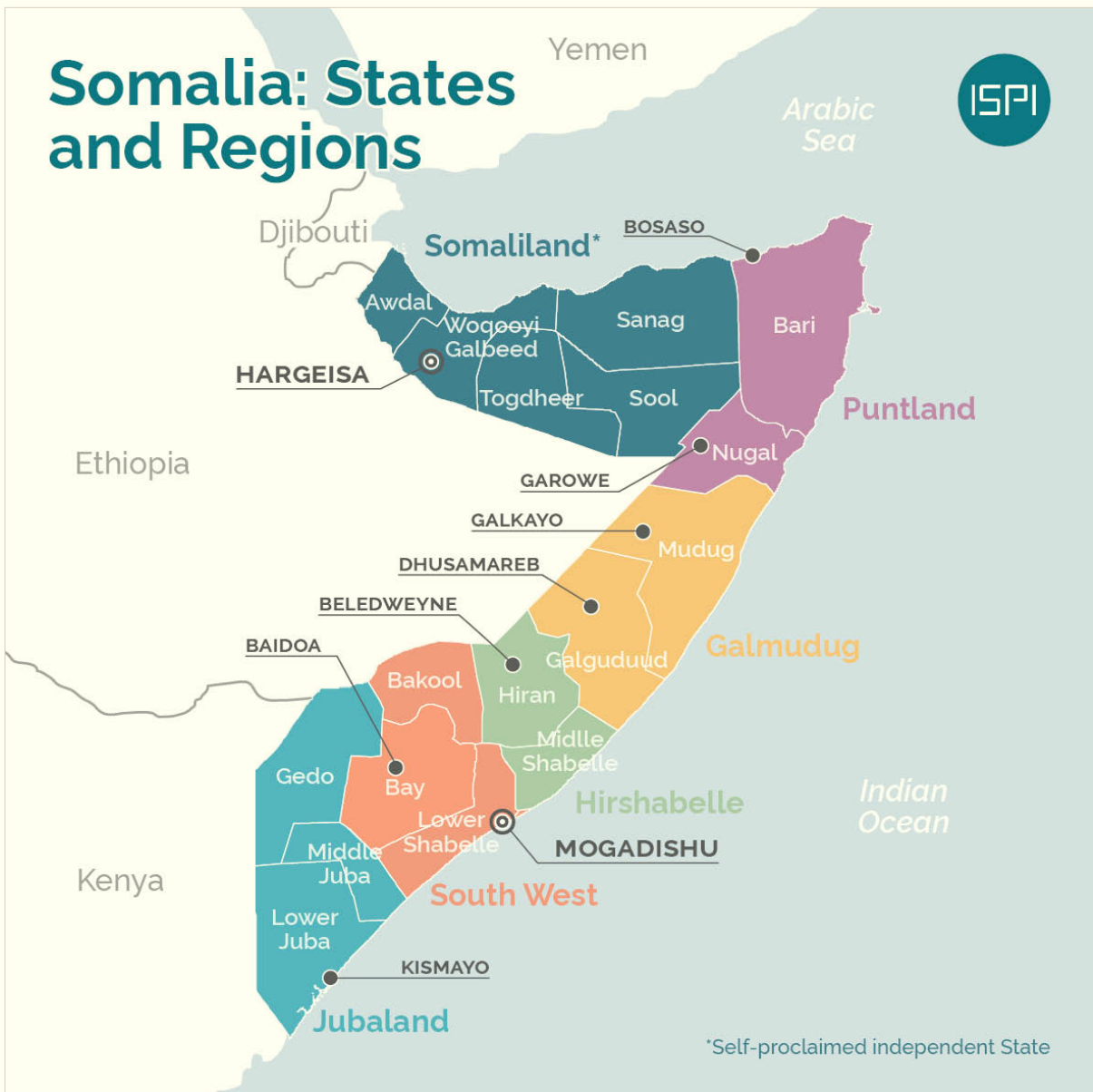

FIGURE 1 | Map of Somalia, showing all the Federal Member States[210]

210   Infographic-Somalia Map- available at https://www.ispionline.it/en/publication/somalia-states-and-regions-30387

Somalia, located in the HoA, shares borders with Djibouti, Ethiopia, and Kenya, and boasts a long coastline along the Indian Ocean. The country's geographical diversity includes arid and semi-arid climates, with two main rainy seasons, *Gu* and *Deyr*, and two dry seasons, *Jilaal* and *Xagaa*. Rainfall is sparse and uneven, ranging from 50 to 200 mm in the north to 500 to 600 mm in the south[211]. Recurrent droughts and occasional floods have become more severe due to climate change, particularly affecting northern regions where temperatures can soar above 40°C.

Somalia has a predominantly young population, with over 75 percent being under the age of 30 [212], with 42 percent of these being children under the age of 14[213], who are largely rural and dependent on agriculture and livestock for their livelihoods. Consequently, most Somalis were either children when Al Shabaab (AS) was formed in 2006 or have grown up in a Somalia that has been at least partially controlled by the group.

However, the country's environmental fragility, worsened by climate change, poses a significant threat to food security, particularly for pastoralist communities. While urbanization is slowly increasing, rural areas still dominate, where traditional livelihoods are becoming harder to sustain due to land degradation and water scarcity. In this challenging environment, Somalia's fragile economy—largely reliant on livestock and remittances—is especially vulnerable to environmental shocks. These issues are further compounded by the country's long-standing political instability. Decades of conflict driven by clan rivalries and insurgency from groups like Al Shabaab have contributed to approximately3.8 million people[214] are internally displaced people (IDPs) in Somalia. The combination of environmental degradation and insecurity worsens the socio-economic challenges for Somali youth, who face limited opportunities and are increasingly vulnerable to radicalization. Efforts to stabilize the country and build strong governance structures continue, but progress remains slow, hampered by internal divisions and external pressures.

211   Somalia Humanitarian Overview, United Nations Office for the Coordination of Humanitarian Affairs (OCHA), 2023, available at https://www.unocha.org/publications/report/somalia/somalia-2023-annual-humanitarian-access-overview

212   USAID (2020) Somalia Youth Assessment, available at https://www.usaid.gov/sites/default/files/documents/1860/USAID-Somalia-Youth-Assessment.pdf

213   Humanian (2020) 'Somalia at a Glance', available at https://www.humanium.org/en/somalia/

214   According to the Humanitarian Needs 2023 report available on,https://crisisresponse.iom.int/sites/g/files/tmzbdl1481/files/appeal/documents/20230208_Somalia percent20_HNO_2023.pdf

2. **Methodology:**

2.1   CASE STUDY SELECTION

While Mogadishu is part of the Banadir region, Afgoye falls under the jurisdiction of South West State of Somalia (SWSS), despite being only 15 kilometres west of the capital. This proximity places Afgoye in a "twilight zone" of governance, as the SWSS administration, seated in Baidoa, is located 195 kilometres away. Although Afgoye is nominally under government control, Al Shabaab exerts considerable shadow authority in the region. Internally displaced persons (IDPs) in Afgoye primarily come from areas outside Lower Shabelle, with a smaller number arriving from the Bay and Bakool regions, located approximately 185 and 217 kilometres away, respectively. Ongoing displacement since 2017 has led to a growing population, yet the availability of resources has not kept pace, intensifying competition for scarce supplies.

Afgoye was selected for this case study due to its unique intersection of climate change, environmental degradation, and persistent land conflicts, all which shape youth perceptions and experiences within a context of historical inequalities and resource scarcity. Its proximity to Mogadishu and its governance by SWSS, while being a contested area with Al Shabaab influence, further complicate these dynamics, making it an ideal location for analysis. Additionally, the region faces limited economic and educational opportunities, gender inequality, and the enduring effects of conflict. These challenges, combined with Al Shabaab's strong presence, create a complex

environment where youth are particularly vulnerable to recruitment by armed groups. Since 2011, data from the Monitoring and Reporting Mechanism (MRM)[215] indicates that at least 13,000 children have been recruited by Al Shabaab, though the actual number of youths under 30 involved is likely much higher.

Despite the presence of an African Union (ATMIS) base nearby and ongoing civil-military cooperation efforts, trust between the local community and security actors remains low. Afgoye's designation as a "liberated" district has paradoxically reduced its priority for military and stabilization efforts, allowing Al Shabaab to operate relatively unchecked and rebuild its influence in the area.

2.2   METHODS

The methods used in this study were tailored to address the unique context of Afgoye in the Lower Shabelle region of SWSS. The data collection process was participatory, with a deliberate focus on marginalized groups, including women, youth, and internally displaced persons, ensuring that their perspectives and experiences were central to the research.
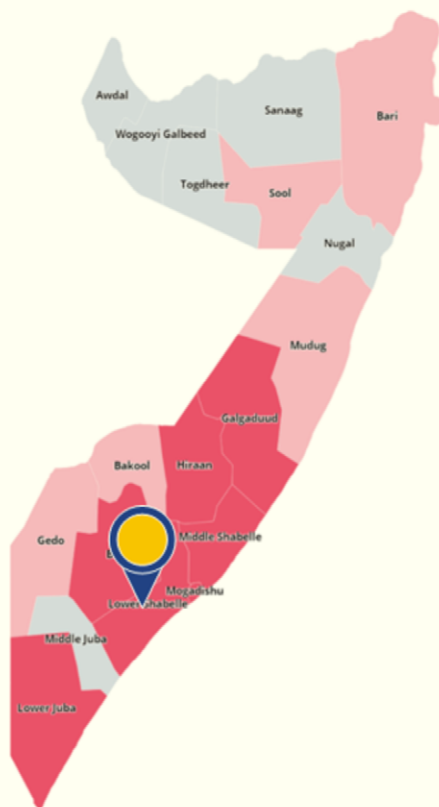
FIGURE 2 | Map of Somalia, showing where Afgoye (pinned) is in relation to other regions and cities[13]

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215   Somalia is one of 21 countries in which grave violations against children are monitored by community-based organizations who report through the Monitoring and Reporting Mechanism (MRM), a UN mechanism that collects and analyses data relating to violations against children. MRM data is shared with the UN Secretary General's children affected by armed conflict (CAAC) office, and an overview of findings is presented in the UN Secretary General's annual report on Children Affected by Armed Conflict.

216   Map of Afgoye in relation to Lower-Shabelle Region in SWWS, available on https://euaa.europa.eu/country-guidance-somalia-2023/lower-shabelle

2.2.1 PRELIMINARY SURVEYS AND OBSERVATIONS

The study was conducted by EPC over two phases of data collection, designed to capture both secondary and primary data. Phase one focused on a secondary review of literature related to the impact of climate change on youth, conflict, and peace, as well as mitigation mechanisms in Somalia. Regional and global sources were also consulted. This review provided valuable data and insights, which were later triangulated with primary findings from field interviews. It is important to note that Somalia's lack of functional state systems results in an absence of formal tracking for research conducted in the country, and there is no public repository of research outputs.

Field observations played a crucial role in phase two, serving as preliminary data collection and offering rich contextual information for subsequent research activities. This approach allowed a mixed-methods research team—comprising EPC staff from Mogadishu and youth data collectors from Afgoye—to gain a deeper understanding of the challenges and opportunities related to climate action resilience and social cohesion in Afgoye. This understanding was essential not only for contextualizing the climate and conflict situation but also for providing upskilling opportunities to the 20 youth engaged as enumerators, many of whom were participating in such research for the first time.

The second phase of data collection, focusing on primary data, took place in May 2024. A total of 170 respondents participated, including 108 males (63.53 percent) and 62 females (36.47 percent). The team employed a semi-structured, mixed-methods survey to capture both quantitative and qualitative data. Respondents represented a range of stakeholders, including community leaders, peace committees, women, youth, religious leaders, local politicians, and IDPs. However, 71 percent of respondents were under the age of 35, a higher proportion of youth than intended, as the goal was to interview a balanced group of both youth and older stakeholders. This skewed participation highlights a broader issue of intergenerational marginalization, as young people in Somali communities often face dismissal by older individuals. Older respondents may have been reluctant to participate due to stereotypes about youth or concerns over the enumerators' ability to conduct the research effectively. This type of discrimination is often more pronounced for young women, who face additional barriers to participation due to gender-based stereotypes and expectations.

TABLE 1 | List of targeted locations in Afgoye

REGION/FMS	LOCATION	LOCATION TYPE	LOCATION NAME	
Lower-Shabelle Region **South-West Administration**	Afgoye	Urban-Peri-Urban Districts across Afgoye Corridor → **Stable security**	→ Dhagahtur → Balgure → Siigale → Hawatako → Nakrum → Fayuuma → Daahisoy → AyAro → Ragayle → Waanjee	→ Anbagaaa → Ifiyo-aqir → Damaley → BuulaAin → Buula-shinshe → Arta → Dooday → Godey → Doolaawe
Lower-Shabelle Region **South-West Administration**	Afgoye	Rural- Remote- Villages (and smaller Hamlets) → **Weak Security**	→ Balbaley → Shukurow → Deefow → Mareerey → Moordiile	→ Buula-dahir → Arbis → Kuraale → Buula-hartoy → Rimo-gacan

The use of qualitative methods was therefore crucial and the key informant interviews (KIIs), and Focus Group Discussions (FGDs) were particularly helpful in capturing the opinions, views, attitudes and insights more exhaustively from youth as well as from older stakeholders not engaged in the survey. To ensure a more holistic perspective and to capture a wider range of experiences, the research included not only youth but also older community members in the focus group discussions (FGDs) and key informant interviews (KIIs). This approach was designed to avoid relying solely on the perspectives of young people, who may have limited exposure to the broader societal context. By including older individuals in the discussions, we were able to gain valuable insights into the historical context of the issues being studied. These individuals were able to provide valuable perspectives on how these challenges have evolved over time, often predating the experiences of the younger generation. This approach also helped to validate the experiences and perspectives of the youth participants.

Despite efforts to balance the gender of the data collection team, difficulties in recruiting young women and strict safeguarding rules led to only 29 percent female representation compared to 71 percent male. Achieving gender balance proved challenging primarily due to entrenched cultural norms that restrict women's public participation, safety concerns in the surroundings of the fieldwork areas that disproportionately affect female staff, and stringent safeguarding protocols that limited the recruitment and inclusion of young women. However, to address the gender imbalance, young female research assistants were strategically assigned to co-facilitate and support specific FGDs. All enumerators were local to the Afgoye corridors[217], which facilitated data collection within rural and fringe locations.

217 The Afgoye Corridor, a strategic region connecting Afgoye to Mogadishu, serves as a vital supply route, a hub for internally displaced persons due to ongoing conflict, and a flashpoint for violence involving militant groups like al-Shabaab, while also presenting opportunities for infrastructure improvement and economic development in Somalia.

Enumerators faced challenges in securing participation due to respondents' suspicion and fear of being recorded, particularly when discussing the intersection of climate and security. This issue potentially impacted data accuracy. To address this, the research team stressed the importance of confidentiality. Historically, AS had banned smartphones in their controlled areas. Although their official control has diminished in the research locations, their influence and presence persist. Contrary to expectations that youth and marginalized groups would be the most reticent, district officials were notably the least forthcoming about security-related topics. This existing fear of technology led to the decision to conduct surveys manually on paper. In some cases, where security conditions allowed, surveys were read aloud, and only voice recordings were captured on devices. This approach provided respondents with reassurance by ensuring that no photos, videos, or identifiable data were collected.

2.2.2 FOCUS GROUP DISCUSSIONS (FDGS)

The FGDs organized in the second phase of the data collection resulted in 21 separate discussions with a total of 168 participants (33.8 percent women and 66.2 percent men). To ensure a range of perspectives were captured and considering potential gender biases within the participant pool, the FGDs were designed with a mix of gender-specific and mixed-gender groups.

TABLE 2 | Participants in the Focus Group Discussions

FGD GROUPS	PARTICIPANTS	NO. FGDS	FEMALE	MALE
Mixed Gender	Men & Women between 18-70 years	18 FGDs held with mix representation	54	114
Gender Segregated	Women Only between 17-32 years	1 FGD with women only group	10	0

2.2.3 KEY INFORMANT INTERVIEWS (KIIS)

In Afgoye, KIIs provide deep, context-specific knowledge that highlights the intersection of environmental issues with daily life and conflict. This approach ensures the study reflects the complexity of local experiences and informs effective solutions.

26.67

73.33

A total of 15 individual interviews (**26.67 percent women** | **73.33 percent men**) and 2 group consultations were conducted with 7 key informants (71 percent women). The participants were selected based on their expertise, relevance to the research topic, and representation of diverse perspectives. Interviews were carried out with all ethical considerations, including informed consent and confidentiality, carefully observed.

The research employed a collaborative approach for data analysis, where the lead researcher, enumerators, and EPC experts worked together to interpret data. They organized the data, discussed patterns, and examined various perspectives to gain insights. Subsequently, the data was systematically coded and organized into the five themes presented in the findings section.

3. Findings

3.1   YOUTH PERCEPTIONS ON CLIMATE CHANGE, ENVIRONMENTAL DEGRADATION & CONFLICT

Understanding youth perceptions of climate change in Afgoye, Somalia, is crucial as they shape how emerging generations experience and respond to environmental challenges and conflicts. These perceptions offer valuable insights into the impacts of resource scarcity, shifting livelihoods, and social tensions, helping to inform the development of effective, youth-centered interventions and policies.

The data reveals significant perceptions among youth and other respondents about the connection between climate change, environmental degradation, and conflict. A notable 41 percent of respondents believe that climate change has contributed to, or significantly contributed to, the proliferation of arms. Additionally, 56 percent agree or strongly agree that resource scarcity, driven by climate change, has increased the likelihood of acquiring weapons. Nearly half of the respondents (47 percent) see conflicts over water and land—exacerbated by climate change—as a major factor in the rise of arms proliferation. This increased availability of weapons has negatively affected individuals' sense of security, with 51 percent reporting that they feel less secure as a result. This insecurity has broader implications, such as hindering economic activities, restricting movement, and weakening social cohesion.

