



## CLIMATE CHANGE AS A NON-TRADITIONAL SECURITY THREAT IN INTERNATIONAL RELATIONS

**Muhammad Irfan Magray**

*(Corresponding Author)*

*PhD Student, Alhamd Islamic University, Quetta Campus*

[magray06@gmail.com](mailto:magray06@gmail.com)

**Kashif Akbar**

*Department of Industrial Engineering, University of Padua, Italy*

[kashif.akbar@studenti.unipd.it](mailto:kashif.akbar@studenti.unipd.it)

**Akhlaque Ahmed Kubar**

*Lecturer GDC Thari Mirwah, Ph.D scholar IR department shah Abdul latif university Khairpur*

### **Abstract**

*This qualitative article discusses climate change as an unconventional security challenge in international relations. It posits that climate change cannot be perceived as just an environmental or a developmental problem, but also as a security problem which impacts human survival, the stability of a state, the stability of a region and the stability of the world at large. The paper follows a qualitative, document-based method and relies on secondary sources such as IPCC Synthesis Report, United Nations climate-security documents, World Bank migration reports, and the academic literature in the field of international relations and security studies. The thematic interpretation, instead of statistical testing, is used in the analysis. The article concludes that climate change qualifies as a non-traditional security due to its transboundary nature, a civilian-based focus, and a high degree of interdependence with food insecurity, water stress, displacement, and public health risks, and institutional fragility. It also concludes that climate change does not often directly trigger conflict in a straight line manner, but rather serves as a threat multiplier, which exacerbates existing weaknesses, particularly when governance is weak and social protection is scarce. The Sahel, South Asia, and Small Island Developing States regional illustrations depict that climate insecurity is both local and international. The paper concludes that in developing a new understanding of security, global politics should shift beyond the limited military sense of security and put climate resilience, adaptation funding, preventive diplomacy, and cooperative governance at the core of the new security concept.*

**Keywords:** *climate change; non-traditional security; international relations; human security; climate-security nexus; displacement; conflict; global governance*

### **1. Introduction**

The concept of security in international relations used to be debated only in relation to military threats, boundaries, deterrence and war. Scholars and policy institutions, however, over time started to broaden the security agenda to incorporate threats that do not come in the form of armies breaking frontiers but that pose threats to lives and institutions as well as political order. One of the most evident examples of this change is climate change. It disrupts livelihoods, increases resource pressures, harms vital infrastructure, worsens severe weather, and increases the risk of humanitarian crises in areas. These effects are likely to have a concurrent effect on individuals, communities, and states, so climate change poses an ever-increasing challenge to the historical distinction between environmental policy and security policy (Barnett, 2003; Trombetta, 2008).



Climate crisis has long since left a future situation behind. The IPCC has indicated that all the inhabited areas are experiencing human-induced climate change, and about 3.3 to 3.6 billion individuals are living in circumstances that are highly susceptible to climate change. According to the same evaluation, climate change diminishes food security, impacts water security, and leads to increased mortality in the most at-risk areas during floods, droughts, and storms (IPCC, 2023). These are not exclusively environmental or humanitarian impacts. They determine the migration patterns, public legitimacy, economic stability, and the ability of the governments to handle the crisis. To that end, climate change has become a security matter, not an environmental matter, that is becoming the subject of more and more diplomatic and strategic, as well as multilateral discourse (Climate Security Mechanism, 2024; Martin, 2022).

This paper proposes that climate change is to be regarded as a non-traditional security threat in the international relations since it creates cross-border risks which cannot be included in the traditional pattern of military aggression. It poses a direct threat to human security by causing hunger, exposure to disasters, and loss of livelihoods; poses an indirect threat to state security by making them fragile, weakening institutions, placing strain on governing systems; and poses an indirect threat to international security by exacerbating displacement and political instability and competing over limited resources. But the argument here also is not bold. Climate change cannot be simplified to a mere battle story. The data indicates that climate stress does not simply lead to war as it interacts with social inequality, weak institutions, exclusion, and bad policy options (Barnett and Adger, 2007; Busby, 2022).

