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Climate Change as a Threat Multiplier: How Environmental Degradation Fuels Conflict in the Sahel

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Abstract

The Sahel region, a vast expanse just south of the Sahara Desert, has emerged as a critical nexus where climate change and insecurity converge. This opinion paper explores how climate change acts as a threat multiplier in the region, exacerbating entrenched vulnerabilities such as poverty, weak governance, ethnic divisions, and competition over diminishing natural resources. Environmental degradation manifested through desertification, drought, and water scarcity has undermined traditional livelihoods, spurred internal displacement and cross-border migration, and intensified violent conflicts, particularly between pastoralist and farming communities. These dynamics have been further exploited by extremist groups and non-state actors who capitalize on ecological stress and governance failures to recruit members, consolidate territorial control, and challenge state legitimacy. Although regional and international stakeholders, including ECOWAS, the African Union, the United Nations, and donor organizations, have initiated climate and security interventions, many efforts remain fragmented, reactive, and poorly coordinated. This paper calls for a strategic shift toward proactive, climate-

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sensitive peacebuilding that prioritizes inclusive resource governance, fosters regional collaboration, and strengthens grassroots resilience. Addressing the climate-security nexus in the Sahel demands urgent, integrated, and multi-level action to mitigate further destabilization and promote sustainable peace.

Keywords: Climate Change; Sahel; Threat Multiplier; Environmental Degradation; Conflict; Migration; Extremism; Resilience; Peacebuilding; Natural Resource Management

Introduction

The Sahel region, a vast semi-arid transitional zone situated between the arid Sahara Desert to the north and the more fertile Sudanian savannas to the south, spans over 5,400 kilometers from the Atlantic coast of Senegal in the west to Sudan and Eritrea in the east. It cuts across several countries, including Senegal, Mauritania, Mali, Burkina Faso, Niger, Chad, Sudan, and the northern fringes of Nigeria, Cameroon, and Ethiopia. The region serves as a climatic and ecological bridge, but it is increasingly becoming a zone of fragility and vulnerability due to both environmental and socio-political pressures.

Ecologically, the Sahel is defined by its fragile ecosystems, which are highly sensitive to climate variability. Rainfall is not only low—averaging between 150 mm and 600 mm annually—but also extremely unpredictable in timing and distribution. These conditions make the region particularly prone to droughts, desertification, and soil degradation. The majority of the population in the Sahel depends on subsistence farming, fishing, and transhumant pastoralism, making livelihoods highly susceptible to shifts in climate and resource availability (UNDP, 2020). Decreasing agricultural yields and the collapse of traditional grazing systems have strained community resilience and food security, especially in rural areas.

Socio-politically, the Sahel is one of the most unstable regions in the world. State institutions are often weak, underfunded, and lack legitimacy in the eyes of many local populations. This fragility is compounded by chronic underdevelopment, with many countries in the region ranking near the bottom of the UN Human Development Index. Widespread poverty, illiteracy, limited infrastructure, and high youth unemployment further contribute to social discontent. Additionally, the region has a long history of inter-ethnic

tensions, land disputes, and resource-based conflicts, often driven by competition over access to water, land, and grazing routes.

In recent years, these vulnerabilities have been further aggravated by the rise of violent extremism and organized crime. Armed groups, including jihadist insurgents affiliated with Al-Qaeda and the Islamic State, have established footholds in parts of Mali, Burkina Faso, and Niger, exploiting local grievances and governance vacuums. Human trafficking, arms smuggling, and cross-border banditry have also flourished in this security vacuum, creating a volatile environment. The resulting humanitarian crises—including mass displacement, food shortages, and loss of livelihoods—are closely linked to both governance failures and environmental degradation. Climate change has emerged as a significant "threat multiplier" in this context, intensifying existing challenges and making conflict and insecurity more likely (International Crisis Group, 2021; UNEP, 2020).