The survey also highlights that marginalized youth are particularly vulnerable to the combined effects of climate change, environmental degradation, and conflict. In agro-pastoral zones, droughts and other climate shocks affect entire households, as youth play a crucial role in providing for their families, often acting as the heads of households. Specifically, 65 percent of respondents report a moderate to extreme impact of climate change on their ability to earn a living, with droughts, floods, and reduced market access being major challenges. Environmental degradation, such as deforestation and pollution, affects 65 percent of respondents to a similar degree. Conflict further compounds these difficulties, with 65 percent also reporting moderate to extreme impacts on their livelihoods due to displacement, market disruptions, and loss of resource access.

A significant 68 percent of respondents believe that these challenges disproportionately affect certain groups of youth, influenced by factors such as gender, location, and access to resources. This intensifies the pre-existing pressure on young people to seek alternative income sources, making them more vulnerable to recruitment by armed groups. Al Shabaab's proximity to Afgoye exerts a powerful influence on youth, offering an attractive, though dangerous, option for those facing these compounded challenges.

> *"When I joined them (AS) it felt like the only choice. It was fear but also it wasn't much of a choice because I saw this happen to others before that made it easier to agree. They promised safety for my family's small herd of goats, and they would not make them pay the taxes and that would allow my family to survive and eat. It also allowed me to have more freedom, being a part of them meant you could go anywhere that was otherwise restricted. I never thought what they were doing was right if I didn't join it would impact my family and I'm the only boy, my father is too old." – Mahad (altered name) – Young man, and past member of Elman Peace Centre Community Based Reintegration program (EPC CBR)[218].*

The group controls farmland, often acquired through force, and charges youth for access. They may also divert river water away from non-compliant families, further crippling livelihoods. This control over resources creates a direct line of employment for youth, particularly when faced with climate disasters when other options are scarce. AS's constant outreach and engagement stand in stark contrast to the limited options offered by other sectors, making them a seemingly attractive source of income and support for young people struggling to provide for their families.

In focus groups with community stakeholders and thought leaders, discussions centered on equipping young people with relevant skills for both formal and informal employment opportunities. They suggested potential employment markets for youth in Afgoye, such as driving and delivery services, cooking and hospitality (including fast food and juice kiosks). It was recommended that the government prioritize these sectors to address the issue and monitor progress. The Afgoye District Officials interviewed suggest that the industrial development in Afgoye is currently constrained by skills shortages and in the same location, youth are facing high unemployment.

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218   The Elman Peace Community Based Reintegration program (EPC CBR) is an initiative in Somalia aimed at facilitating the reintegration of former combatants into society by providing vocational training, education, and psychosocial support, thereby promoting peace and stability while empowering communities to address the root causes of conflict and violence.

"IDPs are usually recruited into the construction sector without signing any contract and given less salary than others from the community. There is no way to regulate this and even though it is not fair it is at least a job that others do not have. The IDPs are not given good opportunities in the construction sector. It is a common understanding that people usually employ their kinship so when they hire from the IDPs, at least it is progress." –Saciid Ali, Afgoye District Official.

This statement highlights the exploitation and discrimination faced by internally displaced persons (IDPs) in Afgoye's construction sector. While hiring IDPs is seen as progress, it perpetuates marginalization and stifles economic growth, underscoring the need for fair employment practices and better regulation to foster inclusive development.

Fostering inclusive decision-making processes is critical to addressing unemployment, reducing vulnerability, and increasing youth agency. Including youth in discussions on resource management and climate change adaptation could help address their frustrations and foster a sense of ownership, contributing to peacebuilding efforts in the region.

The study found that while there was little awareness of existing structures for youth participation, there was a clear motivation and interest in getting involved. Survey data revealed that youth are significantly influenced by climate change, environmental degradation, and conflict in their willingness to engage with these issues. Notably, 54 percent of respondents reported that climate change has a moderate to extreme impact on their desire to engage in environmental issues. Similarly, 64 percent said that environmental degradation had a moderate to extreme impact on their motivation to take on leadership roles in promoting environmental sustainability. Conflict also played a role, with 56 percent noting a moderate to extreme impact on their willingness to participate in peacebuilding initiatives.

The lack of awareness about existing youth-led initiatives highlights the need for greater visibility and support. Major barriers to youth engagement include limited resources, insufficient training opportunities, a lack of support from authorities, stigma, and fear of violence. Despite these challenges, 58 percent of respondents believe that increasing youth involvement could significantly enhance the effectiveness of solutions, such as sustainable agriculture, renewable energy investments, improved water management, and community-based adaptation and peacebuilding efforts.

The interconnected challenges identified from focus group discussions, individual interviews, and surveys reveal a complex environment where marginalized youth may be vulnerable to radicalization and violence. The diverse methods used in this study provided a comprehensive view, with focus groups offering nuanced community perspectives, interviews with key informants delivering expert insights, and surveys capturing broader public opinions. These contributions revealed several key factors influencing radicalization and violence:

→ A lack of trust in leadership and perceived marginalization by the state and district authorities creates a breeding ground for frustration and disenfranchisement.

→ The uneven distribution of resources by the government fuels feelings of injustice and hinders community development.

→ Disjointed government efforts and a lack of collaboration with civil society organizations hinder effective problem-solving.

→ Superficial awareness campaigns about climate change lack concrete action plans and leave communities unprepared for its impact.

→ The lack of economic opportunities, particularly for young people and women, restricts self-reliance and fuels desperation.

→ Local peacebuilding and counter-violent extremism (P/CVE) initiatives lack inclusivity and proper skills, hindering their effectiveness.

→ Resistance from some male youth toward women and girls' fight for equality necessitates more strategic engagement to bridge the gap.

This case study underscores how climate change exacerbates existing vulnerabilities, intensifies resource scarcity, limits livelihood opportunities, and fuels youth radicalization. The youth in Afgoye face numerous challenges, including high unemployment, gender disparities, economic instability, and limited access to education and training, all of which contribute to their vulnerability and potential recruitment by armed groups like AS. Most employed male youth engage in daily or part-time work in the service industry rather than agriculture, while employed women primarily work as vendors or in domestic roles.

These findings point to a critical need for interventions that address the skills gap and create formal employment opportunities. However, even finding work presents significant hurdles for youth, who often lack basic knowledge, sector-specific skills, and financial literacy. Additional pressure comes from cultural expectations, which dictate that young men should be the primary providers. Failing to secure well-paying jobs can lead to social stigma, exacerbating feelings of inadequacy and increasing vulnerability to radicalization. The situation is further compounded by reports of exploitation, including non-payment for work and limited access to credit, which trap youth in cycles of poverty and vulnerability.

The research also highlights the barriers youth face in accessing resources to start their own businesses. While there is potential in Afgoye's agriculture and small business sectors, youth lack the resources needed to enter trades such as metalworking, electronics repair, or tailoring. This underscores the need for investment in training programs and access to capital tailored to local needs and market demands. Addressing these challenges can provide youth with meaningful employment opportunities, reducing their vulnerability and contributing to long-term peace and stability in the region.

3.2   INFLUENCE OF CLIMATE CHANGE AND ENVIRONMENTAL DEGRADATION ON CONFLICTS

Land conflicts are a significant driver of recurring violence in Somalia, and in Afgoye, they present a particularly complex scenario. In rural areas, competition for essential resources like water and arable land frequently leads to disputes, while urban areas face conflicts driven by rapid urbanization, weak legal frameworks, limited economic opportunities, and ambiguous land ownership. Data collected in Afgoye indicates that youth are particularly affected by, and acutely aware of, the role climate change and environmental degradation play in exacerbating local conflicts. Specifically, 40 percent of respondents believe climate change has intensified resource conflicts, with 18 percent strongly agreeing. Competition over resources like pasture (41 percent), land (23 percent), and water (21 percent) reflects growing tensions, with 53 percent of the community reporting that they regularly experience conflict.

Focus group discussions link erratic rainfall, prolonged droughts, and extreme weather events to heightened competition for resources. Youth and other community members are aware of these direct impacts, as reflected in the survey data. Extreme weather events, including droughts and floods, were reported by 40 percent and 37 percent of respondents, respectively, with 45 percent noting these events occur frequently. Displacement and migration affect 37 percent of the population, further demonstrating the severe impact on daily life. Additionally, 38 percent of respondents identified a link between extreme weather and conflict, reflecting growing awareness of how environmental pressures fuel resource-based tensions. The recurring crises of livestock loss, crop failures, and water scarcity undermine livelihoods and food security, exacerbating social tensions and conflict.

Focus group discussions and key informant interviews also emphasized the psychological and social toll of these challenges, indicating that youth are deeply affected by, and aware of, the connection between climate change, environmental degradation, and conflict. As one participant noted:

> *"Clan conflicts, often fuelled by historical grievances and power struggles over land, can erupt quickly from seemingly minor incidents. These conflicts spread rapidly, escalating into tribal wars. This cycle perpetuates, with each conflict rekindling the flames of tribal hatred and creating new grievances for future generations to inherit." - Ahmed Araale Mayow (FGD Participant- Male 40 years old)*

This dynamic plays out in many contemporary land conflicts in Afgoye, where historical dispossession or unequal access to resources become flashpoints for violence. For example, a recent flashpoint has been the land claim by the daughter of the former Somali president, Siad Barre. This claim, based on 1980s documentation, encompasses half of Afgoye and threatens to displace 5,000 households. This situation echoes a similar case years ago where the son of the former president displaced hundreds through land reclamation. While reclamations like these can be questionable, it leads back to the poor governance which has enabled it and though incidents like these are less frequent, they have significant impact. The protests, burning tires, and press coverage that follows, highlight the stark inequality. The situation reignites historical tribal tensions, as the former president's family belongs to *Marehan*, a majority tribe, while Afgoye's residents are of a historically marginalized minority tribe, the *Digil* and *Mirifle*.

Population growth further exacerbates these tensions, particularly as pastoralists and internally displaced persons (IDPs) compete for Afgoye's farmland. The limited government presence in rural areas allows Al Shabaab to fill the governance vacuum, managing land while engaging in land grabs and imposing excessive taxation. Agricultural encroachment restricts herder movements, and corruption among business people and politicians further complicates the situation. Additionally, urbanization and population shifts have reshuffled resources, leading to land grabs by clans and subclans, displacing existing communities. When coupled with the pressures of climate change, this creates a dynamic of constant movement and instability throughout the region.

This complex interplay of environmental degradation, historical grievances, and weak governance continues to fuel land conflicts in Afgoye. These issues, compounded by rapid urbanization, climate change, and resource scarcity, create a volatile environment where both youth and other vulnerable populations face growing insecurity and instability. Addressing these conflicts requires not only better governance and equitable resource distribution but also an understanding of the deeply rooted historical and social dynamics at play.

3.3 COMBINED IMPACT OF CLIMATE CHANGE, ENVIRONMENTAL DEGRADATION, AND CONFLICT ON YOUTH

In Afgoye, the existing partnership between men and women in pastoral and agro-pastoral communities is often overlooked in development efforts. This oversight occurs because conventional gender equality initiatives typically fail to recognize and incorporate the collaborative roles that women play in livestock and crop production. As a result, development projects may not effectively address or leverage this synergy, leading to misaligned approaches that fail to harness the full potential of these gender dynamics. This neglect can result in missed opportunities for enhancing productivity and addressing gender disparities, ultimately undermining the effectiveness of climate action and resource management strategies in Afgoye.

Women, including young women, play a central part in raising livestock, particularly sheep and goats[219]. At the same time, they also manage a substantial share of milk production, processing, and even sales. However, their exclusion from climate action committees and land-related conflict resolution dialogues that are organized at both federal and state level by the government with support from the international community and often convened by NGOs; the lack decentralization from Mogadishu or other major cities unlike Afgoye, signifies a substantial oversight.

The research highlights the compounding challenges faced by women and girls in Afgoye, revealing their disproportionate vulnerability to the effects of climate change, resource scarcity, and conflict. Both male and female respondents acknowledged that women have limited access to critical resources like credit and improved technologies, largely due to lower education levels. This lack of access hinders their ability to adapt to climate change and engage in income-generating activities. Women face additional burdens from environmental degradation, which increases the difficulty of accessing water and firewood while exposing them to heightened security risks. Female respondents emphasized the increased risk of sexual violence, including rape and assault, as they are forced to travel farther from home due to resource scarcity. Male respondents corroborated this, recognizing the vulnerability of women and girls in such circumstances.

Gender-based violence (GBV), including domestic abuse, was frequently mentioned as a prevalent issue, driven by socio-economic pressures and cultural norms. While the study did not focus on individual experiences of survivors, it was clear from the feedback provided by female respondents that GBV is a pervasive challenge. Internally displaced women (IDPs) face even greater risks, as their insecure living conditions in host communities make them more vulnerable to exploitation and abuse. Moreover, they encounter significant barriers to accessing services for survivors of sexual and gender-based violence, further exacerbating their vulnerability. Despite these challenges, the research points to opportunities for improvement by calling for targeted interventions to address these specific vulnerabilities effectively.

One promising avenue for empowerment lies in the economic agency already demonstrated by many young women in Afgoye. A significant portion of women are self-employed, own mobile phones, and show financial independence, suggesting potential for interventions that promote economic empowerment and encourage participation in climate-smart agriculture. To fully

219   https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed_emp/@emp_ent/@ifp_seed/documents/publication/wcms_757371.pdf

capitalize on these opportunities and address existing disparities, a shift in approach is necessary. Conversations about women's inclusion should move beyond focusing solely on risks, violence, and protection needs—although these remain critical issues—and instead actively integrate women into decision-making processes. Women already contribute significantly to pastoral and agro-pastoral activities, and efforts should focus on enhancing their access to resources, technology, and education. Moreover, promoting their involvement in climate action and peacebuilding initiatives can help address both immediate challenges and their long-term empowerment and resilience.

Recognizing and supporting women's agency and economic potential allows for a more comprehensive approach, shifting from a purely protective stance to one that enables women to drive positive change in their communities. The research participants expressed a strong desire for meaningful engagement in addressing climate and conflict issues, underscoring the importance of creating opportunities for their participation. This requires dismantling traditional gender narratives and embracing Afgoye's unique social fabric in designing and implementing climate action strategies.

Another significant challenge identified in the study is climate-induced migration, which affects both displaced individuals and host communities, particularly in Afgoye, which lies in a governance "twilight zone." Nearly two-thirds of respondents reported being affected by climate-induced displacement—27 percent had migrated themselves, while 34 percent knew someone who had. The migration experience brings numerous challenges: while 8 percent of respondents reported facing no difficulties, the vast majority (77 percent) encountered moderate to extreme issues, such as difficulties securing food, water, employment, healthcare, and integrating into new communities.

Host communities also experience significant impacts, with 77 percent of respondents reporting moderate to extreme effects, including increased pressure on resources, competition for jobs and housing, and heightened social tensions. An overwhelming 85 percent of respondents believe that climate migrants require additional support, including access to essential services, livelihood opportunities, and education, as well as efforts to foster social integration. Additionally, 63 percent of respondents reported moderate to extreme conflict with host communities, highlighting the risk of escalating violence due to resource competition and strained social cohesion.

Addressing these challenges requires proactive measures, such as promoting dialogue, initiating resource-sharing programs, and implementing conflict resolution strategies. By fostering greater social integration and ensuring that both migrants and host communities have access to the resources they need, it is possible to mitigate the tensions that arise from climate-induced displacement and create more resilient and cohesive communities.

3.4   RESPONSES TO THESE INTERCONNECTED DYNAMICS OF CLIMATE CHANGE, ENVIRONMENTAL DEGRADATION, AND CONFLICT & THE ROLE OF YOUTH

Strong social networks exist alongside weak formal institutions in Afgoye, creating both challenges and opportunities for youth resilience. Understanding and leveraging these networks can inform the development of more effective and sustainable solutions for building a more enabling environment to enhance youth resilience and create better opportunities for their economic and social development.

Respondents overwhelmingly identified the lack of strong institutions as a key factor contributing to violent conflict over natural resources. According to feedback from 21 focus group discussions with 168 youth and community members, 78 percent highlighted the absence of effective institutional mechanisms as a significant issue. The absence of systems to protect natural resources or adapt to climate change creates a gap in addressing underlying issues. This lack of institutional control contributes to environmental degradation and intensifies competition for scarce resources. Uncontrolled proliferation of arms and the easy availability of small arms without government oversight exacerbates intercommunal conflict as armed clan groups encroach on each other's land. Something echoed by respondents, as 46 percent believe the government isn't doing enough to address the issue. Respondents acknowledged the need for effective institutions to manage weapons and enforce laws, which are currently lacking in Afgoye.

Despite the institutional shortcomings, the research also identified a powerful counterpoint; Afgoye boasts strong social networks that offer hope and an entry point for inclusive social peace and localized climate action. About 70 percent of interviewees spoke positively about the community's culture of mutual support and resource sharing, which often relies on informal leaders such as women and religious figures for conflict resolution and guidance. These social networks serve as a crucial safety net where formal institutions are weak. These informal structures act as a safety net in the absence of strong formal institutions. With more than 50 percent of respondents recognizing NGOs to play a crucial role in Afgoye and that they act as brokers between the community and the government at times in a constructive way, providing a voice for those who fear reprisal by officials for voicing their concerns. These networks offer potential avenues for information dissemination and capacity building, elaborated on in the recommendations section of the report.

