Understanding the Overlapping Realms of Climate and Security: Decoding Complex Relationships

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Abstract: *Climate change's recognition as a security issue has grown, paralleling the trend of treating non-traditional threats as security concerns. This shift has elevated climate change discussions to global platforms. While scholars agree on its potential to destabilize nations and communities, the multifaceted nature of security—spanning personal and collective dimensions—adds complexity. Two key strands emerged: one highlighting catastrophic climate change and the other focusing on human security. The research delves into areas like climate-induced conflicts and securitization, yet consensus remains elusive. Introducing the concept of human agency offers a dynamic approach to climate security discussions.*

Key Words: Climate Change, Non-traditional Threats, Security

Introduction

In recent decades, the recognition of climate change as a security concern has gained momentum among various stakeholders, including political figures, media pundits, and scholars. This trend is part of a broader pattern of securitizing "non-traditional threats, like HIV/AIDS and transnational crime, which began in the late 1990s." Over the past two decades, climate change has transcended its status as an environmental issue to occupy a prominent place on the global agenda, being deliberated at forums such as the UN General Assembly and within the corridors of the US military establishment (Hempel, 1993). A consensus among researchers underscores the potential of climate change to destabilize nation-states and communities. Furthermore, the pre-existing vulnerabilities faced by these entities, whether due to political conflicts or economic disparities, could be exacerbated by

the escalating impacts of global warming. Nonetheless, diverse perspectives on the nature of security, the intricate pathways that bind it to climate change, and the implications of climate-related security challenges for affected populations remain topics of ongoing debate.

A noteworthy complexity of these discussions is the multifaceted understanding of security, varying across individuals and institutions. Broadly defined, security conveys a state of freedom from danger or threat, encompassing personal and collective dimensions. Threats can be tangible or perceived, immediate or foreseeable. "A distinction is often drawn between 'hard security,' which pertains to military actions and related institutions, and 'soft security,' which pertains to people's access to vital resources such as food and water. Central to climate change deliberations, however, is the

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bifurcation of security into 'state security' and 'human security.' State security" (Haris, 2012) pertains to a nation's capacity to mitigate climate-induced threats that jeopardize its sovereignty, military prowess, and international influence. Yet, this capacity faces a potential compromise as climate change challenges the very foundations on which these capabilities rest. The ramifications extend to human security, which encompasses an array of concerns ranging from economic and environmental aspects to health, community, and personal safety. This comprehensive notion of security transcends physical well-being, embracing social, psychological, cultural, and symbolic dimensions (Riedy, 2016).

The origin of the "climate security discourse can be traced back to broader apprehensions about environmental security that emerged during the 1980s, as encapsulated by the 1987 publication "Our Common Future" by the World Commission on Environment and Development. These concerns emerged amid shifts in the global order following the end of the Cold War, where the spectre of global environmental transformations gradually replaced the immediate threat of nuclear conflict. Since then, climate-security discourse has unfolded along two primary strands. The first strand, as posited by Oels, centres on the peril of catastrophic climate change stemming from international failure to constrain global warming below the critical threshold of +2 degrees Celsius. (Matawal, 2013) This strand's prominence reached its zenith in 2007, with the UN Security Council debating climate change's security implications, underscored by assessments conducted by security establishments in the US and UK. The second strand, emergent in the 1990s, revolves around human security. This strand places paramount importance on the well-being of individuals rather than the security of nation-states. It was initially advanced through the UNDP's 1994 Human Development Report and culminated in the IPCC's Fifth Assessment Report in 2014, which featured an entire chapter dedicated to human security." (Natoins)

Over the course of the past twenty years, extensive research has been conducted within these two strands, yielding a wealth of academic papers and governmental reports.

