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Climate Change, Food Insecurity and Conflict

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Climate Change, Food Insecurity and Conflict

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EXECUTIVE SUMMARY

The impacts of climate change pose a serious threat to livelihoods. While this has long been the basis of international discourse on climate change, many of its ripple effects and connections to other crises have remained unexplored. However, increasingly complex manifestations of climate change have forcefully shifted it onto the agenda of the UN Security Council (UNSC) and into a broader framework of human security. In February 2024 UN Secretary-General António Guterres spoke in front of the UNSC to urge member states to act to break the deadly links between conflict, climate, and food insecurity, which had become mounting threats to global peace and security.[i]

Building on this growing recognition at the international level, this report contributes by offering grounded insights into how these dynamics play out in fragile settings across geographical contexts. It aims to expand the evidence foundation on the links between climate change, food insecurity and conflict, while supporting international and local stakeholders in developing context-specific, localized and integrated climate approaches through tailored recommendations, in accordance with the central aspect of the UN's prevention agenda. While doing so, special attention is given to the paramount role of food and food systems, as they are some of the first and most visible targets of climate change effects. Given that the impacts of food insecurity reach far beyond only local boundaries and rather sit at the core of all human security, it gives this report a global leverage point, capable of mobilizing political and communities alike.

The two key questions this report answers are the following:

1. How does climate change-induced food insecurity contribute to violent conflict in fragile settings?
2. What policy responses can prevent or mitigate this risk?

The findings show common patterns across case studies and geographical locations that confirm existing scholarship. Across Somalia, Burkina Faso, and Haiti, climate change acts as a threat multiplier that deepens existing structural weaknesses, such as fragile governance, limited infrastructure, and institutional instability. These countries, already under severe stress, are now experiencing the compounded impacts of climate shocks that erode food systems, displace populations, and escalate violence. In the absence of effective state response, non-state armed groups and gangs exploit the crisis, using control over food, water, and aid to gain legitimacy and expand influence. Displacement thus emerges as a necessary coping mechanism, not a voluntary choice, as rural livelihoods collapse under recurring droughts, extreme weather events, and resource scarcity. Especially young people are forced to migrate to large urban areas, where they are particularly susceptible to recruitment by armed groups.

While all three countries share these patterns, each also reflects distinct dynamics: Somalia's fragmented clan-based governance limits coordinated responses; Burkina Faso's location in the fast-warming Sahel and recurring coups have created a deep security vacuum; and Haiti's legacy of environmental degradation and foreign interference has hollowed out institutional

trust. Together, these cases illustrate the urgent need for integrated and localized responses that place food systems at the center – and that address their multiple challenges simultaneously.

Therefore, we propose the following general recommendations:

1. Implement a community-led, integrated policy approach that links climate, food, peace, and development through long-term, cross-sector partnerships and holistic localized, inclusive solutions driven by those most affected.
2. Reframe and expand SDG 2 “Zero Hunger” to center sustainable food systems and structural resilience.
3. Invest in climate and peace education to build long-term resilience by empowering youth, strengthening local knowledge - including indigenous practices - and enhancing capacity at both community and government levels.
4. Ensure flexible, integrated, and localized financing that prioritizes prevention, empowers local actors, and supports long-term climate and peace resilience beyond emergency cycles.
5. Strengthen early warning and climate risk analysis systems tailored to local needs, enabling timely, informed, and actionable responses across sectors.

INTRODUCTION

Over the past few decades, climate has come to be understood not only as an environmental issue, but as a multidimensional crisis that crosses borders and affects every sector of society. From prolonged droughts in the horn of Africa to intensifying hurricanes in the Caribbean, and from rising sea levels in the Pacific to intense heatwave in southern Europe, the consequences of rapid climate change are becoming more frequent, destructive and interconnected. Although these impacts are global, they are not evenly distributed. Low-income countries with the fewest resources, which have contributed the least to global emissions, are usually the most affected ones.[ii] Their fragile infrastructure and limited adaptive capacities make them particularly vulnerable to climate shocks.

Among one of the most pressing consequences of climate change is the worsening of food-insecurity, especially in already fragile regions. Climate-related disruptions such as droughts, floods, and heat waves often break supply chains, devastate agricultural systems and destroy livelihoods. These shocks are not isolated, they worsen existing problems such as economic inequality, market volatility, political instability and social unrest. According to the World Food Programme (WFP), over 343 million people across 74 countries are currently facing emergency levels of hunger, largely due to the increasing number of conflicts, inflation and climate-related disasters.[iii]

This situation is not only limited to the Global South. The current war in Ukraine, for example proved how deeply interconnected global food systems can be. Disruptions to grain exports and fertilizer supply chains had severe repercussions all over the world, rising not only prices but also threatening access to food on other continents far beyond the conflict zone.[iv] In parallel, The COVID-19 pandemic underscored the fragility of global supply chains,[v] causing shortages, price volatility and barriers to food access, even in high-income countries. As climate change continues to affect food systems which are often considered as the first targets of environmental stress, it is becoming clearer that food insecurity is not just a localized problem, but a global vulnerability.

Conflict further intensifies these dynamics. These disorders can destroy farmland, displace farmers, militarize food supply routes and weaponized hunger.[vi] These intercrossed crises are also responsible for forced displacement and migration, both within and across borders. Climate-related stress factors are already forcing millions of people to leave their home in search of better security, stability or success to food and water. In unstable contexts, these population movements can strain already overpopulated urban centers, intensify social tensions between host and displaced communities, and put additional pressure on limited public services and natural resources. In some cases, the arrival of climate refugees can also start local conflicts, particularly when governance

structures are unable to arbitrate disputes or allocate resources equitably.[vii]

This report responds to the urgent need to better understand how these factors, climate change, food insecurity and conflict interact and reinforce each other by generating instability. It aims to contribute to policy responses that address not just the symptoms of crisis, but also the underlying structure driving crisis and insecurity in vulnerable communities.

Research Objectives

This report has two research objectives. Firstly, to explore the complex links between climate change, food insecurity and conflict, with a focus on fragile countries like Burkina Faso, Somalia and Haiti. Secondly, to develop feasible, context-specific policy recommendations that strengthen resilience by integrating climate adaptation, peacebuilding and food security strategies.

By engaging with a wide and diverse range of stakeholders, including international organizations, national governments, and local communities, this report looks to promote integrated solutions, inclusive policy responses capable of addressing the root causes of conflicts exacerbated by climate change.

Literature Review

Conceptualizing the interconnections between climate change, food insecurity, and conflict requires understanding both their definitions and the ways these issues intertwine. The linkages between climate change, food insecurity, and conflict have gained increasing attention across scholarly and policy communities. Climate change is defined as shifts in temperature, precipitation, and extreme weather patterns, accelerated by human factors.[viii] While some see it as a direct security threat, others describe it as a "threat multiplier."[ix] Further clarification on the exact scope of climate change will be made in the following parts of this review. Food insecurity, according to the Food and Agriculture Organization (FAO), refers to the lack of reliable access to sufficient and nutritious food, outlining aspects of availability, access, stability and utilization. In this context, food security encompasses more than just access to food; it also requires ensuring that food is stable, nutritious, and capable of meeting the complete dietary needs of populations. [x] Some scholars suggest that food security should also embrace food sovereignty, where communities maintain control over their own food systems rather than relying on external dependencies.[xi]

In 2014, the Intergovernmental Panel on Climate Change (IPCC) recognized climate change as a "threat multiplier", exacerbating existing vulnerabilities in fragile states. Extreme weather events, rising temperatures, and rainfall variability are undermining food production, reducing livelihood security, and intensifying migration pressures. These outcomes, in turn, can fuel tensions over scarce resources, weaken state legitimacy, and increase the likelihood of violent conflict. [xii] This relationship is especially strong in farming communities that heavily rely on rainfall, where even small changes in the climate can cause big problems. [xiii] Several studies have shown how climate-related food shocks can spark communal violence, especially in regions with pre-existing grievances, weak governance, or

ethnic tensions like the case of Burkina Faso.[xiv]

Pathways from Climate Change to Food Insecurity

The links between climate change and food insecurity are both direct and indirect. Alterations in weather patterns, temperature fluctuations, and extreme weather events are only some of the contributions that climate change can directly bring to food insecurity. [xv] They typically result in the disruption of agricultural yields and in the destabilization of the food supply chains. These factors are particularly heavy on regions already suffering from socio-economic vulnerabilities and manifest, for instance, through recurrent droughts, by deepening food shortages and threatening pastoralist livelihoods – rendering farmland less productive.[xvi]

Furthermore, climate-induced production losses in key agricultural regions can have ripple effects across global food chains. As international markets become more interconnected, supply shocks in one region can lead to food price volatility and reduced availability in others, disproportionately affecting low-income and food-importing countries. [xvii] Transport infrastructure, storage facilities, and trade routes are also vulnerable to climate extremes, contributing to inefficiencies and increased waste throughout the supply chain. This global dimension underscores how localized climate events can escalate into widespread food insecurity.[xviii]

Pathways from Food Insecurity to Conflict

The pathways from food insecurity to conflict are context-dependent and involve different socio-economic, environmental, and political factors. Food insecurity acts as a "threat multiplier" by amplifying underlying vulnerabilities such as poverty, economic inequality, and political instability.[xix]

Governance plays an important role in determining whether food insecurity can cause conflict or is mitigated through effective policies. Weak governance, characterized by corruption, inadequate infrastructure, and ineffective management of available resources, exacerbates the effects of food scarcity by limiting the implementation of redistributive policies.[xx] Moreover, while severe food insecurity caused or intensified by climate change can increase social tensions that may lead to conflict, it can simultaneously undermine the capacity for collective action. Indeed, when individuals face extreme deprivation, their immediate focus often shifts to meeting basic survival needs, leaving little capacity to engage in broader forms of mobilization. This can weaken social cohesion and diminish the likelihood of organized efforts to address systemic challenges.[xxi]

Nexus Climate Change, Food Insecurity and Conflict

In February 2024 UN Secretary-General António Guterres announced at a Security Council meeting, that "countries must act now to break the deadly links between conflict, climate and food insecurity." He further mentioned that "climate chaos and food crises are serious and mounting threats to global peace and security."[xxii] Based on this we can see that the nexus of climate change, food insecurity, and conflict has

recently reached significant importance for political leaders and stakeholders, as well as generated academic interest.