The paper will be divided into six parts. It follows this introduction by giving reasons why climate change is part of the concept of non-traditional security. Then it describes the qualitative methodology adopted in the paper. The findings section evaluates the key routes of how climate change creates insecurity and provides regional examples of the Sahel, South Asia, and Small Island Developing States. It ends with a reflection on the implication to the international relations theory and practice and finally makes some policy-oriented reflections.

## **2. Non-Traditional Security and the Concept of Climate Change.**

Non-traditional security is a term that is used to describe security threats that are not based on direct military engagement but still present threats to political communities, human welfare, and social order. These threats tend to be transnational, multidimensional and not easily solved by mere military means. They entail threats like pandemics, cyber threats, food insecurity, energy insecurity, and environmental degradation. Climate change falls under this category since it is cross-border, civilian, and its causal mechanisms erode security by creating convoluted causal pathways. It impacts production systems, human health, exposure to disasters, infrastructure, migration trends, and the ecological contexts to which economies are interdependent. Climate insecurity, in this sense, is diffuse, yet profound. It does not necessarily yield a dramatic single event but, more frequently, it undermines stability in the long run. It is namely that cumulative, gradual nature, which is challenging to deal with in the context of limited state-centered understandings of security (Barnett, 2003; Trombetta, 2008).

The shift towards considering climate change a security problem has sparked controversy. Opponents of securitization also caution that the application of the language of security to climate policy may be a way of promoting exceptionalism, militarization, and executive overreach. According to Martin the concern is real when the issue of climate change is presented as an issue of national security since this presentation may prioritize border control, strategic competition and



coercive national responses at the expense of justice, adaptation, and cooperation. Meanwhile, Martin argues that climate change can and must be presented as a global security issue and not a national one because the referent object in danger is not the territorial state itself, but the international system and humanity as a whole (Martin, 2022). This difference is analytically significant. An expanded security frame will contribute to increased urgency and coordination without necessarily legitimizing militarized responses.

This is more cautious than what is found in the broader literature. The initial work of Barnett demonstrated that the impact of climate change on security was in terms of national security interests, human security threats, the risk of violent conflict, and military consequences of disaster management and infrastructure strain. He also claimed that mitigation and adaptation themselves are security practices since they lessen the chances of future damage (Barnett, 2003). Trombetta also demonstrated that securitization of environmental problems does not repeat old military logics in the same form; it may alter security practices by providing new objects of referent, new communities of experts, and new policy repertoires (Trombetta, 2008). Climate security, in other words, expands the concept of security and does not merely bring war-thinking to environmental policy.

Climate change is also consistent with the human security tradition, where the security of vital needs and dignity of people are prioritized and not the state. In its prior contribution to human security, and subsequent synthesis evaluations, the IPCC evaluates that climate change compromises livelihoods, health, housing, culture, and mobility. These evils are concentrated on groups that have contributed the least to the cumulative emissions and thus climate security cannot be achieved without addressing justice, inequality, and development. It is one of the key reasons why climate change is now a center of unconventional security discussions: it reveals how insecurity can arise due to environmental disturbance, social susceptibility, and government failure as opposed to standard military assault (IPCC, 2023; Barnett and Adger, 2007).

### **3. Methodology**

The qualitative and interpretive research design is applied in this paper. It is not a document-based qualitative analysis of policy reports and literature in the field of climate change and security in terms of empirical field studies based on interviews or survey. This approach was selected since the aim of the paper is to describe how climate change is being framed as a security issue in international relations and how this framing is backed up by evidence provided by various institutions and cases. Causal pathways, comparisons of interpretations, and synthesizing insights across different types of sources can be best achieved using a qualitative approach.

The article is based on three kinds of material. First, it relies on authoritative scientific and policy reports, particularly, the IPCC Synthesis Report that offers the most detailed up-to-date evaluation of climate impacts, vulnerability, and adaptation. Second, it examines multilateral and policy-oriented climate-security documents, such as the United Nations Climate Security Mechanism progress report, and work by the World Bank on climate migration. Third, it enlists the main scholarly inputs of international relations, security studies as well as political geography to place the policy debate into the context of wider theoretical debates (Barnett, 2003; Barnett and Adger, 2007; Busby, 2022; Martin, 2022; Trombetta, 2008).

