POLITICS & SECURITY
ISSN 2815-3324 Online, ISSN 2535-0358 Print

CLIMATE CHANGE AS A THREAT MULTIPLIER: ASSESSING ITS IMPACT ON RESOURCE SCARCITY, MIGRATION, AND POLITICAL INSTABILITY

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Abstract. *This article examines the conceptualization and application of climate change as a "threat multiplier" in global security discourse. Originating within the U.S. national security community, the term describes how the physical impacts of climate change interact with and exacerbate pre-existing social, economic, and political vulnerabilities, thereby multiplying threats to peace and stability. While the framework has been instrumental in placing climate change on the security agenda, it is also critiqued for potentially constraining policy responses to a reactive, management-oriented posture rather than promoting transformative change. This study employs a qualitative, comparative case study methodology to deconstruct the threat multiplier effect through its cascading impacts. It first analyzes the first-order impact of climate change on critical resources, with a focus on water stress in the Middle East and North Africa (MENA) and food insecurity in Sub-Saharan Africa and South Asia. It then investigates the second-order human consequence of climate-induced migration, examining patterns in the Sahel, Bangladesh, and Central America, and highlighting the profound legal and geopolitical challenges posed by the lack of international protection for "climate refugees." Finally, through in-depth case studies of Syria and Sudan, the article analyzes how these combined pressures can culminate in the third-order outcome of political instability and violent conflict. The analysis reveals that governance is the critical mediating variable determining whether climate stress leads to instability. The article concludes by assessing the policy responses of the United Nations, European Union, and the United States, identifying key gaps, and advocating for an integrated policy framework that merges climate adaptation, development, and peacebuilding to address the multifaceted nature of climate-related security risks.*

Keywords: Climate Change; Threat Multiplier; Resource Scarcity; Water Stress; Food Insecurity

1. INTRODUCTION

The discourse surrounding climate change has evolved significantly over the past two decades, moving from a predominantly environmental issue to a central concern of international peace and security. This shift has been catalyzed by the widespread adoption of a powerful, albeit contested, conceptual framework: climate change as a "threat multiplier." This introduction traces the origins and diffusion of this concept, establishes the critical debate surrounding its utility and implications, and outlines the objectives of this article, which seeks to systematically unpack the complex causal pathways through which climate change destabilizes vulnerable regions.

1.1. DEFINING THE "THREAT MULTIPLIER": A CONCEPT'S JOURNEY FROM A MILITARY TO A GLOBAL STAGE

The term "threat multiplier" was strategically coined in 2007 by the CNA (Center for Naval Analyses) Military Advisory Board, a group of retired U.S. generals and admirals led by Sherri Goodman (CNA Military Advisory Board, 2007; Goodman, 2023). The term was a deliberate and astute play on the familiar military concept of a "force multiplier," designed to frame the security implications of climate change in a language that would resonate deeply within the defense and national security communities (Goodman, 2023). Its core analytical function is to articulate how the physical phenomena of a warming world—such as rising global temperatures, changing precipitation patterns, and climbing sea levels—do not create security threats in a vacuum. Instead, they interact with and exacerbate a wide array of pre-existing vulnerabilities and drivers of instability, including poverty, infectious disease, terrorism, and weak governance (CNA Military Advisory Board, 2007; Hagel, 2014). This framing intentionally avoids the pitfalls of simplistic environmental determinism by emphasizing complex interaction and amplification rather than direct, linear causation (Busby, 2018).

The concept proved remarkably effective. It was rapidly adopted as the "primary lens" through which the U.S. national security community began to make sense of climate change (Dalby, 2024). It appeared in high-level speeches by officials like Secretary of Defense Chuck Hagel and was integrated into foundational documents such as the U.S. National Security Strategy and Department of Defense (DoD) adaptation roadmaps (Hagel, 2014; The White House, 2022). This framing allowed security analysts to aggregate a diverse set of climate impacts—from water and food shortages to increased demand for humanitarian assistance and the degradation of military coastal installations—into a coherent and pressing national security problem (Dalby, 2024). From this influential American context, the "threat multiplier" framing subsequently "jumped... to a global setting," permeating the discourse of international organizations like the United Nations (UN) and the European Union (EU), where it continues to shape policy and analysis (Dalby, 2024; European Union, 2008; Brown & McLeman, 2009).

1.2. A CONTESTED FRAMEWORK: "THREAT MULTIPLIER" AS A "DISMAL WORLDMAKING PROJECT"

Despite its widespread adoption, the "threat multiplier" framework is the subject of significant academic and policy critique. Some scholars argue that its ascendance represents a "dismal and limited worldmaking project" that, while successful in gaining attention, ultimately constrains effective action more than it enables it (Dalby, 2024). The critique posits that the framework is "dismal" because it fosters a pessimistic, mechanistic, and almost fatalistic view of the future—one of inevitable climate-intensified conflict, humanitarian disaster, and instability, particularly located in the fragile states of the Global South (Dalby, 2024; Read, 2021).

Furthermore, the framework is seen as "limited" because it channels responses toward incrementalist management of symptoms rather than promoting the transformative change—namely, rapid and systemic decarbonization—required to address the root cause of climate insecurity (Dalby, 2024). By framing climate change as a security threat, it aligns the problem with the existing bureaucratic mandates and operational modes of defense, intelligence, and security agencies. These institutions are inherently geared toward threat management, risk mitigation, and reactive response, such as hardening military infrastructure against sea-level rise or conducting climate-themed wargames (Dalby, 2024). This focus on adaptation within the security sector, while necessary, risks diverting attention and resources from the more fundamental, albeit more politically difficult, task of emissions reduction. This has led some analysts to argue that the framing is now outdated and that climate change should be viewed not as a mere multiplier but as the "main threat" or a "hyperthreat" in its own right, a challenge so foundational that it requires an entirely new strategic paradigm (PLAN E, 2022).