Despite this growing awareness, there are still considerable gaps in the literature analyzing the interconnectedness of climate change, food insecurity, and conflict. Opinions primarily differ on the exact type of their relationship.[xxiii] Some argue for a direct causal link, while others adopt a more cautious approach, emphasizing their interdependence without framing it as strictly linear.[xxiv] What's clear, however, is that these factors are deeply connected, influencing one another in ways that create destructive feedback loops.[xxv] Their combined effects are profoundly destabilizing and demand an integrated, holistic and systemic approach to address the challenges they pose. Climate change, food insecurity and conflict are mutually reinforcing, with each factor exacerbating the other in various ways. As a result, a vicious cycle is created, where climate change leads to food insecurity, which then escalates conflict, and in turn, conflict undermines the ability of regions to adapt to or mitigate the impacts of climate change.[xxvi]

Additionally, non-climate stressors, such as the uneven distribution of agricultural resources, also play a significant role. Factors like access to fertilizers, seeds, and land are often influenced by differences in political viewpoints, which can lead to conflict. In such cases, large-scale food insecurity is often the result of political decisions rather than an absolute lack of food. This view challenges the widely held belief that food scarcity arises solely from insufficient supply.[xxvii]

However, it is important to note that food insecurity or climate change alone are not likely to be the only cause of conflict, and apparent causal links are often indirect, requiring context-specific analysis. Each element of the nexus should be viewed as a "threat multiplier" or "risk multiplier", adding onto already existing socio-political or socio-economic pressure.[xxviii]

METHODOLOGY

To tackle the interconnected and complex research question, this report used a mixed-method approach consisting of three stages. The first stage included a thorough literature review to scope out the existing knowledge foundation on the topic and identify gaps in the current understanding of the relationship between climate change, food insecurity, and conflict. The second research stage consisted of the conduction of several key informant interviews, with a full list of interview details available in the annex. The interview stage itself was divided into three further substages: the search for and reaching out process to relevant interview participants, the actual conduction and recording of the interviews, and finally the qualitative analysis of the interviews through manual and automated coding.

Due to the highly intersectional nature of the research question, we employed a broad initial outreach strategy. Our goal was to speak to experts working on the climate-food-conflict nexus coming from different institutions and perspectives, which led to a diverse pool of interviewees affiliated with UN agencies, UN-related IO's, climate research institutes and think tanks. This diversity of interview participants and institutions confirms the interconnectedness of the issue of climate change, food security, and conflict, and is further proof of the

necessity of a holistic approach. Lastly, the experts were also selected with the premise that their recommendations would be tailored to the needs of diverse stakeholders in the research. Our first interviews were facilitated by our partner UNU-CPR, who gave us selected recommendations on suitable people to discuss our research question with. Later on, we received big help in connecting us with other interview partners by broadcasting our research project with a call for collaboration through the Climate and Environment Charter for Humanitarian Organizations' bi-monthly newsletter.

A total of ten general interviews were carried out online on Webex or Google Meets in the timeframe January to May 2025, given geographical distance and time constraints. The interviews were recorded and afterwards transcribed; either using the transcription function included on Webex, or TurboScribe, an AI powered transcription service. We used a semi-structured questionnaire consisting of eight questions (detailed list found in the annex), which were slightly adapted to fit the position and background of each interviewee. Additionally, we reserved the flexibility to expand and dig deeper into different questions in case relevant information was brought up by the interviewee during the meeting.

A crucial step of the interview methodology constituted the qualitative analysis of the transcribed interviews using coding, which was done both manually by the authors, as well as by NVivo, a qualitative data analysis software. In a first step we coded the interviews very broadly according to the codes "climate change", "food security", "conflict", "recommendations", "Haiti", "Somalia", and "Burkina Faso" which we presupposed before analyzing the transcripts. We then further identified several key themes that appeared frequently throughout all the conducted interviews; among them for example most notably "community/community-led", "local society", "subsistence agriculture", "self-reliance", "resilience", "prevention", "climate adaptation", "early warning systems" or "climate investment". We also noticed repeated expressions of codes concerning the type of collaboration envisioned by interviewees for the future, for example "holistic", "integrated", "cross-cutting", "anti-siloed", "anti-fragmentation", "inclusive", "multi-stakeholder", and "multilateral". These confirmed the original findings of our literature review and were specifically helpful when formulating the recommendations section of this report. On NVivo we then further coded the transcripts automatically, establishing additional themes that shaped the interview answers.

The third stage of the methodology, the case studies, were themselves similarly conducted based on a mixed-methods approach, including the substages of a literature review, the carrying out of interviews, and a qualitative analysis of the interviews. By reviewing relevant literature, we identified the geographical regions where the effects of the climate-food-conflict nexus were most visible, which led to the choice of three country-specific case studies: Haiti, Somalia and Burkina Faso. All three countries offer compelling case studies due to similar patterns of acute vulnerability to environmental shocks, chronic political instability, and widespread food insecurity; moreover, they all currently experience active conflict which is compounded by climate-related challenges. Further, they each highlight diverse ways in which climate change, food insecurity, and conflict

intersect across different geopolitical contexts, ranging from floods, droughts, food scarcity, and mass displacement, to gang violence, armed conflict, and humanitarian crises. Together, these cases therefore provide a comparative lens on the multifaceted nature of climate-related food
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insecurity and conflict. Hence, in addition to the initial key informant interviews, we conducted another five interviews, speaking with practitioners, researchers and activists working specifically in Somalia, Burkina Faso or Haiti.