Influential figures in Afgoye, including trusted community leaders and business owners offering flexible payments, play a key role in local leadership and resource distribution. However, their potential to reach and impact more people is not fully utilized. These networks provide opportunities for building upon existing community structures for peacebuilding and climate action efforts. The interviews also revealed that some market systems rely on traditional clan structures to facilitate access to many services and markets, such as live-stock trade and yet these structures exclude marginalized sub-clans. Findings showed that inclusive committees could provide these services in a more inclusive manner if they had more capacity and diversity. Understanding and leveraging these strong social networks can be instrumental in developing more effective and sustainable solutions for building youth resilience.

The paradox in Afgoye regarding climate change was revealed in the discussions with key informants that confirmed a high level of awareness about environmental degradation and its impact on social cohesion, livelihoods, necessities and the limitation of concrete climate action happening on the ground. The research revealed a well-informed community, with respondents readily discussing the negative impacts of climate change. While the sample size of 170 respondents was relatively small, over 60 percent demonstrated a strong understanding of the issues, including water scarcity due to dilapidated irrigation infrastructure and inconsistent surface water availability. They also expressed frustration at the lack of resources for establishing climate forecasting systems and the disinterest of government officials in mitigating climate-related disasters. The singular focus of the government on security sector reform and reconstruction, rather than climate action, further exacerbates this frustration in the community. A significant disconnect exists between the government's narrative and the community's experience.

While the government has made public commitments to prioritize climate action and invest in prevention, the community continues to face ongoing challenges related to climate-related disasters. This disconnect arises from the perceived lack of tangible progress and the exclusion of community members from decision-making processes. The government's public statements about its achievements may not align with the lived experiences of the community, leading to scepticism about the government's genuine commitment to service delivery and accountability. By fostering more inclusive and transparent governance, the government can bridge this gap and build trust with the community. NGOs and district officials reported in the KIIs various climate initiatives, yet these actions seem largely invisible or unknown to the community that was interviewed. This fosters a sense of scepticism and a belief that government pronouncements are mere rhetoric without tangible impact. For example, the recent launch of the DRIVE project, intended to provide financial services and market access to pastoralists, was met with suspicion by the community, highlighting the lack of trust and communication between them and the government, as all were not aware of the initiative.

The case study also reveals a mixed perception of existing early warning systems, such as the Somalia Water and Land Information Management (SWALIM). While there is some awareness of these systems, 53 percent of respondents consider them to be somewhat or less effective. Despite this, there is a strong consensus on the potential for improving these systems by addressing the underlying challenges posed by climate change, environmental degradation, and conflict. Specifically, 62 percent of respondents believe that enhancing the effectiveness of early warning systems can be achieved by leveraging existing solutions. This highlights a recognition of the need for more effective systems and the role that improved strategies can play in mitigating these complex issues.

4. Conclusion

The investigation into Afgoye reveals that climate change significantly exacerbates resource scarcity and limits opportunities for youth, highlighting a critical gap in understanding their lived experiences and aspirations. The community faces challenges from climate-induced tensions, poor resource management, and a lack of inclusive decision-making processes. Youth and women are particularly marginalized, and their integration into resource management and climate adaptation efforts is essential. Furthermore, inadequate systems for natural resource protection and law enforcement worsen environmental degradation and conflict. Addressing these issues requires a comprehensive understanding and targeted interventions.

5. Recommendations

1. **Invest in Climate-Smart Agriculture and Technology:**

   Promote climate-smart agriculture and technological innovations in Afgoye. Enhance skills training programs to be more diverse, modern, and aligned with current and future needs, extending beyond agriculture to other fields.

2. **Enhance Resource Management and Infrastructure:**

   Implement initiatives in waste management, water resource development, and reforestation to create employment opportunities for youth. Improve infrastructure and service delivery to address resource mismanagement and reduce conflict.

3. **Foster Inclusive Decision-Making:**

   Integrate youth and internally displaced persons (IDPs) into decision-making processes related to resource management and climate adaptation. This inclusion can mitigate feelings of voicelessness and enhance community engagement.

4. **Strengthen Community Networks:**

   Leverage and empower existing social networks, including youth and trusted community leaders, to improve outreach, awareness, and information sharing on climate action and social issues. Build capacity for ground-up monitoring and response mechanisms.

5. **Promote Gender Inclusivity:**

   Integrate women into climate action committees and land-related conflict resolution dialogues to address their marginalization and ensure a more inclusive decision-making environment.

6. **Enhance Institutional Strengthening:**

   Develop robust systems for natural resource protection, weapons control, and law enforcement to address environmental degradation, reduce competition for scarce resources, and mitigate intercommunal conflict.

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CASE
STUDY **5**
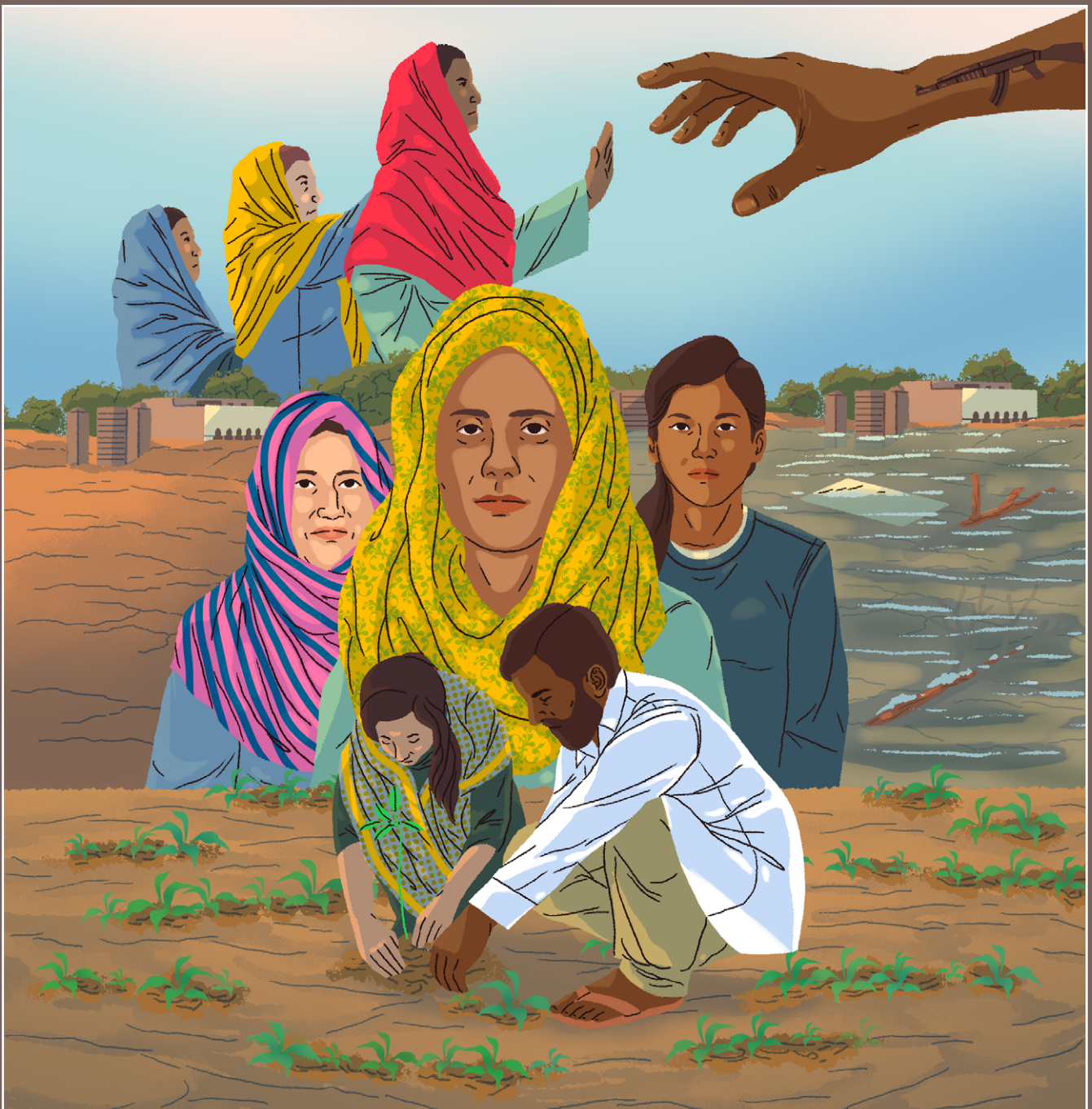
Pakistan: Navigating Peace and Environmental Strife

INVESTIGATING THE IMPACT OF CLIMATE CHANGE, CONFLICTS, AND LAND DEGRADATION ON YOUTH OF THE GREEN BELT OF BALOCHISTAN.

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HIVE PAKISTAN

ACRONYMS & GLOSSARY OF TERMS

ACRONYMS

AU	Agriculture University
BBC	British Broadcasting Corporation
DHQ	District Head Quarters
FGDs	Focus Group Discussions
ICRM	International Centre for Refugees and Migration
INGO	International Non-Governmental Organization
JDC	Jafriya Disaster Management Cell Welfare Organization
KII	Informant Interviews
LO	Liaison Officer
MPA	Member Provincial Assembly
NGO	Non-Governmental Organization
PMD	Pakistan Meteorological Department
UNICEF	The United Nations International Children's Emergency Fund

GLOSSARY OF TERMS

ALKHIDMAT FOUNDATION
A national NGO

MADAD BALOCHISTAN
Help Balochistan

TRIBAL LEADER
Head of tribal communities, especially in South Asia

Executive Summary

Balochistan, Pakistan's largest province, is facing a severe crisis where climate change, environmental degradation, and persistent conflict intersect. Marginalized youth are bearing the brunt of these interrelated challenges. This report focuses on the impact of these issues on the youth, particularly in the Naseerabad division, Balochistan's green belt, offering a comprehensive analysis and proposing potential solutions.

Balochistan's arid climate, coupled with its dependence on agriculture, makes it especially vulnerable to climate change. The region has experienced a rise in extreme weather events such as floods, droughts, and heatwaves. These events, exacerbated by ongoing socio-political conflicts, have significantly disrupted livelihoods. The combined effects of these crises have led to widespread economic hardship, educational disruption, and health challenges, particularly among the youth. As traditional agriculture becomes increasingly unsustainable, economic instability, poverty, and unemployment have surged. Damage to educational infrastructure has interrupted schooling, and the destruction of medical facilities has increased health risks, exposing communities to greater vulnerability to disease.

As conventional livelihoods collapse, the interplay between climate change and conflict has fuelled the rise of non-traditional, and sometimes illicit, economic activities. Gender-specific impacts are especially pronounced, with young women facing heightened risks of exploitation and marginalization due to entrenched cultural and economic barriers. The social displacement and intensified conflict in the region have further strained already limited resources.

Responses at the local, national, and international levels have been inadequate in addressing these multifaceted challenges. While local youth and community organizations have taken active roles in relief efforts and advocacy, their initiatives are often hampered by political interference and poor management. National and international aid efforts, too, have frequently failed to reach the most vulnerable populations due to inefficiencies and corruption.

This report highlights the urgent need for coordinated, effective interventions to address Balochistan's intertwined crises of climate change, environmental degradation, and conflict. It emphasizes the resilience of the region's youth in the face of adversity and calls for a more integrated approach that strengthens youth participation in decision-making, empowers women in sustainable development, and fosters international cooperation to build long-term, sustainable solutions. These efforts are crucial for mitigating the compound challenges faced by Balochistan's marginalized youth and promoting resilience and development in the region.

1. Introduction

Balochistan, Pakistan's largest and most water-scarce province, is at the crossroads of climate change, environmental degradation, and ongoing conflict, presenting a unique set of challenges for its inhabitants. The province's arid landscape and reliance on agriculture make it particularly vulnerable to the effects of environmental degradation, with the youth bearing a disproportionate share of the burden. Naseerabad, a green belt region that once sustained livelihoods through agriculture, now facing increasing frequency and intensity of floods, coupled with the degradation of natural resources that exacerbate existing socio-economic vulnerabilities.

This report examines the complex and multifaceted impacts of these crises on marginalized youth in Balochistan, with a specific focus on the Naseerabad division. By analysing the interplay between climate change, conflict, and environmental degradation, the study aims to uncover the cascading effects on the youth's economic opportunities, educational prospects, and health outcomes. Additionally, the report delves into the gendered nature of these challenges, paying particular attention to how young women are impacted by the intersection of cultural norms and environmental adversity.

Through a detailed exploration of local, national and international responses, the report assesses the gaps in current interventions and highlights the resilience and activism of local youth organizations. Key findings include economic hardships and increased poverty from damaged

agriculture and infrastructure, disruptions in education due to the destruction of schools and displacement, health challenges compounded by the loss of healthcare facilities and increased disease risks, heightened vulnerability of young women to exploitation and gender-specific impacts, and social displacement and intensified conflicts from migration and resource disputes.

This report highlights the urgent need for targeted interventions to address the complex interplay of climate change, environmental degradation, and conflict in Balochistan. It emphasizes the severe socio-economic challenges faced by the region's marginalized youth, it underscores the resilience of these communities despite significant adversities and stress the necessity for effective, coordinated responses to support and mitigate the compounded effects on the vulnerable youth of Balochistan. Ultimately, it calls for a more holistic approach to addressing these crises, proposing strategies for empowering young people, particularly women, to play a central role in building a sustainable future for the region.

1.1   COUNTRY CONTEXT

Pakistan, located in South Asia and bordered by India, Afghanistan, Iran, and China, is highly vulnerable to climate change due to its diverse geography, ranging from arid to temperate regions. The country regularly faces extreme weather events, such as heat waves and heavy monsoon rains, which increase the risk of flooding. Despite contributing less than 1 percent to global greenhouse gas emissions, Pakistan experienced catastrophic floods in 2022, which submerged one-third of the country, displaced 8.2 million people, and caused $30 billion in damages.[220]
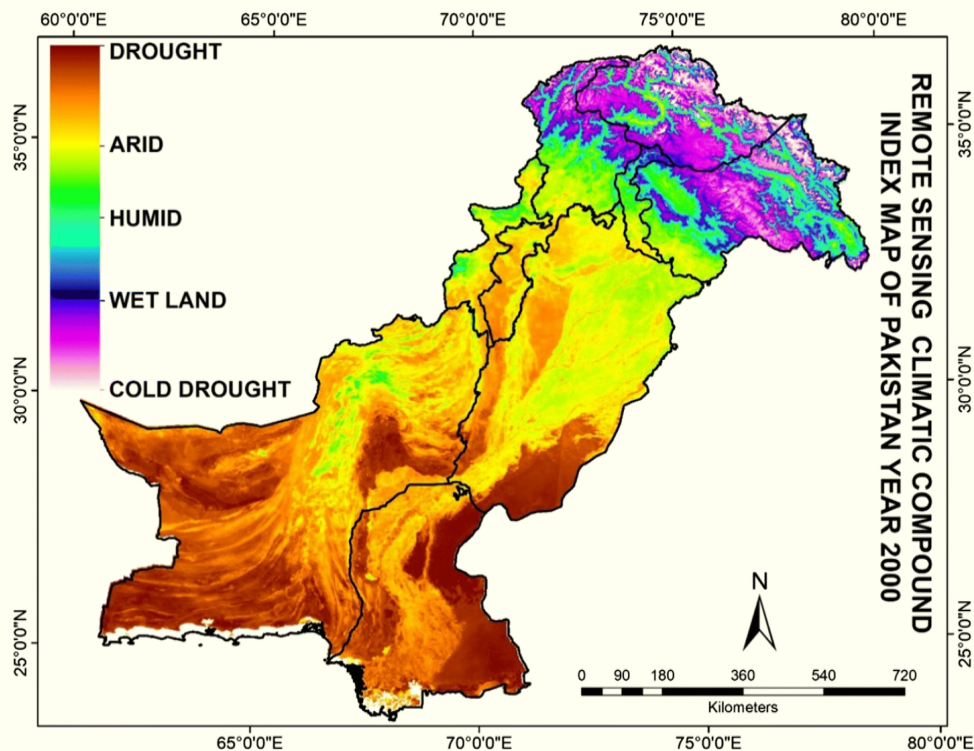
**MAP 1 |** Map of Pakistan Showing its Various Climatic Zones

220   BBC. (2022). How Pakistan floods are linked to climate change. BBC. Retrieved from https://www.bbc.com/news/science-environment-62758811

In addition to its environmental challenges, Pakistan grapples with ongoing security and political instability. The country has experienced internal conflicts, political turbulence, and tensions with India, particularly over the Kashmir dispute. Frequent military coups and shifting civilian leadership have characterized Pakistan's political history, and as of 2024, the political environment remains fragile, with ongoing debates over governance and economic reform.

Balochistan, Pakistan's largest province, is a microcosm of these national challenges. Its vulnerability to climate change, environmental degradation, and socio-political conflict is heightened by its strategic location, sharing borders with Iran and Afghanistan and having a coastline along the Arabian Sea. This geographic positioning makes Balochistan a focal point for regional security dynamics, while also placing it at the crossroads of international trade routes and geopolitical interests, further complicating its socio-political landscape.