The thematic analytical strategy is employed. The paper, after perusing through the chosen sources, arranges the information into four thematic interrelated themes, namely, conceptual widening of security, climate impacts on human security, climate-Displacement-governance nexus,



and implications to international order and cooperation. In this manner, the paper can demonstrate the scale-jumping of climate change, which can be seen on the level of household survival, state legitimacy, and regional and global diplomacy. The approach is not aimed to find universal or deterministic statements. Rather, it emphasizes patterns, mechanisms and scope conditions. This is particularly relevant since the climate-security literature frequently indicates that climate change tends to interact with a pre-existing vulnerability as opposed to being a one-way causal factor in insecurity (Barnett and Adger, 2007; Busby, 2022).

The paper is driven by two research questions: First, how does climate change qualify as a non-traditional security threat in international relations? Second, in what ways does climate change cause human, state, and international insecurity? These questions enable the paper to stay conceptually focused and to connect theory to the specific regional examples as well.

#### 4. Findings and Discussion

**Table 1. Climate-Security Pathways in International Relations**

Pathway	How insecurity is produced	Security level most affected	IR significance
Food and water stress	Drought, floods, and heat reduce livelihoods, increase prices, and heighten vulnerability.	Human / subnational	Raises need for humanitarian action, resilience finance, and preventive diplomacy
Climate mobility	Loss of habitability and income pushes internal migration and urban stress.	Human / state	Reshapes migration governance, cities, labor markets, and border politics
Fragility and conflict risk	Climate stress worsens weak governance, exclusion, and local competition over resources.	State / regional	Supports integrated peacebuilding, adaptation, and conflict prevention
Territorial and sovereignty stress	Sea-level rise and coastal erosion threaten infrastructure, territory, and long-term viability.	State / international	Challenges law, statehood, maritime claims, and multilateral burden-sharing

##### 4.1 Climate Change as a Threat Multiplier Rather Than a Single Cause

This has been one of the most significant revelations in the climate-security literature that climate change is not often acting as an independent insecurity generator. Rather, it is a threat multiplier. It is a catchphrase in the security policy community and subsequently in the strategic analysis that reflects the notion that climate is amplifying already existing stressors like poverty, poor governance, social marginalization, resource reliance, and political discontent (CNA Military



Advisory Board, 2007). The merit of the concept is that it is not crude environmental determinism. It does not argue that drought is necessarily conflict making or storm is necessarily state collapsing. Instead, it describes how climate risks exacerbate the magnitude of the underlying vulnerability and consequently risk destabilizing consequences.

This interpretation is highly encouraged by the IPCC assessment. It demonstrates that climate change is already subjecting millions of people to acute food insecurity and less water security, particularly in areas with constrained development. It further states that climate-associated extremes do not impinge on vulnerability in equal measures, with most of the impacts on those populations that are economically marginalized and institutionally unprotected (IPCC, 2023). This implies that climate insecurity is relational: the same hazard can produce very variable security results based on governance capacity, social protection, political inclusion, and access to adaptation resources. The work by Busby also highlights that the effects of climate shocks are different depending on the state capacity, institutional inclusion and foreign aid. In places with stronger ones, the climate stress can be internalized or controlled; in places with less, climate stress is more likely to cause a crisis, suffering, or violence (Busby, 2022).

This understanding is relevant to international relations since it would help to change the line of analysis not to the clinching question, which is: Does climate change cause war? but rather to a more practical question: Under what political and institutional circumstances do climate pressures generate insecurity? This reframing is in line with the qualitative security analysis since it acknowledges contingency, context, and the effects of interactions. It further reveals the reason why climate change is a part of non-traditional security. Unconventional threats do not always act in a manner similar to direct military attacks. They permeate the social structures, stressful governance and generate compound crises in sectors. This is the case with climate change.