Case Study

SOMALIA

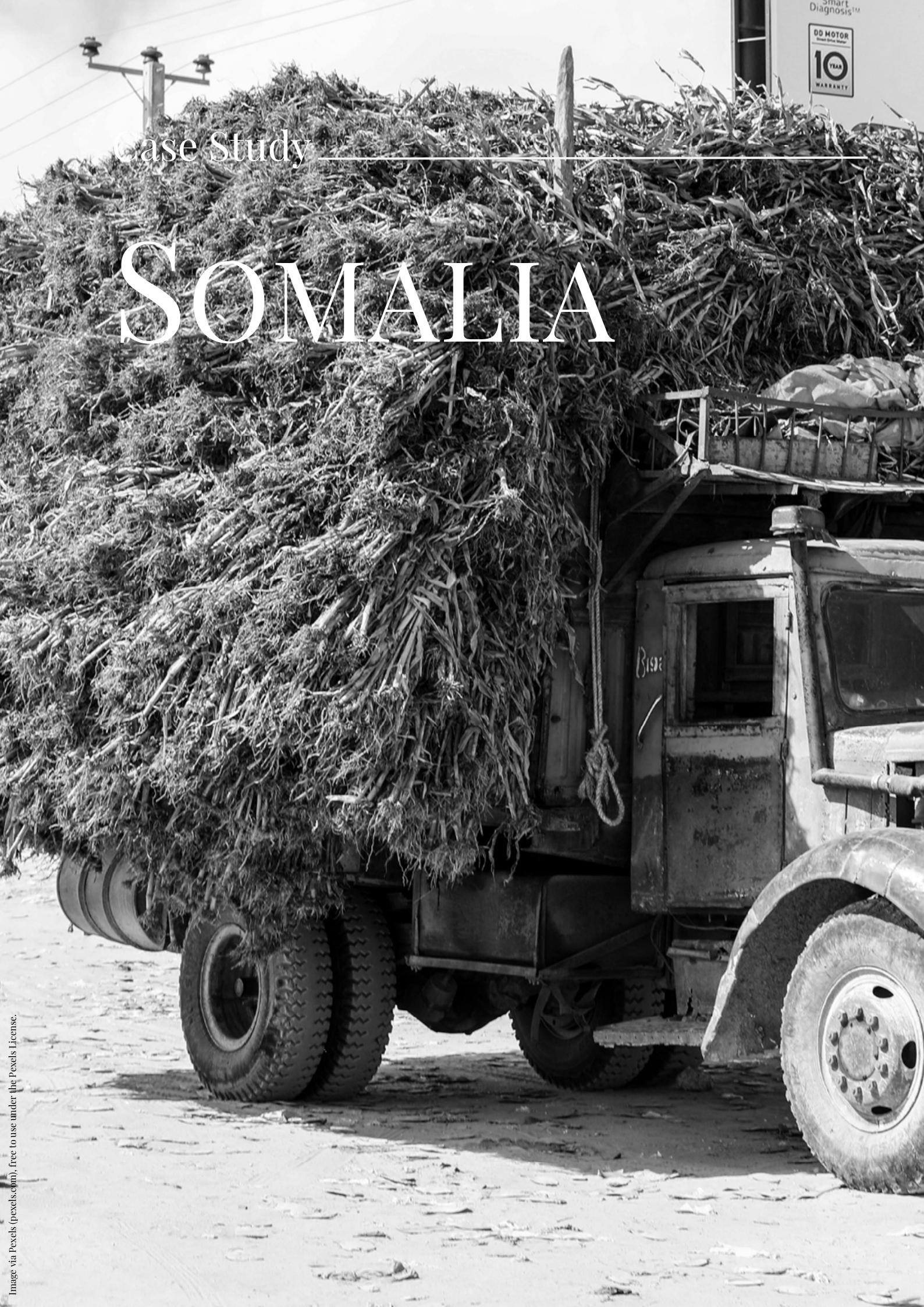


Image via Pexels (pexels.com), free to use under the Pexels License.

Source: UN Geospatial, December 2011

Between mid-2021 and early 2023, Somalia experienced its most severe drought on record, marked by five consecutive failed rainy seasons. This displaced thousands of people, decimated livelihoods, and pushed several regions to the brink of famine.[xxix] With projections indicating a temperature increase by 1.5–2.3 °C by 2050,[xxx] Somalia is a relevant case study to look at the relationship among climate-change, food insecurity, and conflict. These forces are not only present but mutually reinforcing: drought leads to crop failure and displacement, which in turn heightens competition over scarce resources, fuels conflict, and weakens state legitimacy.[xxxi]

What further complicates the crisis is the presence of armed groups like Al-Shabaab, that exploit environmental vulnerability and weak governance to gain control over land, water, and rural populations. Behind the role of armed actors there is an even deeper structural issue: fragile governance. With a political system shaped by clan dynamics, the Somali government struggles to respond to overlapping crises and leaves space for armed actors to fill the void.[xxxii]

Somalia's economy, with over 65 percent of GDP tied to agriculture, relies heavily on rain-fed systems.[xxxiii] Recurring droughts have caused crop failures and heightened food insecurity, particularly in the Lower Shabelle region, the central agricultural corridor, and the southern Bay and Gedo regions. These zones, traditionally key for farming and herding, have faced the most severe impacts of climate-induced drought.[xxxiv] The World Weather Attribution illustrates that in late 2023, these regions also experienced intense flooding driven by an unusually strong positive Indian Ocean Dipole, compounding the effects of previous droughts and displacing over a million people across Kenya and Somalia.[xxxv]

There are four key pathways that help navigate the complex relationship between climate change, food insecurity, and conflict in Somalia:

Livelihood Deterioration

The degradation of rangelands and water scarcity – intensified by drought – have undermined both farming and pastoral livelihoods. In response, pastoralists increasingly depend on boreholes, which, while useful for emergency access to water, tend to attract high concentrations of livestock during dry periods. This results in overgrazing and creates so called "sacrifice zones" – areas around boreholes that are intentionally or unavoidably overused to the point of ecological collapse, sacrificed to preserve access to water in the short term, while diminishing the long-term productivity of surrounding rangelands.[xxxvi]

This is compounded by the worsening of land degradation, as overgrazing becomes more common in areas with better rainfall and has direct implications for food security. In fact, the loss of livestock and declining crop yields reduce both food availability and household income.[xxxvii] Food prices soar due to scarcity, burdening already poor households and exacerbating malnutrition. Pastoralists communities are the most vulnerable, often investing their limited food and savings into saving herds – running the risk of further impoverishment during prolonged drought.[xxxviii]

Humanitarian food assistance can mitigate the immediate impacts of hunger in Somalia, but evidence suggests that the provision of food alone may not be enough to deter displacement if broader environmental and livelihood conditions keep deteriorating. In other words, while food aid may temporarily stabilize communities, many households will still opt to move in search of more secure futures if they have lost their sources of income and if the arable land has degraded. [xxxix] The WFP reports that improved rainfall and continued assistance briefly enhanced food security in Somalia; however, hunger is projected to rise again between April and June 2025 as another drought season looms, thereby threatening to displace more families while disrupting farming activities.[xl] In addition, flash-floods highlight the volatility of the climate, as communities that had barely recovered from drought were overwhelmed by rainfall extremes.[xli]

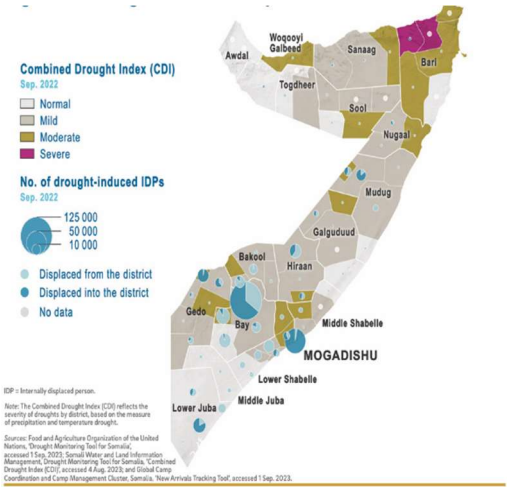
Migration and Mobility

In 2022, 1.3 million people were internally displaced by drought, and more than 600 000 by violent conflict. [xlii] Climate-related migration in Somalia plays an important role in accentuating local tensions, especially over cattle, in areas where nomadic pastoralists use seasonal migration to cope with adverse weather conditions.[xliii]

However, while mobility is strongly influenced by shocks such as drought and conflict, the motivation to leave a place of origin cannot be assigned to a single factor. While drought may be an immediate driver of movement, it usually reflects prolonged exposure to tension and food insecurity. In many cases, environmental or security shocks are tipping points in already strained contexts, making migration less a rational choice than a last resort.[xliv]

Importantly, who migrates varies, and the demographic patterns of displacement further reflect the structure of vulnerability: during droughts, men often stay to protect livestock, while women, children, and the elderly move. Owning cattle can delay migration decisions because the animals cannot be easily sold on the market as they lose their market value in times of drought, nor can they be taken to urban areas.[xlv]

Most displacement in Somalia is from rural to urban areas and it contributed to one of the highest urbanization rates on the continent, around 4.3 percent per annum, higher than the continent average of 4 %.[xlvi] The figure below shows this, illustrating how drought acted as a key driver of mobility across Somalia in September 2022. Most regions experienced mild to moderate drought, with the Bari region facing severe drought. Areas such as Bay, Gedo, and Bakool show high levels of displacement, with many internally displaced people moving from rural to urban areas.[xlvii]



Cedric de Coning et al., 'Climate, Peace and Security Fact Sheet: Somalia 2023', September 2023.

Military and Armed Actors

Somalia's governance has been fragmented by over three decades of conflict, operating under a clan-based model known as the '4.5 formula,' which allocates most parliamentary seats to the four main clans, with the remaining seats reserved for minority clans. [xlviii] This system is often source of grievances, undermining social cohesion and limiting government's capacity.

Among the most powerful non-state actors in Somalia is Al-Shabab, a jihadist militant group designated as a terrorist organization by the United Nations.[xlix] The group exerts *de facto* control over large parts of rural southern Somalia and some towns, particularly where the state presence is minimal.[l] Climate shocks have shaped Al-Shabaab's tactics and territorial strategies: it uses control over water and natural resources to generate revenue and exert governance. This dual strategy, which combines coercion and service provision, has made access to food and water a central axis of control. During droughts (2011, 2017, 2020-2023), Al-Shabaab taxes farmers and herders at checkpoints, imposes zakat (Islamic tax), and fines those who attempt to flee or seek aid in government-controlled areas. By weaponizing scarce food supplies and regulating the access to water points, the group has exerted its governance and generated revenues.[li]

Moreover, access to food and water has become a driver of violent competition between clans, particularly in contested regions where Al-Shabaab, clan militias, and federal forces look to expand their influence. For instance, tensions over fertile agricultural zones and grazing corridors – especially in the Bay, Bakool, and Lower Shabelle regions – regularly erupt into armed conflict.[lii]

Political Mismanagement and Economic Exploitation

In Somalia, the compounded effects of climate change and political mismanagement have severely strained local mechanisms for managing natural resources and resolving conflicts. When livelihoods are closely linked to natural resources and alternative income sources are limited, the risk of tension and conflict increases in communities already affected by climate change.[liii]

Urban and rural challenges are deeply interconnected. While urban areas are less dependent on farming, they are nonetheless affected by rural disruptions. Crop failures and livestock losses in rural regions lead to food shortages and price surges in urban markets, worsening food insecurity among urban populations. However, the government response remains limited due to financial constraints and ongoing security issues.[liv]