In this context, the concept of a"threat multiplier"is key to understanding how climate change interacts with existing vulnerabilities. According to the U.S. Department of Defense (2014), climate change acts as a threat multiplier by intensifying existing risks and pressures such as political instability, food insecurity, migration, and armed conflict. This means that climate change does not necessarily create new security threats, but it exacerbates existing social, political, and economic tensions, particularly in fragile regions like the Sahel (Werrell & Femia, 2017).

This opinion argues that climate change serves as a potent accelerator of conflict dynamics in the Sahel. As environmental degradation deepens through desertification, reduced rainfall, and rising temperatures it places additional pressure on already limited natural resources. These environmental changes lead to competition between communities (e.g., herders and farmers), increase migration and displacement, and undermine livelihoods. In turn, these dynamics foster grievances and conditions that can be exploited by armed groups and criminal networks. Therefore, the paper seeks to examine how climate-induced environmental degradation functions as a catalyst for conflict in the Sahel and to recommend policy responses that address both the environmental and security dimensions of the crisis.

Understanding the Sahel's Climate and Environmental Vulnerability

The Sahel region has historically experienced significant climate variability, alternating between prolonged droughts and sporadic periods of rainfall. From the 1960s through the 1980s, the Sahel underwent one of the most severe and sustained drought episodes in recorded history, resulting in widespread famine, displacement, and economic decline (Nicholson, 2013). These climatic fluctuations were largely attributed to changes in sea surface temperatures and atmospheric circulation patterns, which influenced the West African Monsoon system critical to rainfall in the region.

In recent decades, the Sahel has become a focal point of global concern due to the intensifying manifestations of climate change. Temperatures in the region are rising at a rate 1.5 times faster than the global average, while rainfall has become increasingly erratic and less predictable (IPCC, 2022). This climatic instability has accelerated desertification—a process where fertile land becomes increasingly arid and unproductive. Expanding desert conditions have led to the loss of arable land, rendering large areas unsuitable for agriculture and pastoralism (UNCCD, 2021).

Water scarcity has emerged as one of the most pressing environmental issues in the Sahel. With groundwater levels declining and surface water sources drying up, communities face acute challenges in accessing safe and sufficient water for both human and livestock consumption (FAO, 2018). Pasture degradation is another severe consequence of climate change, particularly affecting transhumant pastoralists who rely on seasonal grazing routes. The shrinkage of pastureland has triggered disputes between herders and farmers, as both groups increasingly compete for dwindling land and water resources (Benjaminsen & Ba, 2021).

Additionally, crop failures have become more frequent due to delayed rainfall onset, shortened growing seasons, and increased incidence of pests and plant diseases—all linked to shifting climate patterns. These agricultural disruptions threaten food security across the region, deepening poverty and driving people to migrate in search of more stable environments. The cumulative effect of these environmental stressors not only undermines livelihoods but also erodes community resilience, increasing the risk of conflict and social fragmentation.

Climate Change as a Threat Multiplier

The concept of climate change as a"threat multiplier"describes how environmental change exacerbates existing social, political, and economic stressors, thereby increasing the likelihood of instability and conflict, especially in already fragile regions (US Department of Defense, 2014). Rather than acting as a direct cause of violence, climate change intensifies underlying vulnerabilities such as poverty, weak governance, ethnic divisions, and resource scarcity—by adding new layers of pressure on limited systems and overstretched institutions (Werrell & Femia, 2017). In the Sahel, where communities are already grappling with structural insecurity, underdevelopment, and ethnic tensions, climate-related stress acts as an accelerant, making disputes more frequent, intense, and harder to resolve.

Environmental stress in the Sahel has sharply intensified intercommunal tensions. One key factor is the increasing competition over diminishing natural resources particularly water and arable land. As the frequency and severity of droughts rise, crop failures become more common and pasturelands shrink. These conditions have escalated tensions between sedentary farming communities and nomadic pastoralists, who both rely on the same land and water resources for their livelihoods. Farmers view the encroachment of herders as a threat to their crops and food security, while herders, facing desertification in their traditional grazing areas, are forced to move into farmlands in search of sustenance for their animals. This competition frequently leads to violent clashes, especially in places like Mali, Niger, and northern Nigeria (Benjaminsen & Ba, 2021).

