

Climate Change And Security In Africa: Emerging Threats And Policy Responses

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Abstract.

Climate change is a multiplier that exacerbates socioeconomic vulnerabilities and threatens governance institutions, climate change is becoming more widely acknowledged as a significant non-traditional security issue in Africa. The continent is disproportionately vulnerable to extreme weather events, such as protracted droughts, frequent flooding, desertification, and coastal erosion, even though it contributes less than 4% of the world's greenhouse gas emissions. In order to investigate how climate change worsens human insecurity, this study uses a qualitative, desk-based methodology. It draws from secondary sources from 2019 to 2025, such as scholarly publications, government reports, and institutional studies. The article, which is informed by the Human Security Theory, emphasises how climatic stress strains state capacity and erodes social cohesiveness while undermining livelihoods, food security, health, and housing. Particularly in the Sahel, Lake Chad Basin, and East and Southern Africa, climate-induced resource scarcity, displacement, and loss of livelihood intensify grievances and foster an environment that is conducive to violent extremism and communal violence. The analysis highlights how women, young people, and underprivileged groups are disproportionately vulnerable. The study comes to the conclusion that integrated approaches that connect human security, peace building, and climate adaptation are necessary for effective solutions. Strengthening community-based early-warning systems and mainstreaming climate hazards into security planning are two important policy recommendations., strengthening cross-border resource governance and encouraging gender-responsive adaptation initiatives. By offering a human security-centered paradigm for comprehending and reducing climate-related challenges, the research advances African security scholarship.

Key Word: *Human Insecurity, Resource Scarcity, and the Climate-Security Nexus*

Introduction

One of the most urgent non-traditional security issues facing Africa is climate change, which poses serious risks to sustainable development, peace and stability. The continent is disproportionately exposed to climate shocks, such as protracted droughts, irregular rainfall,

frequent flooding, desertification and coastline erosion, even though it contributes less than 4% of the world's greenhouse gas emissions (IPCC, 2024; UNEP, 2024). Particularly in vulnerable and conflict-affected areas, these environmental threats directly threaten livelihoods, jeopardise the security of food and water, increase health risks and harm infrastructure (AUC, 2024; UNDP, 2025). About 3.8 million people were displaced as a result of the Sahel region alone losing more than 2.5 million hectares of agricultural land between 2010 and 2023 (IOM, 2024).

This shifts the focus from state-centric military threats to the protection of individuals and communities from threats to survival, livelihoods, and dignity (UNDP, 2025). The aforementioned also doubles as the framework adopted for this study. This paper systematically explores the pathways through which climate change exacerbates human insecurity. It examines region-specific risks across the Sahel, East, West, and Southern which shifts the focus from state-centric military threats to the protection of individuals and communities from threats to survival, livelihoods, and dignity (UNDP, 2025). Beyond these immediate impacts, climate change interacts with pre-existing socio-economic vulnerabilities, weak governance, demographic pressures, and historical grievances to amplify insecurity. The paper provides evidence-based suggestions for creating climate-sensitive peacebuilding and adaptation methods suited for the African reality, by incorporating environmental, socioeconomic, and some aspects of governance.

2. Methodology

A variety of secondary materials, such as peer-reviewed journal papers, policy reports, institutional assessments, and grey literature created between 2019 and 2025, are used in this qualitative, desk-based study. These resources offer thorough treatment of the relationship between climate change and security in Africa (Barnett & Adger, 2024; Mach et al., 2024).

Data Sources and Selection:

The OECD (2024), the Intergovernmental Panel on Climate Change (IPCC, 2024), the International Crisis Group (ICG, 2024), the International Organization for Migration (IOM, 2024), the African Union (AUC, 2024), and United Nations agencies (UNDP, 2025; UNEP,

2024) are important sources. To assure empirical dependability, peer-reviewed literature about conflict, governance, resource scarcity, and climatic stress were given priority. Credibility, applicability, and recent publication date were used to assess sources in order to represent current climate-security dynamics.

Analytical Approach:

In order to find recurring trends and causal connections between climate change and insecurity, the study used thematic analysis, which is informed by Human Security Theory. The analysis revolved around three dimensions:

1. Human insecurities include food insecurity, displacement, health risks, and loss of livelihood (World Bank, 2024).
2. Governance and institutional resilience: preventing conflict, providing services, and state capacity (OECD, 2024; AUC, 2024).
3. Security consequences include violent extremism, friction brought on by migration, and intercommunal violence (ICG, 2024).