The very success of the "threat multiplier" concept has thus created a profound policy paradox. The term was a powerful tool for agenda-setting, successfully convincing a security-focused audience that

ISSN 2815-3324 Online, ISSN 2535-0358 Print

might otherwise have dismissed environmental concerns to take the issue seriously (Goodman, 2023). Yet, in doing so, it may have inadvertently locked the problem into a conceptual and institutional box that is ill-suited to delivering the most effective and holistic solutions. The framework can also carry a subtle geopolitical bias. Originating in the U.S. security community, its application often focuses on threats *emanating from* the Global South—instability in Africa, migration from Central America—that could impact the security interests of the Global North (Dalby, 2024; Koubi, 2019). This can externalize the problem, portraying vulnerable regions as sources of future threats to be managed or contained, rather than as the primary victims of a global crisis disproportionately caused by the historical emissions of industrialized nations. These dynamic risks prioritizing containment strategies, such as enhanced border security, over justice-oriented solutions like robust climate finance and technology transfer.

1.3. RESEARCH PROBLEM AND OBJECTIVES

The central research problem animating this article is the critical gap between the widespread political and institutional use of the "threat multiplier" concept and a nuanced, empirically grounded understanding of the specific causal pathways through which it operates. As critics have noted, the phrase itself "doesn't tell you much about what combination of factors we should be worried about" (Busby, 2018). It serves as a powerful but vague shorthand.

Therefore, this article aims to deconstruct the "threat multiplier" effect by tracing its cascading impacts through a multi-layered analysis. The objectives of this study are:

1. To review the theoretical foundations of the climate-security nexus, establishing a robust analytical framework for the study.
2. To systematically analyze the first-order impact of climate change on the degradation of critical natural resources, specifically water, food, and arable land.
3. To examine the second-order human consequence of this resource stress: climate-induced migration and displacement, and the associated legal and geopolitical challenges.
4. To investigate, through specific and detailed case studies, how these compounding pressures can cascade into the third-order outcome of political instability and violent conflict.
5. To critically assess major international and national policy responses to these challenges and provide evidence-based recommendations for a more integrated and effective climate-security architecture.

By pursuing these objectives, this article seeks to move beyond the slogan of "threat multiplier" to provide a detailed, evidence-based account of the mechanisms that link a changing climate to a more fragile and contentious world.

2. THEORETICAL FOUNDATIONS OF THE CLIMATE-SECURITY NEXUS

To properly analyze how climate change multiplies threats, it is essential to ground the inquiry in established theoretical frameworks. The concept is situated at the intersection of two evolving fields of study: environmental security and the climate-conflict nexus. This section reviews the key concepts from this literature, explains the analytical model that informs this paper, and highlights why a qualitative, process-tracing approach is vital for understanding these complex, context-dependent phenomena.

2.1. ENVIRONMENTAL SECURITY: FROM COLD WAR TO ANTHROPOCENE

The field of environmental security emerged from the environmental movements of the 1970s and gained significant academic and policy traction following the end of the Cold War (Read, 2021). Its core intellectual contribution was to broaden the traditional, state-centric, and military-focused definition of "security" to include non-military threats, such as environmental degradation (Read, 2021; Barnett, 2007). Early research, notably from the Toronto Group, sought to establish empirical, causal connections between environmental scarcity and violent conflict (Homer-Dixon, 1994). While influential, this initial wave of research was later criticized for sometimes overstating direct causality and for a disproportionate focus

on the Global South, a critique that remains relevant to the "threat multiplier" discourse today (Read, 2021).

A pivotal evolution in the field was the integration of "human security," which shifts the referent object of security from the state to the well-being of individuals and communities (Read, 2021; UNDP, 1994). This perspective is indispensable for analyzing climate change, whose impacts are ultimately experienced at the human level through threats to livelihoods, health, food, and physical safety (Read, 2021). This paper adopts a definition that synthesizes these state- and human-centric views, defining environmental security as the "ability of individuals, groups, or states to adapt to, mitigate, or avoid environmental change without critical adverse effects" that degrade their well-being and integrity (Read, 2021). Climate change thus represents the most profound challenge to environmental security in the Anthropocene.

2.2. THE CLIMATE-CONFLICT NEXUS: PATHWAYS AND MEDIATING FACTORS

The academic literature examining the direct link between climate change and violent conflict is characterized by vigorous debate and a lack of broad consensus on causality (Koubi, 2019; Selby et al., 2017). Most researchers now agree that the relationship is not one of direct cause-and-effect but is complex, indirect, and highly contingent on context (Koubi, 2019; Theisen et al., 2013; Detges, 2017). Instead of climate change directly causing war, it creates or exacerbates conditions that can increase the risk of conflict.

Recent literature reviews have converged on four primary, indirect causal pathways that link climate variability to violent conflict (Koubi et al., 2024):

1. Economic Shocks: Climate-related disasters or agricultural losses can depress economic activity. This reduces the opportunity cost of violence, making recruitment into armed groups a more attractive option for individuals with diminished livelihood prospects.
2. Agricultural Decline: The failure of crops and the erosion of food security can fuel widespread grievances against the state, undermine livelihoods, and lead to food riots or social unrest.
3. Natural Resource Competition: Increasing scarcity of essential resources, particularly water and arable land, can intensify competition and conflict between different livelihood groups, such as farmers and pastoralists.
4. Migration and Displacement: Climate-induced population movements can place new pressures on resources in receiving areas and, in some contexts, stoke social and ethnic tensions between migrant and host communities.

Crucially, the activation of these pathways is not automatic. Whether climate stress translates into violent conflict is mediated by a host of powerful contextual factors. The evidence consistently shows that the most important determinants are not the climatic variables themselves, but the underlying social and political conditions of the society they affect. These mediating factors include the quality of governance and institutional capacity to manage resources and resolve disputes; pre-existing socio-economic conditions like poverty, inequality, and dependence on climate-sensitive livelihoods; and political factors such as the political exclusion of certain groups, elite competition, and a history of inter-group tensions (Busby, 2018; Koubi, 2019; Mobjörk et al., 2020). This leads to a foundational conclusion: a society's vulnerability to climate-related conflict is more a function of its political and social resilience than its geographic exposure to climate change. Consequently, the most effective "climate security" policies may not be climate-centric at all, but rather those that focus on building good governance, inclusive economic development, and robust conflict resolution mechanisms.

