

Climatizing National Security

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ABSTRACT

Is climate change a national security issue? Human security? Ecological security? This Article addresses the growing nexus between climate change and various conceptions of security with a particular emphasis on climate change's national security impacts. This Article argues that there is a growing connection between national security and climate change and a corresponding need to address the normative implications of "climatizing national security." This connection can be observed through three lenses: mitigation (reducing greenhouse gas emissions from military and national security sources); adaptation (investing in climate resilient infrastructure in an effort to prepare for climate impacts), and response (addressing climate-exacerbated disasters at home and abroad). The national security response to climate change will require a greater role for the military, particularly the National Guard and U.S. Coast Guard. To be sure, "climatizing" national security also presents normative risks that must be acknowledged and addressed. But this Article argues that it is far better to proactively acknowledge and address climate change's national security impacts today rather than waiting for catastrophe to strike. Indeed, upon closer examination, climate change is not just a complex collective action environmental problem—it also is a challenging national security issue with far-reaching impacts.

I. INTRODUCTION

"Climate change can contribute to political and social instability and, in some instances, to conflict. It impacts the operations and missions of defense, diplomacy, and development agencies critical to US national security."¹

—Fifth National Climate Assessment (2023)

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¹ U.S. GLOB. CHANGE RSCH. PROGRAM, FIFTH NATIONAL CLIMATE ASSESSMENT 17-8 (2023) (hereinafter NCA5) (parentheticals omitted). The NCA also notes that "climate-related shocks to the food supply chain have led to local to global impacts on food security and human migration patterns that affect US economic and national security interests." *Id.* at 1-18.

In recent years, scientists, intelligence officials, and national security experts alike have examined climate change's broad national security impacts.² Climate change can be characterized as a unique non-traditional security threat in that it interacts with and exacerbates existing threats.³ In doing so, climate change serves as both a threat multiplier and catalyst for conflict.⁴ This Article argues that this growing climate-security nexus—which has been addressed in some U.S. national security corners for decades—reflects a mature acknowledgment that climate impacts transcend traditional environmental concerns.⁵ At its core, national security is concerned with safeguarding a nation's safety, welfare, sovereignty, and territorial integrity.⁶ Similarly, climate change is poised to destabilize the physical, geopolitical, and national security environment.⁷

In this Article, I propose a tripartite framework to showcase climate change's relationship with national security: mitigation (reducing greenhouse gas (GHG) emissions from military and national security sources), adaptation (investing in climate resilient infrastructure in an effort to prepare for climate impacts), and response (addressing climate-exacerbated disasters at home and abroad). As the Paris Climate Agreement seeks to decrease each nation's GHG emissions, the militaries of the world—to include the U.S. Department of Defense (DoD)—will be asked to do their part to reduce their emissions.⁸ Meanwhile,

² See, e.g., CTR. FOR NAVAL ANALYSIS, NATIONAL SECURITY AND THE THREAT OF CLIMATE CHANGE 16–18, 39 (2007); see also SHERRI GOODMAN, THREAT MULTIPLIER (2024).

³ See, e.g., CTR. FOR NAVAL ANALYSIS, NATIONAL SECURITY AND THE THREAT OF CLIMATE CHANGE 16–18, 39 (2007).

⁴ See *id.*

⁵ Some scholars at the War Colleges have been thinking about the security implications of climate change for some time. See, e.g., Terry P. Kelly, *Global Climate Change Implications for the United States Navy*, NAVAL WAR COLLEGE (1990) (arguing that global climate change will threaten naval operations, facilities, and systems in coming decades).

⁶ The term “national security” lacks a well understood definition in law and remains a somewhat malleable concept. Within the U.S. military, the Joint Chiefs of Staff defines *national security* as within joint military doctrine it is defined as “[a] collective term encompassing both national defense and foreign relations of the United States with the purpose of gaining: a. [a] military or defense advantage over any foreign nation . . . ; b. [a] favorable foreign relations position; or c. [a] defense posture capable of successfully resisting hostile or destructive action from within or without, overt or covert.” DOD DICTIONARY OF MILITARY AND ASSOCIATED TERMS 150 (2020); see also HON. JAMES E. BAKER, IN THE COMMON DEFENSE: NATIONAL SECURITY LAW FOR PERILOUS TIMES 16–19 (2007) (finding that “no single definition of national security is recognized in law or as policy predicate”); Robert M. Chesney, *National Security Fact Deference*, 95 VA. L. REV. 1361, 1402–03 (2009).

⁷ See, e.g., Shane Harris & Michael Birnbaum, *White House, Intelligence Agencies, Pentagon Issue Reports Warning That Climate Change Threatens Global Security*, WASH. POST (Oct. 21, 2021, 5:07 PM), https://www.washingtonpost.com/national-security/intelligence-pentagon-climate-change-warnings/2021/10/21/ea3a2c84-31d3-11ec-a1e5-7223c50280a_story.html [<https://perma.cc/2HJL-NEE2>].

⁸ Beyond the United States, NATO has increasingly been concerned with climate change's national security implications. See Neta C. Crawford, *Pentagon Fuel Use, Climate Change, and the*

developing nations will forge international partnerships with developed nations to ensure that resources are in place following extreme weather events.

This emerging climate-security connection has garnered considerable attention in recent years, with several nations now addressing climate change's national security implications. Indeed, climate change has a prominent place in the 2022 U.S. National Security Strategy, and each military service within the Department of Defense has released their own climate change strategy.⁹ Meanwhile, as mitigation efforts fall short, climate impacts are worsening, as reflected in an uptick in extreme weather events and the announcement that 2023 was the hottest year on record.¹⁰

While this Article focuses on climate change's security implications for the United States—home of the world's largest military and a sprawling national security bureaucracy—each nation is independently wrestling with climate change's national security implications.¹¹ For example, a growing number of environmental plaintiffs and jurists in many countries are highlighting the climate-security challenge. Some are advancing novel legal theories, arguing for a constitutional right to a human environment premised on the government safeguarding their health and well-being.¹² In the United States, institutions are taking notice of climate change's dramatic and growing security impacts, a reality reinforced in both the U.S. Fifth National Climate Assessment (NCA) and the 2022 U.S. National Security Strategy.¹³ And academics are now drawing a link between climate change and violent conflict, an

Costs of War, BROWN UNIV. WATSON INST. FOR INT'L & PUB. AFFAIRS COSTS OF WAR PROJECT 1, 2 (2019).

⁹ The Army and Navy, for example, released Climate Action Plans in 2022.

¹⁰ Raymond Zhong & Keith Collins, *See How 2023 Shattered Records to Become Hottest Year*, N.Y. TIMES (Jan. 12, 2024), <https://www.nytimes.com/2024/01/09/climate/2023-warmest-year-record.html>. [<https://perma.cc/QJ5Y-J868>]. To give one instance of the role that the security sector plays in climate policy, the U.S. Department of Defense, the world's largest military and employer in the world, is now a regular, active participant in the Conference of Parties conducted under the auspices of the U.N. Framework Convention on Climate Change. Negotiators at COP28 in Dubai issued a statement on Peace and Security in 2023, further cementing the connection between climate change and security interests. Conf. of Parties (COP) 28, *COP Declaration on Climate, Relief, Recovery, and Peace* (2023), <https://www.cop28.com/en/cop28-declaration-on-climate-relief-recovery-and-peace> [<https://perma.cc/X76P-5D63>] [hereinafter COP].

¹¹ This is particularly true for Small Island Developing States. *See, e.g.*, Melissa Stewart, *Cascading Consequences of Sinking States*, 59 STAN. J. INT'L L. 131 (2023).

¹² *See* *Juliana v. United States*, 217 F. Supp. 1224, 1265 (D. Or. 2016) ("Plaintiffs allege specifics regarding global changes that also lead to local harm such . . . harm to national security causing destabilization in various regions of the world."). The Supreme Court has also picked up on climate change's security implications. *See* *West Virginia v. EPA*, 597 U.S. 697, 754 (2022) (Kagan, J., dissenting) (citing DEP'T OF DEF., CLIMATE RISK ANALYSIS 8 (2021)).

¹³ *See* NCA5, *supra* note 1, at 17-8 ("Climate change exacerbates risks to national security"); *see also* WHITE HOUSE, NATIONAL SECURITY STRATEGY 27-29 (2022) (discussing climate and energy security).

emerging climate-security connection that suggests how climate and environmental security threatens the political stability, territorial integrity, and sovereignty of many nations.¹⁴

Beyond the descriptive and analytical framing of the growing climate-security connections, this Article argues that there are both opportunities and risks when applying a national security lens to climate change. For example, conceptualizing climate change as a national security issue can help validate climate change's multifaceted threats and potentially cut through political gridlock.¹⁵ Professor Sarah Light, for instance, has called the U.S. military the "unequivocal validator of climate science."¹⁶ In recent years, climate change measures have enjoyed bipartisan support from members of Congress, with several climate-related provisions integrated in the National Defense Authorization Act.¹⁷ Meanwhile, other academics have highlighted the risks associated with applying a national security lens to climate change, arguing that securitizing climate change reduces government transparency, increases government secrecy, curtails civil liberties, and marginalizes disadvantaged groups.¹⁸ These are weighty concerns that must be addressed—but how? I argue that such criticisms should not be dismissed out of hand and should be analyzed by applying my proposed tripartite framework. Doing so moves away from broader abstractions and adds a level of granularity to the underlying analysis.