By analysing the effects of climate change in the Sahel, East Africa, West Africa, and Southern Africa, a comparative regional framework was used to highlight both regionally unique hazards and common vulnerabilities. To capture differential exposure and adaptive capacity, cross-cutting factors including gender, age, and marginalisation were incorporated (Barnett & Adger, 2024; Röllinger et al., 2024).

Limitations:

The study uses secondary data, which might not adequately represent informal conflict-resolution techniques or coping strategies at the local level. The accurate attribution of insecurity consequences to climatic shocks may also be impacted by discrepancies in climate data and regional reporting (Vivekananda et al., 2024). However, triangulation across several reliable sources increases the credibility of this study.

3. Theoretical Framework

3.1 Human Security and Climate Change

Human Security Theory extends the notion of security beyond conventional military threats to include economic, agricultural, health, environmental, personal, community, and political aspects, offering a people-centered framework for comprehending climate-related insecurity (UNDP, 2025). This strategy is especially pertinent in Africa, where structural inequality, poor governance, and environmental stress are more common causes of insecurity than interstate conflict (Barnett & Adger, 2024).

These vulnerabilities are impacted by climate change in a number of ways. Unpredictable rainfall, protracted droughts, and frequent floods threaten household income and food supply by undermining crop output, livestock husbandry, and fisheries (IPCC, 2024; World Bank, 2024). Communities compete when there is less access to food and water, thus escalating hostilities and raising the possibility of localised war (Vivekananda et al., 2024). As starvation, disease outbreaks, and forced migration are made worse by climate shocks, health and displacement risks increase (IOM, 2024; UNDP, 2025). Additionally, governance systems are under pressure, with weak institutions finding it difficult to maintain legitimacy, deliver necessary services, and handle disputes brought on by a lack of resources (OECD, 2024).

Human Security Theory incorporates these insights within a comprehensive analytical lens, whereas Political Ecology emphasises unequal power relations in resource allocation and Environmental Scarcity Theory emphasises the role of resource scarcity in driving conflict (Mach et al., 2024; Krampe et al., 2024). The paradigm provides a complex view of Africa's climate-security concerns by capturing both the direct material implications of climate change and the indirect socio-political consequences by connecting environmental stressors to social vulnerability, governance deficiencies, and potential conflict.

4. Discussion of Findings

Pathways Linking Climate Change to Human Insecurity

In Africa, there are several interrelated ways that the climate-security relationship functions. Environmental stress causes displacement, food and water shortages, health shocks, and loss of livelihood, all of which compromise human security. In turn, these forces weaken societal

cohesiveness, exacerbate complaints, and put pressure on governance structures, all of which foster conflict.

One of the main pathways is resource and livelihood stress, where poverty and malnutrition are made worse by decreased agricultural productivity, the loss of grazing lands, and dwindling fisheries (World Bank, 2024; Barnett & Adger, 2024). Human insecurity results from this stress, which in turn causes governance strain as states with limited adaptive ability find it difficult to manage migrant flows, provide basic services, and avoid conflicts (OECD, 2024; AUC, 2024). Identity-based conflicts and inadequate response mechanisms can lead to communal violence or allow armed organisations to take advantage of local weaknesses (ICG, 2024; Vivekananda et al., 2024).

The distribution of exposure to various routes is not uniform. Due to their restricted access to social security, political representation, finance, and land, women, youth, and marginalised communities are disproportionately vulnerable. Their vulnerability to climate shocks and associated insecurity is further increased by gendered labour divides, limited mobility, and exclusion from decision-making (Röllinger et al., 2024).

This analytical procedure demonstrates how climatic stress sets off a series of problems: environmental shocks cause food shortages, displacement, and livelihood degradation, all of which put pressure on governance systems. Grievances among impacted populations grow as state institutions find it difficult to address them, which can lead to violent outbursts, give extreme actors more power, and destabilise local communities and areas.