#### **4.2 Food, Water, Health, and Livelihoods Human Security Pathways.**

Human insecurity is the quickest and most direct route through which climate change turns into a security threat. Daily life is based on the material foundations that are influenced by extreme heat, unpredictable rainfall, floods, droughts, sea-level rise, and ecosystem loss. The IPCC reports that climate change is having an impact on food security and water security, and is also a contributor to escalating mortality and morbidity associated with heat and pattern-sensitive diseases (IPCC, 2023). These are security concerns as they are threats to survival, dignity, and social reproduction. The loss of crops, the fishing grounds, grazing grounds, potable water, or safe shelter by households does not merely lead to environmental loss, but to increased insecurity with regard to the future, accompanied in many cases by debt, distress migration, or reliance on humanitarian assistance.

Barnett and Adger are useful in giving a linkage between climate impacts and security studies by demonstrating how climate change weakens the social and economic preconditions of peace. Human insecurity may arise when environmental change undermines livelihoods, diminishes state legitimacy or compels individuals to adapt in risky and involuntary ways. This is particularly significant in their argument since it places climate change in the context of development, as opposed to it being a strategic issue. One of the downstream outcomes is the violent conflict. In more instances, climate stress initially manifests itself as decreased incomes, high food costs, exposure to diseases, gender division of labor, and weakening faith in governmental bodies (Barnett and Adger, 2007).

These human security impacts are important at least because of three reasons when considered through the prism of international relations. First, they transform the relations between the state and



society. Governments are evaluated based on their capacity to cushion people against frequent disaster and loss. Second, they influence the stability of the region since food shortages, water stress, and health crises often surpass the ability of a single jurisdiction to handle them independently. Third, they shift diplomatic agendas by compelling states and international organizations to consider adaptation, early warning, humanitarian financing, and resilience-building as main security roles. This is why the gap between the high politics and environmental governance is becoming harder to maintain. The accumulation of human insecurity initiates climate change to a matter of strategic concern, rather than local suffering.

#### **4.3 Dislocation, Mobility and Reorganization of Political Space.**

Climate-related mobility is a second key route. According to the Groundswell by the World Bank, climate change may push 216 million people in six world regions to move inside their own countries by 2050, and the hotspots of internal climate migration may manifest itself as early as 2030. The same publication also emphasizes that the associated mobility is associated with deteriorating livelihoods and lack of livability in highly exposed locations (World Bank, 2021). It is a strong reminder that the issue of climate migration is not a single humanitarian narrative. It is also about city capacity, labor market, land access, the management of local conflicts, and finally the regional diplomacy.

The issue of mobility is important to non-traditional security since it reallocates population stress and political risk. Mass migration of the poor in rural regions to urban places may overstretch housing, health services, employment, and local government. Tensions can escalate when movement comes into contact with informal settlement, poor service delivery or service based on identity politics. However, the relationship is not automatic. Migration may also be an adjustment strategy and safeguards life and diversifies income. A qualitative approach to security thus denies the simplistic accounts of the flood of climate refugees across the borders. Better is the question of how governance influences the way mobility is protective, precarious or destabilising.

Sovereignty and responsibility is also complicated in the context of international relations due to displacement. Internal migration can be domestic in nature but its causes and effects are frequently cross-border. The processes of climatic dynamism defy boundaries; the financing of development is unevenly distributed around the world; and the pressure of spillover costs due to informal migration, trade shocks or common river-basin pressures may be experienced by neighboring states. In the case of Small Island Developing States and low-lying coastal populations, the matter is even more far-reaching as climate change will cast the permanence of the territory and maritime rights, relocation, and the future significance of statehood. In this regard, climate mobility does not simply transfer people; it destabilizes current notions of the political space, belonging, and the territorial foundations of international order (IPCC, 2023; Martin, 2022; World Bank, 2021).