However, it is important to note that the intention of this paper is not to provide an exhaustive review of these numerous studies. Rather, its focus is on shedding light on critical areas within climate security research that have garnered significant attention, while also addressing the challenges encountered in these areas of study. One prominent domain concerns the potential impact of heightened global warming on intercommunal or interstate conflicts. Within this realm, researchers adopt a positivist standpoint, treating human and state security as pre-existing conditions subject to empirical examination. Yet, despite substantial scientific effort, there remains a lack of consensus among scholars regarding the degree to which climate change triggers shifts in human inclinations toward violence. Some researchers express scepticism about establishing a direct causal link between climate change and a propensity for conflict. In contrast to this positivist viewpoint, researchers in the second domain embrace a constructivist approach, focusing on the construction, representation, and implementation of security problems and solutions within society and for specific purposes. (Klein, 2014) Notably, the 'Copenhagen School' exemplifies this perspective, highlighting "the discursive connections between security threats and extreme reactions. According to this viewpoint, climate change has undergone a process of 'securitization,' potentially leading to outcomes such as militarization, technification, or depoliticization of climate policy. However, it is worth noting that despite the influence of this criticism in academic circles, the impact of securitization on the policies and actions of national governments remains limited." (OA, 2018) In essence, the discourse on securitization has largely disregarded the practical implications that shape governmental and organizational behaviours. Recognizing these limitations, this paper proposes a third approach centred around human agency within the context of climate change and security discourse. This perspective underscores the dynamic, negotiated, and historically rooted nature of security and insecurity conditions. It also emphasizes individuals' everyday abilities in managing climate-related securities, while acknowledging the complex challenges posed

by the intersectionality inherent "in the context of a constantly evolving threat like climate change. By introducing these concepts, the paper aims to cultivate a more dynamic and robust framework for discussing climate security, transcending conventional boundaries. Subsequent sections delve into scientific efforts to establish empirical connections between climate and human conflict, followed by an exploration of the Copenhagen School's perspective on climate security. Finally, key notions concerning climate security and human agency are introduced," culminating in concluding remarks in the final section. (Olufemi Adedeji, 2014).

Scarcity, Migration, and Conflict: Climate Change's Complex Influence

Climate change has garnered attention for its potential impact on interpersonal violence, as underlying physiological and psychological factors may be influenced by temperature fluctuations. Elevated levels of discomfort and aggression resulting from warmer or colder temperatures can escalate hostility and violence. However, the debate surrounding whether this temperature-aggression relationship is driven by physiological or psychological factors remains a crucial area for future exploration.

Furthermore, the ramifications of climate change on intragroup violence are intertwined with the scarcity of renewable resources like freshwater, arable land, forests, and fisheries. Drawing from a neo-Malthusian perspective, adverse climatic conditions, coupled with population growth, are thought to diminish the resources required for human sustenance. This scarcity-induced competition can escalate into conflicts. At the national level, scenarios like reduced rainfall or heightened temperatures might spark conflict between water consumers, including farmers and herders, as well as lead to urban unrest and civil violence, particularly in developing nations. Scholars have even proposed that shared resources such as transboundary water sources could contribute to interstate conflicts (Natoins).

Nonetheless, this narrative has encountered significant opposition. Scholars from the Cornucopian tradition, embracing economic optimism, argue that absolute scarcity is rare due to efficient markets, functional institutions, and strategies like conservation, substitution, innovation, investment, and international trade that collectively counteract scarcity. Additionally, political ecologists identify confounding factors like poor governance, corruption, and institutional instability, which challenge the simplistic link between resource scarcity and conflict. They criticize the deterministic aspect of the neo-Malthusian argument, highlighting the importance of considering local social and political contexts when evaluating violent conflict.

The pathways connecting climate change to conflict can also be understood indirectly through economic repercussions and migration patterns. Economic theory posits that declining wages and employment, driven by climate-induced economic contractions, can elevate crime rates. Similarly, rebellion may become more attractive as income and economic opportunities dwindle, incentivizing individuals to engage in conflict. Climatic variability and extreme weather events can disproportionately affect agricultural incomes, intensifying the incentive for insurrection among those dependent on agriculture. Such adverse conditions could prompt conflict onset, while broader economic downturns due to climate change might intensify conflict duration and intensity.

Additionally, adverse climatic conditions may raise food prices, amplifying the incentive for rebellion by reducing the short-term cost of conflict. Government revenue can also be impacted, potentially limiting a leader's ability to provide services and respond to challenges. Natural disasters could impair governments' counterinsurgency efforts, extending the duration of civil conflicts. Economic downturns triggered by climate change could accentuate economic inequality, fueling grievances and thus the potential for conflict.