This Article proceeds in three Parts. Part II highlights the distinct climate security frameworks as understood within the security literature.¹⁹ This includes addressing climate change through the lens of four

¹⁴ Kendra Sakaguchi, et al., *Climate Wars? A Systematic Review of Empirical Analysis on the Links Between Climate Change and Violent Conflict*, 19 INT'L. STUD. REV. 622, 623 (2017).

¹⁵ For a discussion of this idea in greater detail, see Sarah Light, *Valuing National Security: Climate Change, the Military, and Society*, 61 UCLA L. REV. 1772, 1793 (2014) (arguing that the military is the "unequivocal validator of climate science").

¹⁶ Light, *Valuing National Security*, *supra* note 15, at 1797–99 (demonstrating that unlike "sharp partisan divisions over the existence of a scientific consensus regarding climate change, the [Department of Defense] is an unequivocal validator of climate science."); see also Sarah E. Light, *The Military-Environmental Complex*, 55 B.C. L. REV. 879 (2014) (discussing "the military's extensive undertaking to improve its sustainable energy use"); Renée Cho, *Why Climate Change is a National Security Risk*, COLUM. CLIMATE SCH. (Oct. 11, 2023), <https://news.climate.columbia.edu/2023/10/11/why-climate-change-is-a-national-security-risk/> [<https://perma.cc/24NL-RC5L>] (highlighting the Department of Defense's recognition "that climate change is a 'threat multiplier'").

¹⁷ For example, the 2018 National Defense Authorization Act, signed by President Trump, had a provision that required the Department of Defense to report on various climate risks to military installations. See National Defense Authorization Act, 2018, Pub. L. No. 115-91 (2017), 131 Stat. 1283, § 335.

¹⁸ See Maryam Jamshidi, *The Climate Crisis is a Human Security, Not a National Security*, *Issue*, 93 S. CAL. L. REV. POSTSCRIPT 36 (2019).

¹⁹ This is sometimes referred to as "discourses." Matt McDonald, *Discourses of Climate Security*, 33 POLITICAL GEOGRAPHY 42 (2013).

distinct discourses: national security, international security, human security, and ecological security.²⁰ Part III introduces the three-part framework to the climate-security challenge. My climate-security framework argues that climate change affects national security in three fundamental ways. This includes *mitigation* (reducing greenhouse gas emissions from all sources, to include military and national security sources); *adaptation* (investing in climate resilient infrastructure), and *response* (addressing climate-exacerbated disasters at home and abroad, often via military deployments).²¹ Part IV explores the risks and opportunities when applying a security lens to climate change with a particular emphasis on the military's role in responding to extreme weather events and worsening, climate-induced disasters.

II. CONCEPTUALIZING CLIMATE CHANGE AS A SECURITY THREAT

“Of all of the shared problems we face, climate change is the greatest and potentially existential for all nations.”²²

—United States National Security Strategy (2022)

In recent years, scholars from a variety of disciplines have sounded the alarm about climate change's myriad threats and impacts.²³ Within the growing field of climate security, various scholarly frameworks and “discourses” are emerging. These frameworks include conceptualizing climate change as a threat to national security, human security, international security, or ecological security. In what follows, I describe and analyze each of these frameworks, with a particular focus on the United States's role in shaping the climate security discourse.

In many ways, these climate security “discourses” can be traced to the earlier field of environmental security.²⁴ Environmental security recognizes that humanity's race to extract and exploit natural resources degrades the environment, thereby exacerbating food security and setting the condition for political unrest. What's more, environmental security has broad, follow-on impacts for international peace and

²⁰ I borrow these four discourses from McDonald, *supra* note 19.

²¹ See, e.g., Erin Sikorsky (@ErinSikorsky), X (formerly known as Twitter) (Nov. 12, 2022), <https://twitter.com/ErinSikorsky/status/1591414475839754244> [<https://perma.cc/4SXU-6B7B>] (describing the National Guard's recent effort to provide aerial support for a West Virginia wildfire).

²² WHITE HOUSE, NATIONAL SECURITY STRATEGY 9 (2022).

²³ See, e.g., Joshua Busby, *Beyond Internal Conflict: The Emergent Practice of Climate Security*, 58 J. PEACE RSCH. 186 (2020); Mark Nevitt, *On Environmental Law, Climate Change, & National Security Law*, 44 HARV. ENV'L. L. REV. 321 (2020); Light, *Valuing National Security*, *supra* note 15.

²⁴ See Mark A. Levy, *Is the Environment a National Security Issue?*, 20 INT'L. SECURITY 35, 36 (1995).

security.²⁵ Climate security can be seen as the natural outgrowth of environmental security. Just as environmental stressors can undermine peace and security, climate-related stressors can undermine peace and security via increased drought conditions, extreme weather, and heat.

A. Differing Climate Security Discourses

Before focusing on the climate change and national security, I analyze and describe climate change through the lens of international security, human security, and ecological security.²⁶

1. Climate change and international peace and security

Within international humanitarian law, international treaties have afforded some level of protection for the environment dating back to the Hague IV Regulations of 1907.²⁷ Numerous international institutions, such as the U.N. Security Council (UNSC) and the U.N. Environment Program (UNEP), have started to address climate change's role as an international security threat.²⁸ Under the U.N. Charter, the Security Council has been delegated authorities and responsibility for the maintenance of international peace and security.²⁹ All Member States must refrain from "the threat or use of force against the territorial integrity or political independence of any state."³⁰ If the Security Council makes a "threat to the peace" determination under Article 39, it is authorized to take "measures . . . to restore international peace and security."³¹ In the climate context, such measures could feasibly include the interruption of economic trade of certain noxious products that harm the atmosphere.³² The Charter also envisions a role for the Security Council to use armed forces to maintain international peace and security.³³ This is conceptually difficult to imagine in the climate context. After all, we simply can't declare a "war on climate change" that could easily be won applying traditional metrics. Still, an Article 39 threat to

²⁵ *Id.*

²⁶ McDonald, *supra* note 19 (providing a four-part taxonomy to understand various conceptions of climate security).

²⁷ *Int'l Comm. of the Red Cross, Convention (IV) Respecting the Laws and Customs of War on Land and its Annex: Regulations Concerning the Laws and Customs of War on Land, The Hague, 18 October 1907*, INT'L HUMANITARIAN L. DATABASES, <https://ihl-databases.icrc.org/en/ihl-treaties/hague-conv-iv-1907/state-parties?activeTab=undefined> [<https://perma.cc/943J-DND8>].

²⁸ McDonald, *supra* note 19, at 47.

²⁹ U.N. Charter art. 39. This provision of the U.N. Charter authorizes the Security Council to determine whether a "threat to the peace, breach of the peace, or act of aggression" exists.

³⁰ U.N. Charter art. 2, ¶ 4.

³¹ U.N. Charter art. 39.

³² U.N. Charter art. 41.

³³ U.N. Charter art. 42.

the peace determination from the U.N. Security Council could serve as a powerful symbol while activating real authorities—such as sanctioning nations that engage in international trade of uniquely harmful products or undertake massive deforestation efforts that decimate carbon sinks. An Article 39 threat to the peace determination may include preemptively authorizing evacuation forces to facilitate the withdrawal of people residing in Small Island Developing States (SIDS) *before* disaster strikes or an island is rendered uninhabitable.³⁴ To ensure maximum legitimacy, the impacted small island nation would have to consent to such a drastic action, but the Security Council could facilitate extraction or craft measures that impose additional liability on wealthier nations.³⁵

Uninhabitability and nation extinction are not some theoretical ideas. For many nations—particularly several SIDS in the Pacific—sea level rise and other climate impacts threaten their territorial integrity and sovereignty.³⁶ Four atoll nations may be uninhabitable by mid-century; a chilling scientific reminder that showcases that we must wrestle with climate impacts now and not in some distant future.³⁷

While the Security Council has yet to make an Article 39 “threat to the peace” determination as applied to the generalized threat posed by climate change, since 2007 it has hosted a series of “Arria-Formula” debates on the topic of climate security.³⁸ Outside the Security Council, the U.N. Secretary General and UNEP linked the conflict in Darfur to climate-exacerbated challenges.³⁹

In recent years, the Security Council has expanded its mandate in fits and starts to encompass non-traditional security threats such as terrorism and health security.⁴⁰ In 2014, the Security Council made a determination under Article 39 that the Ebola crisis “constitute[d] a

³⁴ Curt D. Storlazzi, et al., *Most Atolls Will be Uninhabitable by the Mid-21st Century Because of Sea-Level Rise Exacerbating Wave-Driven Flooding*, 4 SCI. ADVANCES 1 (2018).

³⁵ Admittedly, imposing liability on wealthier nations does seem implausible at this time, as the permanent members of the Security Council emit a disproportionate share of GHG emissions. Mark Nevitt, *Is Climate Change a Threat to International Peace and Security?*, 42 MICH. J. INT’L L. 527, 531 n.16 (2021).