#### **4.4 Fragility, Governance and the risk of Violence.**

A third routeway is that of fragility and risk of violent conflict. The scholarly sources are cautious in this regard. It cannot be argued that climate change and war are directly linked in a universal manner. Nevertheless, it has been widely shown that climate stress may increase risks of unrest, communal violence, or joining armed groups where it is coupled with political exclusion, weak institutions, and livelihood collapse. Barnett and Adger claim that climate change can also be a cause of violent conflict because of the degradation of livelihoods and the state capacity, and thus the loss of control over the societies to resolve conflicts without violence (Barnett and Adger, 2007). Busby also demonstrates that climate-related shocks are most harmful in cases when governments



are unable to react in a more effective way, institutions leave out crucial groups, and foreign aid is either insufficient or slow (Busby, 2022).

This same logic is reflected in the United Nations climate-security agenda. Climate Security Mechanism report highlights the systematic analysis of interrelations between climate change, peace and security and delineates an increasing drive to build climate-informed risk management in conflict-affected settings. It is not aimed at militarizing the climate policy but to make the UN and its partners see how the climate effects can be combined with peacebuilding, fragility, and conflict prevention (Climate Security Mechanism, 2024). This is a significant difference. An approach to climate security based on the risk analysis is fundamentally different as compared to an approach to security based on the identification of the enemy.

The main thing is that, climate outcomes are mediated by governance. Provided that institutions are inclusive, adaptive and legitimate, climate shocks might create hardship without violent escalation. Where institutions are feeble, marginal, or disbelieved, the same shocks can nourish grievance and opportunism. This renders adaptation policy, social protection and inclusive governance as primary instruments of security. It also implies that international aid should not be considered by itself as charity. The preventive security strategy includes climate adaptation, peacebuilding and development finance in fragile settings.

#### **4.5 Regional Illustrations**

One of the best examples of climate change as a non-traditional security threat is the Sahel. Regular drought, variability of rainfalls, pressure of desertification and transforming livelihood situations interact with poor state presence, long-term underdevelopment, and armed mobilization. What comes out is not that climate change causes violence per se, but that it increases competition in pasture, water and movement paths and weakens the already scarce governance capacity. Climate action and peacebuilding cannot be divorced in such contexts. This is becoming apparent to regional and international actors, and that is why the new emphasis of climate-security dialogue in the Sahel today is on resilience, local mediation, and integrated programming instead of emergency relief only (Climate Security Mechanism, 2024).

A different yet equally significant example is found in South Asia. The area is characterized by frequent floods, cyclones, heatwaves, glacier hazards, coastline exposure, and overpopulation. These threats are important to security as they impact food systems, infrastructure, urbanization, and internal migration on grand scale. According to World Bank, South Asia is estimated to be one of the areas with the greatest internal climate migration by 2050 provided that the existing trends persist (World Bank, 2021). Another similarity of the comparative work of Busby is that climate-related catastrophes in South Asia demonstrate that there are large disparities in the results based on the capacity of states, the preparedness of states, and the inclusion of the vulnerable population. The region thus shows that climate security is an institutional and a policy issue as much as it is an exposure issue to hazards (Busby, 2022).

Small Island Developing States are the most existential manifestation of climate insecurity. Floods, salinization and erosion of coastlines, storms, and warming of the ocean pose not only a threat to livelihoods, but also the future sustainability of land and infrastructure. To certain islands, climate change poses concerns of cultural viability, sovereign existence, people migration, and the prospects of maritime areas. The part of this argument where Martin develops the idea of a global as opposed to narrowly national security frame is particularly compelling: the evils in question cannot be productively dealt with on grounds of traditional military reasoning. The main issues are



legal, diplomatic, financial, and moral: who is to be held accountable, how the relocation should be regulated, and how the international law reacts when the territorial foundation of the statehood is physically altered (IPCC, 2023; Martin, 2022; World Bank, 2021).