Migration patterns resulting from climate change could also contribute to conflict. The influx of "environmental migrants" burdening economic and resource bases in receiving areas might lead to contests over limited resources, fueling conflicts over land, jobs, and services. Moreover, clashes could arise from ethnic tensions when migrants and residents

belong to different groups, unsettling existing ethnopolitical equilibrium (Haris, 2012). Contextual factors including economic development and political institutions play a vital role. Poverty-stricken nations reliant on renewable resources are more susceptible to climate-related economic challenges and subsequent conflict. Countries with strong political institutions and administrative capacity are better equipped to manage resource shortages and potentially prevent conflicts.

Navigating Complex Connections: Unraveling the Change of Climate, and Security Conflict

In recent years, scholars have delved into the "intricate web of theoretical causal mechanisms linking climate change, security, and conflict." Barnett has proposed that the interplay of political scale, governance, and resource availability shapes the potential for conflict arising from climate change. Similarly, Seter highlighted economic hardship, resource levels, and migration resulting from economic changes as pivotal factors intertwining climate change and conflict. Bretthauer brought attention to the correlation between agricultural reliance, low education levels, and the likelihood of armed conflict stemming from global warming. While direct connections exist, other researchers emphasize the existence of multiple pathways, from economic productivity to psychological factors, shaping the relationship between climate change and conflict. This intricate network of connections suggests that individual paths to insecurity will be shaped by both environmental change and broader societal dynamics (Roger A. Pielke, 2004).

Despite these theoretical frameworks, empirical evidence linking climate change, environmental degradation, and conflict remains challenging to establish. While historical studies reveal long-term relationships between climate shifts and major human crises, research focusing on shorter timeframes has yielded inconclusive results. Many studies find limited evidence of climate change as a significant driver of conflict. Some cases show connections, such as droughts contributing to refugee movements, or rainfall shortages exacerbating communal conflict in

politically marginalized regions. However, the complex array of research designs, scales, and case studies, along with the multitude of intervening economic and political factors, makes it difficult to establish definitive links between climate change and security. The complexity of these interactions complicates scientific inquiry in this field.

In the midst of grappling with these complex issues, there is a growing call for "more comprehensive investigations into the direct pathways and intermediary factors that connect climate change and conflict. Progress in analytical techniques and the ability to break down data into smaller components show potential for uncovering more distinct links in the future. It is essential, however, to exercise caution and avoid falling into the trap of environmental determinism, wherein climate conditions are oversimplified as the sole dominant factor influencing violent tendencies. Additionally, there is a need to address concerns about portraying populations exposed to both climate change and conflict as potential "threats" to Western nations. The discourse on state and human security, whether related to environmental changes or not," entails the identification of communities that might be vulnerable. This perspective shifts the conversation from empirically verifiable conditions to the depiction of insecurity through discourse (Newell, 2011).

The Dynamics of Climate Change Securitisation

The examination of climate change securitization entails unravelling how the notion of climate security is framed as a pressing issue, understanding the motivations behind this process, and grasping the societal, economic, and political consequences for individuals and groups labelled as security concerns. (Aadil Gulzar Khan, 2018) At the heart of this exploration lies the Copenhagen School of Security Studies, which underscores the risk inherent in "discursive practices that invoke (present or anticipated) climate-related events as an existential menace, thus justifying immediate action in response." These actions can involve extraordinary measures, such as increasing military and law enforcement presence at national borders. This shift can

divert attention from the fundamental causes of climate change, potentially categorizing those most impacted by it as potential threats. As a result, cooperative global initiatives essential for a fair and effective reaction might be undermined. (Howard-Grenville, 2014).

Yet, the translation of apocalyptic imagery often used in climate security debates into concrete policy and practice remains a subject of debate. Those advocating climate change as an existential threat have frequently supported pragmatic response measures rather than radical ones. This approach hinges on addressing climate risks within the current power distribution and geopolitical context, which might not tackle the root causes of the issue. Consequently, the execution of such response strategies might fall short of substantial change, instead integrating climate considerations selectively into existing security frameworks and country plans.

A further challenge for the argument of climate change securitisation lies in its uneven geographical impact. Climate security rhetoric has been more pronounced and influential in large multinational organizations situated in the Global North, particularly the European Union. In contrast, some countries in the Global South have seen a decline in the use of climate change securitisation language. The Indian government, for instance, dismissed climate security concerns as alarmist Western tactics to enforce binding carbon mitigation targets. Similarly, Mexico's focus on 'hard' security issues like drug cartels led to limited effects of climate change securitisation on government policy. These instances underscore the lack of consensus on the role of intergovernmental organizations, such as the UN Security Council, in elevating climate security concerns in the agendas of developing nations (Corinne Le Quéré, 2020).