The problem is compounded by the ethnic and political dimensions of these conflicts. Many of the pastoralist groups (e.g., Fulani herders) are ethnically distinct from the farming communities they encounter, and long-standing stereotypes and prejudices can easily escalate local disputes into broader communal violence. Moreover, the perception that governments favor one group over another either by failing to protect farmers from raids or by neglecting the needs of herders undermines state legitimacy and can fuel grievances that extremist groups exploit (International Crisis Group, 2021).

Another significant impact of climate change in the Sahel is the increase in migration and forced displacement. As livelihoods collapse under environmental strain, many people particularly young men migrate to urban centers or across borders in search of better opportunities. Others are forced to flee due to climate-related disasters such as floods or prolonged droughts. This large-scale displacement places pressure on urban

infrastructure, creates tension in host communities, and weakens traditional social structures. It also provides a fertile ground for recruitment by violent extremist groups and criminal networks, who offer displaced or unemployed youth a sense of purpose, income, or revenge (Rüttinger et al., 2015).

Climate change acts as a threat multiplier in the Sahel by worsening existing vulnerabilities, intensifying competition over resources, straining social cohesion, and undermining governance structures. These compounded effects contribute to the region's persistent cycle of violence, insecurity, and humanitarian crises.

Link between Environmental Degradation and Conflict

The relationship between environmental degradation and conflict in the Sahel is increasingly evident, with numerous case studies demonstrating how climate-induced stress contributes to violence, governance breakdown, and insecurity. Countries like Mali, Burkina Faso, Niger, and northern Nigeria offer clear illustrations of how ecological decline—driven by desertification, droughts, and land degradation—can trigger or intensify existing social tensions and armed conflict.

In Mali, prolonged droughts and desertification have significantly reduced agricultural productivity and grazing land, especially in the central and northern regions. These environmental changes have intensified competition between sedentary farming communities and nomadic pastoralists, leading to recurring clashes. Armed jihadist groups have exploited these tensions by positioning themselves as protectors of marginalized communities, particularly among the Fulani herders, thus fueling recruitment and expanding their territorial control (Benjaminsen & Ba, 2021).

Similarly, in Burkina Faso, the convergence of environmental stress, state neglect, and community grievances has led to escalating violence. In the northern provinces such as Soum and Oudalan, declining water availability and land degradation have exacerbated intercommunal competition. This has coincided with the growing presence of extremist groups who leverage these local disputes to sow chaos and undermine state authority (International Crisis Group, 2021). Climate change has not only heightened the struggle for scarce resources but has also made it more difficult for the state to provide essential services and maintain law and order.

In Niger, one of the countries most vulnerable to climate change, land degradation has significantly reduced the availability of pasture and farmland. The drying of Lake Chad and the shifting of rainfall patterns have contributed to recurring food crises, forcing people to migrate or engage in survival strategies that often bring them into conflict with other communities. This has weakened traditional conflict resolution mechanisms and made youth more susceptible to recruitment by armed militias and trafficking networks (UNEP, 2020).

Northern Nigeria presents another stark example of how environmental degradation intersects with conflict. Persistent droughts, soil erosion, and deforestation in the region have led to the southward migration of pastoralists into the Middle Belt and southern Nigeria, where they increasingly clash with farming communities. These farmer-herder conflicts have taken on ethnic and religious dimensions, resulting in thousands of deaths and the displacement of entire communities. Moreover, groups like Boko Haram have capitalized on the discontent and displacement caused by ecological collapse, using it to extend their influence (Okoli & Atelhe, 2014).