Climate change exacerbates local vulnerabilities, as well as creates opportunities for powerful clans to expand

and consolidate control over natural resources. Under the current clan-based power-sharing system, an estimated 30% of Somalis can be considered minorities, and they are disproportionately affected by climate disasters. In 2011, for instance, floodings in the Shabelle River Basin led to the displacement of minority clans and, when the floodwaters receded, the same lands were seized by more powerful clans.[lv]

Clan affiliations inform social, economic, and political structures in Somalia, and clans are a source of identity, financial support, and conflict resolution. Clan elders resolve conflicts with other clans and manage the distribution of financial compensation for injury caused to the members of other clans or damage done to their property.[lvi] The lack of a comprehensive framework for environmental protection and resource governance further complicates these issues. Somalia has historically lacked effective legislation and enforcement mechanisms to manage its natural resource sustainability, and this regulatory vacuum has allowed for the exploitation of natural resources by both state and non-state actors, often at the expense of vulnerable communities.[lvii]

Recommendations

1: Support Local Dispute Resolution

In Somalia, particularly in areas recently recovered from Al-Shabaab control – such as parts of Hirshabelle, Southwest, and Jubaland states – investing in Alternative Dispute Resolution (ADR) Centres is proving effective.[lviii] These centers leverage Somali customary law (*xeer*) and trusted clan elders or religious leaders (*sheikhs*) to mediate disputes over resource access. Scaling these up can ease tensions in communities where formal judicial systems are absent or distrusted. Specific support should focus on training mediators in climate-related conflict resolution, given the rising disputes over pasture and water due to drought. Additionally, government and NGO partners should ensure these centers are gender-inclusive, incorporating women peacebuilders who often mediate informally but are under-recognized.

2: State-Building Through Climate Services

At the national level, the Somali federal and state governments must build legitimacy through tangible, community-prioritized services. This includes reliable access to clean water, rangeland rehabilitation, and drought-resilient infrastructure (like sand dams and shallow wells). In regions like Bay, Bakool, and Galgaduud – where displacement and drought intersect – service delivery should be coordinated with local Somali NGOs who understand community dynamics and can bridge clan divides. Rather than centralized, donor-driven programs, the government should champion bottom-up and co-designed climate adaptation plans that align with local coping strategies and seasonal migration patterns.

3: Environmental Peacebuilding and Intergroup Collaboration

At the international level, actors should learn from successful programs like IOM's Deegan Bile, which uses climate adaptation as a tool for peace. This program works particularly well in conflict-prone areas of Puntland and Galmudug where disputes over grazing routes and borehole access have caused inter-clan clashes. Its "matching

grant" model – where funds are disbursed only when rival communities agree on joint resource management – should be expanded nationally and adapted to mobile pastoralist communities. Future iterations could include mobile water-trucking cooperatives or climate-resilient seed banks, co-managed by historically conflicting groups. Donors should prioritize flexible, long-term funding that enables trust-building over time rather than quick infrastructure fixes.

4: Enhance Food Security through Climate-Resilient Water Infrastructure

To address food insecurity in Somalia, a priority should be for the Somali government to develop large-scale and climate-resilient water harvesting and irrigation systems that support sustainable agriculture without degrading local ecosystems. These systems – such as rainwater catchment basins and solar-powered boreholes – should be tailored to the arid and semi-arid conditions of Somalia's regions and integrated with local agricultural calendars to maximize both crop yield and water waste. For these systems to be efficient, they have to be supported by protective environmental infrastructure: flood barriers like levees and gabions in flood-prone areas like the Shabelle and Juba River basins, can mitigate the impact of seasonal floods that often wash away topsoil and destroy crops.

5: Establish Community-Based Seed Enterprises to Achieve Seed Sovereignty

The seed assessment report from Middle Shebelle highlights that over 95% of farmers depend on informal seed sources, such as local markets, with limited access to high-yielding or drought-resistant varieties. [lix] Although private seed companies have recently entered the market, their reach remains minimal, and government seed institutions are virtually absent. As a result, many farming households continue to depend on humanitarian seed aid, which is not a viable or sustainable solution for long-term agricultural resilience.[lx]

In Somalia, seed sovereignty – the right of farmers to access, produce, exchange and control seeds adapted to their environments – is undermined by weak institutions and a lack of quality-control regulations, leaving them vulnerable to crop failures and dependence on aid or poor commercial varieties. Because reliable access to high-quality, locally adapted seeds is fundamental to food security, establishing community-based seed enterprises for producing drought-tolerant varieties under a regulated Quality Declared Seed system offers a strategic means to safeguard both seed diversity and farmers' capacity to feed their communities.

Case study

Burkina Faso

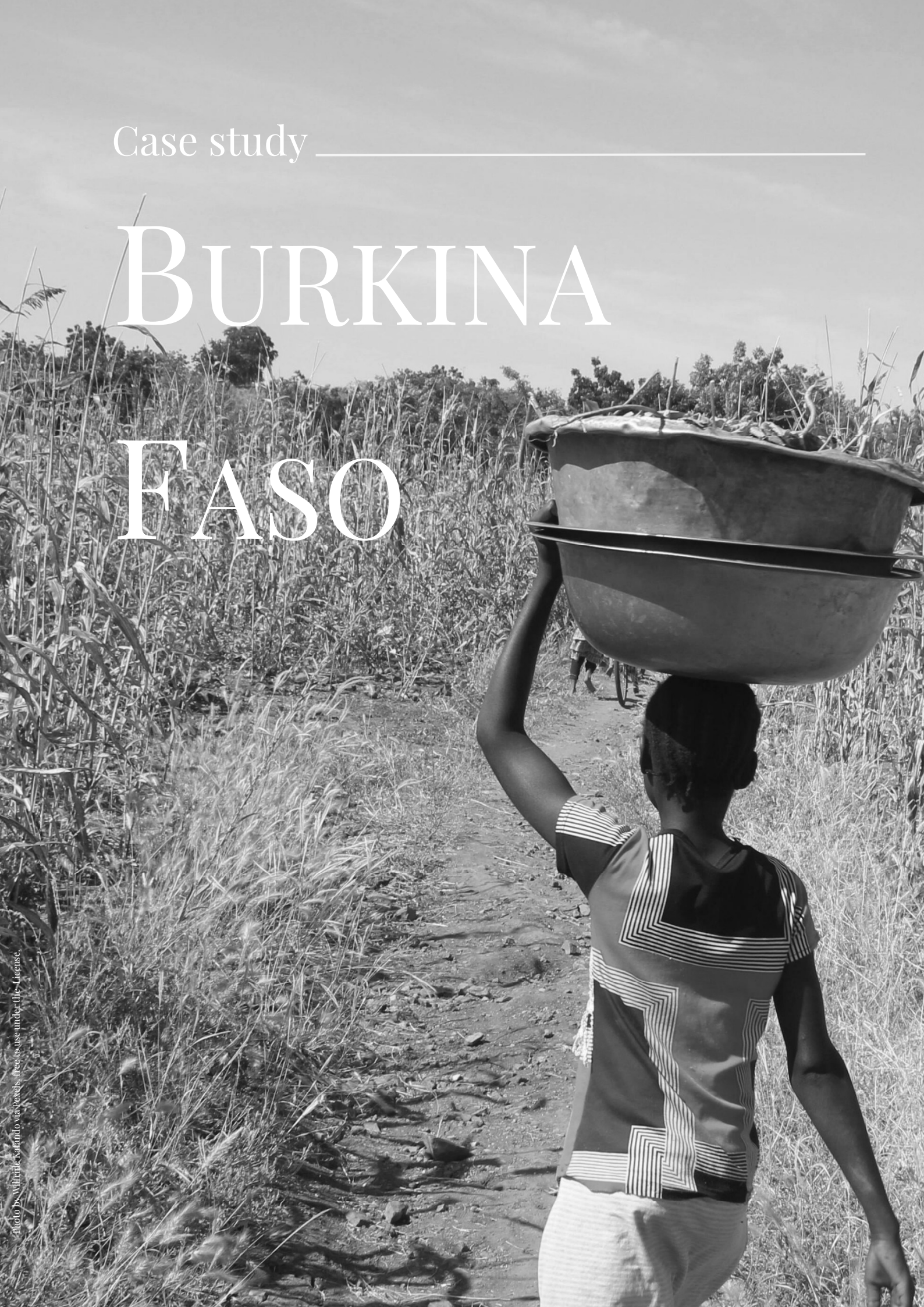


Photo by Willfrid Kakindo via Pexels. Free to use under the License.