As a consequence, the prevailing notion that climate change securitisation necessarily leads to extreme and extraordinary measures is met with scepticism. The multifaceted interactions between climate change, security discourse, and political decision-making complicate the path from conceptualisation to tangible action.

Redefining Agency in the Climate Change-Security Nexus

Both positivist and constructivist perspectives on the climate change-security relationship often overlook the critical role of human agency. Human agency refers to the ways individuals, equipped with diverse resources (economic, cultural, political, or environmental), navigate the circumstances they face. Deterministic studies that suggest direct responses like violence to increased temperatures tend to disregard the intricate political calculations, the agency of communities, and the varied ways people adapt to challenging environmental conditions. The human agency remains central in many situations where individuals exercise power, process social experiences, and cope with climate insecurity without resorting to violence, even under extreme circumstances. (Hempel, 1993)

However, "the Copenhagen School of Security Studies", while pointing out the pathologies of securitisation, has not sufficiently addressed the issue of human agency. This ambiguity in conceptualization reinforces international power imbalances and renders intervention criteria by powerful entities less transparent and accountable. Consequently, an agency-oriented perspective on climate security is vital to elucidate the complexities. This perspective underscores the interconnectedness of security and insecurity across different places and times, focusing on individuals' everyday security practices (OA, 2018).

The relational nature of security and insecurity has historical, geographical, and sociopolitical dimensions. Climate-induced insecurity isn't a new concept but an experience endured by marginalized groups over time. Geographical inequalities also underscore the trade-offs in security measures. The actions taken by one group to enhance security might adversely impact the security of others. This dynamic exists at various scales, from local to global, resulting in intricate linkages between security conditions in different places. The interests of different groups often intertwine, and efforts to bolster one group's security can inadvertently compromise another's. For example,

hydroelectric dams may provide clean energy but can displace local populations, raising questions about whose security is prioritized.

These disparities can "challenge governments and development agencies aiming to enhance security in the face of climate change. However, it's essential to acknowledge that individuals and groups have their own capacities to address insecurity." (Haris, 2012) While constrained by structural inequalities, people still manage diverse insecurities in their everyday lives. The concept of 'lived security' emphasizes actual experiences and practices people adopt for their safety, rather than relying solely on expert-led risk assessments. This approach shifts the focus from the exceptional to the every day, capturing the essence of individuals' safety and well-being in their routines (Olufemi Adedeji, 2014).

Furthermore, understanding how intersectional processes of security and insecurity unfold becomes increasingly crucial as the impacts of climate change intensify. While individuals possess adaptive capacities, these capabilities cannot be stagnant in the face of evolving challenges. Climate change perpetually introduces new threats, requiring ongoing adjustments. The pursuit of security becomes a continuous spiral, much like Hobbes' notion that security measures constantly need to be refined to respond to changing threats. As climate change unfolds, creating new hazards and vulnerabilities, individuals and groups must continually engage with governance entities, agencies, and scientists to navigate their evolving security needs.

In essence, recognizing the agency of individuals and communities in negotiating security under climate change is vital. This perspective emphasizes the multifaceted dynamics of security and insecurity, grounded in historical, geographic, and sociopolitical contexts. As climate challenges persist, understanding how people exercise agency and manage their security in everyday contexts is pivotal to fostering resilience and effective responses (Corinne Le Quéré, 2020).

The effects of climate change will impact everyone if decisive actions are not taken by governments. However, specific communities and groups, particularly those already marginalized and discriminated against, will likely experience more pronounced consequences. This includes: (Charmine Hartel, 2010)

1. People in Developing Nations, Especially Coastal Countries and Small Island States: Less affluent countries, especially those with low-lying coastlines and small islands, are highly susceptible to the national-level effects of climate change. Despite contributing minimally to climate change, they bear the brunt of climate-related disasters due to their exposure. Historical disparities rooted in colonialism and unequal resource distribution worsen their vulnerability.