Environmental shocks such as sudden floods or prolonged droughts—serve as catalysts for violence by rapidly undermining local economies and livelihoods. When people lose access to productive land or face water scarcity, grievances mount, and the risk of resource-driven conflict increases. These shocks overwhelm already fragile governance systems, leaving local authorities unable to respond effectively or mediate disputes (Rüttinger et al., 2015).

The broader impact on state capacity and security in the Sahel is profound. Environmental degradation reduces the state's ability to manage natural resources sustainably or equitably, further eroding public trust. Insecurity hampers development efforts, restricts humanitarian access, and weakens state legitimacy. This vacuum creates fertile ground for non-state actors to fill the gap, offering protection or livelihoods where the state fails, thus perpetuating cycles of violence and underdevelopment.

V. Role of Non-State Actors and Extremist Groups

In the Sahel, non-state armed groups and extremist organizations have increasingly exploited environmental hardship as both a recruitment strategy and a means of consolidating control over vulnerable territories. As climate change degrades natural resources and erodes traditional livelihoods, it creates fertile ground for armed actors to

manipulate grievances, present themselves as alternative authorities, and fill the void left by weak state institutions (Benjaminsen & Ba, 2021). These groups capitalize on the desperation of marginalized communities—particularly unemployed youth and displaced pastoralists—by offering material incentives, ideological narratives, or protection.

One major tactic employed by these groups is the strategic manipulation of local resource conflicts, especially those involving herders and farmers. In central Mali and parts of Burkina Faso, for example, jihadist groups such as *Katiba Macina* (linked to Jama'at Nasr al-Islam wal Muslimin) have inserted themselves into herder-farmer conflicts by siding with pastoralist communities (often Fulani) who feel neglected or persecuted by state forces and rival ethnic militias (Thurston, 2020). By resolving disputes, offering security, and administering informal justice systems, these militants win local loyalty and legitimacy. The environmental stress caused by erratic rainfall, land degradation, and water scarcity has only sharpened these local competitions, creating more opportunities for extremist interventions (International Crisis Group, 2021).

Weak governance further compounds the problem. Many Sahelian governments lack the institutional capacity and political will to manage land equitably or deliver effective services in remote areas. Corruption, exclusionary politics, and heavy-handed military operations have often alienated rural populations, pushing them into the arms of non-state actors. For instance, in Niger and northern Nigeria, disillusionment with the state's inability to provide basic services or protect communities from environmental and physical threats has enabled groups like Boko Haram and the Islamic State West Africa Province (ISWAP) to recruit and operate with relative ease (Ibrahim & Cheri, 2018).

Another critical issue is the failure of climate adaptation policies. National and regional efforts to adapt to environmental stressors are often underfunded, poorly coordinated, or skewed toward urban areas. The lack of inclusive natural resource management policies means that pastoralist communities are rarely consulted in land-use planning, exacerbating tensions and making them susceptible to radical narratives. When communities feel excluded from development and environmental governance processes, they are more likely to support or tolerate insurgent actors who promise to represent their interests (Vivekananda et al., 2019).

Extremist groups in the Sahel, particularly in regions such as northeast Nigeria, have increasingly exploited environmental collapse and the resulting state fragility to

consolidate territorial control. Climate change has intensified ecological disasters—such as prolonged droughts, desertification, and the shrinking of water bodies like Lake Chad—which have devastated local economies and displaced millions. In many cases, government institutions have either been unable or unwilling to respond effectively to these crises, leaving vast rural areas without basic services or security. This governance vacuum has opened the door for militant groups, including Boko Haram and the Islamic State West Africa Province (ISWAP), to step in and fill the gap.

In these contexts, extremists have established parallel governance structures that mimic or replace state functions. For example, in parts of Borno, Yobe, and Adamawa states in northeast Nigeria, where state presence has effectively collapsed due to insecurity and mass displacement, Boko Haram has asserted control over key economic activities. These include the regulation of fishing in the receding waters of Lake Chad, where they impose taxes (locally known as"zakat") on fishermen and restrict access to those who pledge allegiance or pay protection fees. Similar systems have been reported in cattle markets and farming communities, where the group controls trade routes, imposes levies, and settles disputes through its own interpretation of Sharia law (Matfess, 2017; UNDP, 2020).