³⁶ See Stewart, *supra* note 11; Mark Nevitt, *Climate Change & the Specter of Statelessness*, 35 GEO. ENV’T. L. REV. 331 (2023); Michael B. Gerrard, *Statehood and Sea-Level Rise: Scenarios and Options*, 17 CHARLESTON L. REV. 579 (2023).

³⁷ Storlazzi, et al., *supra* note 34.

³⁸ Nevitt, *Is Climate Change a Threat to International Peace and Security?*, *supra* note 35, at 552–55. For a discussion of how climate change will challenge the *jus ad bellum* regime, see Craig Martin, *Atmospheric Intervention? The Climate Change Crisis and the Jus ad Bellum Regime*, 45 COLUM. J. ENV’T. L. 331 (2020).

³⁹ See McDonald, *supra* note 19, at 47.

⁴⁰ See, e.g., Nevitt, *Is Climate Change a Threat to International Peace and Security?*, *supra* note 35, at 548–550. Of note, the U.N. Security Council did not declare COVID-19 a threat to international peace and security.

threat to international peace and security.”⁴¹ If the Security Council did declare climate change a threat to international peace and security, this would tap into broad Chapter VII powers under the U.N. Charter.⁴² These powers could be used, in theory, to halt the international trade of particularly harmful climate products or sanction nations that engage in disproportionately harmful climate practices (such as deforestation).⁴³ While this would no doubt be controversial, the Security Council has addressed “non-traditional” threats in other contexts and has mentioned climate change in recent resolutions as a source of instability.⁴⁴

The U.N. Security Council first addressed the complex relationship between the environment and security in 1991 when Iraq burned oil wells during the Persian Gulf War, causing massive environmental damage. The Security Council passed a resolution declaring that Iraq was “liable under international law for any direct loss, damage, including environmental damage and the depletion of natural resources . . . as a result of Iraq’s unlawful invasion and occupation of Kuwait.”⁴⁵ In 2017, the Security Council noted that the “adverse effects of climate change and ecological changes” in destabilizing the security situation in the Lake Chad Basin—the first time that climate change was mentioned in a Security Council resolution.⁴⁶

In sum, the Security Council has demonstrated a steady capacity to address climate-security matters via high-level dialogues and through the incorporation of climate considerations into existing Security Council resolutions.⁴⁷ There is danger in not being prepared to address climate change’s security risks, particularly in developing nations and areas especially vulnerable to the challenges wrought by climate change. The national security, intelligence, and military communities possess deep planning cultures with deep expertise in planning for unknown risk. And the Department of Defense is expanding its partnerships with many nations exposed to climate change. For example, the United States is working with nations in the Caribbean on the U.S.-Caribbean Partnership to Address the Climate Crisis to improve

⁴¹ S.C. Res. 2177 ¶ 6 (Sept. 18, 2014).

⁴² U.N. Charter arts. 39–42.

⁴³ See Nevitt, *Is Climate Change a Threat to International Peace and Security?*, *supra* note 35, at 541–43.

⁴⁴ S.C. Res. 2177 ¶ 6 (Sept. 18, 2014).

⁴⁵ S.C. Res. 687 (E)(16) (Apr. 3, 1991). This marked the first time that the Security Council determined that a state was liable for harm to the environment. See Catherine Tinker, “*Environmental Security*” in *the United Nations: Not a Matter for the Security Council*, 59 TENN. L. REV. 787, 789 (1992) (critiquing the Security Council’s role in addressing environmental security).

⁴⁶ S.C. Res. 2349 ¶ 26 (Oct. 14, 2017).

⁴⁷ See *id.* (recognizing climate change’s adverse effects on water scarcity, drought, and desertification in the Lake Chad Basin region).

climate adaptation and resilience in the Caribbean.⁴⁸ Former Secretary of the Navy Ray Mabus highlighted that during his tenure the U.S. military receives requests for “humanitarian assistance or disaster relief on average once every two weeks.”⁴⁹

2. Climate change and human security

A human security approach favors a people-centric approach.⁵⁰ A human security climate discourse “provides a basis . . . for top-down” as well as “bottom-up approaches to climate change.”⁵¹ In 1994, the U.N. Development Programme (UNDP) Human Development Report advanced human security when it announced the need to “orient security around the wellbeing of people rather than states.”⁵² The report argued that “states are at best unreliable in providing security for their citizens, and in some cases directly undermine the wellbeing of their own populations.”⁵³ Second, the UNDP report argued that in modern times preserving state sovereignty and territory “no longer reflects the security concerns of most people or the nature of contemporary security challenges.”⁵⁴

Fifteen years later, in 2009, the U.N. General Assembly (UNGA) picked up on UNDP’s idea, arguing for a human security lens as it relates to climate change in its report, *Climate Change and its Possible Security Implications*.⁵⁵ The UNGA report emphasizes the “security of individuals and communities” while endorsing the UNDP report.⁵⁶

Scholars wary of climatizing national security often favor analyzing climate security through the human security lens.⁵⁷ Critics of a national security approach argue that such a lens leads to increased

⁴⁸ *U.S. Caribbean Partnership to Address the Climate Crisis 2030*, U.S. DEPT. OF STATE, <https://www.state.gov/pacc2030/> [<https://perma.cc/6VGE-Y6FM>]. According to the Secretary of the Navy, Carlos del Toro, the U.S. military has “executed nearly \$100 million in construction projects in the [Caribbean] region since 2008. Jim Garamone, *Navy Secretary Reaches Out to Caribbean Nations in Fight Against Climate Change*, U.S. S. COMMAND (Mar. 15, 2023), <https://www.southcom.mil/MEDIA/NEWS-ARTICLES/Article/3330660/navy-secretary-reaches-out-to-caribbean-nations-in-fight-against-climate-change/> [<https://perma.cc/KU6Z-ZK8T>].

⁴⁹ CIPHER BRIEF, *Can the U.S. Navy Maintain an “Around the World” Presence?*, https://www.thecipherbrief.com/column_article/can-the-u-s-navy-maintain-an-around-the-world-presence/ (Jul. 4, 2017), [<https://perma.cc/YD9G-B5DH>].

⁵⁰ See McDonald, *supra* note 19, at 46–47.

⁵¹ Jamshidi, *supra* note 18, at 43.

⁵² McDonald, *supra* note 19, at 46.

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ U.N. Secretary General, *Climate Change and its Possible Security Implications*, U.N. Doc A/64/350 (Sept. 11, 2009).

⁵⁶ *Id.* at 4.

⁵⁷ Jamshidi, *supra* note 18.

secrecy and further militarization of governmental activities.⁵⁸ For example, some scholars have criticized how U.S. foreign policy has become over-militarized in recent years.⁵⁹ After all, the U.S. Department of Defense is, by some estimates, the largest employer in the world, possessing a massive budget that dwarfs the other leading militaries.⁶⁰ Placing too much emphasis on national security could potentially lead to military and national security voices that drown out other institutions and voices that are more focused on human security and flourishing. And courts will provide a healthy dose of deference to the executive branch in national security matters; such deference is aided by congressional acquiescence.⁶¹

3. Climate change and ecological security

Third, the ecological security discourse goes beyond human communities to encompass the biosphere and broader environment.⁶² It acknowledges that climate change poses a threat to the “equilibrium associated with contemporary political, social, and economic structures.”⁶³

Academics and non-governmental organizations alike have been prominent voices in advancing the ecological security discourse. Professor Dennis Pirages argues that ecological security rests on preserving equilibriums between human populations and nature, pathogenic microorganisms, and plants and animals.⁶⁴ The ecological security response argues for “fundamental reorientation of societal patterns and behaviour,” but proponents lack specificity in articulating what a stable ecological security might look like.⁶⁵ To date, the ecological security discourse “has not achieved a position of prominence in debates about response to climate change.”⁶⁶ In recent years, we have witnessed international progress with the successful negotiation and signing of the Marine Biodiversity of Areas Beyond National Jurisdiction (BBNJ)

⁵⁸ *Id.*

⁵⁹ DEREK S. REVERON & MICHELLE D. GAVIN, AMERICA’S VICEROYS: THE MILITARY AND U.S. FOREIGN POLICY 1, 2 (Derek S. Reveron ed., 2004); Mark Nevitt, *The Operational and Administrative Militaries*, 53 GA. L. REV. 905, 949–953 (2019).

⁶⁰ Ruth Alexander, *Which is the World’s Biggest Employer?*, BBC NEWS (Mar. 20, 2012), <http://www.bbc.co.uk/news/magazine-17429786> [<https://perma.cc/4SBR-H955>].

⁶¹ This has prompted Professor Harold Koh to exclaim that the executive branch “nearly always wins” in national security matters. HAROLD KOH, THE NATIONAL SECURITY CONSTITUTION: SHARING POWER AFTER THE IRAN-CONTRA AFFAIR 137–46 (1990).

⁶² McDonald, *supra* note 19, at 48–49.

⁶³ *Id.* at 49.

⁶⁴ *See id.*

⁶⁵ *Id.*

⁶⁶ *Id.* at 48.

treaty. BBNJ establishes a comprehensive legal framework for the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction.⁶⁷ While there is just a brief mention of food security in the treaty, the treaty nevertheless highlights the importance of protecting ocean ecosystems on the global commons, a critical step in stabilizing the marine environment.