**Table 2. Selected Regional Illustrations of Climate Insecurity**

Case	Dominant climate stress	Main security consequences	Why it matters for IR
Sahel	Drought, rainfall variability, land pressure	Livelihood loss, farmer-herder tension, weakened local governance	Shows climate as threat multiplier in fragile settings
South Asia	Cyclones, floods, heatwaves, coastal exposure	Internal migration, infrastructure pressure, disaster governance stress	Highlights scale, density, and importance of institutional capacity
SIDS	Sea-level rise, salinization, coastal erosion	Habitability loss, relocation pressure, sovereignty anxiety	Raises legal and normative questions about territory and statehood

## 5. Implications for International Relations

Applying the climate change as a non-traditional security threat has significant implications on international relations theory and practice. The initial implication is theoretical. Claiming climate change undermines the old-fashioned state-based distinction between domestic welfare and international security. The issue of a failed crop, a heat crisis, or a series of displacement caused by floods can start off as a local problem, but its origins, funding requirements, and political implications soon turn global. The emissions are of a transboundary nature, the vulnerability is not equally distributed and adaptation requires international involvement. This reality is lacking in security analysis where the focus of the analysis is limited to armies and territorial defense.

The second implication is institutional. When climate change is an issue of security, then it cannot be considered peripheral by the ministries of foreign affairs, development agencies, regional organizations, and multilateral institutions. It is of central concern to diplomacy, humanitarian response, development lending, urban planning, peacebuilding, and international legal design. The tendency of the United Nations Climate Security Mechanism to gain more and more importance, the progressive integration of considerations of climate-security into UN practice demonstrate that the institutional field is already moving in this direction (Climate Security Mechanism, 2024). But the transformation is not complete. In budgeting, expertise and policy design, climate governance and security governance remain too often divided.

The third implication is a normative one. Only a climate-security perspective that is immune to militarization and focused on justice can be useful. The most climate-insecure populations are the ones that have had the least impact on the past emissions. It follows that adaptation finance and loss and damage aid, as well as equitable access to resilience-building resources are not auxiliary ethical issues; they constitute the response to security itself. A national-security framing can result in



hardening of the border and strategic rivalry with a narrow lens. An expanded global-security framing, in its turn, shifts the focus toward the risk-reduction cooperation, resilience, and shared responsibility (Martin, 2022).

Lastly, climate-security lens demands another interpretation of prevention. In traditional security policy, deterrence is often construed as prevention. Prevention in climate security refers to emissions reduction, adaptation, social protection, disaster preparedness, climate resilient infrastructure and inclusive governance. They are security investments though they have a long horizon nature. The reviewed evidence indicates that militarizing climate politics may not be the most effective way to reduce climate-related insecurity, but instead focus on reducing exposure, enhancing institutions, and enhancing international coordination before the shock turns into a crisis (Busby, 2022; IPCC, 2023).

#### 6. Conclusion

In this paper, I have argued that climate change can best be regarded as a non-traditional security threat in international relations. It is so because it is transboundary, civilian based, multidimensional and unaddressable to military solutions. Climate change also poses threats to human security by disrupting food, water, health and livelihood. It poses a threat to the stability of the state indirectly via aggravating the fragility, displacement, and governance stress. And it endangers international order by making migration governance, debates on sovereignty, humanitarian response, and multilateral cooperation tricky.

The analysis has also revealed that climate change is not a simple or automatic causal factor to conflict. Its most stable contribution is the threat multiplier: it intensifies inequality and institutional fragility, in particular, in the areas where there already are development limitations. This implies that climate security is all about engagement. It is not the outcome that depends on hazard alone, but the governance, inclusion, and assistance do. This is the reason why climate adaptation, peacebuilding, and development policy are best viewed as reinforcing each other as opposed to being institutionally distinct.

To international relations scholars, the paper justifies the broadening of security beyond the traditional military types. To policymakers, this implies that climate resilience, early warning, adaptation finance, and cooperative governance should be considered core elements of security policy. When security is finally concerned with shielding important values against grave damages, climate change must in turn be placed at the heart of the international security agenda.