This informal authority structure is often more responsive—at least in the short term—than absent or predatory state institutions. In some cases, extremist groups offer security guarantees, adjudicate land or grazing disputes, and ensure access to natural resources in a way that appears orderly to marginalized communities. While coercive, this governance model capitalizes on the absence of formal rule of law and the failure of climate adaptation measures to reach vulnerable populations (Vivekananda et al., 2019). The perception that the group can provide livelihoods and stability—even if through violence—makes them more appealing to those with no viable alternatives.

Furthermore, environmental degradation has created economic desperation, especially among young men, many of whom have lost access to traditional livelihoods in agriculture and herding due to degraded land and water shortages. Extremist groups offer these individuals not only income and food but also a sense of belonging, status, and revenge against governments perceived as neglectful or hostile (Benjaminsen & Ba, 2021). The ecological collapse thus contributes to a vicious cycle: as militants take control of

resource-dependent economies, they generate revenue to expand their operations and intensify violence, which in turn displaces more people and further weakens state authority.

Environmental degradation in the Sahel has created a crisis of opportunity for non-state actors. As climate change undermines livelihoods and governance, extremist groups step in to provide services, exploit grievances, and recruit new members—deepening the region's cycle of violence and insecurity.

Regional and International Responses

Efforts to address the intersection of climate change and conflict in the Sahel have emerged at multiple levels—local, regional, and international—driven by the recognition that environmental degradation is exacerbating insecurity. Locally, civil society groups and community-based organizations in countries such as Mali, Niger, and Burkina Faso have undertaken initiatives to mediate farmer-herder disputes, promote sustainable land use, and restore degraded ecosystems through reforestation and soil conservation projects. For instance, The Great Green Wall Initiative, launched by the African Union in 2007, aims to restore 100 million hectares of degraded land across the Sahel by 2030, helping communities adapt to climate stress while improving food security and employment opportunities (UNCCD, 2021).

At the regional level, organizations such as the Economic Community of West African States (ECOWAS) and the African Union (AU) have increasingly incorporated environmental and climate issues into their security and development agendas. ECOWAS has launched several early warning and conflict prevention mechanisms that include environmental monitoring components. The African Union, through its Agenda 2063 and the African Climate Change Strategy, emphasizes climate adaptation, natural resource governance, and climate-resilient peacebuilding. The AU also supported the 2020 Bamako Declaration, which links peace and security with environmental sustainability in the Sahel (AU, 2020).

Internationally, the United Nations, European Union, World Bank, UNDP, and other donor agencies have mobilized resources and technical expertise to address climate-security challenges. The UN's Integrated Strategy for the Sahel (UNISS) and UNDP's Climate Security in the Sahel program aim to strengthen resilience, improve natural resource management, and reduce vulnerability to climate-related conflict (UNDP, 2020).

Additionally, donor-funded programs like the Sahel Alliance, comprising France, Germany, the EU, and other partners, invest in education, rural development, and climate-smart agriculture to address root causes of instability.

Despite these efforts, critiques persist regarding the reactive nature of many interventions. Much of the funding and programming has focused on short-term crisis response—such as emergency food aid and military support—rather than long-term resilience building. For example, military-heavy strategies such as France's Operation Barkhane and G5 Sahel joint security efforts have focused on counterterrorism while often neglecting the environmental and developmental drivers of insecurity (International Crisis Group, 2021). Critics argue that these approaches have failed to prevent the spread of violence, in part because they do not address the underlying ecological and socio-economic grievances fueling radicalization and conflict.

Another significant challenge lies in the limited integration of climate security into peacebuilding frameworks. Although the concept of"climate-security nexus"is gaining traction, many peace and security strategies still treat environmental issues as peripheral rather than central to conflict resolution. There is often a disconnect between climate adaptation plans and security programming, leading to fragmented interventions. Moreover, peacebuilding efforts rarely include climate-vulnerable groups—such as pastoralists or displaced farmers—as active stakeholders, which diminishes the inclusiveness and sustainability of such initiatives (Vivekananda et al., 2019).