4. Defining “national security”

The term “national security” is not well defined in law, but scholars have highlighted an inherent tension when applying a national security lens—an inadequate national defense “would jeopardize our lives and ideals . . . [y]et measures taken in the name of national security sometimes pose comparable threats to those of liberty and justice.”⁶⁸ Today, national security includes national defense, military preparedness, and the territorial integrity of a state. The national security discourse has enjoyed considerable traction among militaries of the world, think tanks, and Congress.⁶⁹

This definitional vagueness has been criticized as leading to divergent ideological commitments depending on who is in power and how national security is prioritized.⁷⁰ Conceptualizing climate change as a national security threat is “among the most prominent contemporary discourses of climate security.”⁷¹ For many scholars, national security is inextricably linked to a state’s preservation of its sovereignty and territorial integrity.⁷² Critics of using national security as a lens to address climate change argue that national security is an amorphous and

⁶⁷ Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction, UN Doc. A.CONF/232/2023/4 (June 19, 2023). For a more thorough discussion, see generally Daniel Bodansky, *Four Treaties in One: The Biodiversity Beyond National Jurisdiction Agreement*, 118 AM. J. INT’L L. 299 (2024).

⁶⁸ STEPHEN DYCUS ET AL., NATIONAL SECURITY LAW 1 (2016); HON. JAMES E. BAKER, IN THE COMMON DEFENSE: NATIONAL SECURITY LAW FOR PERILOUS TIMES 16–19 (2007) (“[N]o single definition of national security is recognized in law or as policy predicate.”). The term “national security” is not defined in U.S. code, but within the Department of Defense (DOD) “national security” it is defined as “[a] collective term encompassing both national defense and foreign relations of the United States with the purpose of gaining: a. [a] military or defense advantage over any foreign nation . . . ; b. [a] favorable foreign relations position; or c. [a] defense posture capable of successfully resisting hostile or destructive action from within or without, overt or covert.” DOD DICTIONARY OF MILITARY AND ASSOCIATED TERMS AT 150 (2020); see also HON. JAMES E. BAKER, IN THE COMMON DEFENSE: NATIONAL SECURITY LAW FOR PERILOUS TIMES 16–19 (2007) (“[N]o single definition of national security is recognized in law or as policy predicate.”).

⁶⁹ McDonald, *supra* note 19, at 46 (arguing that the national security discourse has “potentially served to raise the profile of climate change as an issue within the developed world”).

⁷⁰ See Aziz Rana, *Who Decides on Security?*, 44 CONN. L. REV. 1417, 1425 (2012).

⁷¹ McDonald, *supra* note 19, at 45.

⁷² *Id.*; see also S. Walt, *Renaissance of Security Studies*, 35 INT’L STUD. Q. 211 (1991).

increasingly capacious term that unlocks significant powers that can affect civil liberties.

National security policymakers often turn to national security justifications to fulfill desired policy preferences. Following the end of the Second World War, the government created entirely new national security agencies and fostered close civilian-military partnerships.⁷³

While slow onset events such as sea level rise can negatively impact a state's physical and territorial integrity, the scholarly focus has historically been on analyzing climate change's role in political instability and armed conflict.⁷⁴ The Supreme Court implicitly highlighted the connection between core national security interests and climate change in *Massachusetts v. EPA*.⁷⁵ In its standing analysis, the Court discussed climate change's role in "swallowi[ng]" Massachusetts coastline.⁷⁶ The plaintiffs in *Juliana v. United States* also highlighted climate change's role in exacerbating extreme weather events (storm surges, hurricanes, droughts, and wildfires) and argued that climate was causing a "national security . . . destabilization in various regions of the world."⁷⁷

Of course, climate impacts are inherently fluid and indifferent to neat, political borders, making climate-induced threats unlike many other threats facing nation-states.

In 2020, Congress took an important step in codifying the definition of climate security:

The term "climate security" means the effects of climate change on the following: (A) The national security of the United States, including national security infrastructure; (B) Subnational, national, and regional political stability; (C) The security of allies and partners of the United States; (D) Ongoing or potential political violence, including unrest, rioting, guerrilla warfare, insurgency, terrorism, rebellion, revolution, civil war, and interstate war.⁷⁸

This legal codification marks the first time that climate security was defined in law, thus directly linking climate change with national security as a legal matter. Congress's climate security definition is capacious, highlighting both the threats that climate change poses to

⁷³ Laura K. Donohue, *The Limits of National Security*, 48 AM. CRIM. L. REV. 1573, 1666–67 (2011).

⁷⁴ *See id.*

⁷⁵ 549 U.S. 497 (2007).

⁷⁶ *Id.* at 522.

⁷⁷ 217 F. Supp. 3d 1224, 1265 (D. Or. 2016) (summarizing the injuries asserted by the children-litigants).

⁷⁸ 50 U.S.C. § 3060(f)(1).

national security infrastructure (adaptation) and the role that climate change plays in catalyzing conflict and political violence (response). Climate mitigation is notably missing from the statutory definition. This is a missed opportunity and would acknowledge that the Pentagon and the security sector are enormous consumers of fossil fuels and have a role to play in reducing GHG emissions—a theme that I turn to below.

B. The Rise of Climate Security Within Scientific Reports

U.S. National Climate Assessments (NCA) have consistently highlighted climate change's national security implications.⁷⁹ For example, the just-released Fifth NCA states that “climate change exacerbates risks to national security.”⁸⁰ Specifically, the NCA estimates with high confidence that “climate change can contribute to political and social instability and, in some instances, to conflict.”⁸¹ Climate change impacts the operations and missions of defense, diplomacy, and development agencies critical to U.S. national security.⁸² It continues:

In a globally connected world, climate change impacts on US interests are multifaceted, interconnected, and frequently exacerbated by social unrest and environmental degradation. The scale and speed of climate-related impacts to US interests are expected to increase, due in part to underlying interdependencies and to the projected intensification of climate change.⁸³

With high confidence, the NCA acknowledges that climate change exacerbates risks to national security, stating:

Climate change can contribute to political and social instability and, in some instances, to conflict (*likely, high confidence*). It impacts the operations and missions of defense, diplomacy, and development agencies critical to US national security (*very likely, high confidence*). The US Government, bilaterally and in collaboration with international partners, is increasingly addressing these implications through a range of diplomatic, development, and defense responses (*very likely, high confidence*).⁸⁴

The NCA discusses the relationship between food security and climate change, a point similarly reinforced in the Intergovernmental

⁷⁹ See, e.g., NCA5, *supra* note 1, at 17-8.

⁸⁰ See *id.*

⁸¹ *Id.*

⁸² See *id.*

⁸³ *Id.* (parentheticals omitted).

⁸⁴ *Id.*

Panel on Climate Change's (IPCC) reports. The IPCC states that "[c]limate-related risks to health, livelihoods, food security, water supply, human security, and economic growth are projected to increase with global warming of 1.5°C and increase further with 2.0°C."⁸⁵ These scientific reports have increasingly been in conversation with national security and military estimates and reports—a subject that I turn to below.

C. Climate Change's Growing Prominence in National Security and Intelligence Reports

Increasingly, the White House, Pentagon, and intelligence community are analyzing and preparing for climate change's multifaceted impacts. Outside of academic discussions, the national security discourse has consistently been advanced by prominent representatives in national security institutions to include U.S. military leaders.⁸⁶ In many respects, conceptualizing climate change as a security threat is consistent with a broader trend of recognizing that non-traditional threats (pandemics, health security, and terrorism) can impact national security in new and complex ways. And it is not just U.S. national security actors and institutions that have addressed climate change. Climate change's security implications were also addressed at the Conference of Parties (COP) at COP28 in Dubai, United Arab Emirates.⁸⁷

Climate change was first addressed in the 1991 National Security Strategy (NSS)—a time when climate change's impacts were understood to be a more distant threat. The development of the 1991 NSS overlapped with the Persian Gulf War and Saddam Hussein's burning of oil wells, which brought the issue of environmental security to the fore.⁸⁸ President George H.W. Bush's second NSS, released at the twilight of his presidency in 1993, emphasized the importance of energy security and energy efficiency, a theme that was built on in subsequent strategies.⁸⁹

⁸⁵ INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE [IPCC], GLOBAL WARMING OF 1.5 CELSIUS, SUMMARY FOR POLICY MAKERS 11 (2d ed. Jan. 2019).

⁸⁶ See generally GOODMAN, *supra* note 2. By some estimates, the U.S. Department of Defense is the world's largest employer. See Alexander, *supra* note 60.

⁸⁷ COP, *supra* note 10.

⁸⁸ WHITE HOUSE, NATIONAL SECURITY STRATEGY 2 (1991) (stating that "[t]he environmental depredations of Saddam Hussein have underscored that protecting the global ecology is a top priority on the agenda of international cooperation—from extinguishing oil fires in Kuwait to preserving the rain forests to solving water disputes to assessing *climate change*") (emphasis added).

⁸⁹ WHITE HOUSE, NATIONAL SECURITY STRATEGY (1993). There are also National Defense Strategies (issued by the Department of Defense) and National Military Strategies (issued by the Chairman of the Joint Chiefs of Staff). These strategies have similarly discussed and elevated climate change in recent years.