2. Communities Facing Environmental Racism: When environmental policies discriminate against individuals of colour and communities subjected to ethnic, religious, and linguistic bias, climate change impacts and pollution from fossil fuels disproportionately affect them. Communities of colour, often in economically disadvantaged areas, suffer from toxic air near power plants and refineries, leading to higher rates of respiratory ailments and cancers (Matawal, 2013).

3. Marginalized Women and Girls: Women and girls, who often rely on natural resources due to societal roles, encounter barriers in accessing financial and technical resources. Denied land ownership and limited opportunities, they struggle to adapt to climate change. Consequently, they become more susceptible to climate-related consequences, making recovery and protection challenging.

4. Children: Children and young individuals face heightened vulnerability due to their distinct metabolism, physiology, and developmental requirements. Forced displacement impacting fundamental necessities like water, sanitation, food, housing, health, education, and development disproportionately affects children, intensifying the harm caused by climate-related events.

Governments and societies must prioritize the needs of these vulnerable communities to ensure a just and equitable response to the challenges posed by climate change.

Recommendations

Here are a few progressive suggestions to reduce the intensity of climate change:

1. Limit Global Temperature Rise to 1.5°C: Efforts must be focused on preventing the global temperature from increasing by more than 1.5°C above pre-industrial levels. This target is crucial to avoid the most severe impacts of climate change.

2. Achieve Absolute Zero Emissions by 2050: Countries need to collectively achieve net-zero greenhouse gas emissions by or before 2050. Wealthier nations should take more rapid action, aiming for this target even sooner. By 2030, global emissions should be reduced by half compared to 2010 levels.

3. Rapidly Transition Away from Fossil Fuels: The use and production of fossil fuels, including coal, oil, and gas, must be phased out as swiftly as possible. This transition is vital for reducing carbon emissions and mitigating climate change.

4. Promote Climate Action with Equity and Human Rights: Climate actions should be designed to uphold human rights and minimize inequality. Strategies should not infringe on human rights and should actively work to reduce disparities.

5. Ensure Inclusive Participation and Information: Climate initiatives should ensure that everyone, especially those impacted by climate change and the transition to a clean energy economy, is well-informed and can actively participate in decisions affecting their future.

6. Equitable Burden-Sharing and Support for Developing Countries: Wealthier countries have a responsibility to provide financial and technical assistance to developing nations. This support should enable access to renewable energy and adaptation measures, while also addressing losses and damages resulting from climate-related impacts (Natoins).

7. Protect Rights of Climate-Induced Displacement: People displaced or at risk of displacement due to climate change must have their rights safeguarded. Adequate support and protection mechanisms should be in place to address the challenges posed by climate-related displacement.

Conclusion

For proponents of linking climate change and security, the year 2007 represented a pivotal moment when the traditional concept of security was challenged, and climate change gained prominence in high-level political discussions. This elevation aimed to emphasize the urgency of global warming, leading to heightened awareness and attention to the issue. Although this approach successfully raised awareness, its impact on national government policies has been limited, with many governments continuing with business-as-usual strategies, especially in addressing international migration challenges. Similarly, while the intersection of climate change and conflict has gained recognition in international and national policy-making circles, the scientific community remains divided on the direct correlation, as indicated by varying references to human security in IPCC assessment reports. However, these challenges do not necessarily demand a complete dismissal of the climate change-security nexus. Instead, the notion of climate security can be rejuvenated progressively by adopting a more fluid comprehension of security. Such an approach should acknowledge security and insecurity as interdependent and historically influenced. Furthermore, recognizing individuals' everyday practices in safeguarding their well-being is imperative. This perspective should also encompass understanding the social and ecological boundaries that shape such practices, especially concerning intersectionality and the evolving complexities posed by climate change.

As the uneven impacts of global warming become evident across societies globally, it is crucial to understand that governmental reactions to climate change differ significantly.

Various individuals and groups are actively striving to enhance their own security within existing social frameworks. Consequently, the climate security concept remains relevant by offering insights into how individuals, communities, and societies engage with and respond to the evolving climate challenge. The crux lies in adopting a comprehensive and intersectional approach to interpreting security, which considers both individual agencies and the structural constraints they confront. In conclusion, rather than dismissing the connection between climate change and security, an astute approach that integrates a dynamic understanding of security and acknowledges the significance of daily practices can present a valuable framework for comprehending and addressing the complexities of climate change within the realms of security and human well-being.

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