Climate Change and Emerging Security Threats

As a danger multiplier, climate change combines with identity-based conflicts, socioeconomic vulnerabilities, and ineffective governance to create complicated security issues. The competition for resources, displacement, and the growth of violent extremism are the areas where its consequences are most noticeable.

Resource Scarcity and Communal Violence

Droughts, desertification, and shifting rainfall patterns have increased competition between farmers and pastoralists because to the scarcity of arable land and water, especially in Nigeria, Chad, and Cameroon (Vivekananda et al., 2024; Buhaug et al., 2024). Violent disputes have been exacerbated by the southward migration of pastoralists into agriculture, poor land governance, the politicisation of ethnic identities, and insufficient dispute-resolution procedures. Long-term rural development and community cohesiveness are undermined by cycles of retaliation caused by prolonged scarcity (ICG, 2024).

Migration, Displacement, and Urban Insecurity

Significant internal displacement is caused by climate shocks such floods, droughts, and coastline erosion, which puts more strain on metropolitan centers (IOM, 2024). As a result of competition for limited resources, the growth of informal settlements, and restricted employment prospects, rapid urbanisation exacerbates social tensions and increases susceptibility to exploitation and crime (UNEP, 2024; OECD, 2024). The inability of municipal authorities to handle these issues frequently perpetuates cycles of insecurity and marginalisation in urban settings.

Armed Conflict and Violent Extremism

Climate stress erodes conventional coping strategies and governance frameworks in fragile environments, making communities more susceptible to recruitment by extremist and armed organisations (Mach et al., 2024). Non-state actors take advantage of human insecurity brought on by climate change in the Sahel and Lake Chad Basin by offering safety, food, or money in return for allegiance. By weakening state authority and integrating non-state actors into local economies and social networks, climate stress indirectly prolongs conflict (ICG, 2024; Vivekananda et al., 2024).

Regional Dimensions of Climate-Related Human Insecurity

Due to variations in natural conditions, socioeconomic systems, and governmental capabilities, the security consequences of climate change varies among African areas. Designing focused and successful interventions requires an understanding of these geographical factors.

a) **Sahel:** Particularly in nations like Mali, Niger, Burkina Faso, and Chad, accelerating desertification, decreased rainfall, and soil degradation have reduced pastoral resources and shrunk agricultural fields (ICG, 2024). Widespread forced migration, the collapse of livelihoods, and social disruption are caused by the intersection of these environmental factors with persistent insurgencies and a limited state presence. Conflicts between farmers and herders have escalated because to competition for limited resources, and extremist organisations are undermining regional stability by recruiting warriors by taking advantage of local frustrations. Poverty, political instability, and ecological stress have all contributed to a recurrent cycle of insecurity that jeopardises both domestic and international peace.

b) **East Africa:** Ethiopia, Somalia, Kenya, Tanzania, and other nations frequently experience severe droughts that interfere with pastoral and agricultural livelihoods (IOM, 2024). These protracted climate shocks put more burden on regional relief systems, worsen food insecurity, and increase reliance on humanitarian aid. Crop failure and water scarcity also increase competitiveness among communities, which can occasionally lead to intercommunal conflicts. Furthermore, mass migration both domestically and internationally strains metropolitan areas and social services, making women, children, and marginalised communities more vulnerable.

c) **West Africa:** Countries like Senegal, Ghana, and Nigeria are increasingly affected by land degradation, coastal erosion, and flooding (Vivekananda et al., 2024). Water and sanitation systems are threatened, urban infrastructure is harmed, and the rise of informal settlements is made worse by rising sea levels and intense seasonal rains. Farmers and pastoralists compete more fiercely in rural regions due to diminishing pasture and arable land, which exacerbates intercommunal tensions. Governance issues, such as lax enforcement of land-use regulations, insufficient dispute resolution procedures, and politicisation of ethnic identities, exacerbate these pressures and raise the likelihood of violence and displacement.

d) **Southern Africa:** Countries like Mozambique, Zimbabwe, and South Africa are being severely impacted by extreme weather occurrences, such as cyclones, floods, and protracted droughts (UNEP, 2024). Destroying infrastructure hurts livelihoods and hinders economic activity, especially in the transportation, electricity, and water systems. Food security is threatened by agricultural losses in rural areas, while municipal services are strained in urban centers due to increased migration from climate-affected areas. Long-term stability and development plans are at risk due to governance issues, such as inadequate resource allocation

and preparedness for disasters. The interaction of environmental stress, socioeconomic vulnerability, and governance deficiencies underscores the human security aspect of climate change in every place. These geographical differences highlight the need for multi-level, context-specific interventions that integrate social protection, conflict avoidance, and climate adaptation to improve resilience and lower insecurity.