2.3. ANALYTICAL APPROACH: BEYOND STATISTICAL CORRELATION

Given the complexity and context-dependency of the climate-security nexus, this article employs a qualitative, comparative case study methodology. While quantitative studies are invaluable for identifying

broad correlations, they often struggle to capture the intricate, non-linear processes that connect a climate shock to a political outcome (Selby et al., 2017; van Baalen & Mobjörk, 2018). Statistical models using fixed-effects, for example, can isolate a climatic effect on conflict risk but, by design, control for the very socio-political variables that explain the causal mechanism, leading to a situation where a model "actually tells us little" about the broader story of conflict (O'Loughlin et al., 2014).

More advanced methods like Structural Equation Modeling (SEM) and machine learning are beginning to quantify both direct and indirect pathways with greater sophistication (Koubi et al., 2022; Gao et al., 2022). However, a qualitative approach is uniquely suited to "process tracing"—that is, examining the sequence of events and the specific social, economic, and political mechanisms that link climate stressors to instability in a particular case. By systematically examining a diverse set of cases where climate has been implicated as a threat multiplier (e.g., Syria, Sudan, the Sahel), this study can identify common causal patterns as well as critical differences, providing a richer, more textured understanding than a purely quantitative analysis could offer alone.

This analytical approach is further informed by an emerging frontier in climate research: coupled social-climate models. Traditional models often treat the relationship as a one-way street: human socio-economic systems impact the climate (Menard et al., 2021). However, this misses the crucial feedback loop whereby climate impacts—such as extreme weather events or resource scarcity—in turn alter human behavior, social norms, and political dynamics (Menard et al., 2021). New models, often employing tools like evolutionary game theory, are being developed to capture these two-way feedbacks (Menard et al., 2021; Kahl, 2006). A key finding from this work is that social factors, such as high levels of economic inequality or social fragmentation (homophily), can themselves significantly worsen climate outcomes by hindering collective action on mitigation, leading to a higher peak temperature anomaly (Menard et al., 2021). This reinforces the central argument that social and political dynamics are not merely *outcomes* of climate change; they are fundamental *drivers* of the climate future, making social and political resilience a prerequisite for environmental stability.

3. THE FIRST-ORDER IMPACT: CLIMATE-INDUCED RESOURCE SCARCITY

The "threat multiplier" effect begins with a direct, physical impact: the degradation of the natural resource base upon which human societies depend for survival and prosperity. Climate change, through its influence on temperature and the hydrological cycle, is systematically intensifying the scarcity of water, food, and arable land in many of the world's most vulnerable regions. This section provides the empirical foundation for the subsequent analysis of migration and instability by detailing these first-order impacts, using regional case studies to illustrate their scale and severity.

3.1. WATER STRESS AND DESERTIFICATION: THE DRYING OF VULNERABLE REGIONS

Climate change directly intensifies water stress through multiple mechanisms: decreased and more erratic precipitation, increased evaporation from soil and reservoirs due to higher temperatures, and altered runoff patterns from the accelerated melting of glaciers. The Intergovernmental Panel on Climate Change (IPCC) projects that drought conditions in parts of Asia could increase by 5-20% by the end of this century (IPCC, 2022). This physical stress is often compounded by human factors, creating a potent recipe for crisis.

- *Case Study: The Middle East and North Africa (MENA)*

The MENA region is the epicenter of global water scarcity, home to 12 of the world's 17 most water-stressed countries (World Bank, 2023). Despite having nearly 6% of the global population, the region has access to only 1% of the world's renewable freshwater resources (Sowers et al., 2011). Climate change is a primary driver of this crisis, with scientific models predicting a 10-20% decline in rainfall by mid-century

(Sowers et al., 2011). This climatic pressure is dangerously amplified by rapid population growth, accelerating urbanization, and profound inefficiencies in water use, particularly in the agricultural sector, which accounts for up to 85% of all freshwater withdrawals (Sowers et al., 2011). The economic consequences of inaction are dire; the World Bank projects that unchecked water stress could reduce the region's GDP by as much as 14% by 2050 (World Bank, 2023).

A critical dynamic observed across the region is a vicious cycle of maladaptation. In response to climate-induced surface water shortages, farmers and governments turn to the only available alternative: groundwater. This leads to the massive and unsustainable over-extraction of non-renewable fossil aquifers. In Syria before the war, government subsidies for water-intensive crops like cotton encouraged huge inefficiencies in irrigation and massive groundwater pumping (de Châtel, 2014). In Jordan, groundwater is currently being extracted at a rate three times faster than its natural recharge rate (Sowers et al., 2011). This short-term coping strategy is deeply maladaptive, transforming a recurring climate problem (drought) into a potentially permanent resource crisis (aquifer depletion), creating a more profound and irreversible form of scarcity for future generations.

- *Spotlight on Morocco:* This North African nation provides a clear example of these converging pressures. Morocco has experienced a 30% reduction in average rainfall over the past two decades, severely impacting its water reserves and agricultural sector (Sowers et al., 2011). Detailed hydrological studies of its major river basins, such as the Ziz and Souss, reveal a system under extreme stress from both climate change and surging agricultural demand (Bouchaou et al., 2024; Karmaoui et al., 2019). Projections indicate a likely future decrease in water supply of up to 27%, threatening the viability of its agricultural economy (Karmaoui et al., 2019). In response, Morocco is pursuing a national strategy focused on large-scale infrastructure projects, including major investments in seawater desalination and wastewater treatment and reuse, to augment its water supply (Chatham House, 2024).
- *Spotlight on Jordan:* Jordan stands as one of the most water-poor nations on earth, with per capita water availability far below the threshold of absolute scarcity (Sowers et al., 2011; World Bank, 2025). Climate change is projected to reduce the country's already meager water resources by a further 30% by 2040 (World Bank, 2025). This climatic stress is compounded by immense demographic pressure, including a population that has more than doubled in a decade, partly due to the influx of refugees from regional conflicts. The arrival of Syrian refugees alone caused Jordan's national water demand to spike by 20% in just five years (Sowers et al., 2011). The crisis has forced the government to implement strict water rationing, with many households in Amman receiving piped water for only 12-24 hours per week, and has driven a dangerous reliance on the unsustainable mining of groundwater (World Bank, 2025).