Source: Burkina Faso Travel and Country Guide

Burkina Faso is highly relevant to our research as it offers a compelling and urgent case for understanding the intersection of climate change, food insecurity, and conflict. As one of the fastest-warming countries in the world, it faces recurring droughts, erratic rainfall, and severe land degradation, all of which have devastated its largely agrarian economy. [lxi] At the same time, escalating violence by armed groups has displaced over two million people and disrupted access to farmland, markets, and humanitarian assistance. [lxii] This dual stress from environmental degradation and insecurity has plunged nearly 3.5 million people into acute food insecurity, creating a vicious cycle of vulnerability. [lxiii] Even after the successful coup by Captain Ibrahim Traoré in September 2022, armed groups are still capitalizing on state absence and resource scarcity, using food and basic services as leverage to gain support. [lxiv] Burkina Faso illustrates how climate shocks, when coupled with institutional fragility and violent conflict, can lead to systemic collapse of food systems and deepen human insecurity. [lxv] Studying its crisis not only exposes the risks of climate-induced instability in fragile states but also highlights the urgent need for integrated, localized, and resilience-focused responses. [lxvi]

Domestic food production suffers due to climate impacts, and the cost of food has steadily increased, leading to heightened food insecurity, especially for low-income households. Imported food is also subject to price unpredictability, making Burkina Faso's economy even more vulnerable. More so, Hamid El Bilal emphasizes the importance of policy support to optimize and support adaptive strategies. [lxvii]

Burkina Faso's heavy reliance on rain-fed agriculture makes it particularly vulnerable to climate variability. This vulnerability is caused by high poverty levels, with over 9 million people living below the poverty line, thus lacking resources for effective adaptation measures. [lxviii] To address the challenges posed by climate change, adaptation strategies have been suggested to Burkina Faso, including conservation practices, climate-smart agriculture, irrigation, and crop diversification and intensification. While these approaches aim to enhance resilience against climate impacts, they often primarily focus on crops, failing to consider other factors. [lxix]

Additionally, rising temperatures and water scarcity have had a detrimental impact on Burkina Faso's livestock sector, crucial for the livelihoods of many rural communities. One of the most common consequences of limited grazing land due to prolonged droughts is competition over resources between farmers and pastoralists. [lxx]

Furthermore, climate change is fundamentally reshaping Burkina Faso,

manifesting as rising temperatures, severe storms, and unpredictable rainfall patterns. These changes are directly threatening agriculture, water resources, and infrastructure, creating considerable risks to food security and economic stability, particularly in resource-limited areas. More so, the main causes of conflict between farmers and pastoralists include poverty, population growth, and land degradation.[lxxi]

Currently, Burkina Faso is facing one of the most complex and rapidly deteriorating crises in the world, marked by a dangerous interplay of escalating armed conflict, climate-induced environmental degradation, deepening food insecurity, and institutional fragility.[lxxii]

There are four key pathways that help unpack the complex links between climate change, food insecurity and conflict in Burkina Faso.

Escalating Armed Conflict and Insecurity

Over half of Burkina Faso's territory is now impacted by armed conflict, with non-state armed groups primarily Jama'at Nusrat al-Islam wal-Muslimin (JNIM) and the Islamic State in the Greater Sahara (ISGS) expanding their presence and influence across the country. These groups have intensified their attacks on civilians, schools, and local markets, forcing more than 2 million people from their homes. As a result, Burkina Faso has emerged as one of the world's fastest-growing displacement crises.[lxxiii]

Armed groups are not merely operating through violence; they are strategically exploiting local grievances related to state neglect, inequality, and governance failures. In many rural areas, these groups offer alternative systems of justice, basic social services, and even food aid, positioning themselves as more reliable than state authorities. Critically, they are capitalizing on climate-related vulnerabilities such as drought and land degradation to gain legitimacy and control over communities by promising protection and access to scarce resources.

This pattern illustrates how conflict actors manipulate environmental and food security stressors to entrench their influence, contributing to a deeper destabilization of already fragile regions.

Climate Change Impacts on Livelihoods

Located in the heart of the Sahel, Burkina Faso is acutely exposed to the impacts of climate change. Temperatures in the region are rising at a rate 1.5 times faster than the global average. [lxxiv] Rainfall has become increasingly erratic, with longer dry spells, sudden flooding, and ongoing desertification eroding the natural resource base that supports agriculture and pastoralism, the lifeblood of most rural communities.

These changes have devastated traditional livelihoods. Crop yields have plummeted, grazing lands have shrunk, and water scarcity is becoming a daily challenge. The result has been a sharp increase in intercommunal tensions, particularly between herders and farmers competing over diminishing land and water.[lxxv] Climate change thus acts as a stress multiplier, exacerbating existing socio-economic vulnerabilities and fueling conflict over access to natural resources.[lxxvi]

Severe and Worsening Food Insecurity

As of 2024, an estimated 3.5 million people, roughly 15% of Burkina Faso's population, are acutely food insecure.[lxxvii] Many regions, particularly in the north and east, are classified under IPC Phase 3 (crisis level), with the specter of famine looming if conditions continue to deteriorate. [lxxviii] Armed conflict has severely disrupted agricultural production, trade, and humanitarian access. Farmers are often unable to plant or harvest due to insecurity, while road blockades and targeted attacks have made it nearly impossible for markets and aid agencies to reach the most vulnerable population. The result is a vicious cycle where climate shocks reduce food availability, conflict prevents response or recovery, and hunger further fuels local grievances and instability.[lxxix]

Governance and Humanitarian Challenges

Compounding the crisis is a governance apparatus struggling to maintain legitimacy and control. Successive coups most recently in 2022 have weakened the central government's ability to respond effectively to the overlapping crises.[lxxx] Large swaths of rural territory remain outside of state control, governed instead by armed groups or informal authorities.

Humanitarian agencies working in Burkina Faso face formidable barriers: growing insecurity, logistical challenges, and chronic underfunding. Despite the urgency of the crisis, humanitarian response remains fragmented and insufficient, undermined by both the threat of violence and limited coordination with local actors. [lxxxi] This underscores the critical role of governance in navigating the climate-conflict-food security nexus. Weak institutions, fragmented authority, and inadequate policy implementation have left millions unprotected in the face of converging threats.[lxxxii]

Recommendations

Informed by interviews with field experts and practitioners, the report proposes the following tailored recommendations.

1: Early Warning Systems (EWS)

In fragile settings where climate change intensifies food insecurity and social tensions, EWS serve as a critical line of defense. Experts emphasized the complex relationship between climate change, food insecurity, and conflict. Nortfolk suggested that these systems allow governments, humanitarian actors, and communities to monitor evolving risks and take early, targeted action before crises unfold. Rather than simply reacting to emergencies, EWS enables a shift toward anticipatory governance, a proactive approach to resilience-building that saves lives, preserves livelihoods, and helps prevent the eruption of conflict over dwindling resources.

Additionally, a compelling example of an effective EWS in action is Kenya's National Drought Early Warning System, implemented by the National Drought Management Authority (NDMA). This system was developed in response to Kenya's recurring droughts, particularly in its arid and semi-arid lands, which cover over 80% of the country's territory and are home to some of its most vulnerable populations.[lxxxiii]

2: Scale Up Climate-Smart Agriculture Tailored to Local Realities

As the country heavily relies on rain-fed agriculture, even minor climate anomalies can have devastating impacts. Experts highlight how adaptive practices such as drought-resistant crops, integrated soil fertility management, small-scale irrigation, and agroforestry can build resilience. However, these strategies must be conflict-sensitive, ensuring that new technologies or resources do not exacerbate local inequalities. Training programs should be participatory and gender-inclusive, recognizing the unique roles and needs of farmers, especially those in displacement-prone regions.[lxxxiv]

3: Invest in Farmer-Pastoralist Dialogues Mechanisms

Conflicts between farmers and herders over land and water are escalating due to prolonged droughts and shrinking grazing areas. Several interviewees like Andrew Harper underscored the need for sustainable dispute resolution mechanisms. Community-led dialogue platforms can help manage tensions by facilitating seasonal negotiation over transhumance routes, land access, and water points. These mechanisms should incorporate traditional leaders, civil society actors, and women to reflect local power dynamics and promote lasting agreements.

4: Enhance Mobility and Market Access in Insecure Zones

The growing presence of non-state armed groups has severely restricted movement and access to essential services. Many farmers are unable to harvest or sell produce, while humanitarian agencies face blockades. Interviewees working in field operations stressed the importance of humanitarian corridors and localized food systems that can operate under insecurity. This includes supporting decentralized markets, digital payment systems, and food banks that can continue functioning in besieged areas. Enhancing mobility is not just a logistical concern, it is a matter of food security and social cohesion.

5: Youth and Women Empowerment as Resilient Leaders

Women and youth are disproportionately affected by food insecurity and displacement, yet they are often underrepresented in formal governance and resilience-building structures. Interviewers advocated for their meaningful inclusion in peacebuilding, agricultural planning, and adaptation strategies. This means not just involving them in discussions but actively supporting their access to land, credit, training, and leadership positions. Empowering these groups also strengthens community networks and improves program sustainability.

Case Study

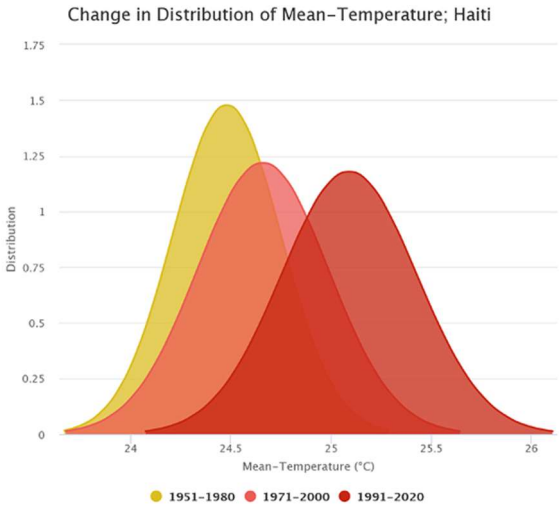
Haiti

The republic of Haiti is a key example of how historical legacies, colonial exploitation, ecological disasters, added with fragile governance can amplify the impacts of climate shocks. Haiti is currently facing a food-insecurity crisis affecting 5 million people due to persistent violence and displacement according to the WFP.[lxxxv] This crisis is driven not only by climate disasters and displacement, but also by the systemic collapse of food production and distribution, especially in rural communities. Haiti's relevance to this report lies in underscoring the role of historical and structural inequalities in shaping climate vulnerabilities, and the urgent need for locally led, trust-bases responses that integrate all at the same time adaptation with peacebuilding and food system resilience.