While regional and international actors have made important strides in recognizing the links between climate change and conflict in the Sahel, existing responses remain largely reactive, militarized, and siloed. Bridging the gap between environmental management and conflict resolution will require proactive, integrated, and locally grounded strategies that place climate resilience at the core of peacebuilding efforts.

Policy Recommendations

To address the intertwined challenges of environmental degradation and conflict in the Sahel, an integrated approach is essential—one that combines climate adaptation, sustainable development, and conflict prevention. The following policy recommendations are proposed:

1. **Strengthening Climate Adaptation and Resilience Programs**: Governments and international partners should invest more robustly in climate adaptation strategies that are tailored to the unique environmental and socio-economic conditions of the Sahel. This includes promoting climate-resilient agriculture, water harvesting systems, drought-resistant crops, and early warning systems for climate-related disasters. Programs such as the African Adaptation Initiative (AAI) and the African Risk Capacity (ARC) should be expanded and better localized to support smallholder farmers and pastoralists (UNDP, 2020). National policies must also be aligned with the *Paris Agreement* and *Nationally Determined Contributions (NDCs)* to ensure long-term climate resilience in rural economies (IPCC, 2022).
2. **Promoting Conflict-Sensitive Natural Resource Management**: Environmental interventions must be sensitive to the social and political dynamics surrounding access to land, water, and forests. This means avoiding top-down land allocation policies that exclude marginalized groups like pastoralists or small-scale farmers. Governments should strengthen land tenure systems, formalize grazing routes, and promote inclusive decision-making processes in resource allocation. Conflict-sensitive approaches require integrating dispute resolution mechanisms and local governance structures—such as customary authorities and traditional conflict mediators—into environmental management strategies (Vivekananda et al., 2019).
3. **Enhancing Regional Cooperation and Cross-Border Strategies**: Given the transboundary nature of environmental issues and conflict dynamics in the Sahel, regional coordination is critical. ECOWAS and the African Union should lead efforts to harmonize climate and security policies across borders, particularly in the management of shared ecosystems such as the Lake Chad Basin and cross-border grazing corridors. Programs like the *G5 Sahel* and the *Sahel Commission on Climate-Security* should focus not only on security coordination but also on shared climate adaptation and resource governance frameworks. This includes improved data sharing, joint environmental monitoring, and coordinated peacebuilding initiatives (African Union, 2020; UNEP, 2020).
4. **Involving Local Communities in Environmental Governance and Peacebuilding**: Local ownership is crucial for the success and sustainability of any policy intervention. Communities most affected by climate change—particularly

women, youth, indigenous peoples, pastoralists, and farmers—must be actively involved in decision-making, project design, and implementation. Strengthening community-based natural resource management institutions and supporting local peace committees can help build trust, prevent conflict, and enhance environmental stewardship. Participatory mapping, village-level climate adaptation plans, and decentralized resource management are examples of practical tools that empower communities and increase resilience (Benjaminsen & Ba, 2021).

Conclusion

Climate change in the Sahel acts as a powerful threat multiplier, deepening existing socio-political and economic vulnerabilities. It exacerbates competition over scarce natural resources, fuels migration and displacement, and heightens intercommunal tensions, which are readily exploited by extremist groups and non-state actors. Environmental degradation in the region not only undermines livelihoods but also weakens state capacity, erodes social cohesion, and contributes to the spread of violence and insecurity. Addressing these interconnected challenges requires integrated climate-security approaches that combine environmental resilience with peacebuilding and inclusive governance. Climate adaptation efforts must be conflict-sensitive, while peace and security strategies should incorporate ecological realities as central components. Isolated, reactive interventions are no longer sufficient in the face of complex and compounding risks.

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