3.2. FOOD INSECURITY AND AGRICULTURAL COLLAPSE

Climate change poses a fundamental threat to global food security, affecting all its core dimensions: availability (the physical supply of food), access (the ability of people to afford and obtain food), and utilization (the nutritional value of food) (WFP, 2016; Sowers et al., 2011). The mechanisms are varied and include direct impacts on crop yields from heat and water stress, shifts in the geographic range of agricultural pests and diseases, and the long-term degradation of soil and arable land (WFP USA, 2021; Theisen et al., 2013). A general rule of thumb for the tropics is that for every 1°C of mean temperature rise, staple crop yields can be expected to decline by approximately 10% (WFP USA, 2021).

- *Case Study: Sub-Saharan Africa*

The region is exceptionally vulnerable to climate-induced food insecurity due to its high dependence on rain-fed agriculture, which is intrinsically sensitive to rainfall variability, and its generally low institutional and financial capacity to adapt (Teka et al., 2024; Van Baalen & Mobjörk, 2018). The Food and

ISSN 2815-3324 Online, ISSN 2535-0358 Print

Agriculture Organization (FAO) has projected that climate change could lead to yield losses of up to 50% for key staple crops like maize, sorghum, and millet by the year 2050, a catastrophic outcome for a region already struggling with malnutrition (FAO, 2025). This agricultural stress is compounded by widespread land degradation and desertification, which already affects 45% of Africa's land area, with up to 65% of its productive land considered degraded (UN News, 2021). The Sahel, an arid band stretching across the continent, is a particular hotspot for these converging crises (WFP USA, 2021). The International Monetary Fund (IMF) confirms that climate change is actively intensifying food insecurity across Sub-Saharan Africa, with a series of recent climate shocks helping to push the number of people suffering from high malnutrition to 123 million in 2022 (IMF, 2022).

- *Case Study: South Asia*

South Asia is another region where climate change poses a grave threat to food security, driven by its high population density, large agrarian population, and exposure to a range of climate hazards (South Asia Times, 2025; World Bank, 2023). The IPCC projects significant declines in crop production across the region as warming continues. In India, for example, rice production could fall by 10-30% and maize production by 25-70% under warming scenarios of 1°C to 4°C (IPCC, 2022). The impacts are not just projections; they are already occurring. The devastating floods in Pakistan in 2022 inundated 1.7 million hectares of prime agricultural land (South Asia Times, 2025). Severe heatwaves in India have damaged wheat crops, forcing the government to impose export restrictions to ensure domestic supply, with ripple effects on global markets (South Asia Times, 2025; Zittis et al., 2021). The World Food Programme (WFP) consistently identifies South Asia as a region of high concern, where climate vulnerability, poverty, and hunger are deeply intertwined (WFP USA, 2021; World Bank, 2021).

These resource crises are not merely environmental; they are powerful drivers of economic restructuring and inequality. The collapse of agricultural livelihoods in vulnerable regions forces a mass migration of labor from rural to urban areas, as seen in pre-war Syria (Peace Agency, 2021; de Châtel, 2014). This can create a glut of low-skilled labor in cities, depressing wages and straining public services, while simultaneously decimating the rural economic base. Wealthier actors, whether individuals or nations, may have the capacity to cope by securing remaining resources or importing food, while the poorest lose their land, livelihoods, and food security. The result is a fundamental reshaping of national economies and a widening of the gap between the climate-resilient and the climate-vulnerable, laying the social and economic groundwork for future instability.

4. THE HUMAN CONSEQUENCE: CLIMATE-INDUCED MIGRATION AND DISPLACEMENT

As climate change degrades the resource base upon which livelihoods depend, it triggers a profound second-order impact: the movement of people. Climate-induced migration and displacement represent one of the most significant human consequences of the environmental crisis. This section analyzes the complex patterns and drivers of this mobility, explores the immense legal and geopolitical challenges it creates, and illustrates these dynamics through regional case studies.

4.1. PATTERNS AND DRIVERS OF CLIMATE MOBILITY: A MULTI-CAUSAL PHENOMENON

Climate-related human mobility is a complex and multifaceted phenomenon, not a single, uniform event. It is essential to distinguish between displacement caused by sudden-onset disasters, such as floods and cyclones that force immediate and often large-scale but sometimes temporary evacuation, and migration driven by slow-onset processes like drought, desertification, and sea-level rise, which tend to produce more gradual and permanent population shifts (Mobjörk et al., 2020; Rigaud et al., 2018; Schipper, 2020).

Crucially, migration is rarely a decision driven by climate factors alone. Research consistently shows it to be a multi-causal process where climate change acts as a potent "threat multiplier" for a host of underlying economic, social, and political drivers (IOM, 2023; American Security Project, 2019). A family may decide to move after their harvest fails (an economic driver), but that harvest failure was made more likely by a climate-driven drought. Studies have shown, for instance, that households experiencing crop losses are significantly more likely to have a family member migrate (IIED, 2025).

In many parts of the world, particularly the Sahel, mobility has long been a traditional and vital coping strategy. Seasonal and circular migration allows pastoralist and agricultural communities to adapt to environmental variability, diversify their income, and reduce risk (World Bank, 2024; Red Cross, n.d.). However, when climate pressures intensify to the point where migration is no longer a choice but a desperate act of survival (distress migration), it can lead to significant financial, social, and cultural losses for those forced to move (Red Cross, n.d.). This highlights a critical and often overlooked aspect of the issue: "trapped populations." These are often the most vulnerable groups—the elderly, the disabled, the extremely poor—who lack the financial and social resources to move and are left behind to face ever-deteriorating conditions (Schipper, 2020; Red Cross, n.d.).

4.2. THE GEOPOLITICAL CHALLENGE: A LEGAL VOID FOR "CLIMATE REFUGEES"

One of the most significant global challenges posed by climate-induced migration is the absence of a coherent international legal framework for the protection of those who cross borders. The term "climate refugee" is widely used in popular discourse, but it has no legal basis in international law and is a term that key agencies like the UN High Commissioner for Refugees (UNHCR) and the International Organization for Migration (IOM) have contested, preferring terms like "persons displaced in the context of disasters and climate change" (Global Governance Forum, 2022; The Wave, 2025; UNHCR, 2021).