1.1.1   AREA SELECTION

This study focuses on Balochistan, a province that covers 44 percent of Pakistan's land area, yet has only 5 percent of its land suitable for agriculture, characterized by an arid climate.[221] Given Balochistan's significant climatic and conflict-related challenges, it is critical to examine the intersection of environmental change and security issues in the region.
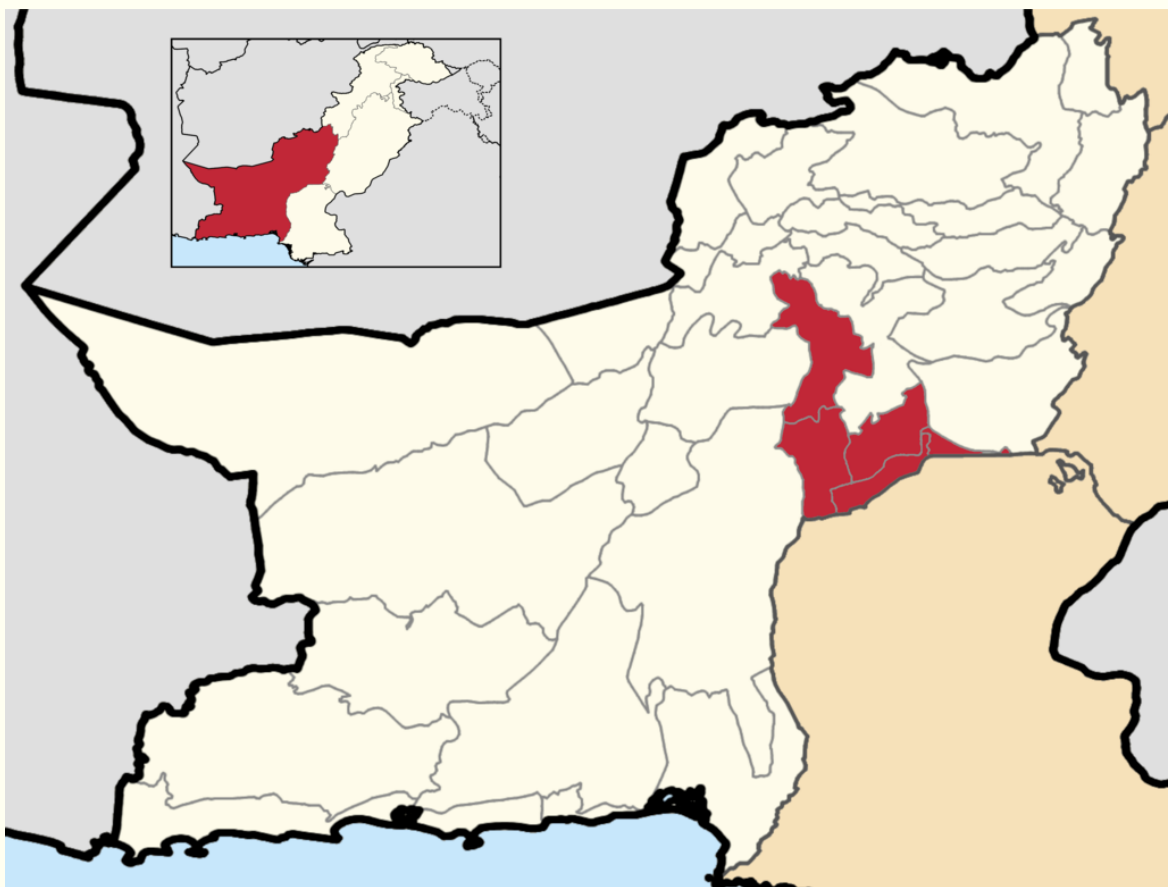
MAP 2 | Map of Balochistan Showing Naseerabad Division

221   Janjua, D. R. (2023, 06 23). The Express Tribune. Retrieved 06 20, 2024, from Balochistan — A Recipe for Development and Security:
https://tribune.com.pk/story/2423069/balochistan-a-recipe-for-development-and-security

The Naseerabad Division[222], known as the green belt or breadbasket of Balochistan, has been selected as the research location of this study. This area is particularly vulnerable to the effects of climate change and environmental degradation. Historically, Naseerabad has faced recurring climate-induced disasters such as flash floods, heavy monsoon rains, torrential downpours, heat waves, and droughts.[223] Seasonal challenges have been a consistent threat, with the floods of 2008, 2010, 2012, and 2022 being especially devastating. These floods were caused by intense rainfall and flash floods, dramatically increasing the vulnerability of local communities to such disasters.

The Pakistan Meteorological Department (PMD) forecasts significant climate changes for Naseerabad, located in Balochistan's hot and arid region. Over the next century, temperatures are expected to rise by an average of 5°C, while precipitation is predicted to range between 150 and 250 mm over the next 50 years, potentially dropping to as low as 50 mm by 2090. The most significant increases in temperature and the frequency of extreme heat waves are projected between 2060 and 2090.[224]

In addition to its climatic challenges, Naseerabad is a conflict hotspot where environmental stress exacerbates resource scarcity and socio-economic disparities, leading to localized violence. The region's strategic importance is amplified by its proximity to Gwadar port, a vital part of the China-Pakistan Economic Corridor (CPEC). Gwadar's economic and geopolitical significance adds complexity to the security situation, attracting both local and international interest.[225] Many Baloch groups perceive the development of Gwadar and related infrastructure projects as an exploitation of the province's natural resources, benefiting external actors rather than the local population. This perception has fuelled grievances and contributed to the ongoing armed insurgency led by groups such as the Balochistan Liberation Army (BLA), which seeks greater autonomy or independence for the province.

The BLA has targeted both Pakistani government forces and Chinese interests in the region, arguing that the exploitation of Balochistan's rich resources—including gold, diamonds, silver, and copper— has not benefited the local population, which remains among the poorest in Pakistan. Recently, there has been an uptick in violent attacks on infrastructure projects and security forces, as insurgents protest their economic marginalization and political exclusion. These dynamics underscore the interplay between environmental stress, resource competition, and socio-political grievances, making Naseerabad a critical area for studying the intersection of environmental and security issues in Balochistan.

222   In Pakistan, a division is an administrative unit that is larger than a district but smaller than a province. Each division comprises several districts and serves as a regional level of administration to manage local governance and development.

223   Aamir, A. (2018, August 26). Naseerabad: Disadvantaged Division. Retrieved April 21, 2024, from Balochistan Voices: https://www.balochistanvoices.com/2018/08/naseerabad-disadvantaged-division/

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2. Methodology

This section outlines the methods used in the study, including the generation of both primary and secondary data, the research design, sampling methods, and data analysis approaches.

The fieldwork for the study took place over three months, from April to June 2024, and was conducted in three stages. The first stage, in April, involved generating secondary data through an extensive desk study. This stage included a literature review of books, research articles, journal articles, reports, surveys, and long feature articles to build the study's conceptual framework and enhance its analysis.

In the second stage, carried out in May, the focus shifted to collecting primary data from the target population in Balochistan. The study utilized both qualitative and quantitative methods. Qualitative data was gathered through open-ended, semi-structured key informant interviews (KIIs) with youth activists, local leaders, government officials, and health practitioners aged 35 to 50. Additionally, focus group discussions (FGDs) were held with young women and men aged 18 to 34 to gather insights on local, national, and international responses. Quantitative data was collected via a survey of young men and women aged 18 to 34, all of whom were residing in the Naseerabad division during the research period.

The final stage, conducted in June, focused on analysing the collected data using content analysis techniques. This phase processed and interpreted the information to form the basis of the study's findings.

2.1 DATA COLLECTION FROM YOUNG PEOPLE AGED 18 TO 35

The study primarily focused on young women and men aged 18 to 35, with additional insights gathered from experts aged 35 to 50. As illustrated in Figure 1, a total of 190 participants contributed to the data collection process, comprising 83 females and 107 males. The research targeted two main groups of young people in the Naseerabad division: survey participants and focus group discussion (FGD) members.

→ **Survey Participants:** The survey involved 164 participants, including 90 males and 74 females.
→ **Focus Group Discussions:** A total of 16 participants took part in FGDs, consisting of 10 males and 6 females.

Most of the young participants in both the survey and FGDs were natives of Naseerabad, representing a diverse group that included students, young professionals, researchers, flood-affected individuals, and young farmers. Their perspectives on climate, environmental issues, and peace were carefully documented throughout the study.
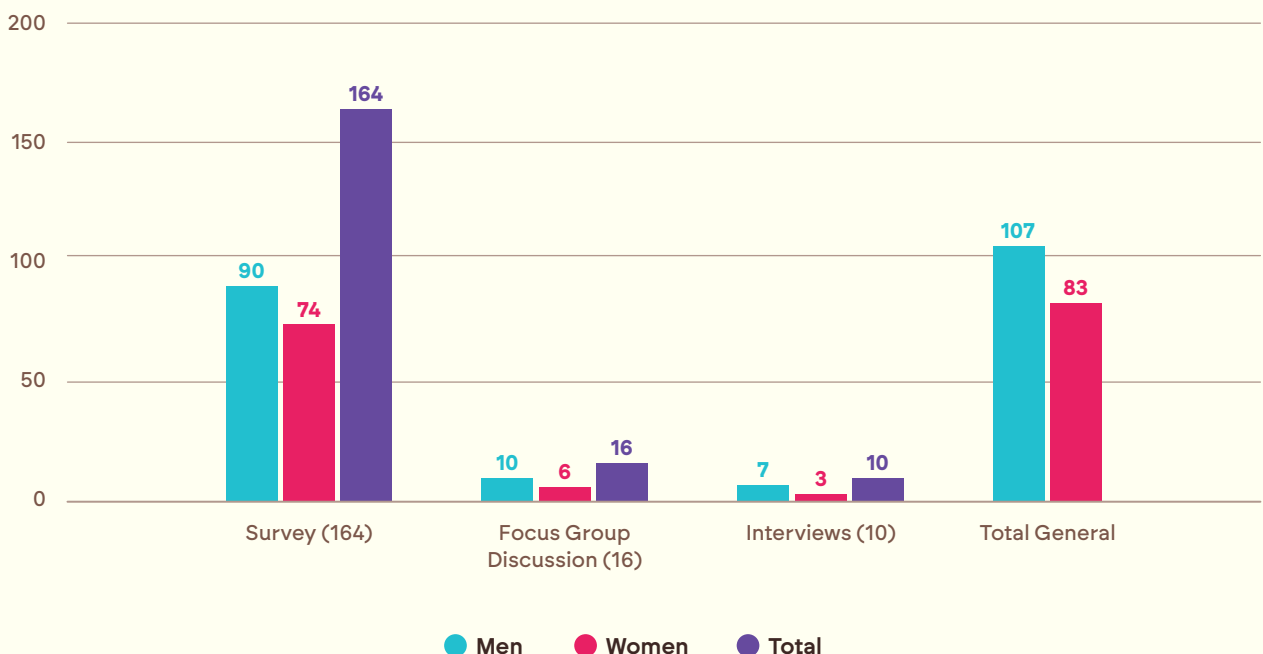

FIGURE 1 | Distribution of Young Respondents
Source: Primary Data Collection in Naseerabad (May 2024)

2.2 DATA COLLECTION FROM EXPERTS AGED 35 TO 50

Figure 1 highlights the ten experts, consisting of seven males and three females, were interviewed to provide additional context and expert opinions on climate, environmental, and peace-related issues. In Naseerabad, three key interviews were conducted with youth activists to gain insights into local perspectives.

Furthermore, four key interviews were held with prominent individuals, including a lecturer from an agriculture university (AU), a local writer, a tribal elder (and former Excise Minister), a sitting Member of the Provincial Assembly (MPA), and the Minister for Irrigation. Additionally, three key interviews with female experts were conducted, including a female activist, a gynaecologist, and a Liaison Officer (LO) from the International Centre for Refugees and Migration (ICRM).

3. Data Analysis

This section presents and analyses the primary findings from the research conducted in the Naseerabad division of Balochistan, Pakistan. The findings are organized into four major sections:

→   Youth Perspectives on Climate Change, Environmental Degradation, and Conflict
→   Effects of Climate Change and Environmental Degradation on Conflicts
→   Interrelated Impacts of Climate Change, Environmental Degradation, and Conflict
→   Local, National, and International Responses to the Interconnected Dynamics of Climate Change, Environmental Degradation, and Conflict

3.1   YOUTH PERSPECTIVES ON CLIMATE CHANGE, ENVIRONMENTAL DEGRADATION, AND CONFLICT

This section is divided into three sub-sections, each focusing on youth perspectives: Youth's perspectives on climate change, Youth's perspectives on environmental degradation and Youth's perspectives on Conflicts. Each sub-section provides a detailed discussion of these topics based on the insights gathered during the study.

3.1.1 YOUTH'S PERSPECTIVES ON CLIMATE CHANGE

Both young men and women in Balochistan generally recognize climate change and environmental degradation as real and pressing issues. Regarding climate change, the most frequently observed phenomenon among young people is the increase in temperature (see Figure 2), followed by floods, heat waves, excessive rainfall, and droughts. Although both genders primarily observe rising temperatures, notable differences exist in their perceptions of other climate-related phenomena. Specifically, young women report a higher frequency of floods, while young men more frequently observe heat waves, excessive rainfall, and droughts.

These gender-based differences can be attributed to the distinct roles and responsibilities that men and women hold within the community. In many rural areas of Balochistan, women primarily manage domestic tasks and household needs, making them more vulnerable to the impacts of floods. For instance, during the 2022 floods, women faced significant challenges due to their limited mobility, which led to malnutrition and even fatalities among pregnant women and newborns due to inadequate access to medical care. The floods also disrupted women's ability to access materials for handicrafts, reducing their income and affecting their children's health. Furthermore, economic strain and limited healthcare resulted in health issues such as hormonal imbalances.

Educational disparities were also exacerbated in flood-affected areas, where a shortage of teachers meant that young women and girls had fewer educational opportunities. These gender-specific challenges help explain why young women perceive floods as a more immediate and significant threat, whereas men, who are often involved in outdoor labour and agriculture, are more concerned with heat waves, excessive rainfall, and droughts.
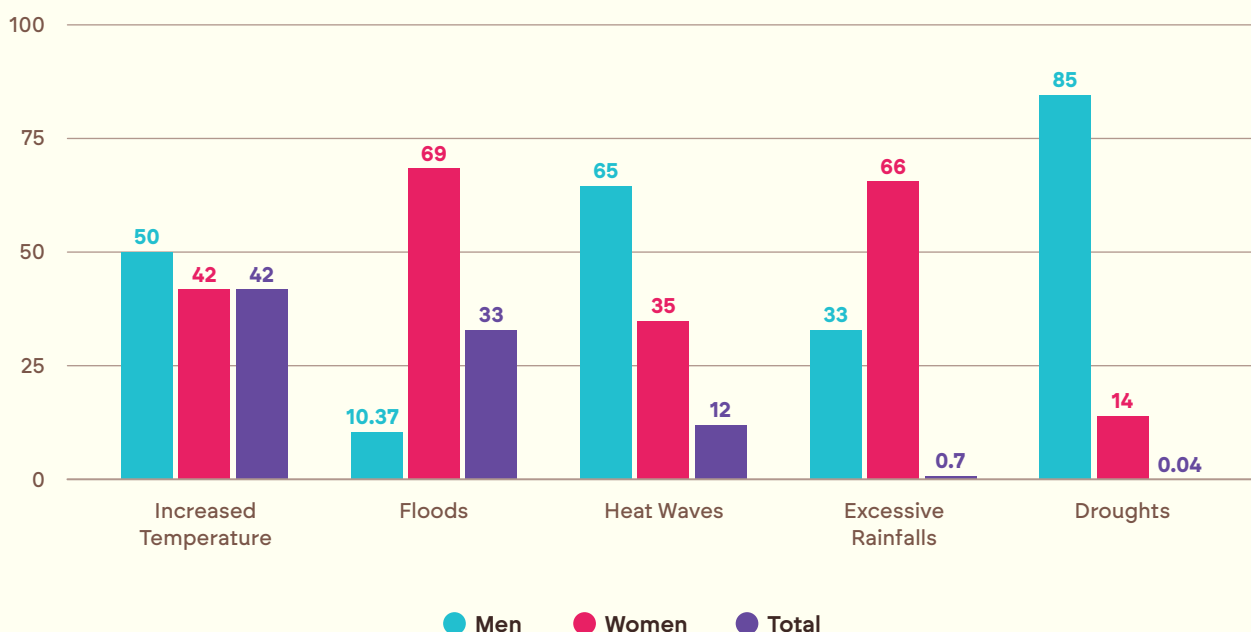

FIGURE 2 | Climate Change Phenomena Observed by Youth in the Survey

Source: Primary Data Collection through Survey in Naseerabad (May 2024)

3.1.2 YOUTH'S PERSPECTIVES ON ENVIRONMENTAL DEGRADATION

The column chart in Figure 3 illustrates youth perceptions of environmental degradation, highlighting gender differences. Water scarcity is the most observed issue, with 59.25 percent of women and 46.98 percent of men identifying it as significant, totalling 53 percent of young people overall. The lowering of the groundwater table[226] is the next most frequently noted issue, with 21.95 percent of youth recognizing it—more frequently observed by men (14.81 %) than by women (7.14 %). Soil erosion ranks third, observed by 28.91 percent of men, 18.51 percent of women, and 15.85 percent of the total youth population. Water logging and salinity are the least observed issues, noted by 13.25 percent of men, 7.4 percent of women, and 9.14 percent overall.