Each subsequent NSS has discussed climate change in some fashion, oftentimes tying climate change with a growing parade of national security threats.⁹⁰ Integration of climate change into National Security Strategies has steadily grown in prominence. For example, President Clinton's first NSS signed in 1994 linked climate change with sustainable development.⁹¹ The 1994 NSS acknowledged that "[n]ot all security threats are military in nature"; they include "an emerging class of transnational environmental issues [that] are increasingly affecting international stability and consequently will present new challenges."⁹²

Clinton's second NSS, released in 1996, stated that by 2025 "environmental pressures will feed into immense social unrest and make the world substantially more vulnerable to serious international frictions."⁹³ One year later, in 1997, Clinton issued his third NSS which highlighted the critical role that mitigation—the reduction of greenhouse gas (GHG) emissions—plays in safeguarding national security.⁹⁴ It further highlighted the need to "forge an international consensus to address the challenge of global climate change, as evidenced by threats such as rising sea levels, the spread of tropical disease and more frequent and severe storms."⁹⁵

Also in 1997, the Clinton Administration signed the Kyoto Protocol, which placed binding emissions limits on the United States as well as other industrialized countries (but not China or India). However, the Byrd-Hagel Senate Resolution prevented the Senate from ratifying any international agreement without binding emissions limitations on developing nations. The Senate never provided its advice and consent to the Kyoto Protocol, setting back international climate cooperation for over a decade.⁹⁶

In the aftermath of Kyoto's failure, Clinton issued the fourth and final 2000 NSS of his presidency. The 2000 NSS stated that the Kyoto Protocol remained essential for broader efforts to address global warming and to protect the United States from rising sea levels and other forms of disruption.⁹⁷

⁹⁰ The one notable exception was the 2017 National Security Strategy issued during the Trump Administration.

⁹¹ WHITE HOUSE, NATIONAL SECURITY STRATEGY 17–18 (1994).

⁹² *Id.* at 1.

⁹³ WHITE HOUSE, NATIONAL SECURITY STRATEGY 26 (1996).

⁹⁴ WHITE HOUSE, NATIONAL SECURITY STRATEGY 3 (1997).

⁹⁵ *Id.* at 21.

⁹⁶ See JANE A. LEGGETT, CONG. RSCH. SERV., R40001, A U.S.-CENTRIC CHRONOLOGY OF THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE 4 (describing the Kyoto Protocol and its domestic legislative aftermath).

⁹⁷ WHITE HOUSE, NATIONAL SECURITY STRATEGY 13 (2000).

President George W. Bush took office in 2001, and his first NSS was released in the aftermath of the September 11th terrorism attacks, a watershed moment that shaped U.S. national security priorities. Despite the renewed emphasis on terrorism and non-state actors, the NSS nevertheless addressed the need for climate mitigation efforts, particularly as it relates to economic growth. Bush's first NSS noted that economic growth should be accompanied by "global efforts to stabilize greenhouse gas concentrations."⁹⁸ Yet President Bush famously "unsigned" the Kyoto Protocol.⁹⁹ Bush's first NSS also emphasized the importance of energy security and emphasizing energy supply chains and partnerships. Bush's second and final NSS, released in 2006, marked a step backward in conceptualizing climate change as a security issue.

At the end of President Bush's presidency, in 2007, the Center for Naval Analysis (CNA), an influential think tank composed of former military officials, issued a new report titled *National Security and the Threat of Climate Change*.¹⁰⁰ The CNA report highlighted that climate change acts as both a threat multiplier and catalyst for conflict—two terms that resonate today as a shorthand to conceptualize climate security.¹⁰¹

President Obama breathed new life into climatizing national security and integrated climate considerations into his two National Security Strategies. In doing so, President Obama once again elevated climate change as an important national security interest for the United States. In 2010, Obama linked climate change with human health while recognizing the need to transform the economy through clean energy and energy efficiency.¹⁰² Obama also addressed mitigation in his first NSS, pledging to reduce U.S. GHG emissions by 17 percent by 2020 and more than 80 percent by 2050.¹⁰³

Beyond highlighting these ambitious mitigation goals, Obama's 2010 NSS stressed the importance of investing in climate adaptation, particularly in the most vulnerable regions of the world (such as Africa).¹⁰⁴ It emphasized the role that climate adaptation will play in Africa and other developing nations of the world. Failure to invest in *ex*

⁹⁸ WHITE HOUSE, NATIONAL SECURITY STRATEGY 20 (2002).

⁹⁹ EMILY C. BARBOUR, CONG. RSCH. SERV., R41175, INTERNATIONAL AGREEMENTS ON CLIMATE CHANGE: SELECTED LEGAL QUESTIONS 10–12 (2010).

¹⁰⁰ CTR. FOR NAVAL ANALYSIS, *supra* note 2, at 13–18.

¹⁰¹ *Id.* at 44. The Center for Naval Analysis followed up with a second report in 2014. CTR. FOR NAVAL ANALYSIS MIL. ADVISORY BD., NATIONAL SECURITY AND THE ACCELERATING RISKS OF CLIMATE CHANGE 2–3 (2014). The Center for Naval Analysis has also issued a report on the energy security challenges facing the nation and the world. CTR. FOR NAVAL ANALYSIS MIL. ADVISORY BD., POWERING AMERICA'S DEFENSE: ENERGY AND THE RISKS TO NATIONAL SECURITY (2009).

¹⁰² WHITE HOUSE, NATIONAL SECURITY STRATEGY 8–10 (2010).

¹⁰³ *Id.* at 47.

¹⁰⁴ *Id.*

ante adaptation measures could lead to further political instability.¹⁰⁵ Four years later, the Pentagon issued its first Climate Change Adaptation Roadmap, focusing on measures that the DoD could take to safeguard military installations from climate impacts.¹⁰⁶

Obama's 2015 NSS focused on specific regions while acknowledging climate change's role in extreme weather patterns. The 2015 NSS affirmatively embraced the "threat accelerant" and "catalyst for conflict" language from the 2007 Center for Naval Analysis report, calling climate change "an urgent and growing threat to our national security, contributing to increased natural disasters, refugee flows, and conflicts over basis resources like food and water."¹⁰⁷

While President Trump's first and only 2017 NSS did not trumpet climate change as a major national security threat, his NSS reinforced the need to balance energy security and environmental protection with economic development.¹⁰⁸ Despite omitting the words "climate change" from the text of the NSS, Trump announced that the U.S. would "remain a global leader in reducing traditional pollution, as well as greenhouse gases, while expanding our economy."¹⁰⁹ In addition, Trump signed into law several defense spending bills that addressed climate change at military installations, and included reporting requirements on a myriad climate of impacts (drought, sea level rise, and wildfire) to military installations.¹¹⁰

But President Biden's first and only NSS (issued in 2022) prominently addressed climate change. His 2022 NSS followed up on his 2021 Executive Order, "Tackling the Climate Crisis at Home and Abroad."¹¹¹ The 2022 NSS stated that:

[C]limate change is the greatest [shared problem we face] and potentially existential for all nations Without immediate global action during this crucial decade, global temperatures will cross

¹⁰⁵ *Id.* at 45, 47 (discussing the importance of infrastructure development and improving access to power in Africa as well as the need to "forge new clean energy partnerships" and "the necessary financing is mobilized so that developing countries can adapt to climate change").

¹⁰⁶ DEPT OF DEF., 2014 CLIMATE CHANGE ADAPTATION ROADMAP (2014).

¹⁰⁷ WHITE HOUSE, NATIONAL SECURITY STRATEGY 12 (2015).

¹⁰⁸ WHITE HOUSE, NATIONAL SECURITY STRATEGY (2017). Prior to his presidency, President Trump dismissed climate change as a "Chinese hoax." Donald Trump (@realDonaldTrump), X (formerly known as Twitter) (Nov. 6, 2012, 1:15 PM), <https://twitter.com/realDonaldTrump/status/265895292191248385> [<https://perma.cc/NL69-7NT5>].

¹⁰⁹ WHITE HOUSE, NATIONAL SECURITY STRATEGY (2017).

¹¹⁰ See National Defense Authorization Act for Fiscal Year 2018, Pub L. No. 115-91, § 335, 131 Stat. 1283, 1357 (2017). This provision was introduced by Rep. James Langevin (D-RI). Jordan Brunner, *Congress Adapts to Calamity: The FY 2018 NDAA's Climate Change Provisions*, LAWFARE (Dec. 11, 2017), <https://www.lawfaremedia.org/article/congress-adapts-calamity-fy-2018-ndaas-climate-change-provisions> [<https://perma.cc/9BKKU-36RW>].