The cornerstone of international protection, the 1951 Refugee Convention, defines a refugee as someone fleeing a "well-founded fear of being persecuted" for reasons of race, religion, nationality, membership of a particular social group, or political opinion (European Parliament, 2021). It was designed in the aftermath of World War II to protect people from state persecution and does not extend to those fleeing environmental degradation or natural disasters (European Parliament, 2021; McAdam, as cited in The Wave, 2025). This creates a "clear void" or a "legal limbo" in the international protection regime, leaving people displaced across borders by climate change without a recognized status or a clear set of rights (Global Governance Forum, 2022; The Wave, 2025).

While some legal scholars and activists are exploring alternative pathways for protection, such as arguments based on the fundamental "right to life" under international human rights law (as was tested in the landmark Teitiota v. New Zealand case before the UN Human Rights Committee), there is currently no legally binding international treaty specifically designed to protect climate migrants (Global Governance Forum, 2022; The Wave, 2025). This lack of legal status is not a mere technicality; it has profound real-world consequences, preventing the development and implementation of a predictable, coherent international framework for assistance, burden-sharing, and durable solutions (European Parliament, 2021). This legal void is not a simple oversight but reflects a deep-seated political reluctance among states, particularly in the Global North, to expand protection obligations that could apply to potentially hundreds of millions of people (IIED, 2025; The Wave, 2025). Given this political reality, progress is more likely to emerge from a patchwork of regional agreements, bilateral labor arrangements, and the slow evolution of human rights jurisprudence rather than a single, all-encompassing global treaty.

4.3. REGIONAL CASE STUDIES IN CLIMATE DISPLACEMENT

The Sahel: In this vast, arid region, mobility is a way of life. Population movement is overwhelmingly internal and often follows circular patterns, representing a centuries-old adaptation strategy to seasonal climate variability (World Bank, 2024). However, the intensification of climate change—manifesting as

prolonged droughts and accelerating desertification—is converging with rampant insecurity and conflict, transforming traditional mobility into forced displacement (Mobjörk et al., 2020; Mixed Migration Centre, 2025). Climate change intersects with economic distress, primarily channeling migration through economic pathways; for example, a pastoralist family might move in search of work after losing their herd to drought (World Bank, 2024).

Bangladesh: This low-lying, deltaic, and densely populated nation is often described as "ground zero" for climate displacement. The primary drivers are a combination of slow- and sudden-onset hazards: relentless coastal and riverbank erosion, sea-level rise that contaminates freshwater with salt, and increasingly frequent and intense tropical cyclones (Rigaud et al., 2018; Displacement Solutions, 2012). The World Bank has projected that, without significant global mitigation action, up to 19.9 million people in Bangladesh could become internal climate migrants by 2050 (IIED, 2025; World Bank, 2021). This mass internal movement, largely directed toward overcrowded urban slums in cities like Dhaka, is creating immense social pressure and new vulnerabilities (Displacement Solutions, 2012). Horrifyingly, recent research has exposed a direct link between this climate-driven distress migration and modern slavery, with one study finding that over 90% of internal migrants from climate-affected areas experienced at least one indicator of forced labor, such as debt bondage or withheld wages (IIED, 2025).

Central America's "Dry Corridor": Stretching across parts of Guatemala, Honduras, and El Salvador, the "Dry Corridor" is experiencing more frequent and intense droughts linked to climate change, which are devastating the subsistence agriculture that forms the backbone of the rural economy (American Security Project, 2019; Alianza MX, 2025). Here, climate change acts as a "hidden driver" of migration. The more visible push factors are food insecurity and extreme poverty, but these are direct consequences of the climatic stress on agriculture (American Security Project, 2019). This dynamic fuels migration flows north toward Mexico and the United States, creating significant regional instability and a major geopolitical and humanitarian challenge at the U.S. southern border (Alianza MX, 2025).

These cases reveal a crucial paradox of mobility: it is simultaneously a sign of resilience and a symptom of extreme vulnerability. The ability to move can be a proactive adaptation strategy. Yet, the inability to move can signal the deepest poverty, while forced, distress-driven migration can expose people to new and even greater risks than those they fled. This paradox demands a sophisticated policy response that focuses not just on managing or preventing movement, but on building in-situ resilience to expand people's choices, while also ensuring that when migration does occur, it is safe, orderly, and respects the fundamental rights of those on the move.

5. THE ULTIMATE THREAT: POLITICAL INSTABILITY AND CONFLICT

This section represents the culmination of the cascading impacts analyzed thus far. It examines how the first-order pressures of resource scarcity and the second-order consequences of mass displacement, when filtered through contexts of poor governance, pre-existing grievances, and social fragility, can escalate into the third-order outcome of political instability and violent conflict. This is the final and most dangerous manifestation of climate change as a threat multiplier.

5.1. FROM ENVIRONMENTAL STRESS TO SOCIAL UNREST: THE TIPPING POINT

The causal pathways from environmental stress to violent conflict are consistently shown to be indirect and context-dependent. Climate change does not in itself cause wars; rather, it acts as a powerful amplifier, exacerbating the known drivers of instability and pushing fragile societies closer to a tipping point (Koubi, 2019; von Uexkull & Buhaug, 2021). Several key mechanisms facilitate this escalation:

- *Erosion of State Legitimacy*: When a government is perceived as unable or unwilling to respond effectively to climate-related disasters, provide relief, or manage scarce resources equitably, it can suffer a catastrophic loss of legitimacy. This failure fuels popular grievances and can create a fertile

environment for anti-government protests and rebellion (de Châtel, 2014; von Uexkull & Buhaug, 2021).