Historical Roots of Environmental Vulnerability

Haiti's vulnerability to climate change is deeply rooted in both its colonial legacy and its contemporary governance challenges. Since independence in 1804, Haiti has faced immense structural obstacles. [lxxxvi] In the aftermath of independence, the newly established state was forced to pay a crippling indemnity of 150 million francs to France in exchange for diplomatic recognition which is estimated today between $21 billion to $115 billion of economic loss.[lxxxvii] To fulfill these financial demands, Haiti resorted to loans [lxxxviii] and large-scale deforestation to export trees to France, [lxxxix] an act that severely compromised the country's environmental resilience, a historical moment that marks the early intersection of economic exploitation and environmental degradation. Throughout its history, the insular nation has faced numerous foreign interventions starting by the United States occupation of Haiti between 1915 and 1934 taking over all financial institution of the island in order to repay debts to American and French banks which is considered to 40% of Haiti's national income preventing the country from its essential need to develop further.[xc]

Climate Challenges and Rising Temperatures



Today, Haiti stands as one of the most climate-vulnerable countries in the world, facing compounded crises of political instability, environmental degradation, and food insecurity. One key factor supplying these challenges is the rise in temperature due to climate change, a trend that is clearly pictured in the chart. [xci] It identifies three periods, 1951 – 1980, 1971 – 2000, 1991 – 2020, the graph reveals a steady rightward shift in the curve of mean annual temperatures. This indicates a clear increase in average temperature over time. For the first period the mean temperature was centered at 24.4°C. Then we can see a slight shift for the second period with a mean centered at 24.6°C. By 1991-2020, this average had drastically changed to approximately 25.0°C. Even though a rise of

0.4°C can appear modest, its cumulative impact on agriculture, water resources, and human health is impactful, especially in a country already beset by systemic vulnerabilities.[xcii]

Warming Trends, Agricultural Fragility

Furthermore, the graphs show a narrowing and steepening of the distribution curves, suggesting that only is the climate getting warmer but also becoming consistently warmer reducing the variability of cooler years.[xciii] This reduces the periods of natural "cooling" that ecosystems and human systems can rely on. For a country such as Haiti, where a large part of the population depends on subsistence agriculture, this warning trend disrupts planting cycles, crop yields, and water availability. It also contributes to prolonged droughts and intense heat waves[xciv]. This graph is therefore more than just a representation of temperature change; [xcv] it's an essential indicator of growing systematic risk and food insecurity as climate trends increasingly destroy the natural systems and human practices that support food production. Therefore, it highlights the urgent need for targeted climate adaptation strategies, international supports and sustainable efforts adjusted specifically to high-risk country like Haiti.

Food Insecurity as a Lens into Structural Fragility in Haiti

The Haitian case shows that food insecurity is not only a result of climate change, but also a critical pressure point through which multiple vulnerabilities converge. Agricultural collapse, rising temperatures, water scarcity and economic shocks feed directly into a wider erosion of human security. As food is becoming increasingly scarce and unaffordable, existing inequalities deepen, public frustration grows and trust in institutions gradually diminishes.[xcvi]

This dynamic has been intensified by past aid and trade policies that weakened local systems. As one of our interviewees argued,[xcvii] aid to Haiti has long focused on crisis food assistance rather than building any sustainable agricultural capacity. Additionally, important trade decisions such as the reduction of tariffs on imported rice have allowed cheap, subsidized US rice to flood the fragile Haitian market, overtaking local farmers and undermining domestic production.[xcviii] Similar policies, such as the almost eradication of native creole pork in the late 1970s at the request of the United States and Canada because of fears that swine flu would spread throughout North America, have disrupted local livelihoods, wildlife and food self-sufficiency.[xcix] These legacies compound Haiti's climate and conflict vulnerabilities, making food insecurity both a symbol and symptom of deeper structural fragility.

Institutional Weakness and Local First Responders

The Haitian Ministry of the Environment (Ministère de l'Environnement), which oversees natural resource management and environmental protection, relies primarily on financial support such as the Green Climate Fund through initiatives like the "Enhanced climate resilience in the Trois-Rivières region of Haiti through Integrated Flood Management," which received US $22.4 million in fundings and aims to reduce the risk of climate-induced flooding through

sustainable land management practices.[c] Yet, the Ministry's operational capacity remains limited. Haitian communities are frequently the first responders to disasters such as earthquakes and hurricanes, but without adequate resources or institutional backing, their ability to effectively manage these events is severely constrained.[ci]

Urban Migration and Climate-Driven Displacement

Climate change, as already mentioned, has intensified environmental pressures in both urban and rural areas. Due to rising temperature, populations of insects grow faster; further, more frequent and severe droughts and floods have undermined agricultural productivity, forcing many young people to abandon rural livelihoods and migrate to urban centers such as Port-au-Prince and Cape Haitien, or to neighboring countries like Chile, Brazil and Dominican Republic. [cii] This urban drift increases existing socio-economic tensions and fuels unsustainable development patterns.

Governance Breakdown and Armed Group Control

According to one of our experts,[ciii] Haiti is plagued by a persistent lack of effective governance. The assassination of President Jovenel Moïse in 2021, followed by the shutdown of the National Assembly in January 2023, has left the country in a profound state of political paralysis. [civ] Currently, over 80-85% of Port-au-Prince is controlled by armed gangs, who are actively isolating the city from the rest of the country and the world by threatening Toussaint Louverture International Airport's security (PAP main airport) and being responsible for its indefinite closure.[cv] They are controlling key transportation routes around the capital which is currently leading to a shortage of essential products such as beans, particularly in regions like Artibonite, Nippes and the South (Sud), as well as participating in the rising of market prices. [cvi] This blockade directly compromises Haiti's food supply chains and deteriorates the national crisis of food insecurity. The legitimacy of the transitional government, while recognized by the international community, is widely challenged by the population demanding new elections.[cvii] It reflects a deep mistrust in the political leadership. Haitian leaderships are no longer just calling for reforms they are demanding resignation and deep structural change.

Political map of Haiti[cviii]

Failures of International Intervention and Dependency

The United States Nations Stabilization Mission in Haiti (MINUSTAH), deployed from 2004 to 2017, it has become symbolic of externally imposed solutions that has gone wrong. Linked to severe human rights abuses [cixcx] and the deadly 2010 cholera outbreak,[cxi] this has severely reduced public trust in international actors. Similarly, post-earthquake recovery efforts most of the aid through international NGOs rather than

Haitian institution - only 0.6% reached local organizations[cxii]. These approaches, though well-funded, failed to take account of local capacities, reinforcing a long-term cycle of aid dependency.

The Case for Local Ownership and Structural Reform

These failures highlight the need for a Haitian-led, locally owned response to climate adaptation, food-insecurity interventions, and peacebuilding. There is an imperative need for targeted interventions at the local level, where civil society organizations and grassroots actors have already demonstrated significant leadership. However, their efforts are often blocked by fragmentation and a lack of institutional support. There is limited coordination between UN agencies, international NGOs, and local stakeholders, despite shared objectives. Environmental and climate policy approaches continue to carry traces of top-down, post-colonial dynamics, weakening the very communities they aim to support. As such, these issues fall directly under the mandate of the UN Security Council and other global political intuitions looking to address the root causes of displacement, conflict and systemic vulnerabilities. Improving Haiti's resilience is therefore not just a moral duty, but a strategic priority for international peace and stability.

Recommendations

The following recommendations are proposed to address the challenges of climate vulnerability, food insecurity and political instability in Haiti. These actions are addressed to international organizations, Haitian institutions and the civil society, with a particular attention on promoting local ownership and inclusive collaboration accross sectors.

1: Strengthen Haitian Leadership at All Levels and Rebuild Trust Through Local Ownership

A Haitian-led approach must be at the center of all climate resilience and peacebuilding efforts. This naturally involves empowering and stabilizing Haitian institutions, leaders, and civil society to define priorities, lead implementation, and monitor results. Leadership must obligatorily come from within, guided by the lived experiences of Haitians and rooted in their visions for sovereignty, development, and dignity. Capacity-building programs, investment in local expertise, and inclusive governance structures are vital to reinforce Haitian ownership. The Armed Forces and Police need to be trained to fight gangs efficiently to keep supply chains secured, a trained Haitian stand a better chance to succeed than imposed external force. Community voices must also guide the design and implementation of climate and development projects. This includes multiple approach such as participatory planning processes, culturally appropriate consultation methods, and ongoing feedback mechanisms to ensure accountability. Building trust is a long process and involves long-term presence, transparent communication, and respecting local knowledge systems.