Policy Responses: A Human Security Approach

In order to address climate-related insecurity in Africa, a human security-oriented framework that prioritises livelihood protection, governance structure building, and community-based conflict resolution must replace old, state-centric approaches. African nations have created national climate adaption plans that complement global frameworks like the Paris Agreement and the climate policy tools of the African Union (AUC, 2024). However, these tactics frequently function independently of human security, peace building, and conflict prevention goals, which limits their efficacy in mitigating the complex hazards associated with climate stress. Regional Economic Communities (RECs), such as ECOWAS, IGAD, and SADC, have progressively integrated climate threats into frameworks for preventative action and early warning systems.

Although coordination gaps, fragmented implementation, and unequal capacity among member states continue to exist, these activities have enhanced situational awareness and anticipatory responses, especially in climate-sensitive zones (Röllinger et al., 2024). Integrating traditional dispute-resolution techniques and local knowledge into formal governance structures is a key component of a human security-sensitive approach to peacebuilding. Additionally, it highlights the significance of inclusive decision-making, especially for marginalised groups, women, and young people who are disproportionately impacted by insecurity brought on by climate change (Barnett & Adger, 2024; Vivekananda et al., 2024). To reduce risks and foster long-term stability, policies that safeguard livelihoods, enable fair access to resources, and bolster institutional resilience are crucial.

In order to reduce vulnerability and inequality, climate risks should be mainstreamed into national security, development, and human security frameworks (UNDP, 2025; Krampe et al.,

2024); gender-responsive livelihood diversification and adaptation programs should be expanded (Buhaug et al., 2024); community-based early-warning, mediation, and conflict-resolution systems should be strengthened and linked to regional coordination mechanisms (OECD, 2024); and cross-border governance arrangements for shared resources, like water and grazing lands, should be promoted in order to improve cooperation and decrease conflict (AUC, 2024).

Policy and Research Implications

The results of this study have important ramifications for academic research as well as policy formulation. From a policy standpoint, African states ought to implement integrated climate-security plans that connect governance reform, peacebuilding, and climate adaptation. To stop violence from getting worse and to build resilience, interventions must focus on vulnerable populations, high-risk areas, and cross-border resource management. To lessen human vulnerability and the allure of recruiting extremists, it is especially important to invest in early-warning systems, catastrophe preparedness, and social protection initiatives.

Research-wise, more community-level empirical investigations are required to record locally driven adaptive techniques and informal coping mechanisms. By integrating social vulnerability analysis, political economy, conflict studies, and climate science, interdisciplinary research might improve predictive models of climate-related insecurity and facilitate more successful policy interventions. In order to identify causal pathways and evaluate the long-term effects of particular adaptation and governance strategies on lowering climate-induced human insecurity, longitudinal studies are particularly crucial. Africa can create more sophisticated, context-specific, and evidence-based solutions to the intricate security issues raised by climate change by connecting policy and research.

Conclusion

Climate stress exacerbates pre-existing grievances and undermines state capacity, creating conditions conducive to insecurity. Addressing these challenges requires integrated, people-centered strategies linking climate adaptation with peacebuilding, governance reform, and social protection. Climate change is a multifaceted human security challenge in Africa, acting as a

threat multiplier that deepens socio-economic vulnerabilities, weakens governance, and fuels instability. Its impacts go beyond environmental degradation, causing livelihood disruption, food and water insecurity, displacement, communal violence, and opportunities for armed and extremist actors.

Priority must be given to vulnerable groups, particularly women, young people, and marginalised communities. To avoid conflict and improve resilience, investments in early warning systems, community-based mediation, gender-responsive adaptation programs, and cross-border resource governance are crucial. It is no longer possible to view climate change as a side issue. To protect lives, improve governance, and advance lasting peace throughout Africa, human security principles must be incorporated into security and climate planning.

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