#### References

1. Arnall, A. (2023). Climate change and security research: Conflict, securitisation and human agency. *PLOS Climate*, 2(3), e0000072. <https://doi.org/10.1371/journal.pclm.0000072>
2. Barnett, J. (2003). Security and climate change. *Global Environmental Change*, 13(1), 7–17. [https://doi.org/10.1016/S0959-3780\(02\)00080-8](https://doi.org/10.1016/S0959-3780(02)00080-8)
3. Barnett, J., & Adger, W. N. (2007). Climate change, human security and violent conflict. *Political Geography*, 26(6), 639–655. <https://doi.org/10.1016/j.polgeo.2007.03.003>
4. Buhaug, H. (2010). Climate not to blame for African civil wars. *Proceedings of the National Academy of Sciences*, 107(38), 16477–16482. <https://doi.org/10.1073/pnas.1005739107>
5. Busby, J. W. (2022). *States and nature: The effects of climate change on security*. Cambridge University Press. <https://doi.org/10.1017/9781108957922>



6. Climate Security Mechanism. (2024). *Progress report 2023: Bridging climate action, peace and security*. United Nations Department of Political and Peacebuilding Affairs, United Nations Development Programme, United Nations Environment Programme, and Department of Peace Operations.
7. CNA Military Advisory Board. (2007). *National security and the threat of climate change*. CNA.
8. German Advisory Council on Global Change. (2007). *World in transition: Climate change as a security risk*. WBGU.
9. Hendrix, C., Koubi, V., Selby, J., Siddiqi, A., & von Uexkull, N. (2023). Climate change and conflict. *Nature Reviews Earth & Environment*, 4(3), 144–148. <https://doi.org/10.1038/s43017-022-00382-w>
10. Hsiang, S. M., Burke, M., & Miguel, E. (2013). Quantifying the influence of climate on human conflict. *Science*, 341(6151), 1235367. <https://doi.org/10.1126/science.1235367>
11. Ide, T. (2018). Climate war in the Middle East? Drought, the Syrian civil war and the state of climate-conflict research. *Current Climate Change Reports*, 4(4), 347–354. <https://doi.org/10.1007/s40641-018-0115-0>
12. Intergovernmental Panel on Climate Change. (2023). *Climate change 2023: Synthesis report*. IPCC. <https://doi.org/10.59327/IPCC/AR6-9789291691647>
13. Koubi, V. (2019). Climate change and conflict. *Annual Review of Political Science*, 22(1), 343–360. <https://doi.org/10.1146/annurev-polisci-050317-070830>
14. Mach, K. J., Kraan, C. M., Adger, W. N., Buhaug, H., Burke, M., Fearon, J. D., Field, C. B., Hendrix, C. S., Maystadt, J.-F., O’Loughlin, J., Roessler, P., Scheffran, J., Schultz, K. A., & von Uexkull, N. (2019). Climate as a risk factor for armed conflict. *Nature*, 571, 193–197. <https://doi.org/10.1038/s41586-019-1300-6>
15. Mach, K. J., Adger, W. N., Buhaug, H., Burke, M., Fearon, J. D., Field, C. B., Hendrix, C. S., Maystadt, J.-F., O’Loughlin, J., Roessler, P., Scheffran, J., Schultz, K. A., & von Uexkull, N. (2020). Directions for research on climate and conflict. *Earth’s Future*, 8, e2020EF001532. <https://doi.org/10.1029/2020EF001532>
16. Martin, C. (2022). Climate change and global security: Framing an existential threat. *AJIL Unbound*, 116, 248–253. <https://doi.org/10.1017/aju.2022.39>
17. Selby, J., Dahi, O., Fröhlich, C., & Hulme, M. (2017). Climate change and the Syrian civil war revisited. *Political Geography*, 60, 232–244. <https://doi.org/10.1016/j.polgeo.2017.05.007>
18. Trombetta, M. J. (2008). Environmental security and climate change: Analysing the discourse. *Cambridge Review of International Affairs*, 21(4), 585–602. <https://doi.org/10.1080/09557570802452920>
19. von Uexkull, N., Croicu, M., Fjelde, H., & Buhaug, H. (2016). Civil conflict sensitivity to growing-season drought. *Proceedings of the National Academy of Sciences*, 113(44), 12391–12396. <https://doi.org/10.1073/pnas.1607542113>
20. World Bank. (2021). *Groundswell Part 2: Acting on internal climate migration*. World Bank.