The data suggest that young men are more likely to perceive issues such as the lowering of the water table, soil erosion, and water logging and salinity. This difference may be attributed to their more direct involvement in activities like digging wells and working in fields, where these environmental issues are more apparent.
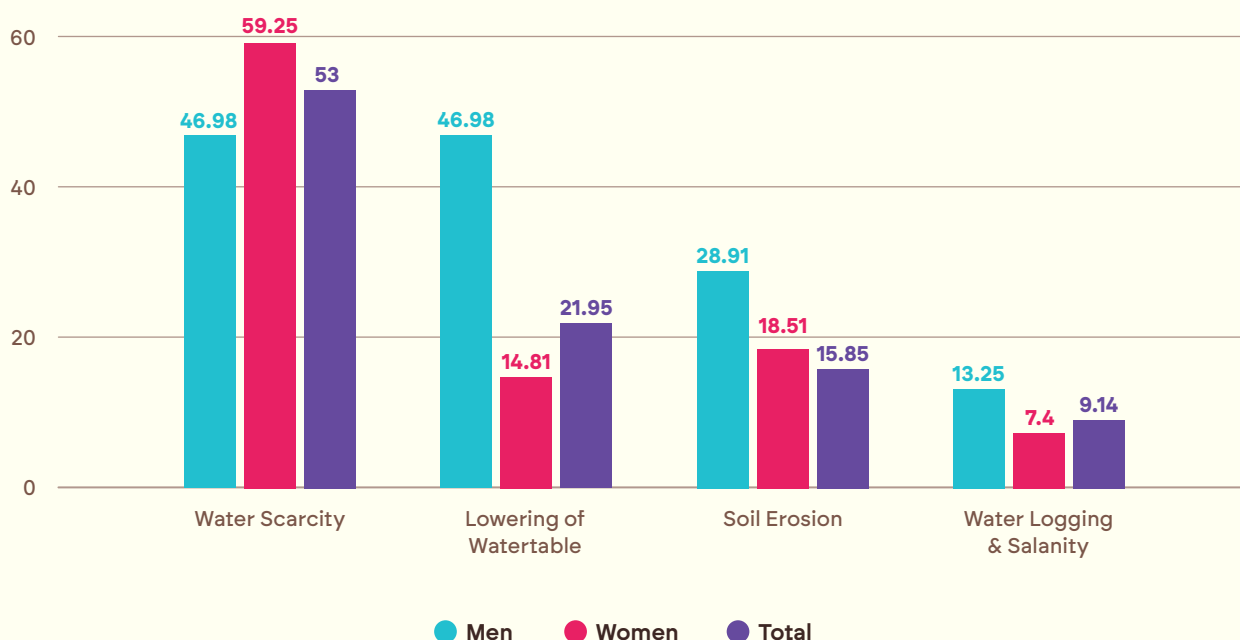

FIGURE 3 | Environmental Degradation Phenomena Observed by Youth in the Survey
Source: Primary Data Collection through Survey in Naseerabad (May 2024)

The phenomena of climate change and environmental degradation are particularly harmful to populations, especially young people. The survey and focus group discussions reveal numerous adverse effects on youth, including health deterioration, displacement, and the destruction of infrastructure such as roads, homes, hospitals, schools, and shops. These issues also lead to disruptions in education, financial crises, food shortages, livestock losses, unemployment, and security concerns.

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226   The lowering of water tables refers to a decrease in the level of groundwater in an area. This happens when the amount of water being extracted from underground sources, such as through wells or other means, exceeds the rate at which the groundwater is replenished by natural processes like rainfall and seepage. As a result, the water table—the level below the ground where the soil or rock is saturated with water—drops, which can lead to problems such as reduced water availability for drinking, irrigation, and other uses, as well as negative impacts on ecosystems that depend on groundwater.

Moreover, the impacts of climate change and environmental degradation appear to differ between young men and women. Figure 4 shows that half of the youth believe that these phenomena affect young men and women differently. Overall, the impact on young men is more pronounced (54.26 %), manifesting in forms such as job losses, displacement burdens, financial crises, disruptions in education, involvement in conflicts, and even loss of life.[227] On the other hand, young women are affected primarily by reduced mobility during disasters, due to cultural constraints, as well as mental and physical health challenges—especially for pregnant women and menstrual health. Additionally, climate-related disasters negatively impact employment opportunities for women, particularly in domestic farming and handicrafts.[228]
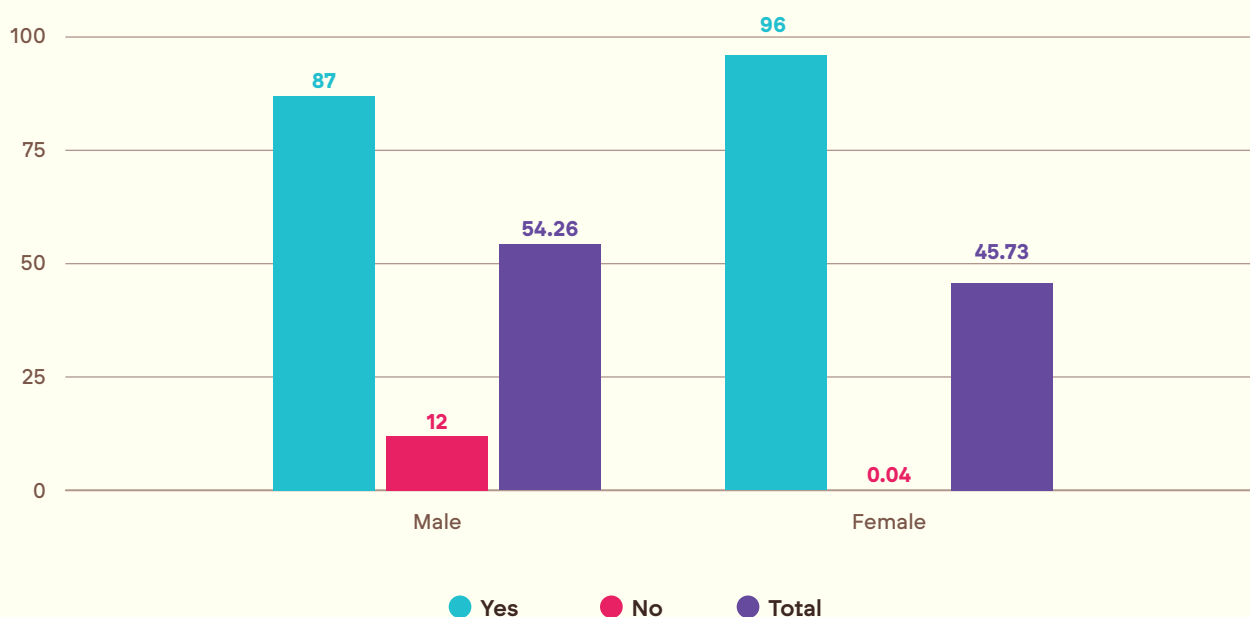

FIGURE 4 | Perceived Gender Differences in the Impact of Climate Change and Environmental Degradation on Young People

Source: Primary Data Collection through Survey and FGD in Naseerabad (May 2024)

3.1.3 YOUTH'S PERSPECTIVES ON CONFLICTS

This section explores youth perceptions of various types of conflicts in Naseerabad, with distinctions between men and women. Figure 5 highlights that conflicts over water resources within communities and between families are the most observed, with 35.86 percent of men and 27.7 percent of women identifying them. Overall, 32.31 percent of young people view conflicts over water resources as a significant issue.

Conflicts over agricultural land, particularly among tribes and between landlords and farmers, are the second most frequently noted, with 30.43 percent of men and 25 percent of women reporting them. In total, 28.04 percent of youth observe these conflicts. Conflicts emerging after floods are identified by 31.94 percent of women and 10.86 percent of men, reflecting a notable gender disparity, resulting in an overall perception of 20.12 percent.

227   Baloch, A. (2022, May 14). Impact of Climate Change and Environmental Degradation on Young Males of Balochistan.
       (S. Amjad, Interviewer)
228   Mahmood, M. (2024, May 4). Impact of Climate Change and Environmental Degradation on Women of Balochistan.
       (S. Amjad, Interviewer)

Conflicts among displaced communities due to climate-related disasters are observed by 14.13 percent of men and 12.5 percent of women, with a combined total of 13.41 percent. Conflicts over livestock grazing areas are the least observed, with 8.69 percent of men and 2.7 percent of women reporting them, leading to an overall perception of 6.09 percent.

The data suggest that young people perceive conflicts over water resources and agricultural land as the most prevalent. Women report a higher incidence of conflicts following floods, likely because their role in managing households and addressing the aftermath, such as repairing home damage and securing access to clean water, makes them more aware of flood-related disruptions. Their increased responsibilities during crises, including caring for displaced family members, further heighten their awareness of these conflicts. Conversely, men, who are more actively involved in agriculture and livestock management, report higher instances of conflicts over water resources and grazing areas. This involvement likely explains their stronger perception of water-related conflicts, as these resources are vital for both agricultural productivity and livestock health. This variation reflects the differing roles and experiences of young men and women in the communities of Balochistan.
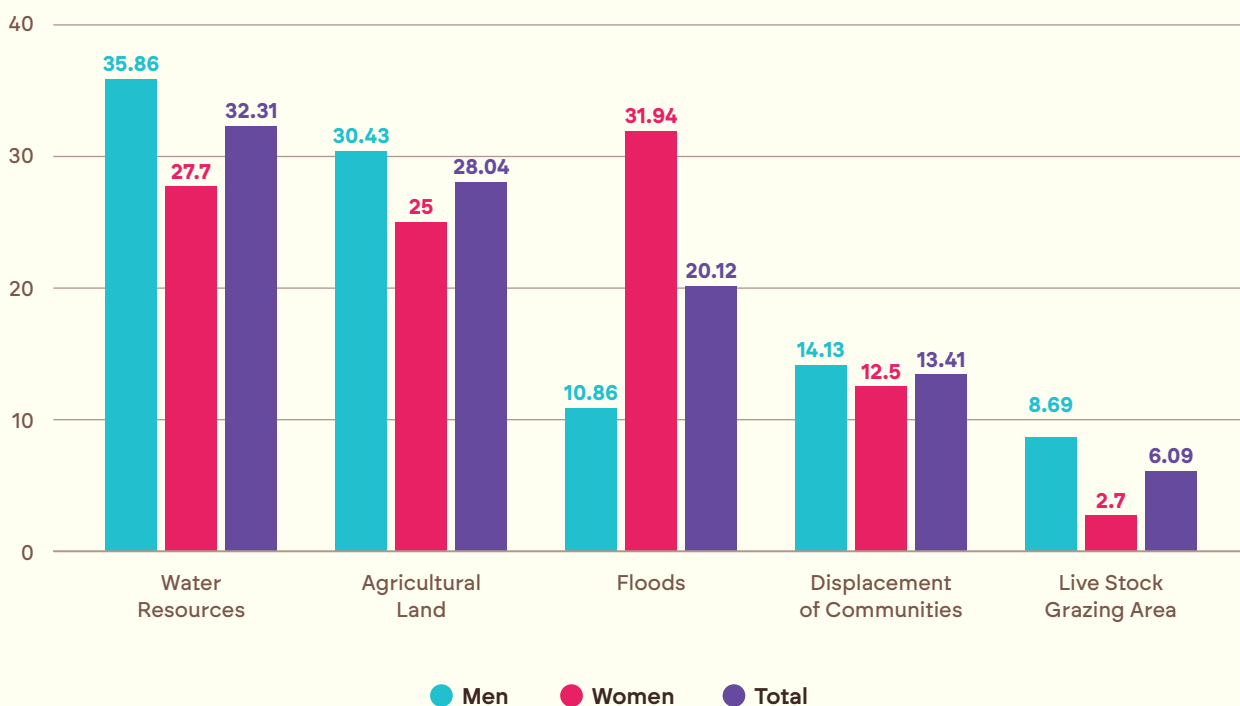

FIGURE 5 | Types of Conflicts According to the Youth Interviewed

Source: Primary Data Collection through Interviews in Naseerabad (May 2024)

Figure 6 illustrates the differentiated impacts of climate change-induced conflicts on young men and women in Balochistan. The data reflects the responses of young individuals regarding how these conflicts affect their lives. Among young women, 31.57 percent believe that the conflicts impact them, while 42.85 percent do not, with the total response rate for women amounting to 34.61 percent. For young men, 68.42 percent report being affected by the conflicts, whereas 57.14 percent say they are not, bringing the total response rate for men to 65.39 percent.

The data reveals a significant gender disparity in how climate change-induced conflicts are perceived and experienced. A higher percentage of young men acknowledge the impact of these conflicts compared to young women. This difference is likely due to the distinct roles and responsibilities that men and women hold within their communities. Men, often more involved in agricultural and external activities, may experience the direct effects of resource-related conflicts more acutely, while women's experiences are shaped by household and caregiving duties, which might lead to different perceptions of the conflicts' impact.
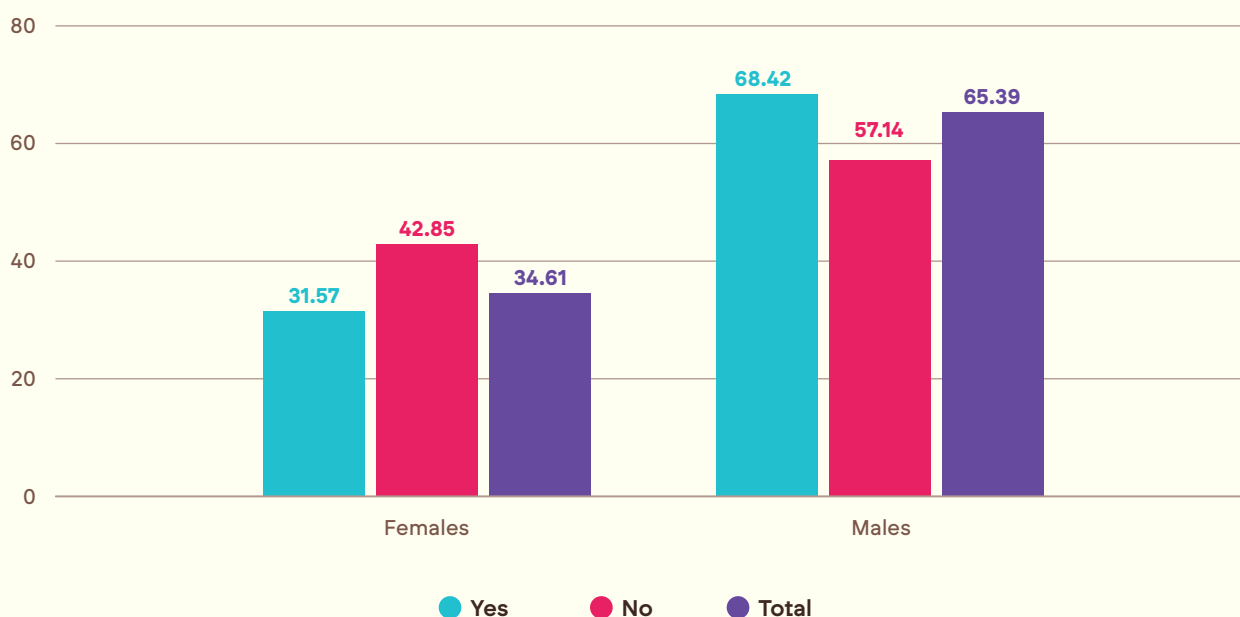

FIGURE 6 | Differentiated Consequences of Conflict on Youth

Source: Primary Data Collection through Interviews in Naseerabad (May 2024)

Young men, particularly those in agricultural roles, face direct consequences from irregular rainfall, floods, excessive temperatures, and water scarcity, leading to crop failures, soil erosion, and food shortages. These challenges sometimes result in violent conflicts over land and water, which severely impact their physical and mental well-being.[229] In contrast, young women, primarily engaged in domestic duties, tend to be less aware of these conflicts but face increased marginalization. Political and environmental conflicts negatively affect their health and education, limiting their personal and professional development opportunities.

Additionally, in the tribal systems prevalent in Pakistan, aid and resources are often misappropriated due to the influence of tribal elites, such as the "*Sardari*" system. This system centralizes the distribution of aid in the hands of a few privileged individuals, typically those in positions of power. As a result, the ones who need aid the most, including women who are already marginalized, often do not receive it. This misallocation worsens the hardships faced by women, limiting their access to crucial resources and support. The failure of the tribal system to equitably distribute aid reinforces existing gender inequalities and deepens women's vulnerability during crises. [230]

229   Aazim, M. (2018, 0ct 15). The Plight of the Small Farmer. Retrieved April 21, 2024, from Dawn: https://www.dawn.com/news/1439041
230   Gul, U. (2024, May 20). Impact of Conflicts on Women of Naseerabad, Balochistan. (S. Amjad, Interviewer)

Overall, the chart highlights the urgent need for targeted interventions that address the distinct challenges faced by young men and women as a result of climate change-induced conflicts in Balochistan. Tailored solutions are essential to mitigate the gender-specific impacts and ensure equitable access to resources and support for both groups.

3.2   EFFECTS OF CLIMATE CHANGE AND ENVIRONMENTAL DEGRADATION ON CONFLICTS

This section explores how young men and women in Balochistan, Pakistan, perceive climate change and environmental degradation as catalysts for conflict, illustrating the profound impacts these issues have on their lives. Observations from Naseerabad, Balochistan, reveal distinct concerns between the genders. A significant majority of young men (78.57%) view environmental issues as sources of conflict, compared to only 21.42 percent of young women.

Young men reported that floods led to food insecurity, which in turn sparked conflicts over rising food prices and limited supplies. These disputes often escalated into physical altercations between community groups competing for basic necessities. Additionally, conflicts arose over scarce essentials like plastic sheets and tents, critical for creating temporary shelters in relief camps. Displaced families frequently clashed over these limited supplies, and cultural tensions intensified due to the perceived dishonour of women being exposed in open spaces.[231] Further conflicts involved landlords, particularly between displaced tenants or labourers and the landlords themselves. Landlords were reported to obstruct displaced families' efforts to rescue or shelter relatives, fearing the loss of labour would negatively affect their agricultural productivity and reduce their access to government aid intended for flood victims[232]. These actions fuelled a sense of injustice and exploitation, as landlords prioritized their economic interests over the well-being of their tenants.