¹¹¹ Exec. Order No. 14,008, 86 Fed. Reg. 7619 (Jan. 27, 2021).

the critical warming threshold of 1.5 degrees Celsius [established by the Paris Climate Agreement,] after which scientists have warned some of the most catastrophic climate impacts will be irreversible. Climate effects and humanitarian emergencies will worsen in the years ahead . . . increasing humanitarian need, food insecurity and health threats, as well as the potential for instability, conflict and mass migration.¹¹²

In 2023, President Biden also released the nation's first National Climate Resilience Framework.¹¹³ This framework document identified "key values, priorities, and objectives to help expand and accelerate nationally-comprehensive, locally-tailored, and community-driven resilience strategies."¹¹⁴

Outside National Security Strategies, which are led by the National Security Advisor and signed by the President, the U.S. intelligence community has also connected climate change with broader security concerns.¹¹⁵ In 2019, the Office of the Director of National Intelligence issued a new threat assessment report, stating that the "negative effects of environmental degradation and climate change" will impact human security, affect public health, and lead to historic levels of human displacement within and across borders.¹¹⁶ In 2023, the Office of the Director of National Intelligence issued an annual threat assessment stating that "climate change will increasingly exacerbate risks to U.S. national security interests as the physical impacts increase and geopolitical tensions mount about the global response to the challenge."¹¹⁷ The intelligence community's discussion of climate change brings an additional measure of gravitas, independence, and credibility to the climate-security discussion. The intelligence community's annual threat assessments are mandated by Congress, and their reports reflect an objective and independent assessment of the threats facing the nation, removed from political considerations.¹¹⁸ The threat assessment document reflects the collective insight of the intelligence community, comprised of a massive intelligence community across the federal government.¹¹⁹

¹¹² WHITE HOUSE, NATIONAL SECURITY STRATEGY 9 (2022).

¹¹³ WHITE HOUSE, NATIONAL CLIMATE RESILIENCE FRAMEWORK (2023).

¹¹⁴ *Id.* at 5.

¹¹⁵ *See, e.g.*, DANIEL R. COATS, OFFICE OF DIR. OF NAT'L INTELLIGENCE, STATEMENT FOR THE RECORD: WORLDWIDE THREAT ASSESSMENT OF THE INTELLIGENCE COMMUNITY (Jan. 29, 2019).

¹¹⁶ *Id.* at 21.

¹¹⁷ 2023 OFFICE OF DIRECTOR OF NAT'L INTELLIGENCE ("ODNI"), ANNUAL THREAT ASSESSMENT OF THE U.S. INTELLIGENCE COMMUNITY 22 (Feb. 6, 2023).

¹¹⁸ *Id.* at 2.

¹¹⁹ Congress redesigned the intelligence community in 2004 via the Intelligence Reform

In sum, since 1991 the U.S. NSS and a growing number of intelligence reports have addressed climate change. This steady emphasis has taken place across presidential administrations and political parties. Situating climate change within these key national security and intelligence reports demonstrates a steady and growing acceptance from key national security policymakers that climate change will affect U.S. security interests at home and abroad. In the 2022 NSS, “climate change” is referenced twenty times and “climate” over sixty times.¹²⁰

D. Legislative Action to Address Climate Security

In addition to executive strategies and assessments, Congress has also addressed climate security matters in recent years via annual defense appropriation bills.¹²¹ Defense spending bills have served as a legislative vehicle to address a broad swath of climate-security issues. This includes requiring the Pentagon to produce a report on military installations’ vulnerability to climate change, changing construction standards to take into account climactic considerations, and prohibiting military construction on the 100-year floodplain.¹²²

Even during President Trump’ presidency—an administration marked by climate skepticism—four consecutive defense spending bills addressed climate change.¹²³ For example, the fiscal year 2021 defense spending bill directed the DoD to update its 2014 Climate Change Adaptation Roadmap, broaden DoD’s authority to implement climate resilience projects outside of a military installation via the Readiness and Environmental Integration Program (REPI), and establish a new “National Academies Climate Security Roundtable.”¹²⁴

Terrorism Prevention Act of 2004, in a way to improve intelligence estimates and coordination following September 11th. Pub. L. No. 108-458, 118 Stat. 3638 (2004).

¹²⁰ See WHITE HOUSE, NATIONAL SECURITY STRATEGY (2022); see also Mark P. Nevitt, *The Climate-Security Nexus*, ABA 60TH ANTHOLOGY (2022), https://www.americanbar.org/groups/law_national_security/publications/aba-standing-committee-on-law-and-national-security-60th-anniversary-an-anthology/the-climate-security-nexus/ [<https://perma.cc/YX6G-M4D4>].

¹²¹ And Congress has taken steps to address environmental security matters, authorizing the Secretary of Defense to establish a Center for Excellence in Environmental Security. 10 U.S.C. § 182a.

¹²² See generally Mark Nevitt, *Climate Change and the Law of National Security Adaptation*, 118 NW. U. L. REV. ONLINE 126 (2023).

¹²³ See, e.g., Carol Davenport & Mark Landler, *Trump Administration Hardens Its Attack on Climate Science*, N.Y. TIMES (May 27, 2019); see also Shana Udvardy, *Congress Continues to Affirm that Climate Security is National Security*, UNION CONCERNED SCIENTISTS (Jan. 5, 2021), <https://blog.ucsusa.org/shana-udvardy/congress-continues-to-affirm-that-climate-security-is-national-security/> [<https://perma.cc/SQ2K-2W7A>] (arguing that “Congress again demonstrates bipartisan support for increasing the military’s readiness to a climate change-fueled future”). Defense spending bills begin with a congressional authorization, labeled the National Defense Authorization Act (NDAA), followed later by an appropriations act.

¹²⁴ See Udvardy, *supra* note 123. In addition, the Fiscal Year 2021 NDAA directed the DOD to report on the top ten Coast Guard installations vulnerable to climate change impacts including

III. PROPOSED CLIMATE SECURITY FRAMEWORK

“Rising waters, scorching heat, and other severe weather conditions could force ‘mass migration events[,] political crises, civil unrest,’ and ‘even state failure.’”

— Justice Elena Kagan¹²⁵

In what follows, I propose and analyze a tripartite framework to conceptualize climate change’s national security implications. First, climate mitigation addresses the need to reduce GHG emissions from all sources, including military and national security sources.¹²⁶ Second, climate adaptation focuses on the need to protect national security infrastructure (to include military bases) at home and abroad from climate impacts.¹²⁷ Adaptation is particularly important for naval national security infrastructure along the coast. These assets are vulnerable to extreme weather and slow-onset events such as sea-level rise and coastal erosion. Third, climate response encompasses how the military and national security actors respond to extreme weather events, climate-induced conflict, and humanitarian assistance missions at home and abroad.¹²⁸ Even the U.S. Supreme Court has highlighted the Pentagon’s concerns about climate change. Justice Kagan, in her dissent in *West Virginia v. EPA*, cited to the Pentagon’s own Climate Risk Analysis report.¹²⁹

A. Climate Mitigation: The National Security Sector’s Role in Reducing GHG Emissions

Scholars have labeled climate change the collective action problem of our era, and the national security sector remains an enormous GHG emitter.¹³⁰ According to Brown University’s Costs of War project, “DoD

“rising sea tides, increased flooding, drought, desertification, wildfires, thawing permafrost, or any other categories the Commandant determines necessary.” National Defense Authorization Act, Pub. L. No. 116-283 (2021), 134 Stat. 4673, § 8250(b)(1).

¹²⁵ *West Virginia v. EPA*, 597 U.S. 697, 754 (Kagan, J., dissenting) (alteration in original) (citing DEP’T OF DEF., CLIMATE RISK ANALYSIS 8 (2021)).

¹²⁶ Under the Paris Agreement, signed in 2015, each nation commits to submitting individual “nationally determined contributions” that reflect a commitment to reduce GHG emissions. There is no automatic opt-out from military or national security sources. Paris Agreement, art. 4(2) (2015).

¹²⁷ See Nevitt, *Climate Change and the Law of National Security Adaptation*, *supra* note 122.

¹²⁸ For example, the Secretary of the Navy stated that the U.S. Navy receives a request for humanitarian assistance every two weeks. See Remarks by the Honorable Ray Mabus, Secretary of the Navy, U.S. NAVY (2013). CTR. FOR NAVAL ANALYSIS (CNA): NATIONAL SECURITY AND THE THREAT OF 23 CLIMATE CHANGE (2014).

¹²⁹ *West Virginia*, 597 U.S. at 754 (Kagan, J., dissenting) (alteration in original) (citing DEP’T OF DEF., CLIMATE RISK ANALYSIS 8 (2021)).

¹³⁰ Steven R. Brechin, *Climate Change Mitigation and the Collective Action Problem: Exploring*

is the single largest consumer of energy in the U.S., and . . . the world's single largest institutional consumer of petroleum.”¹³¹ And these emissions are significant: by one estimate, the U.S. military is “the world's largest institutional user of petroleum and correspondingly, the single largest institutional producer of greenhouse gases (GHG) in the world.”¹³² Reducing GHG military emissions is particularly challenging due to the carbon intense nature of operational warfare and military hardware—including Abrams tanks, Air Force fighter jets, and Navy destroyers—and reliance on fossil fuels. A ready-made, alternative fuel that satisfies the military's operational requirements is not yet available.¹³³

Internationally, the Paris Climate Agreement allows nations to develop “nationally determined contributions.”¹³⁴ This involves emissions from all sources, including military and national security sources. The 2015 Paris Climate Agreement mandates that each nation submit individual emissions plans via “nationally determined contributions.”¹³⁵ These nationally determined contributions do not automatically opt-out military emissions. Reducing GHG emissions and keeping the Earth's temperature below the Paris Climate Accord's goals requires a broad approach to climate mitigation and a full accounting of all sources. This includes national security and military GHG emissions. The Biden administration highlighted this linkage in its first Executive Order, “Tackling the Climate Crisis At Home and Abroad.”¹³⁶

Within the DoD, energy consumption can loosely be divided between operational (on the battlefield and in operational environments overseas) and administrative (at military installations) usage.¹³⁷ Operational energy is defined as energy “required for training, moving, and sustaining military forces and weapons platforms” and accounts for 70 percent of DoD energy consumption.¹³⁸ Operational energy equates to warfighting energy usage, such as jet fuel and diesel fuel used by tanks and armored fighting vehicles. Over-reliance on fossil fuel usage exposes supply lines and undermines military effectiveness—a reality

Country Differences in Greenhouse Gas Contributions, 31 SOCIO. F. 846, 846 (2016) (describing climate change as the collective action problem of our era). Crawford, *supra* note 8, at 4 (2019).