2: Networked Civil Society Mobilization

Local NGOs should be supported in building coalitions that transcend geographic boundaries and thematic silos. A networked approach can intensify advocacy, improve service delivery, and promote a holistic

response to interconnected challenges. Strengthening digital connectivity, shared resource platforms, and peer learning networks can help by enhancing collaboration, fostering innovation, and supporting sustained mobilization at both local and national levels.

3: Water and Energy Security

A coherent climate response must include at the same time water and energy security strategies. A lot of Haitians on the countryside are relying on rainwater to live properly due to the lack of hydraulic system. Access to clean water and sustainable energy is fundamental for both humanitarian response and long-term development. Investments should prioritize decentralized water systems, solar micro-grids, and inclusive water governance that ensures equitable access for marginalized communities. These interventions must be designed for resilience in the face of extreme weather events such as the growing numbers of hurricanes.

5: Ensure the Transitional Presidential Council Leads

The Transitional Presidential Council (TPC) must take a clear leadership role in overseeing humanitarian aid coordination, and make sure that foreign assistance is aligned with national priorities and reach the most vulnerable populations. This includes the establishment of transparent mechanisms to monitoring aid flows to avoid duplication between actors and making both national and international stakeholders accountable. The TPC must ensure that humanitarian efforts are integrated into longer-term recovery plans, rather than operating in isolation. By coordinating aid with the different ministries, local governments, and civil society, the council can help move from emergency response to sustainable development, thus restoring public confidence and reducing dependence on external actors.

5: Restore and Strengthen Food Security Systems

Addressing Haiti's food insecurity crisis must be paramount. Both international and national actors should invest in food systems that are resilient and at the same time deeply connected to Haitian communities. This includes connecting school feeding programs with local farmers to improve children' nutrition, while also supporting rural communities and livelihoods. Which mean helping farmers grow more food by supporting climate-smart agriculture, improving irrigation and ensuring they have a total control over their seeds. However, this is not possible without rebuilding and improving rural roads and infrastructure so that they can safely bring their crops to market. A particular focus has also to be made on protecting and maintaining vital food supply routes especially in areas affected by gang violence so that humanitarian aid can reach those who need it the most.

Common Themes

The presented findings from Somalia, Burkina Faso, and Haiti clearly illustrate that climate change, food insecurity, and conflict are deeply interconnected and have increasingly become inseparable. While these three countries differ in geography, political history, and governance models, the same patterns repeatedly emerge: climate change acts as a threat multiplier; government absence or institutional fragility leaves a vacuum for violence; food systems collapse under environmental and political pressure; and migration becomes a survival strategy, especially for youth. These are not abstract dynamics but lived realities in communities that are on the frontlines of cascading crises. The fact that we observe such consistency across very different contexts allows us to draw certain generalized conclusions, while at the same time remaining cautious not to assume one-size-fits-all solutions. This report does not propose a step-by-step manual. Rather, it offers a structural blueprint and a reflection on best practices that must always be adapted to the context-specific situation on the ground.

Climate Change as a Threat Multiplier

Firstly, in all three case studies, climate change does not act as the singular cause of conflict but rather exacerbates and accelerates pre-existing vulnerabilities. In Somalia, droughts are becoming more frequent and prolonged, decimating pastoralist livelihoods and driving entire communities into displacement. In Burkina Faso, increasingly erratic rainfall and extreme heat are degrading arable land and intensifying competition over scarce natural resources.[cxiii] In Haiti, rising temperatures and severe storms are shrinking the capacity of small-scale farmers to produce food, while making an already precarious living situation even more volatile.

The effect, thus, is that climate change undermines the resilience of both ecosystems and societies, turning otherwise manageable stresses into systemic crises. And while climate may not directly pull the trigger, it builds the pressure behind it. The framing of climate as a "threat multiplier" which we introduced as part of the reviewed existing scholarship in this report, therefore moves from theory to confirmed reality in these cases.[cxiv]

Collapsed Food Systems

In all three case studies, food systems are not just under pressure but are actively collapsing. Climate shocks such as drought, floods, or hurricanes destroy crops and diminish yields. Yet, these immediate impacts are only the beginning. We see in the case studies that because of their deep integration with land, water, labor, and transport, food systems are among the first and most severely affected domains under climate stress. As agricultural cycles are disrupted, soil fertility declines, and water sources become unreliable, the entire infrastructure supporting food production and distribution begins to erode. We also see, based on the case studies, that this happens especially in fragile settings where countries and communities are already weakened by decades of underinvestment, dependency on external imports, and lack of adaptive capacity. What pushes these systems into full collapse is the combination of environmental stress and conflict. Conflict does not simply disrupt food production, but dismantles the institutions, markets, and trust networks that hold food systems together. Once political violence or insecurity enters the picture, it amplifies the systemic fragility initiated by climate shocks, leading to full-scale breakdowns.

In Burkina Faso, farmers are prevented from planting due to insecurity.[cxv] In Somalia, inflation and supply chain disruption make food unaffordable for most. In Haiti, food markets are blocked by armed gangs, and supply lines are cut off entirely in some regions. What therefore emerges is a vicious feedback loop: climate change reduces food availability, which in turn heightens tension and triggers violence; conflict in turn prevents agricultural recovery or aid distribution, leading to deeper food insecurity.

Governance Failure and Systemic Paralysis

Each of the three case studies also demonstrates the consequences of failing governance systems. Whether it is the clan-based political fragmentation in Somalia, the recurring coups and institutional erosion in Burkina Faso, or the decades-long collapse

of governance in Haiti, the result is the same: an inability to respond to crisis. This failure doesn't just prevent recovery, but it actively worsens the crisis. From the case studies it becomes clear, that political institutions become part of the problem – either by being captured by elites, paralyzed by internal division, or completely disconnected and alienated from the communities they are supposed to serve.

State Absence Enables Armed Actor Opportunism

What becomes just as clear is the role that this systematic governance failure and concomitant state absence plays in allowing armed groups to step in and fill the void. In Somalia, Al-Shabaab has weaponized access to food and water, establishing a practically parallel system of governance in many rural regions. In Burkina Faso, armed groups like JNIM and ISGS provide basic services and even food aid where the state is unable to, using this access to manifest their presence and gain legitimacy.[cxvi] In Haiti, over 80% of Port-au-Prince is under the control of heavily armed gangs who manipulate food supply chains and dominate daily life.[cxvii] This trend underscores a troubling reality: when the state is weak or absent, it is not simply a void, it is a vacuum that gets filled, often by actors with vested interests in prolonging the crisis: in such contexts, violence becomes a form of governance.

Displacement and Urbanization as Survival Strategy

Finally, a further common pattern across all three countries is the role of migration, especially youth migration, as a last resort strategy. As climate shocks erode rural livelihoods, and conflict renders entire regions uninhabitable, people are forced to move. Most of this displacement is internal and often directed toward cities, which are themselves unprepared and overburdened. In Somalia for example, rapid urbanization is directly tied to displacement from climate-affected rural areas. In Burkina Faso, over 2 million people have been displaced, many now living in precarious urban peripheries.[cxviii] In Haiti, youth in particular leave rural areas to escape a cycle of drought, violence, and joblessness – where they are highly susceptible to be recruited into gangs and face violence. Displacement therefore emerges not as a plan but rather an emergency exit. And urban centers, instead of being a place of new opportunities, often reproduce the same cycles of instability and marginalization.

General Reflections

The common patterns highlighted across the case studies are not incidental – rather they reveal deeper structural trends that are likely to manifest in other fragile settings, as well. The goal of this report is not to offer prescriptive solutions, but to outline an evidence-based framework for understanding and responding to these multi-layered crises. It serves both as a platform for action and an early warning: countries currently experiencing similar stresses may not yet have reached the same critical tipping point, but without early intervention, they may soon follow. At the same time, it's important to emphasize that context always matters. The way that climate, conflict, and food insecurity interact in Haiti is not identical to Somalia or Burkina Faso. Local history, political structure, community dynamics, and cultural factors all shape how crises unfold and how solutions must be formulated. This report should therefore be

read not as a template, but even more so as a guide for adaptive, community-led, and system-aware policy development. Above all, these findings underscore the importance of listening to those most affected, investing in preventative action over reactive aid, and shifting from fragmented, siloed responses to holistic, integrated strategies. As climate shocks become more frequent and violent conflict continues to spread, the stakes are not just local – they are global.

Conclusion and Recommendations

Drawing on the identified common patterns and the interviews conducted with experts, researchers, and practitioners, we offer the following recommendations. Rather than the country-specific recommendations in the chapters before, these are phrased more generally and broadly to include various stakeholders on different levels. First and foremost, they are aimed at the UN level, including International Organizations. Although we advocate for a grassroots and a bottoms-up approach throughout this report, at this stage we encourage that UN agencies and institutions introduce recommended change from the top of their mandates and mainstream it throughout their departments. This is essential because we recognize that implementing structural reforms, especially cross-departmental ones, are most effective when initiated by a centralized authority with the capacity to coordinate efforts and allocate funding. Yet, the recommendations are also formulated in a way that ensures that local participation and community-led development is involved in every step of the process – which thus extends their scope of application beyond the international onto the national and local level.