In contrast, young women faced internal family conflicts due to the destruction of stored food by rainwater, which led to severe hunger. They also encountered dangerous conditions during aid distribution, resulting in accidents and disputes.[233] Women reported increased insecurity and violence, as wasted aid heightened tensions among those in need. Additionally, conflicts arose over the removal of stagnant water from homes and fields, with disputes emerging between neighbours over water disposal[234].

Both men and women emphasized the severe social and economic disruptions caused by climate change and environmental degradation, underscoring how these issues exacerbate existing vulnerabilities and trigger widespread conflict in the region.

231   Khosa, N. (2024, May 5). Effects of Climate Change and Environmental Degradation on Conflicts. (S. Akhtar, Interviewer)
232   Mugheri, J. (2024, May 4). Effects of Climate Change and Environmental Degradation on Conflicts. (S. Akhtar, Interviewer)
233   Gul, U. (2024, May 20). Impact of Conflicts on Women of Naseerabad, Balochistan. (S. Amjad, Interviewer)
234   Laiba. (2024, May 2). Effects of Climate Change and Environmental Degradation on Conflicts. (S. Amjad, Interviewer)
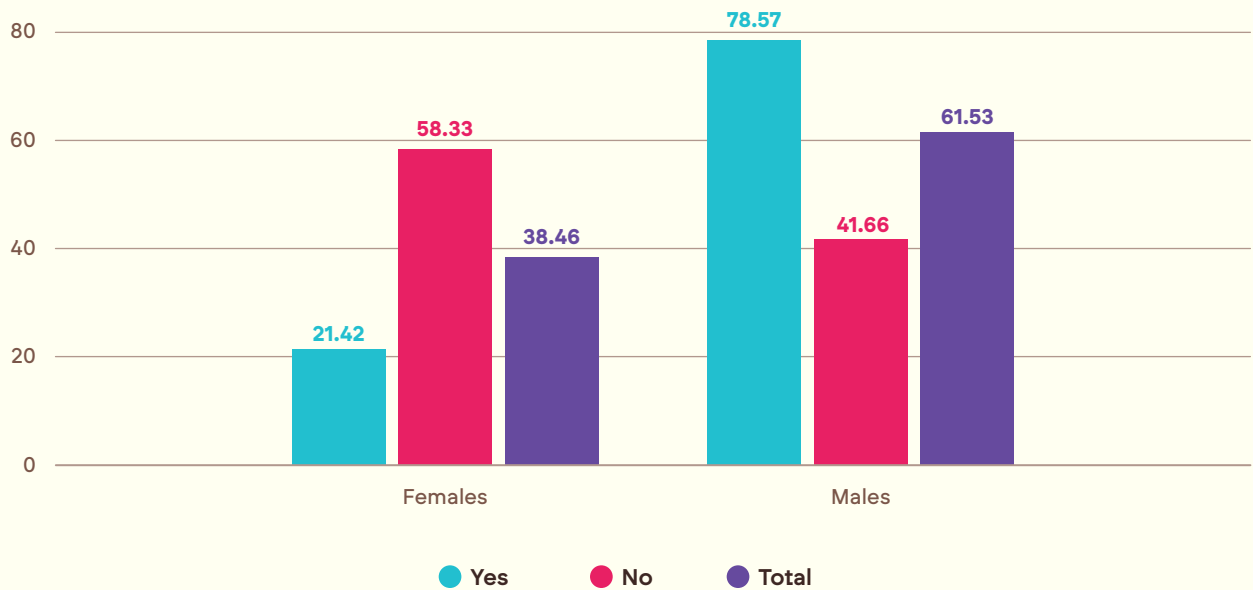
FIGURE 7 | Youth's Perception of the Link between Climate Change, Environmental Degradation and Conflict

Source: Primary Data Collection through Interviews and Surveys in Naseerabad (May 2024)

3.3 INTERRELATED IMPACTS OF CLIMATE CHANGE, ENVIRONMENTAL DEGRADATION, AND CONFLICT

In Balochistan, the combined effects of climate change, environmental degradation, and conflict have created a complex and escalating crisis, severely affecting the socio-economic conditions of its youth.[235] These intertwined issues reinforce each other, intensifying the challenges faced by the younger generation in the region. The following points illustrate these interconnected impacts:

➔ **ECONOMIC HARDSHIP AND INCREASED POVERTY**

Climate change and environmental degradation, such as excessive rainfall, droughts, and floods, have had a devastating impact on agriculture and livelihoods in Balochistan. Participants in the study reported that floods have destroyed crops and infrastructure, resulting in significant financial losses. This economic strain has led to rising poverty levels among families, directly affecting the youth, who now face diminished opportunities for economic stability and growth.[236]

➔ **EDUCATIONAL DISRUPTION AND LIMITED OPPORTUNITIES**

The destruction of educational infrastructure due to floods and conflicts has caused major disruptions in schooling for young people. Participants noted that schools have been either damaged or repurposed as shelters, while displacement resulting from environmental and conflict-related crises has prevented many students from attending classes.[237] These disruptions hinder educational progress and severely limit future opportunities for the youth in the region.

235   Ali, F., Khan, T. A., Alamgir, A., & Khan, M. A. (2018). Climate Change-Induced Conflicts in Pakistan: From National to Individual Level. Springer, 2, 573-574. doi:https://doi.org/10.1007/s41748-018-0080-8
236   Sarfarz. (2024, May 3). Interrelated Impacts of Climate Change, Environmental Degradation, and Conflict. (S. Akhtar, Interviewer)
237   Wafa, R. (2024, May 3). Interrelated Impacts of Climate Change, Environmental Degradation, and Conflict. (S. Akhtar, Interviewer)

→ **HEALTH CHALLENGES AND INCREASED VULNERABILITY**

The combined effects of climate-induced disasters and conflict have worsened health challenges in Balochistan. Participants reported that the destruction of roads and medical facilities has severely limited access to healthcare. Moreover, extreme weather events have contributed to a rise in health problems such as respiratory issues and waterborne diseases.[238] The increased responsibility placed on the youth to care for affected family members further underscores the compounded health risks faced by the younger population.

→ **HUMAN EXPLOITATION AND GENDER-SPECIFIC IMPACTS**

The socio-economic instability resulting from climate change and conflict has significantly increased the vulnerability of young women in Balochistan.[239] Participants reported that the scarcity of resources and limited economic opportunities often lead to exploitative situations, such as coercion in exchange for aid or essential resources.[240] The gender-specific impacts are particularly severe, affecting women's health, safety, and overall well-being.

→ **SOCIAL DISPLACEMENT AND CONFLICT**

The interplay between climate change, environmental degradation, and ongoing conflicts has intensified displacement and tensions in Balochistan. Environmental migration and disputes over resources have escalated social conflicts, further straining community resources and deepening instability. The youth are particularly affected, as these challenges disrupt their education and daily lives, leaving them more vulnerable to the region's growing instability.

3.4 LOCAL, NATIONAL, AND INTERNATIONAL RESPONSES TO THE INTERCONNECTED DYNAMICS OF CLIMATE CHANGE, ENVIRONMENTAL DEGRADATION, AND CONFLICT

This section is divided into three sub-sections, covering local, national, and international responses to the interconnected dynamics of climate change, environmental degradation, and conflict. Each of these responses is discussed in detail below.

→ **LOCAL RESPONSES**

In Balochistan, local youth have played a crucial role in addressing the interconnected impacts of climate change, environmental degradation, and conflict. During the 2022 floods, they were actively involved in relief efforts, collaborating with organizations like the Alkhidmat Foundation and the Jafriya Disaster Management Cell Welfare Organization (JDC) to distribute aid and conduct relief operations. Youth-led social media campaigns, such as "*Madad Balochistan*," ("*Help Balochistan*") successfully garnered international support and essential supplies.

238   Khizar, M. (2024, May 3). Interrelated Impacts of Climate Change, Environmental Degradation, and Conflict. (S. Akhtar, Interviewer)

239   Thakar, T. (2023, 01 13). Gender and Climate Disaster: A Worsening Situation for Pakistani Women - Women in International Security. Retrieved from Women in International Security: https://wiisglobal.org/gender-and-climate-disaster-a-worsening-situation-for-pakistani-women/

240   Subhana. (2024, May 3). Interrelated Impacts of Climate Change, Environmental Degradation, and Conflict. (S. Amjad, Interviewer)

However, their efforts were undermined by local leaders who obstructed relief activities and manipulated aid distribution. In some cases, these leaders exacerbated the crisis by diverting floodwaters away from their own lands or properties and into poorer, less politically connected areas.[241] This deliberate diversion, aimed at protecting their agricultural investments or settlements, resulted in greater devastation for vulnerable communities, leading to further displacement, the destruction of homes, and loss of livelihoods. Despite their significant contributions, local youth faced resistance and lacked support in long-term reconstruction efforts.

→ NATIONAL RESPONSES

National responses to the crisis in Balochistan have been plagued by inefficiencies and political manipulation. Government officials faced criticism for exploiting the situation to gain political favour, projecting a facade of effective relief efforts to international observers while neglecting the real needs of affected communities. Much of the national aid was mismanaged, with relief goods being diverted to black markets or distributed unfairly based on political affiliations.[242] This mismanagement worsened the suffering of flood-affected communities and fuelled a sense of disenfranchisement among the youth, who felt abandoned by national authorities.

The absence of effective government intervention pushed some young people toward desperate measures, including joining protest movements, engaging in civil disobedience, or, in extreme cases, becoming involved with militant groups. These groups often promise to address their grievances and offer a sense of purpose, further complicating the region's instability.

→ INTERNATIONAL RESPONSES

International responses to the crisis in Balochistan have also encountered significant challenges. Although organizations like UNICEF and various International Non-Governmental Organizations (INGOs) provided aid, their impact was limited by bureaucratic hurdles and political interference. Local power dynamics often skewed aid distribution, with influential figures politicizing and siphoning off relief efforts. Many INGOs concentrated their activities in more privileged areas, failing to reach the most severely affected communities.[243] Corruption by local authorities and favouritism by local leaders further undermined the effectiveness of international assistance, leaving many in need without adequate support.

Despite some positive outcomes, international aid efforts were largely hampered by logistical difficulties, corruption, and a disconnect from the most vulnerable populations. As a result, the overall effectiveness of international responses was diminished, failing to fully address the severity of the crisis in Balochistan.

241   Umrani, Z. (2024, May 2). Local, National, and International Responses to the Interconnected Dynamics of Climate Change, Environmental Degradation, and Conflict. (S. Akhtar, Interviewer)

242   Umrani, M. S. (2024, May 6). Local, National, and International Responses to the Interconnected Dynamics of Climate Change, Environmental Degradation, and Conflict. (S. Akhtar, Interviewer)

243   Baloch, E. (2024, May 5). Local, National, and International Responses to the Interconnected Dynamics of Climate Change, Environmental Degradation, and Conflict . (S. Akhtar, Interviewer)

4. Conclusion

The convergence of climate change, environmental degradation, and socio-political conflict in Balochistan has created a complex crisis with profound implications for the province's youth. This report has shown how these interconnected challenges have deepened economic hardships, disrupted education, heightened health risks, and intensified social conflicts, particularly in the Naseerabad division, which exemplifies these issues.

The evidence highlights the severe impact of extreme weather events, such as floods and droughts, on the traditional livelihoods of Balochistan's communities. The destruction of agricultural infrastructure, the loss of educational facilities, and the breakdown of healthcare services have caused significant setbacks for the region's youth. Additionally, the rise of non-traditional economic activities and increased gender-specific vulnerabilities demonstrate the complex interaction between environmental and socio-economic pressures.

Despite these considerable adversities, the resilience of Balochistan's youth remains evident. Local youth have played a vital role in relief efforts, although their impact has often been limited by political interference and mismanagement. National and international responses have similarly fallen short, hindered by inefficiencies, corruption, and poor coordination, failing to meet the needs of the most affected communities.

To tackle these compounded challenges, there is an urgent need for a more integrated and coordinated approach. Key actions include enhancing youth participation in decision-making processes, supporting women in sustainable development initiatives, and fostering stronger international cooperation. Effective interventions must prioritize the needs of marginalized youth, addressing both the immediate effects of climate change and conflict while laying the foundation for sustainable development and long-term peace.

In conclusion, Balochistan's current crisis demands a concerted effort from local, national, and international stakeholders. By addressing the intertwined issues of climate change, environmental degradation, and conflict with targeted and well-coordinated strategies, there is an opportunity to mitigate their impacts and support the region's youth in overcoming these challenges. The path forward must focus on equitable and inclusive solutions that promote a stable and prosperous future for Balochistan and its younger generation.

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**CASE
STUDY**   **6**

Climate, Conflict, Collaboration in the Philippines:

THE IMPACT OF CLIMATE CHANGE, ENVIRONMENTAL DEGRADATION, AND CONFLICT ON MARGINALIZED YOUTH IN THE BANGSAMORO AUTONOMOUS REGION IN MUSLIM MINDANAO (BARMM).

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ACRONYMS

BARMM	Bangsamoro Autonomous Region in Muslim Mindanao
BHW	Barangay Health Worker
CAB	Comprehensive Agreement on the Bangsamoro
CBFM	Community-based Forest Management
CHR	Commission on Human Rights
FGD	Focus Group Discussion
KII	Key Informant Interview
IBGP	Integrated Bangsamoro Greening Program
IDP	Internally Displaced Person
MENRE	Ministry of Environment, Natural Resources, and Energy
MILF	Moro Islamic Liberation Front
MNLF	Moro National Liberation Front
SHIELD	Strengthening Humanitarian Early Recovery for Resilient Development
SK	Sangguniang Kabataan
UNDP	United Nations Development Programme
USAID	United States Agency for International Development

Executive Summary

This study explores the intersections of climate change, environmental degradation, and conflict in the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM), particularly focusing on the experiences of marginalized youth. The research identifies how environmental shifts such as rising temperatures, increased droughts, and resource scarcity exacerbate local conflicts, with youth being both victims and actors in these dynamics. The study utilized an online survey of 179 participants, focus group discussions (FGDs), and key informant interviews (KIIs) to gather data on how climatic and environmental changes impact young men and women differently, with a special focus on gender roles and community resilience. Findings indicate that climate change has not only disrupted livelihoods but also increased tensions over scarce resources, further driving conflict in the region. Gender-specific vulnerabilities and the proactive role of youth in community-based initiatives are emphasized, calling for targeted policy interventions that address the compounded impacts of environmental and socio-political challenges in BARMM.

1. Introduction
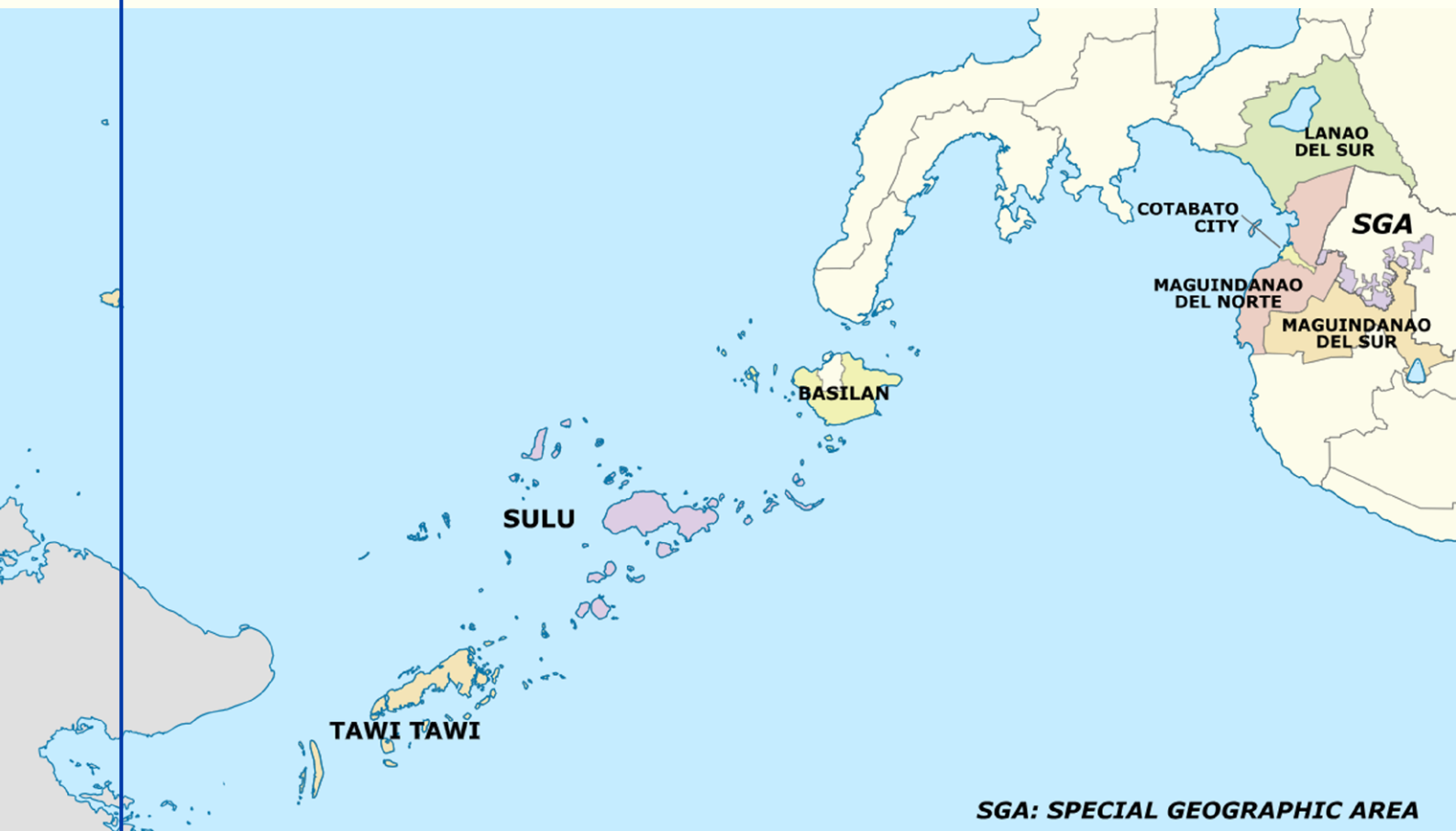
The Bangsamoro Autonomous Region in Muslim Mindanao (BARMM) in Southern Philippines, despite its natural wealth, remains one of the country's most impoverished and conflict-affected regions. However, there is limited research exploring the link between environmental and climatic changes and how they exacerbate socio-political conflicts, particularly from the perspective of marginalized youth in the region. This study seeks to fill that gap by investigating the intersections of climate change, environmental degradation, and conflict in BARMM.