- *Intensified Communal Competition*: The scarcity of vital resources like water and arable land can pit different livelihood groups against one another, most classically nomadic pastoralists against sedentary farmers. As climate change shrinks the available resource pie, traditional norms and mechanisms for sharing and dispute resolution can break down, leading to increased friction and violent communal conflict (Mobjörk et al., 2020; Carnegie Endowment, 2024; de Soysa & Rustad, 2010).
- *Exploitation by Non-State Armed Groups*: In regions with weak state presence, armed groups, insurgents, or terrorist organizations can exploit the chaos and desperation created by climate shocks. They can seize control of scarce resources (like water wells or fertile land) to fund their operations, or they can step into the governance vacuum, providing aid and services that the state cannot, as a means of winning support and recruiting fighters from desperate populations (Carnegie Endowment, 2024; Femia & Werrell, 2012).
- *Urban Instability*: The mass migration of people displaced from rural areas can overwhelm the infrastructure, housing, and job markets of cities. The growth of large, underserved slum populations on urban peripheries can create hotspots of social tension, crime, and political unrest, as seen in the lead-up to the Syrian civil war (Peace Agency, 2021; de Châtel, 2014).

5.2. CASE STUDY: SYRIA - DROUGHT AS A CATALYST FOR CIVIL WAR

The Syrian civil war is a canonical, though complex and contested, case study of the threat multiplier effect in action (Selby et al., 2017). The country experienced a historic and devastating drought between 2006 and 2010, an event that scientific research indicates was made significantly more likely and severe by anthropogenic climate change (Kelley et al., 2015; de Châtel, 2014; Gleick, 2014).

However, the drought's impact was catastrophically amplified by decades of the Assad regime's gross mismanagement of natural resources. Unsustainable agricultural policies, including massive government subsidies for water-intensive crops like wheat and cotton, had encouraged inefficient irrigation techniques and led to the severe depletion of the country's groundwater aquifers long before the drought began (de Châtel, 2014; Femia & Werrell, 2012). When the drought hit this pre-stressed system, the result was a complete collapse of agriculture and pastoralism in the country's northeast breadbasket. An estimated 75% of farming families suffered total crop failure, and herders lost up to 85% of their livestock (de Châtel, 2014).

This economic and social devastation triggered one of the largest internal displacements in recent history prior to the war, with up to 1.5 million people—mostly impoverished farmers and their families—forced to migrate from the countryside to the peripheries of already strained cities like Damascus, Homs, Aleppo, and Dara'a (Femia & Werrell, 2012; Kelley et al., 2015). The government's response to this massive humanitarian crisis was not one of assistance but of indifference and, eventually, repression. The state failed to provide relief, cut remaining subsidies which caused fuel prices to skyrocket, and ignored the simmering discontent (de Châtel, 2014). It was in the drought-stricken rural town of Dara'a that the initial protests of the Arab Spring in Syria erupted in March 2011. The protests, which initially followed the geographic path of the drought's impact, were met with brutal force, escalating a movement born of desperation and grievance into a full-blown, catastrophic civil war (de Châtel, 2014).

5.3. CASE STUDY: SUDAN - CLIMATE, RESOURCES, AND ENDURING CONFLICT

Sudan, and particularly its western region of Darfur, provides another stark example of how climate stress can interact with political and ethnic fault lines to fuel protracted conflict (Plowman, 2011). The region has experienced long-term climatic shifts toward greater aridity, punctuated by severe droughts in the 1970s and 1980s. This long-term desertification squeezed the available land and water resources, dramatically

ISSN 2815-3324 Online, ISSN 2535-0358 Print

intensifying competition between the region's main livelihood groups: traditionally nomadic Arab pastoralist tribes and sedentary non-Arab farming communities (de Soysa & Rustad, 2010).

As in Syria, this environmental stress did not cause the conflict in isolation. Its explosive potential was unlocked by political factors. The conflict was mediated by the breakdown of the traditional tribal administrative systems that had historically managed resource disputes. Crucially, the central government in Khartoum did not act as an impartial arbiter. Instead, to suppress a rebellion by non-Arab groups, it pursued a strategy of arming and supporting local Arab militias, which became known as the Janjaweed, effectively taking sides in the resource conflicts and transforming them into a militarized, ethnicized, and politically charged civil war (de Soysa & Rustad, 2010).

The new conflict that erupted in Sudan in 2023 is creating a new "perfect storm." The widespread violence is severely disrupting agricultural seasons, blocking the migratory routes of pastoralists, and destroying livelihoods, all while the country continues to reel from the underlying pressures of climate change. This is creating a devastating feedback loop where conflict exacerbates environmental degradation and resource scarcity, which in turn fuels more conflict, pushing millions toward famine and creating an environment where armed groups can thrive (Carnegie Endowment, 2024).

These cases powerfully illustrate that governance is the master variable. In both Syria and Sudan, the decisive factor that turned environmental stress into mass violence was not the drought itself, but the nature of the state. A predatory, incompetent, or biased government that mismanages resources, fails to provide relief, and instrumentalizes ethnic tensions for political gain is the ultimate threat multiplier. Furthermore, climate change is actively reshaping the geography of conflict. In the Sahel, desertification is pushing pastoralists south into farmers' lands, creating an expanding zone of friction (Mobjörk et al., 2020). In Syria, displacement shifted the locus of unrest from rural areas to urban centers (de Châtel, 2014). In the Arctic, melting ice is creating an entirely new theater for great power competition (Hagel, 2014; Dalby, 2024). Security analysis must therefore become dynamic, anticipating how these environmental shifts will create new friction points and drive conflict into new domains.

Table 1: Comparative Analysis of Climate-Conflict Pathways in Case Studies

Feature	Syria	Sudan (Darfur)	The Sahel
Primary Climate Stressor	Severe multi-year drought (2006-2010), intensified by long-term warming and drying trend.	Long-term aridification and desertification, punctuated by severe droughts (1970s-80s).	Accelerating desertification, rainfall variability, and prolonged droughts.
Key Mediating Factors	Predatory and authoritarian governance; decades of water resource mismanagement; pre-existing social grievances.	Breakdown of traditional conflict resolution mechanisms; central government's ethnic favoritism and militarization of local disputes.	Weak state presence and porous borders; widespread poverty; pre-existing farmer-herder tensions.
Primary Impact Channel	Catastrophic agricultural collapse leading to mass internal migration from rural to urban areas.	Intensified competition for scarce water and grazing land between pastoralist and farming groups.	Livelihood erosion, distress migration as a coping strategy, and resource competition along shifting ecological zones.
Manifestation of Instability	Mass urban unrest in response to government inaction and repression, escalating into a full-scale civil war.	Large-scale, militarized communal violence and insurgency, characterized by ethnic cleansing and mass displacement.	Escalation of localized farmer-herder conflicts; exploitation of instability by extremist and criminal groups.