¹³¹ Crawford, *supra* note 8, at 2.

¹³² *Id.*

¹³³ The one exception, of course, is nuclear-powered aircraft carriers and submarines.

¹³⁴ U.N. Framework Convention on Climate Change, *Adoption of the Paris Agreement*, U.N. Doc. FCC/CP/2015/L.9/Rev.1 art. 4(2)-(4) (Dec. 12, 2015) (requiring each nation to “prepare, communicate, and maintain successive nationally determined contributions”).

¹³⁵ Paris Agreement, art. 4 (2) (2015).

¹³⁶ Exec. Order No. 14,008, 86 Fed. Reg. 7619 (Jan. 27, 2021).

¹³⁷ Nevitt, *The Operational and Administrative Militaries*, *supra* note 59, at 905.

¹³⁸ DEPT OF DEF., OPERATIONAL ENERGY STRATEGY 1 n.1 (2023); *see also* Crawford, *supra* note 8, at 7–8.

recognized by senior military commanders. The other 30 percent encompasses administrative energy usage—energy for installations and support—the “tail” that provides the sustenance and logistics to the more operational military fighting force.¹³⁹

In response to a series of executive orders, each military service developed ambitious plans to massively reduce their respective GHG emissions in the coming years. For example, the Navy’s “Climate Action 2030” announced a performance goal of reducing the Department of the Navy’s GHG emissions.¹⁴⁰ This includes achieving a “50 percent reduction in emissions from buildings by 2032” while working toward meeting the president’s ultimate goal of net-zero emissions by 2050.¹⁴¹ The North Atlantic Treaty Organization (NATO) has also issued plans to achieve net-zero emissions by a certain date.¹⁴²

In addition, the U.S. National Intelligence Estimate (NIE) highlights the global security risk posed by broader decarbonization efforts, particularly from nations whose economies are heavily reliant on fossil fuel extraction. The NIE estimates that many so-called “petrostate” nations will resist broader international efforts to reduce GHG emissions. These petrostate nations—which include Russia, Nigeria, Venezuela, Saudi Arabia, and many other Middle Eastern nations—may well fight broader decarbonization efforts, leading to greater instability. Indeed, the NIE “assesses that most countries that rely on fossil fuel exports to support their budgets will continue to resist a quick transition to a zero-carbon world because they fear the economic, political, and geopolitical costs of doing so.”¹⁴³

B. Adaptation: Safeguarding National Security Infrastructure

Second, climate change threatens national security infrastructure, including military installations both within the United States and overseas.¹⁴⁴ The U.S. Army defines “adaptation” as the “[a]djustment in natural or human systems in . . . response to a changing environment in a way that effectively uses beneficial opportunities or reduces negative

¹³⁹ Crawford, *supra* note 8, at 6. For a discussion of the operational and administrative militaries, see Nevitt, *The Operational and Administrative Militaries*, *supra* note 59.

¹⁴⁰ OFF. OF THE ASSISTANT SEC’Y OF THE NAVY FOR ENERGY, INSTALLATIONS, AND ENV’T, DEP’T OF THE NAVY, CLIMATE ACTION 2030: DEPARTMENT OF THE NAVY 13–14 (2022).

¹⁴¹ *Id.* at 5, 13.

¹⁴² *Environment, Climate Change, and Security*, NORTH ATLANTIC TREATY ORG. (Jan. 12, 2024), https://www.nato.int/cps/en/natohq/topics_91048.htm [<https://perma.cc/5STT-JLKU>].

¹⁴³ NAT’L INTEL. COUNCIL, NATIONAL INTELLIGENCE ESTIMATE: CLIMATE CHANGE AND INTERNATIONAL RESPONSES INCREASING CHALLENGES TO US NATIONAL SECURITY THROUGH 2040 7 (2021) [hereinafter National Intelligence Estimate].

¹⁴⁴ See generally Nevitt, *Climate Change and the Law of National Security Adaptation*, *supra* note 122.

efforts.”¹⁴⁵ Safeguarding national security infrastructure and military installations is critically important for ensuring national security readiness.

Climate impacts are a growing concern for military installations exposed to climate-exacerbated weather events such as wildfires and hurricanes. This emerging “law of national security adaptation” encompasses both slow onset events, such as sea level rise, as well as extreme weather events that are impacting military installations with increasing intensity and frequency.¹⁴⁶ In 2014, the Pentagon issued its first Climate Adaptation Roadmap, revealing the role that climate-induced weather (flooding, extreme weather, and sea level rise) will have on military installations.¹⁴⁷ This was followed up in 2021 with a broader report addressing climate risk to the Department of Defense—the report that was cited by Justice Kagan in *West Virginia v. EPA*.¹⁴⁸ Norfolk Naval Station is the largest naval complex in the world, hosting thirty subordinate commands. It is also a major logistical hub for people, weaponry, and resources headed to other parts of the world. It may be the most important property in the world from a strategic and national security standpoint. Norfolk, Virginia “is extremely vulnerable to climate change” and “has the highest rate of sea level rise on the East Coast of the United States.”¹⁴⁹

Recent extreme weather events in North Carolina and Florida highlighted that military installations are particularly vulnerable to climate-driven weather patterns. In 2018, for example, Hurricane Florence destroyed or damaged thirty-one buildings beyond repair at Marine Corps Camp Lejeune, North Carolina, which totaled \$3.6 billion in damages. Hurricane Michael damaged almost 500 buildings at Tyndall Air Force base in the Florida panhandle, costing taxpayers in excess of \$5 billion dollars.¹⁵⁰

These catastrophic storms inflicted billions of dollars of damage to military bases in Florida and North Carolina, costing taxpayers billions

¹⁴⁵ DEP’T OF THE ARMY, U.S. ARMY CLIMATE STRATEGY 2 (Feb. 2022). This definition is mirrored within the Department of Defense’s other directives. DEP’T OF DEF., DOD DIRECTIVE 4715.21: CLIMATE CHANGE ADAPTATION AND RESILIENCE (2018).

¹⁴⁶ See generally Nevitt, *Climate Change and the Law of National Security Adaptation*, *supra* note 122.

¹⁴⁷ DEP’T OF DEF., 2014 CLIMATE CHANGE ADAPTATION ROADMAP 7 (2014).

¹⁴⁸ DEP’T OF DEF., CLIMATE RISK ANALYSIS (2021). See *West Virginia v. EPA*, 597 U.S. 697, 754 (Kagan, J., dissenting).

¹⁴⁹ NATO SECRETARY GENERAL’S REPORT, NATO CLIMATE CHANGE AND SECURITY IMPACT ASSESSMENT 14 (2023). Norfolk is also home to NATO’s Allied Command Transformation.

¹⁵⁰ Promoting American Energy Security by Facilitating Investments in Climate Solutions: Hearing Before the S. Comm. on Env’t and Pub. Works, 117th Cong. 4 (2022) (written statement of Ray Mabius, former United States Secretary of the Navy).

while undermining national security readiness.¹⁵¹ Outside the United States, the U.S. military operates several critical installations uniquely vulnerable to climate change and sea level rise. For example, the Kwajalein Atoll in the Marshall Islands is home to a key radar installation that tracks North Korean missiles.¹⁵² Meanwhile, scientists predict that the Marshall Islands may well be underwater by mid-century due in part to climate-driven flooding and sea level rise.¹⁵³

In 2005, Congress passed the Readiness and Environmental Integration Program (REPI) program, with the goal of addressing urban encroachment near military bases. REPI is of increasing importance for climate adaptation. REPI authorities permit the U.S. military to enter into cost-sharing agreements to protect property outside the military fence line.¹⁵⁴ REPI has since been expanded to include climate change-related projects as part of broader encroachment efforts.¹⁵⁵

C. Climate Response: At Home and Abroad

The United States now experiences, on average, a billion-dollar weather or climate disaster every three weeks.¹⁵⁶ Military servicemembers, national security actors, and emergency first responders alike will be called upon to respond to climate-exacerbated disasters at home and abroad.¹⁵⁷ Within the United States, losses from climate-related disasters have risen dramatically in the past two decades. This trend is poised to increase.¹⁵⁸

¹⁵¹ Nevitt, *Climate Change and the Law of National Security Adaptation*, *supra* note 122, at 132.

¹⁵² See Scott Waldman, *Military site faces 'shocking' risk of being swamped*, E&E NEWS BY POLITICO (Mar. 1, 2018), <https://www.eenews.net/articles/military-site-faces-shocking-risk-of-being-swamped/> [<https://perma.cc/2LA5-APD5>].