The primary objective of this research is to understand how climatic changes, such as rising temperatures and more frequent droughts, contribute to conflicts in BARMM, with a focus on how young men and women experience and respond to these challenges. Key questions guiding this study include:

→ How do environmental and climatic changes exacerbate conflict in the region?
→ How do young people perceive and respond to these compounded challenges?
→ How do gender roles shape their experiences and resilience strategies?

To address these questions, the study employed a mixed-methods approach. Data was gathered from an online survey involving 179 youth participants from different provinces in BARMM, providing demographic information and insights into their perceptions and experiences of climate change, conflict, and environmental degradation. In addition, three focus group discussions (FGDs) were conducted in key conflict-prone areas, allowing for deeper qualitative insights into the lived experiences of young people. Five Key informant interviews (KIIs) were also held with local community leaders, policymakers, and environmental experts to provide contextual perspectives on the broader socio-political and environmental dynamics affecting the region.

1.1. COUNTRY CONTEXT

Home to over 108 million people spread across over 7,000 islands in Southeast Asia, the Philippines is one of the most vulnerable countries to climate change and natural disasters.[244] Estimates place up to 60 percent of the country's land area and 74 percent of its population as highly exposed to flooding, landslides, typhoons, droughts, tsunamis, and more. Since 1990, natural disasters have caused the death of at least 70,000, displaced millions, and resulted in approximately $23 billion in damages.[245]

The impact of climate and environmental challenges places a strain on the country's agricultural output which comprises 12 percent of the Gross Domestic Product.[246] More than half of Filipinos reside in rural areas, where many families rely on farming and fishing as primary sources of income and where rates of illiteracy, unemployment, and poverty incidence are typically higher.[247]

These challenges are seen acutely in the Bangsamoro Autonomous Region in Muslim Mindanao.

Situated in the southern part of the Philippines, BARMM encompasses the provinces of Maguindanao, Lanao del Sur, Basilan, Sulu, and Tawi-Tawi, as well as the cities of Marawi, Lamitan, and Cotabato.[248] The region is characterized by diverse geographical features, including mountainous terrains, extensive river systems, and coastal areas rich in marine biodiversity.[249] The climate in BARMM is predominantly tropical, with significant rainfall and distinct wet and dry seasons.[250] Despite its tropical climate supporting a wide range of flora and fauna, the region faces significant environmental challenges, including deforestation, land degradation, and climate change impacts, which threaten its natural resource sustainability.[251]

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251   De Leon, M. "[OPINION] The BARMM Must Address Intersecting Climate and Conflict Risks Now." RAPPLER. Accessed June 21, 2024. https://www.rappler.com/voices/ispeak/opinion-bangsamoro-must-address-intersecting-climate-conflict-risks-now/.

The 2nd Bangsamoro Development Plan highlights BARMM's high vulnerability to natural disasters and climate change, with some of the highest risk indicators in the Philippines.[252] The region's low-lying areas and proximity to waterways make it susceptible to flooding and landslides, particularly in the provinces of Maguindanao del Sur, Maguindanao del Norte, and Lanao del Sur.[253] Illegal logging and deforestation, reducing forest cover to 299,839 hectares, have exacerbated these risks, as has unplanned urbanization.[254] Climate change has intensified natural disaster impacts, with rising sea levels causing frequent sea surges in the island provinces, severe droughts from increasing temperatures, and frequent flooding and landslides from severe weather events.[255] In 2022, typhoon Paeng (Nalgae) underscored the growing strength of such disasters due to climate change, resulting in significant damage and casualties even in regions far from the typhoon's center, like BARMM.[256]

Demographically, BARMM is predominantly populated by the Moro people, who are mostly Muslim.[257] Nationally, Muslims make up around 6 percent of the Philippines' population, with the majority residing in BARMM.[258]

Culturally, BARMM is marked by its rich ethnic diversity, encompassing various Moro ethnic groups such as the Maranao, Tausug, Maguindanaon, and Yakan, among others. These groups have their distinct languages, traditions, and customs, which play a significant role in the region's social fabric.[259] For example, the integration of Sharia law into the region's legal system, particularly in family and personal matters, reflects the strong influence of Islamic practices on formal governance.[260] Social structures in BARMM are heavily influenced by traditional and religious customs, with local governance often involving a blend of customary laws and formal political structures.[261] For instance, traditional leaders often play a crucial role in mediating rido (clan feuds). In practice, this means that community decisions are often guided by traditional leaders and religious authorities.[262]

Amid the context of religious and cultural differences, the political landscape of BARMM has been shaped by a history of conflict and a struggle for autonomy. The region has experienced prolonged periods of armed conflict involving various groups such as the Moro National Liberation Front (MNLF) and the Moro Islamic Liberation Front (MILF), both of which have sought greater autonomy or independence from the central government of the Philippines.[263] This insurgency began in the late 1960s, particularly after the *Jabidah Massacre* in 1968, when Muslim recruits were killed by the Philippine military. This event marked the rise of the MNLF, which later splintered into the MILF, fueling a conflict that has resulted in significant loss of life—estimates range between

252   Philippines Bangsamoro Planning and Development Authority. 2nd Bangsamoro Development Plan 2023-2028.

253   Ibid.

254   Ibid.

255   Ibid.

256   Ibid.

257   "Who Are the Moro People?" Inquirer Opinion. Accessed June 21, 2024. https://opinion.inquirer.net/39098/who-are-the-moro-people.

258   "Religious Affiliation in the Philippines (2020 Census of Population and Housing)." Philippine Statistics Authority. February 22, 2023. https://psa.gov.ph/content/religious-affiliation-philippines-2020-census-population-and-housing (accessed July 9, 2024).

259   Crisis Group. "Southern Philippines: Fostering an Inclusive Bangsamoro." February 17, 2022. https://www.crisisgroup.org/asia/south-east-asia/philippines/southern-philippines-fostering-inclusive-bangsamoro (accessed July 9, 2024).

260   "P.D. No. 1083." 2024. Lawphil.net. 2024. https://lawphil.net/statutes/presdecs/pd1977/pd_1083.

261   Delina, Leo L., Noel P. P. Ludovice, John Gaviola, and Rufa Cagoco-Guiam. "Living with Climate and State Fragility in a 'Chaotic Paradise:' Securitizing Livelihoods in the Philippines' Cotabato River Basin." Climate Risk.

262   Ibid.

263   Crisis Group. "Southern Philippines: Making Peace Stick in the Bangsamoro." Accessed June 21, 2024. https://www.crisisgroup.org/asia/south-east-asia/philippines/331-southern-philippines-making-peace-stick-bangsamoro. Adam, Jeroen. "Bringing Grievances Back In: Towards an Alternative Understanding of the Rise of the Moro Islamic Liberation Front in the Philippines." Bijdragen tot de Taal-, Land- en Volkenkunde / Journal of Humanities and Social Sciences of Southeast Asia 174, no. 1 (January 2018): 1–23. https://doi.org/10.1163/22134379-17401001.

120,000 to 150,000 deaths by the mid-1990s—as well as the displacement of over a million people. These clashes, along with widespread destruction of infrastructure, such as in the 1974 Battle of Jolo and the 2017 Siege of Marawi, have severely impacted the population's livelihoods and contributed to the region's deep poverty and underdevelopment.[264] The conflict has had profound impacts on the population, including displacement, loss of life, and disruption of livelihoods.[265] Prolonged periods of armed conflict have made BARMM one of the poorest regions in the country, with high poverty incidence and limited access to basic services.[266]

BARMM's young and growing population, where 21 percent of individuals are between the ages of 15-19,[267] is particularly affected by these conditions, as high poverty rates and economic instability limit educational and employment opportunities, often forcing them into low-paying or informal jobs.[268] Frequent natural disasters disrupt schooling and exacerbate fragile infrastructure, making consistent education challenging.[269] Moreover, the lack of economic opportunities and the presence of armed groups increase the risk of youth being recruited into armed groups or getting involved in violent activities.[270] Poor access to healthcare services and the mental distress of living in a conflict and disaster-prone area further compromise their health and well-being, hindering their development and prospects.[271]

In recent years, significant strides have been made towards peace and autonomy with the signing of the Comprehensive Agreement on the Bangsamoro (CAB) in 2014 which represents the culmination of decades of peace negotiations aimed at addressing the demands of the Moro people for self-determination and autonomous rule. The CAB led to the subsequent establishment of BARMM in 2019.[272] The BARMM government is now responsible for the region's governance, with a mandate to promote development, uphold justice, and ensure lasting peace.[273]

The transition to autonomous governance is an ongoing process, with challenges related to political stability, governance capacity, and the reintegration of former combatants. Nonetheless, the establishment of BARMM represents a significant step towards achieving sustainable peace and development in the region. The lingering effects of decades of conflict, combined with socio-economic challenges and environmental threats, underscore the need for targeted interventions that address the unique vulnerabilities of youth in BARMM. Understanding the interconnected nature of these issues is crucial for developing effective policies and programs that can foster resilience and promote sustainable development.

264   Antonio Montalvan II, "Jolo and Marawi: A Historic Recurrence," VERA Files, July 19, 2021, accessed September 2024, https://verafiles.org/articles/jolo-and-marawi-historic-recurrence.

265   Lingga, Abhoud Syed. Peace Is for Everyone: Bangsamoro Stories of Hope, Survival, Pain, and Resilience. Institute of Bangsamoro Studies, 2016.

266   Crisis Group. "Southern Philippines: Fostering an Inclusive Bangsamoro." February 17, 2022. https://www.crisisgroup.org/asia/south-east-asia/philippines/southern-philippines-fostering-inclusive-bangsamoro (accessed July 9, 2024).

267   University of the Philippines Population Institute. 2021 Young Adult Fertility and Sexuality Study Bangsamoro Autonomous Region in Muslim Mindanao (BARMM) Profile. 2021. https://www.uppi.upd.edu.ph/sites/default/files/pdf/yafs5-regional-profiles-BARMM.pdf.

268   Anderson, Kirsten. "Migration and Child Protection Responses: Responses to the Protection Needs of Internally Displaced Children and Families in Bangsamoro Autonomous Region in Muslim Mindanao (BARMM), the Philippines." UNICEF, European Union, November 2022.

269   Hallegatte, Stephane, Adrien Vogt-Schilb, Julie Rozenberg, et al. "From Poverty to Disaster and Back: A Review of the Literature." Economics of Disasters and Climate Change 4 (2020): 223–47.

270   Bacani, Benedicto R. "Youth Radicalization and Mitigation in Southern Philippines." In Terrorist Rehabilitation and Community Engagement in Malaysia and Southeast Asia, 2019.

271   World Health Organization. "Accessing Essential Health Services in Fragile, Conflict-Affected, and Vulnerable Settings." https://www.who.int/activities/accessing-essential-health-services-in-fragile-conflict-affected-and-vulnerable-settings.

272   "TIMELINE: The Bangsamoro Peace Process." Philippine News Agency. Accessed June 21, 2024. https://www.pna.gov.ph/articles/1059598.

273   "BARMM | Central Online Portal." Accessed June 21, 2024. https://barmm.ph/about.html.

2. Methodology and Case Selection

2.1. RESEARCH MOTIVATION

BARMM is characterized by its rich cultural diversity, historical conflicts, and significant vulnerability to climate change and environmental degradation. The region's marginalized youth, particularly those from indigenous and minority communities, face compounded challenges due to these intersecting factors. Studying BARMM provides critical insights into how climate change, environmental issues, and ongoing conflicts uniquely affect marginalized youth, offering valuable lessons for similar contexts globally.

2.2. CASE SELECTION CRITERIA

The selection of specific cases within BARMM was guided by several criteria to ensure the study's relevance and comprehensiveness. The three locations chosen—Labungan, Datu Odin Sinsuat; Datu Saudi Ampatuan; and Marawi City—provide a comprehensive understanding of the diverse conflict dynamics, environmental challenges, and social fragilities in the region. Each location was selected based on its unique characteristics and the profiles of the youth participating in the study.

In these locations, FGDs and KIIs were conducted with youth from various socio-economic backgrounds, ethnic groups, and those directly affected by conflict and environmental changes. This diverse yet focused examination provides a comprehensive and nuanced understanding of the unique challenges faced by marginalized youth in BARMM. The insights gained from this approach are essential for developing effective policy and intervention strategies that are sensitive to the diverse needs of the region's youth.

→ **Labungan, Datu Odin Sinsuat, Maguindanao del Norte**, was chosen for its representation of the Teduray, a non-Moro indigenous group. The presence of this group is significant as they have faced displacement due to ongoing conflicts. Since September 2023, internally displaced persons (IDPs) from this group have been living in a school transformed into an evacuation center. Understanding the experiences of the Teduray youth, who are navigating the challenges of displacement and conflict, is crucial for the study.

→ **Datu Saudi Ampatuan, Maguindanao del Sur**, part of the "SPMS Box" composed of the towns of Salbu, Pagatin, Mamasapano, and Shariff Aguak, which are recognized by the military as strongholds of armed groups, was selected due to the presence of horizontal (*rido* or clan feuds) and vertical conflicts (insurgencies involving armed groups and government forces).[274] This area exemplifies the intersection of local disputes, such as land and resource conflicts, and broader political tensions involving various armed groups and state authorities. The youth in this region face compounded challenges due to the layered nature of these conflicts, making it a critical area of study to understand the complex impacts on their lives and futures.

→ **Marawi City, Lanao del Sur** was included to understand the long-term impacts of large-scale conflict on youth and community resilience. In 2017, the Marawi Siege - which pitted Philippine security forces against militants affiliated with the Islamic State and local terrorist organizations such as the Maute and Abu Sayyaf groups in a five-month-long battle - resulted in significant destruction and displacement, affecting the city's infrastructure and residents' mental health and well-being.[275] Beyond the conflict, environmental issues such as deforestation, land degradation, and increased flooding due to the loss of vegetation have compounded the challenges.[276] The city's proximity to Lake Lanao, a critical natural resource, adds another layer of complexity, as the conservation of this lake is crucial for local livelihoods and biodiversity.[277] Studying the resilience strategies of Marawi's youth provides valuable insights into coping mechanisms, recovery processes, and the sustainable management of natural resources in a post-conflict setting.

274   Cagoco-Guiam, Rufa. "Exacerbated Precariousness." INQUIRER.net. June 2020. https://opinion.inquirer.net/130345/exacerbated-precariousness.

275   Amnesty International. "Philippines: 'Battle of Marawi' Leaves Trail of Death and Destruction." November 17, 2017. https://www.amnesty.org/en/latest/news/2017/11/philippines-battle-of-marawi-leaves-trail-of-death-and-destruction-2/.

276   Mero, Danilo C. "Financing Community-Based Watershed Reforestation in the Philippines." AaoFri-Forest. Marawi City, Philippines: Mindanao State University, December 15, 2003.

277   Keough Editor. "Rebuilding Marawi City: Linkages of Peacebuilding, Environment, and Development." Keough Insider. December 2, 2019. https://sites.nd.edu/keough-insider/2019/12/02/rebuilding-marawi-peacebuilding/.

Hansel, Carmelita, and Erlvine B. Metillo. "Efforts towards the Management of Lake Lanao and Its Watershed." ResearchGate. March 16, 2016. https://www.researchgate.net/publication/305984302_Efforts_towards_the_management_of_Lake_Lanao_and_its_watershed.

2.3. RESEARCH DESIGN, APPROACH, DATA COLLECTION AND ANALYSIS

This study employs a mixed-method research design, combining qualitative and quantitative approaches to ensure a comprehensive understanding of the experiences and perceptions of marginalized youth in BARMM. The research process included three focus group discussions, five key informant interviews (KIIs), and online surveys.

The FGDs were conducted across different socio-economic backgrounds and ethnic groups in BARMM, with a total of 22 participants aged between 20 and 43 years old. Each discussion centered around youth and community members' experiences with climate change, environmental degradation, and the ongoing conflict. The first FGD in Labungan brought together teachers, students, a security guard, a licensed criminologist, and a graduating student—all involved in education, youth empowerment, and community security. The second FGD in Datu Saudi Ampatuan included Barangay Health Workers (BHWs), Sangguniang Kabataan (SK) officials[278], and students who are actively engaged in health education, community support during conflicts, and youth advocacy. In Marawi, the third FGD involved students from disciplines such as engineering, social work, and psychology, who are particularly active in environmental advocacy, waste management promotion, and educational leadership.

In total, the FGDs involved 22 participants: 6 from Marawi (4 males, 2 females, aged 20-22), 8 from Labungan (5 males, 3 females, aged 21-43), and 8 from Datu Saudi Ampatuan (3 males, 5 females, aged 21-38).