6. POLICY RESPONSES AND GLOBAL SECURITY IMPLICATIONS

The recognition of climate change as a security threat has prompted a range of policy responses from key international actors. These strategies, while varied in their institutional implementation, show a remarkable convergence in their conceptual approach. However, a significant gap persists between the stated goals of integrated, preventive action and the often-siloed, reactive reality of implementation. This section evaluates the current policy landscape, identifies critical shortcomings, and provides recommendations for a more robust and effective global climate-security architecture.

6.1. MULTILATERAL AND REGIONAL STRATEGIES: A PATCHWORK OF RESPONSES

The United Nations: The UN's primary institutional hub for this issue is the Climate Security Mechanism (CSM), established in 2018 as a joint initiative of the Department of Political and Peacebuilding Affairs (DPPA), the UN Development Programme (UNDP), the UN Environment Programme (UNEP), and the Department of Peace Operations (DPO) (UN CSM, 2022; UNSSC, 2021). The CSM's core mandate is to strengthen the capacity of the entire UN system to better analyze and address climate-related security risks. It does this by providing direct support to UN field missions, assisting with integrated risk assessments, developing analytical tools, and fostering a UN-wide community of practice to share knowledge and best practices (UN CSM, 2022; UNFCCC, n.d.). Reflecting this mainstreaming effort, the UN Security Council has increasingly recognized the adverse effects of climate change on stability in its resolutions and mission mandates for contexts such as Mali, Somalia, Iraq, and Sudan (UNSSC, 2021).

The European Union: The EU has formally adopted the "threat multiplier" framing and made the climate-security nexus a central pillar of its foreign and security policy (Brown & McLeman, 2009). The 2023 Joint Communication on a new outlook on the climate and security nexus outlines a comprehensive strategy to integrate climate considerations across all areas of EU external action, from diplomacy and development to defense and humanitarian aid (European Union, 2023; Copernicus SESA, n.d.). Operationally, this involves leveraging the EU's unique assets, such as the Copernicus Earth Observation program, to provide data and analysis for early warning of potential climate-related instability, such as food shortages or resource competition. This information is intended to inform diplomatic engagement and the planning of Common Security and Defence Policy (CSDP) missions and operations (Brown & McLeman, 2009).

The United States: The U.S. has had a fluctuating history of acknowledging climate change in its top-level strategic documents, with attention varying significantly between presidential administrations (American Security Project, 2019). The current approach, articulated in the 2022 National Security Strategy, identifies climate change as the "greatest and potentially existential" shared problem facing humanity (The White House, 2022). The U.S. Framework for Climate Resilience and Security provides a whole-of-government strategy organized around three core pillars: (1) Assess the potential impacts of climate-related threats through better data and analysis; (2) Partner with allies and vulnerable nations for an integrated approach; and (3) Invest in collective resilience, particularly in fragile states (U.S. Framework for Climate Resilience and Security, 2024).

A striking feature of these policy frameworks is their conceptual convergence. Despite different institutional arrangements, the UN, EU, and US have all independently arrived at a similar diagnosis and a similar prescription. They recognize that the problem is complex, interconnected, and context-specific, and they agree that the solution requires better evidence-based risk assessment, the breaking down of institutional silos, and deep partnerships with allies and affected communities. This emerging de facto consensus provides a solid foundation for enhanced international cooperation on climate security.

ISSN 2815-3324 Online, ISSN 2535-0358 Print

Table 2: Comparison of International Climate Security Frameworks

Feature	United Nations	European Union	United States
Core Conceptual Framing	Climate-related security risks	Climate change as a "threat multiplier"	Climate resilience and security
Primary Institutional Mechanism	Climate Security Mechanism (CSM) (DPPA, UNDP, UNEP, DPO)	European External Action Service (EEAS) & CSDP Missions	Interagency Framework (NSC, DoD, State, USAID, etc.)
Key Tools/Activities	Integrated risk assessments, support to field missions, capacity building	Earth Observation (Copernicus), diplomatic engagement, CSDP planning	Strategic dialogues, intelligence analysis, President's Emergency Plan for Adaptation and Resilience (PREPARE)
Stated Priority/Goal	Mainstream analysis across the UN system and support integrated responses	Enhance EU security and defense by tackling climate-driven instability	Strengthen the stability of nations and the resilience of communities, at home and abroad

6.2. IDENTIFIED GAPS AND RECOMMENDATIONS FOR INTEGRATED POLICY

Despite this policy convergence, significant gaps remain that hinder effective action on the ground. There is a fundamental tension between the stated goal of prevention in these strategies and the predominantly reactive nature of the security institutions often tasked with leading them. Policy documents are replete with calls for foresight, early warning, and upstream action to "break cycles of crisis" (U.S. Framework for Climate Resilience and Security, 2024). However, the core competencies and bureaucratic incentives of defense and security establishments are geared toward responding to crises once they erupt, not conducting the long-term, complex development work needed to prevent them. It is institutionally easier to secure funding to harden a military base against flooding (a reactive, tangible task) than it is to fund a decade-long agricultural resilience program in a fragile state (a preventive, but more complex and less visible task). This creates a persistent implementation gap between preventive rhetoric and reactive reality.