1: Adopt Community-led, Integrated Policy Framework

Firstly, local communities need to be part of every step of any change or action that is related to or concerns them. We know that community-led development is more effective and sustainable because it addresses issues and challenges otherwise unseen by external players, enabling deep comprehensive action that is targeted to the actual lived experiences of affected communities. Secondly, the issue of climate change-induced food insecurity and conflict is already an intersectional and cross-cutting topic – it's impossible to approach it from just one angle or through one agency alone. By bringing together relevant policymakers and stakeholders, a shared empirical understanding can emerge, along with integrated projects that are sensitive to the complexity on the ground. This helps ensure that the multidimensional nature of the issue is mirrored in both the actors involved and the actions taken. Already established projects and programs working on climate security, climate adaptation, or peacebuilding across UN agencies like UNEP, UNDP, UNHCR, or WFP need to be synchronized and aligned more closely.

It is thus of utmost importance to adopt a community-led, integrated policy framework that fosters long-term, cross-sectoral partnerships – linking climate adaptation, peacebuilding, food security, and development – by meaningfully involving local communities, civil society, and vulnerable groups at every stage of design, implementation, and evaluation, to ensure context-specific, holistic, and sustainable solutions that break down institutional silos and uphold local agency.

2: Reframe and Expand SDG 2 "Zero Hunger" to Center Sustainable Food Systems and Structural Resilience

Across all case studies, food insecurity emerges not solely from a lack of production, but from the collapse of entire food systems under climate, political, and economic pressure. Current international frameworks like SDG 2 ("Zero Hunger") remain overly focused on production and caloric supply, neglecting exactly these underlying structural vulnerabilities that make food systems fragile in the first place. To effectively address climate-induced food insecurity in fragile settings, we believe it is essential to move beyond this narrow lens.

We therefore recommend that SDG 2 be reframed to prioritize resilient, sustainable, and locally governed food systems rather than output-focused strategies. This includes supporting agroecological practices, circular economies, and diversified rural livelihoods – with an emphasis on local food sovereignty, where communities have agency over how food is produced, distributed, and accessed. More specifically, this requires a general recognition that food systems are socio-political and ecological systems rather than just supply chains, addressing historical and structural inequalities in land access and governance (e.g. Haiti), and supporting local, community-led and climate resilient food strategies that reduce reliance on food aid. These must become part of the indicators and/or measurement evaluation of the SDGs, as well as general UN agencies and national governments.

3: Invest in Climate and Peace Education

Education plays a critical role in building long-term resilience to climate change and conflict. In fragile and conflict-affected contexts, it equips individuals and communities with the tools to understand risks, adapt to changing conditions, and advocate for sustainable, peaceful futures. Climate and peace education in particular helps to foster awareness, agency, and preparedness – especially among young people who are often the most affected, yet the least included in formal decision-making. This kind of education must be both locally grounded and strategically broad. It includes supporting indigenous knowledge systems, community-based learning, and youth movements, as well as strengthening institutional capacity at the national level. Climate adaptation, natural resource management, and conflict prevention must be understood not as separate sectors, but as interlinked fields of knowledge that can and should be taught across all levels.

We therefore recommend prioritizing sustained investment in climate and peace education to strengthen long-term resilience by empowering youth and communities, building local and institutional capacity in climate adaptation and natural resource management, integrating indigenous knowledge, and supporting awareness and learning at all levels: from grassroots movements to national governments and the UN system.

4: Establish Flexible, Context-Responsive (Climate) Financing Systems

Due to escalating budget cuts and funding shortages across the UN system, it is more important than ever to make smart, strategic use of existing financial resources. In line with the integrated policy approach recommended above, this begins with ensuring that budgets are flexible enough to adapt to local needs; otherwise, they risk being too broad and disconnected from the realities on the ground. It also means aligning financial support with projects that take an intersectional, cross-cutting, and holistic approach. Funding that supports, for example, isolated peacebuilding efforts without acknowledging their connection to climate adaptation or development will remain unsustainable and ineffective – ultimately reinforcing the cycle of recurring funding needs without addressing root causes. A further necessary step is a broader finance shift that moves away from reactive humanitarian emergency responses and toward forward-looking, preventive investments. Supporting communities in advance, before crises escalate, not only promotes long-term resilience but also reduces the financial burden of emergency relief and post-conflict reconstruction later.

We recommend establishing flexible, context-responsive financing systems that integrate climate, food systems, peacebuilding, development, and humanitarian sectors, ensuring timely, preventive investment – especially in high-risk areas. It is necessary to prioritize funding that reaches local communities and civil society directly, reduces fragmentation through large-scale partnerships, and enables sustainable, locally driven action by collaborating across public and private sectors.

5: Strengthen Early Warning Systems and Localized Climate Security Risk Analysis

This final recommendation builds on one of the cores aims of this report: to improve understanding of both common patterns and local dynamics in how climate change, food insecurity, and conflict interact. That extends to general evidence regarding the different ways and pathways the relationship between climate change, food insecurity and conflict manifests; for example, like the common patterns we identified in this report above. But further also to highly localized information about the specific ways that the climate-food-conflict nexus unfolds in different geographical locations. To achieve this, once again, affected communities, local scientists and practitioners need to be involved in the research process. This localized climate security risk analysis can then become the evidence foundation for early warning systems; made available to be used by national governments and local administrations; enabling the use of prevention mechanisms while upholding local agency.

We therefore recommend investing in early warning systems and localized climate security risk analysis to better understand and respond to the specific impacts of climate threats. Further, it is crucial to ensure that this information is accessible, relevant, and tailored to diverse stakeholders – including local communities, policymakers, and practitioners – so it can be effectively used to guide preparedness, strengthen food systems, and support targeted, context-specific action.

ANNEX

Key Questions

1. Based on your work experience, what is the correlation between climate change, food and conflict?
2. Based on your work experience, how does climate change contribute to (food) security risks? What role does food/food scarcity play in climate related risks and security?
3. Can you describe your work on the climate/food/conflict nexus to us?/ Can you describe the work you do in your position as xxx at xxx?
4. What is your opinion on the ways in which international policies and institutions are dealing with climate-related security and peace risks? Do you have in mind any (un)successful examples?
5. Is there anything you believe the academic community or international policy makers are currently overlooking when it comes to understanding and tackling the climate-peace-security-conflict nexus?
6. What recommendations would you make to local NGOs, national governments and the UN agencies for how to handle climate change induced (food) risks and conflicts?
7. How can stakeholders best implement in practice what researchers/experts recommend? Which problems do you see arising in implementing the said recommendations and how can these problems best be mitigated?
8. Who would you recommend us to engage with to further deepen our research?

Key Questions (Case Studies)

1. Based on your experience, what are the effects of climate change in the region, in particular on food systems?
2. What concrete examples of climate change driven conflicts have you observed as a professional working in the field?
3. Can you describe to us in detail what your work in the region and in the field entails?
4. Could you describe to us some (un)successful projects or measures that were implemented in the region that were supposed to tackle the issue?

Key informant interviews

Interview #	Interviewee	Date of interview
1	Andrew Harper *Special Advisor to the High Commissioner for Refugees on Climate Action, UNHCR*	03.03.2025
2	Cedric de Coning *Research Professor on Peace, Conflict and Development, Norwegian Institute of International Affairs (NUPI)*	04.03.2025
3	Annika Ericsson Pearson *Professional Facilitator and Community Organizer*	06.03.2025
4	Shannon Siyao Wang *Climate and Resilience Lead for Global Partner Countries, WFP*	14.03.2025
5	Eva Hansen *Climate, Peace and Security Specialist, FAO*	20.03.2025
6	Dr Florian Krampe *Acting Director of SIPRI Climate Change and Risk Programme*	21.03.2025
7	Grazia Pacillo *Co-Leader of CGIAR FOCUS Climate Security/Climate change resilience, food security and agriculture*	25.03.2025

8	Silja Halle *Manager of UNEP-EU Climate Change and Security Programme*	26.03.2025
9	Janani Vivekananda *Head of Climate Diplomacy and Security Programme, Adelphi*	04.04.2025
10	Kheira Tarif *Researcher Climate Change and Risk Programme, SIPRI*	17.04.2025

Key informant interviews (Case Studies)

Case study	**Interviewee**	**Date of interview**
Somalia	Hassan Mowlid Yasin *Executive Director of Somali Greenpeace Association, Global Climate Change Teacher, Expert on National Adaptation plans and Climate Change Security, Environmental Activist (based in Mogadishu, Somalia)*	22.03.2025
Somalia	Daniel Norfolk *Program Manager for Somalia, IOM*	25.03.2025
Burkina Faso	Seydou Lankoandé *Economist, Researcher, Activist at Suudu Andal Association (based in Ouagadougou, Burkina Faso)*	01.05.2025
Haiti	Beatrice Mosello *Senior Advisor on climate diplomacy and security, Adelphi*	17.03.2025

Haiti	Jessica Hsu *Independent Researcher, Community Organizer, Advocacy Consultant at Roots of Development (based in Port-au-Prince, Haiti)*	03.04.2025

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