In addition to the FGDs, five KIIs were conducted with stakeholders such as local leaders, policymakers, and experts to gain contextual understanding and expert perspectives on the issues at hand. The key informants included a policy researcher and cultural worker focusing on language documentation in indigenous communities, a legislative staff officer involved in youth organizations and crisis management, an official from the BARMM Ministry of Environment, Natural Resources, and Energy (MENRE) addressing climate and conflict issues, a commissioner of the Commission on Human Rights (CHR) representing the Indigenous People (Teduray), and the dean of the College of Forestry at a local university who leads forestry education and environmental initiatives. These interviews, involving 5 individuals (4 males and 1 female, aged 30-63), contributed significant expertise on the issues faced by marginalized youth in the region.

To broaden the scope of the research, online surveys were administered to 179 participants using Google Forms and distributed via Facebook. The respondents, primarily young individuals under the age of 30 (156 participants, or 87%), were from different provinces and cities within BARMM. The location distribution was as follows:

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278   The Sangguniang Kabataan (SK) is a local youth council in the Philippines, established to represent the interests of young people in governance. It consists of elected officials aged 18 to 24 who are tasked with creating and implementing youth-related programs and projects at the barangay (village) level. The SK aims to involve youth in community development and decision-making processes.

TABLE 1 | Locale Distribution of Online Survey Respondents

LOCATION	COUNT	PERCENTAGE
Cotabato City	47	26%
Tawi-Tawi	32	18%
Lanao del Sur	30	17%
Maguindanao del Norte	28	16%
Maguindanao del Sur	22	12%
Basilan	9	5%
Outside BARMM Areas	6	3%
Sulu	3	2%
Special Geographic Areas (63 barangays[279] from North Cotabato that opted to join BARMM after the 2019 plebiscite.)	1	1%

The survey sample was predominantly female (111 participants, or 62%) and included a majority of students (111 participants, or 62%), reflecting a highly educated demographic with significant representation from bachelor's degree holders (67 participants, or 37%) and those with some college education (63 participants, or 35%). The higher proportion of female participants may result from their active involvement in community and educational initiatives, making them more likely to engage in studies on social and environmental issues.

The data analysis process involved both qualitative and quantitative techniques. Thematic analysis was used to identify and interpret patterns and themes from the FGDs and KIIs, providing a deep understanding of the complex interactions between climate change, environmental degradation, and conflict. Quantitative analysis of the survey data helped identify trends and correlations, offering a detailed demographic profile of respondents and quantifying their perceptions and experiences.

279   A barangay is the smallest administrative division in the Philippines, similar to a village, district, or ward. It serves as the basic unit of local government, with its own set of elected officials responsible for governing and providing services to the community.

3. Analysis of Research Results

3.1. YOUNG PEOPLE'S PERCEPTIONS OF CLIMATE CHANGE, ENVIRONMENTAL DEGRADATION AND CONFLICT

Survey data indicates that 84 percent of respondents have noticed increased temperatures, 59 percent have observed droughts, and 45 percent have witnessed deforestation and flooding. These climatic and environmental changes may contribute to existing conflicts and increase the risk of new conflicts. For example, climate-induced resource scarcity, such as water and arable land, intensifies competition and can lead to violent disputes.

Interviews with local authorities and community leaders reveal that extreme heat and unpredictable rainfall patterns are causing significant livelihood challenges across various regions in BARMM. For instance, temperatures in Maguindanao have reached unprecedented highs of up to 44°C, severely impacting agricultural productivity. According to an official from the Ministry of Environment, Natural Resources, and Energy of BARMM, deforestation due to logging and inappropriate reforestation practices has led to soil erosion and biodiversity loss. These environmental issues, combined with pollution from improper solid waste management and mining activities, contribute to resource scarcity and social tensions.

In the survey, 57 percent of respondents reported changes in water supply, 54 percent experienced health issues, and 38 percent faced loss of income due to environmental changes. Interviews with participants in focus group discussions highlighted that increasingly severe El Niño conditions over the past few decades have resulted in more intense and prolonged water scarcity in Maguindanao, preventing crop planting and exacerbating economic pressures. In Marawi, the combination of increased pollution and higher temperatures in recent years has affected student concentration and business operations. For example, one participant noted, *"The heat is unbearable, and it makes it difficult to concentrate on studies or even run our small businesses."* A youth participant in Datu Saudi Ampatuan expressed concerns about water scarcity. "Our crops are failing because of the lack of water. This has made it hard for us to sustain our families and has led to more conflicts over land."

3.2. INFLUENCE OF CLIMATE CHANGE AND ENVIRONMENTAL DEGRADATION ON CONFLICTS

FGD participants from different areas highlighted the profound impact of natural disasters and ongoing conflicts on their communities. In Datu Saudi Ampatuan, a local farmer expressed the compounding challenges brought by droughts:

> *"The droughts have not only destroyed our crops but have also increased tensions in our community. We argue more frequently over access to water, and this sometimes leads to violent disputes."* The situation is exacerbated for livestock owners, as another participant shared, *"When the droughts hit, our livestock suffer too. It's heartbreaking to watch our animals weaken because we can't provide enough water or food for them. This leads to more stress within the community, as we depend on these animals for our livelihood."*

Similarly, in Labungan, the frequency of evacuations due to ongoing conflicts has intensified competition over scarce resources. One participant highlighted the struggles during these evacuations: *"When floods force us to evacuate, our children miss school, and the cramped, unsanitary conditions make us prone to illnesses, leading to further stress and conflict over scarce resources."* The impact of Typhoon Paeng in October 2022 further complicated life in Labungan, as a local teacher noted:

> *"The flooding disrupted our farming activities and made us more vulnerable to diseases. We see more children getting sick, and the lack of medical facilities makes it hard to cope. This adds to the frustrations and tensions among families."*

3.3. COMBINED IMPACT OF CLIMATE CHANGE, ENVIRONMENTAL DEGRADATION AND CONFLICT ON YOUNG PEOPLE

In Marawi, the ongoing conflicts have led to repeated displacements, creating a deep sense of uncertainty among the residents. A young community leader shared the emotional toll of these evacuations:

> *"With the ongoing conflicts, many of us have had to leave our homes multiple times. Every time we evacuate, we lose more of our belongings, and it feels like we are starting over again each time. The uncertainty and fear are overwhelming, especially for the younger generation."*

Marginalized youth in BARMM are particularly vulnerable to the compounded impacts of climate change, environmental degradation, and conflict. Young men and women experience these pressures differently, with young women facing higher risks of gender-based violence and exclusion from conflict resolution processes. For instance, the journey to collect water during droughts can expose them to harassment or violence, as traditional safe pathways may no longer be accessible. A participant from Datu Saudi Ampatuan shared, *"When there's no water... it's difficult because even just taking a bath, washing clothes, and finding drinking water is hard. For men, they can bathe without clothes, but for women, it's much harder as they have to fetch water from far away."*

In evacuation centers, cramped and unsanitary conditions, combined with a lack of privacy, can lead to an increase in gender-based violence. A young woman from Labungan shared that, *"During evacuations, we are all crammed into small spaces, and it becomes very unsafe for us at night."* Another participant emphasized the lack of privacy and constant fear, stating, *"The lack of privacy in these conditions makes it difficult, especially for women. The fear of harassment or worse is always in our minds."*

Environmental pressures exacerbate these risks, as disasters and resource scarcities often lead to displacement and unstable living conditions, where women are more vulnerable to exploitation and abuse. Socioeconomic status and ethnicity further compound these vulnerabilities, as marginalized ethnic groups often have less access to resources and support systems. A participant from Labungan mentioned that economic challenges and limited access to education have forced many to prioritize survival over education and long-term planning.

The survey data shows that 66 percent of respondents reported psychological or emotional stress, 63 percent experienced disruption to education, and 41 percent faced loss of employment or job opportunities due to conflict. Youth in flood-prone areas have been forced to migrate, disrupting their education and economic opportunities. Increased absenteeism from schools and health issues like rashes are common among youth due to extreme heat. A professor at a local university highlighted that the extreme heat prevents students from attending classes regularly, which affects their education and future prospects.

These accounts illustrate the complex interplay between environmental challenges and socio-political conflicts, each exacerbating the vulnerabilities of these communities.

3.4. RESPONSES TO THE INTERCONNECTED DYNAMICS OF CLIMATE CHANGE, ENVIRONMENTAL DEGRADATION AND CONFLICT

3.4.1. YOUTH RESPONSES TO CRISES

Despite the challenges, marginalized youth in BARMM are actively responding to the issues posed by climate change, environmental degradation, and conflict through various initiatives. Youth-led community actions, such as local reforestation projects in Labungan and Marawi and community-based disaster risk reduction programs in Datu Saudi Ampatuan, are examples of how young people are taking the lead in addressing these issues within their own communities. These projects are often personal initiatives, tailored to the specific needs and circumstances of their areas, reflecting the youth's commitment to making a difference in their immediate surroundings. While these efforts may be localized, they play a crucial role in building resilience and fostering a sense of agency among young people in BARMM.

The survey indicates that 64 percent of respondents have participated in community clean-up initiatives, 55 percent attended educational programs on climate change, and 47 percent involved in tree planting or reforestation activities. These activities can be led and organized by youth leaders and youth organizations, local youth councils, local government units, national government agencies, schools, and civil society organizations (CSOs). Successful initiatives often receive strong support from community and family networks, local leaders, and external organizations.

For example, reforestation projects that engage former combatants in some of their former camps in Maguindanao del Norte have shown promise in restoring degraded lands and providing livelihoods. A youth participant in Labungan mentioned a project where they planted over 1,300 mahogany tree seeds to create a human-made forest, demonstrating proactive engagement in environmental conservation. Similarly, students in Marawi engaged in projects selling paper straws and bamboo straws to reduce plastic waste and promote environmental awareness, particularly focusing on protecting Lake Lanao.

However, the support for these initiatives is not always equally distributed, as traditional gender norms can sometimes hinder the participation of young women. In some communities, young women face additional challenges in gaining the same level of support as their male counterparts. This is particularly evident in projects that require public visibility or physical labor, where societal expectations often limit women's involvement. For instance, a female participant from Labungan noted the difficulty in balancing community engagement with household responsibilities, which are often prioritized over external activities. Additionally, in some areas in Maguindanao, families are more protective of young women, limiting their participation in initiatives that are deemed risky or unsafe, such as those requiring travel or working in remote locations.

In addition to these societal challenges, limited resources and lack of institutional support also hinder the sustainability of these initiatives. Institutional support, typically provided by local and national governments and CSOs, is crucial for securing venues, transportation, permits, and connections to relevant communities. This support is also essential for training, capacity-building, and ensuring the long-term viability of these projects.

For example, in the FGDs, participants highlighted the difficulties in sustaining community clean-up drives and reforestation projects without adequate backing from local government and organizations. A former Sangguniang Kabataan Chairman from Labungan mentioned:

> *"Our efforts to clean and plant trees are often short-lived because we do not have enough support or resources to maintain them."*

This lack of sustained support hampers the effectiveness and longevity of youth-led environmental and community initiatives, further exacerbating the vulnerabilities faced by marginalized youth in BARMM.

3.4.2. POLICY AND PROGRAMMATIC RESPONSES

Existing policies and programs in BARMM, such as the Bangsamoro Organic Law[280], the UNDP-initiated SHIELD Program[281], and various community-based initiatives like the Camp-based Forest Management (CBFM) in former MILF camps[282], along with the Integrated Bangsamoro Greening Program (IBGP)[283], and climate adaptation efforts such as those led by USAID[284], are all designed to bolster the region's resilience to climate impacts and advance sustainable development.[285] These initiatives collectively aim to enhance environmental sustainability, restore ecosystems, and empower local communities to adapt effectively to the challenges posed by climate change.

Despite these efforts, significant gaps remain. Many initiatives lack a focus on marginalized youth and fail to integrate gender-responsive approaches. There is a need for more inclusive decision-making processes that actively involve youth and marginalized communities in planning and implementation.

Survey results indicate that 46 percent of respondents see the need for more environmental protection initiatives, 45 percent call for more educational opportunities, and 39 percent emphasize the importance of peacebuilding and conflict resolution programs. To better support marginalized youth in BARMM, future strategies should prioritize gender-responsive approaches and inclusive decision-making. This is important because it ensures that the unique needs of young men and women are addressed, enhances participation from all groups, and promotes social cohesion, leading to more effective and sustainable outcomes. Enhancing educational and vocational training programs for youth, particularly in climate adaptation and sustainable livelihoods, is crucial.

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280   The Bangsamoro Organic Law (BOL) establishes the Bangsamoro Autonomous Region, providing a framework for governance, autonomy, and sustainable development in BARMM. The full text of the law is available at https://lawphil.net/statutes/repacts/ra2018/ra_11054_2018.html.

281   The Strengthening Institutions and Empowering Localities against Disasters and Climate Change (SHIELD) program, initiated by UNDP and UN-Habitat, focuses on building local capacities to reduce disaster risks and enhance climate resilience in BARMM. More information is available at https://unhabitat.org.ph/shield/.

282   Community-Based Forest Management (CBFM), launched in 2022 with UNDP support, transforms former MILF camps into sustainable forest areas, integrating forestry with peacebuilding and providing local communities with sustainable livelihoods. More details can be found at https://www.facebook.com/media/set/?vanity=MENREBARMM&set=a.512425730926247.

283   The Integrated Bangsamoro Greening Program (IBGP), established by Executive Order No. 0007 (2020), hires former combatants as "Palaw Rangers" to plant 171.2 million trees across 159,000 hectares in BARMM. More details at https://philippines.un.org/en/88707-barmm-fighters-forest-rangers-and-farmers.

284   In March 2023, USAID launched initiatives in BARMM, including a Php15-million Beginning Reading Program and the deployment of Automated Weather Stations (AWS) to enhance disaster preparedness. More details at https://www.usaid.gov/philippines/press-releases/mar-17-2023-us-assistance-boost-education-and-climate-resilience-barmm.

285   Umngan, Abdul-Jalil S. "State of Forests in the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM), Philippines: Opportunities and Challenges." 2024. Unpublished manuscript, Ministry of Environment, Natural Resources, and Energy, Bangsamoro Autonomous Region in Muslim Mindanao.

Additionally, strengthening partnerships between local communities, government agencies, and international organizations can provide the necessary support and resources to scale up successful youth-led initiatives.

Financing these youth programs is also crucial for their long-term success. During FGDs, participants expressed concerns about the inconsistent funding that hinders the sustainability of their initiatives. For example, a youth leader from Marawi pointed out the difficulty of securing long-term financial support, stating, *"It's hard to keep our projects going when we don't have the funds. We start strong, but without money, we can't maintain our momentum."* This sentiment was echoed in a key informant interview, where it was noted that localized funding tailored to the specific needs of youth projects in BARMM could significantly enhance their impact. Ensuring that funding mechanisms are accessible and aligned with the actual needs of youth in these areas could greatly improve the effectiveness and reach of youth-led programs.

Further data from focus group discussions and key informant interviews highlight specific examples of gaps in other forms of support. Youth in Labungan expressed frustration over the lack of institutional support for their reforestation projects. One participant mentioned, "We started planting trees to help our community, but without proper tools and continuous support, it's hard to keep the momentum going." Similarly, in Marawi, youth-led clean-up drives recently conducted often struggle due to insufficient funding and logistical support. A participant noted:

> *"We organized clean-up drives, but we need more than just our efforts to make a lasting impact."*

A university professor emphasized the importance of integrating youth perspectives into policymaking, noting:

> *"Youth have innovative ideas and a unique understanding of their challenges. Including them in decision-making processes can lead to more effective and sustainable solutions."*

These examples underscore the critical need for targeted interventions that address the specific needs and vulnerabilities of marginalized youth in BARMM. Providing adequate resources, institutional backing, and platforms for youth participation can make policies and programs more inclusive and effective in fostering resilience and sustainable development in the region.

4. Conclusion

This research on climate change, environmental degradation, and conflict in the BARMM highlights the intricate relationships between these factors and their profound impacts on marginalized youth in the region. The study reveals significant climatic changes in the region, including increased temperatures, unpredictable rainfall patterns, and more frequent natural disasters. These climatic changes and environmental degradation have led to severe challenges such as displacement, food insecurity, and economic instability, exacerbating existing conflicts and creating new tensions over scarce resources. While all youth in BARMM face these challenges, young women are particularly vulnerable due to the heightened risks of gender-based violence, lack of privacy, and exclusion from decision-making and conflict resolution processes. The data suggests that while these impacts are significant, the disproportionate effects on young women require further exploration to fully understand the underlying causes and the extent of these challenges.

Despite these formidable challenges, youth in BARMM are actively participating in community-led efforts to address climate and environmental impacts and build resilience. However, they often encounter obstacles such as limited resources and a lack of institutional support. To enhance these efforts, it is crucial for policymakers and leaders to deepen their understanding of how conflict, climate change, and natural disasters intersect in BARMM and affect the lived experiences of young people.

Moreover, there is a critical need to strengthen institutional capacities to support youth-led initiatives, ensuring they are equipped to tackle the region's unique challenges and contribute to sustainable development. Policymakers must continue to explore and address the specific challenges faced by youth in this context, considering the broader implications of these risks on gender issues and educational disruption, which extend beyond immediate effects like displacement or food scarcity.

As BARMM prepares for its first elections in 2025, the active engagement of young people in decision-making and political participation becomes even more essential. However, this engagement must extend beyond elections; young people should be supported as innovators and leaders in addressing the nexus of conflict and climate change. This requires a collaborative approach, where institutions work with youth as partners and co-implementers in solutions, rather than merely as beneficiaries or resource persons.

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Resilience Rising:

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