To bridge these gaps, this analysis identifies three critical areas for improvement and offers corresponding recommendations:

- *Gap 1: The Research-Policy-Practice Disconnect.* A chasm often exists between the nuanced findings of academic research, the formulation of high-level policy, and the realities of on-the-ground implementation. Peacebuilding scholarship, for instance, frequently overlooks climate drivers, while climate security analysis often neglects the principles and practices of peacebuilding. This can lead to missed opportunities for synergy (Eklöw & Mobjörk, 2024).
    - *Recommendation 1: Mandate Integrated Climate-Security Risk Assessments***.** To close this gap, integrated risk assessments that analyze the interplay of climate, conflict, and social vulnerability must become a mandatory, foundational step for all conflict analysis, peacebuilding planning, and development and humanitarian programming in fragile and climate-vulnerable regions (Eklöw & Mobjörk, 2024).
- *Gap 2: The Siloed Nature of Responses***.** Despite the rhetoric of integration, interventions often remain confined to institutional silos. Climate finance mechanisms are not always designed to be conflict-sensitive, and peacebuilding programs are not always climate-proofed (Eklöw & Mobjörk, 2024). This can lead to the dangerous phenomenon of "maladaptation," where well-intentioned climate adaptation projects—such as building a new dam or irrigation system—can inadvertently create new

resource conflicts or exacerbate existing social tensions if they are not designed with a deep understanding of the local political and social context (Eklöw & Mobjörk, 2024; Schipper, 2020).

  - *Recommendation 2: Promote Conflict-Sensitive Adaptation and Peace-Positive Climate Finance.* All climate adaptation projects in fragile contexts must be designed using a conflict-sensitive, "do no harm" lens. Conversely, climate finance should be strategically leveraged to generate "peace dividends" by explicitly supporting projects that build cross-community cooperation, strengthen inclusive resource governance, and foster shared resilience (Eklöw & Mobjörk, 2024).

- *Gap 3: Insufficient Investment in Fragile Contexts***.** Fragile and conflict-affected states are, by definition, the most vulnerable to climate-security risks. Yet, they are often the most difficult environments in which to invest and are frequently bypassed by traditional climate finance due to perceived risks and lack of institutional capacity (U.S. Framework for Climate Resilience and Security, 2024; Eklöw & Mobjörk, 2024). This creates a critical investment gap precisely where the need is greatest.
  - *Recommendation 3: Bridge the Institutional and Financial Divide***.** International actors must create new and more flexible financing mechanisms specifically designed to operate in high-risk, low-capacity environments. This requires breaking down the institutional walls between climate, development, humanitarian, and peacebuilding actors to pool resources, share risks, and co-design interventions that build resilience at the nexus of these challenges. Furthermore, policy must move beyond top-down solutions by actively integrating local and indigenous knowledge and empowering local communities to design and lead adaptation and peacebuilding efforts that are legitimate and sustainable in their own context (Eklöw & Mobjörk, 2024).

7. CONCLUSION

Climate change is fundamentally reshaping the landscape of global security. This article has sought to move beyond the simple label of "threat multiplier" to systematically deconstruct the complex and cascading ways in which a warming climate undermines human and state security. The evidence demonstrates that the pathway from a climate shock to violent conflict is not direct or inevitable, but is mediated through a chain of interconnected crises, with the quality of governance standing out as the most critical variable determining a society's fate.

The analysis presented in this article confirms that climate change acts as a threat multiplier through a sequence of cascading impacts. The process begins with first-order impacts on the physical environment, most notably the intensification of resource scarcity. As demonstrated by the case studies of water stress in the MENA region and food insecurity in Sub-Saharan Africa and South Asia, climate change is directly degrading the essential resource base—water, land, and food—upon which societies depend.

This resource pressure triggers second-order impacts in the form of human consequences, chief among them being climate-induced migration and displacement. As livelihoods in rural areas collapse, millions are compelled to move, as seen in the Sahel, Bangladesh, and Central America. This mass movement creates its own set of challenges, from immense strain on urban centers to a profound protection gap in international law for those displaced across borders.

Finally, in societies already burdened by fragility, these combined pressures can escalate into third-order crises of political instability and violent conflict. The case studies of Syria and Sudan serve as powerful, albeit tragic, illustrations of this entire causal chain. In both instances, severe, climate-exacerbated drought combined with decades of political mismanagement and pre-existing social grievances to create the conditions for catastrophic civil war. They underscore the central finding that climate stress becomes a catalyst for mass violence primarily when it intersects with weak, predatory, or biased governance.

The primary conclusion drawn from this analysis is that siloed policy approaches to this multifaceted challenge are destined to fail. A climate adaptation policy that ignores local conflict dynamics risks maladaptation, potentially creating more conflict than it solves. A security policy that ignores the

underlying climate and environmental drivers of instability is merely treating symptoms, engaging in an endless and costly cycle of reactive crisis management. A development or humanitarian policy that does not account for future climate risks is unsustainable.

True, lasting security in the 21st century can only be achieved through a deeply integrated approach. Climate adaptation, sustainable development, and conflict prevention and peacebuilding must be seen not as separate policy domains, but as three essential and mutually reinforcing pillars of a single, coherent strategy for building resilient societies. This requires breaking down the institutional, financial, and conceptual walls that currently separate these fields of practice.

While our understanding of the climate-security nexus has advanced significantly, critical gaps remain. This article concludes by proposing several key avenues for future research that can help inform more effective policy and practice:

- *Evaluating Intervention Effectiveness*: There is a pressing need for more empirical, field-based research that critically evaluates the effectiveness of climate-security interventions. This should include a focus on identifying and understanding the potential for unintended negative consequences or maladaptation in climate adaptation and environmental peacebuilding projects (Eklöw & Mobjörk, 2024).
- *The Role of Local and Hybrid Peacebuilding*: Deeper investigation is needed into the role that local, traditional, and hybrid peacebuilding mechanisms play in successfully mediating climate-related resource conflicts. Understanding how to support and strengthen these indigenous capacities, rather than imposing external models, is crucial (Eklöw & Mobjörk, 2024).
- *Comparative Political Systems*: More systematic, comparative analysis is required to understand how different types of political systems—for instance, democratic versus authoritarian regimes—mediate climate-security risks differently. This could yield vital insights into the specific governance attributes that foster resilience.
- *Advancing Coupled Social-Climate Models*: Continued investment in the development of coupled social-climate models is essential. These models, which capture the two-way feedback loops between social dynamics like inequality and political polarization and physical climate outcomes, represent a vital frontier for understanding the deep integration of human and Earth systems (Menard et al., 2021; Koubi et al., 2022).

Addressing the security implications of climate change is one of the most formidable challenges of our time. It demands not only technical solutions and financial investment but also a fundamental shift in how we understand and practice security, moving from a paradigm of threat management to one of building shared, sustainable, and positive peace on a changing planet.

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