¹⁵³ Gregg Badichek, *The Threat Divider: The Military and Climate Change*, 41 COLUM. J. ENV'T. L. 139, 170 (2016); Storlazzi, et. al, *supra* note 34, at 4–5.

¹⁵⁴ 10 U.S.C. § 2684a(a). This is done by acquiring a restrictive easement that prohibits new construction. See also READINESS AND ENV'T PROT. INTEGRATION PROGRAM, DEP'T OF DEF., BUILDING RESILIENCE TO CLIMATE CHANGE THROUGH OFF-BASE NATURAL INFRASTRUCTURE SOLUTIONS 15 (2021).

¹⁵⁵ 10 U.S.C. § 2684a(a)(2)(B).

¹⁵⁶ NCA5, *supra* note 1, at 1-18.

¹⁵⁷ Climate change will stress and endanger emergency first responders. See, e.g., Daisy Simmons, *Climate Change Adds Stress for First Responders*, YALE CLIMATE CONNECTIONS (July 5, 2018), <https://yaleclimateconnections.org/2018/07/climate-change-adds-stress-for-first-responders/> [<https://perma.cc/GWN2-P2AA>].

¹⁵⁸ NCA5, *supra* note 1, at 17-13 (stating that there is “growing diversity in the types of climate-related events that lead to disasters (e.g. drought, wildfires, floods) and some annual spikes in storm-related losses”).

1. Domestic response

The U.S. military and related national security actors are expected to play an increasing role in domestic disaster response, a point reinforced in the Pentagon's 2022 National Defense Strategy.¹⁵⁹

Domestically, climate change impacts will cause an increase in the demand for a Pentagon mission known as "Defense Support of Civil Authorities (DSCA)."¹⁶⁰ All Defense Support to Civil Authorities missions must comply with the Posse Comitatus Act (PCA), a criminal statute that prohibits the military from actively serving in a law enforcement capacity.¹⁶¹ However, these law enforcement restrictions do not apply to the National Guard or the U.S. Coast Guard.¹⁶² Nor does the PCA have an extraterritorial application, providing the military with somewhat greater legal flexibility when the military operates overseas. The National Guard play a critical role in the nation's COVID-19 response, serving in a variety of roles under a new deployment model. Under this new model, National Guard members operate domestically with federal funds but remain under a state Governor's operational control.¹⁶³ This new "Title 32" model ensures a consistent funding stream for military service members.

The Stafford Act is the statutory mechanism that guides the federal government's response to "major disasters"¹⁶⁴ and "emergencies."¹⁶⁵ The NCA predicts that extreme weather events (droughts, storms, wildfires) will increase in frequency and intensity. This uptick in extreme weather will stress and test local and state emergency responders, and state requests for federal support are sure to follow. We have witnessed an uptick in Stafford Act-declared "major disasters"—a trend that will almost certainly continue as emissions rise and more extreme weather results.¹⁶⁶ The Stafford Act declaration triggers federal funding and places the federal government with primary responsibility for the emergency response. A Stafford Act emergency or major disaster request

¹⁵⁹ DEP'T OF DEF. STRATEGY 5 (2022) (stating that the "toll taken by climate change, pandemics, and other transborder challenges will increase demands on Department resources, federal civil authorities, and the public and private sectors").

¹⁶⁰ U.S. DEP'T OF DEF. DIR. 3025.18, DEFENSE SUPPORT OF CIVIL AUTHORITIES 16 (Mar. 18, 2018).

¹⁶¹ 18 U.S.C. § 1385.

¹⁶² Mark Nevitt, *Unintended Consequences: The Posse Comitatus Act in the Modern Era*, 36 CARDOZO L. REV. 119, 148–49 (2014).

¹⁶³ See Mark Nevitt, *Climate Security Insights from the COVID-19 Response*, 98 IND. L.J. 815, 852–56 (2023) (discussing a new model from military domestic response).

¹⁶⁴ 42 U.S.C. § 5122(2).

¹⁶⁵ 42 U.S.C. § 5191.

¹⁶⁶ BRUCE R. LINDSAY, CONG. RSCH. SERV., R42702, STAFFORD ACT DECLARATIONS 1953–2015: TRENDS, ANALYSES, AND IMPLICATIONS FOR CONGRESS 10 (Aug. 28, 2017).

often include a request for National Guard funding under Title 32 to preserve life and property in a disaster's aftermath.¹⁶⁷

2. International response

International response includes humanitarian assistance and disaster relief. The Fifth NCA highlights that climate-related shocks to the food supply chain have led to local to global impacts on food security and human migration patterns that affect U.S. economic and national security interests.¹⁶⁸ The Fifth NCA includes a chapter on "Climate Effects on US International Interests."¹⁶⁹ In it, the NCA notes that "interdependent, systemic climate-related risks increasingly affect U.S. interests."¹⁷⁰ Climate change compounds existing risks.

The U.S. military is the largest military in the world, and the U.S. Navy and Marine Corps—"the world's first responders"—are increasingly called upon to support humanitarian assistance and disaster response missions.¹⁷¹ President Obama's Secretary of the Navy from 2009–17, Ray Mabus, remarked during congressional testimony that the Navy received "a request for humanitarian assistance or disaster relief on average of once every two weeks."¹⁷²

In addition, the yearly COP climate summits have addressed the security implications of climate change, led by the Alliance of Small Island States (AOSIS). Under the Paris Climate Accord, each nation establishes its own Nationally Determined Contributions (NDCs), which includes national security emissions.¹⁷³ The Paris Climate Accord does not have an opt-out provision for military GHG emissions, which will be incorporated into each nation's respective Nationally Determined Contributions.

¹⁶⁷ 42 U.S.C. § 5170b(e)(1).

¹⁶⁸ NCA5, *supra* note 1, at 1-18.

¹⁶⁹ *Id.* at 99.

¹⁷⁰ *Id.* (title case omitted).

¹⁷¹ Promoting American Energy Security by Facilitating Investments in Climate Solutions: Hearing Before the S. Comm. on Env't and Pub. Works, 117th Cong. 4 (2022) (written statement of Ray Mabus, former United States Secretary of the Navy).

¹⁷² *Id.* Secretary Mabus highlighted that the U.S. military was one of the first responders to international humanitarian assistance missions to include Hurricane Matthew that killed 600 in Haiti in 2016 and Super Typhoon Haiyan that killed over 6,000 in the Philippines in 2013. *Id.*

¹⁷³ Paris Agreement, art. 4 (2) (2015). Dating back to 1992, the U.N. Framework Convention on Climate Change does mention "food security"—a recurring issue within the Conference of Parties and subsequent Accords.

3. Climate change's role in fueling migration to the United States

Climate change is playing a role in the ongoing humanitarian crisis at the southern border, as climate change exacerbates agricultural challenges. The Northern Triangle nations in Central America—El Salvador, Guatemala, and Honduras—“are highly dependent on climate-sensitive agriculture, and climate change impacts disrupt rural livelihoods, health, and food security.”¹⁷⁴ Climate scientists and national security professionals alike have been highlighting the connection between climate change, instability, and migration.¹⁷⁵

For example, the NIE's 2021 report, *Climate Change and International Responses Increasing Challenges to U.S. National Security Through 2040*, stated that climate change was exacerbating “geopolitical flashpoints,” including cross-border migration.¹⁷⁶ The NIE pinpointed eleven nations—including Guatemala, Honduras, and Nicaragua—that lack the financial resources and governance capacity to adapt to climate change effects.¹⁷⁷ Insecurity in these Northern Triangle nations will increase internal displacement and external migration to the U.S., ultimately necessitating increases in U.S. foreign aid and humanitarian assistance for the Northern Triangle.¹⁷⁸ The NIE noted that poor farmers account for 30 percent of the Central American working population. Climate change will lead to increasing economic and social stress and “become an increasing migration push factor.”¹⁷⁹

The emerging field of “climate security” is a broad area with massive international and domestic implications. As such, framing the discussion around these categories can help policymakers tailor their response with greater specificity. Yet, there are risks and opportunities when securitizing climate change, and this conceptual framework can serve as a useful starting point to address the critiques and take specific steps to address the underlying risks—a topic that I turn to below.

IV. CLIMATIZING NATIONAL SECURITY: RISKS & OPPORTUNITIES

In what follows, I describe and analyze the risks and opportunities of applying a national security framework to climate change.

¹⁷⁴ NCA5, *supra* note 1, at 17-6.

¹⁷⁵ See, e.g., Laura Sigelmann, *The Hidden Driver: Climate Change and Migration in Central America's Northern Triangle*, AM. SECURITY PROJECT (Sept. 2019), <https://www.americansecurityproject.org/wp-content/uploads/2019/09/Ref-0229-Climate-Change-Migration-Northern-Triangle.pdf> [<https://perma.cc/FP76-9SRM>].

¹⁷⁶ NATIONAL INTELLIGENCE ESTIMATE, *supra* note 143, at i.

¹⁷⁷ *Id.* at 13.

¹⁷⁸ *Id.*

¹⁷⁹ *Id.*

A. Opportunities

The climate science increasingly makes clear that climate change is a national security issue. The Fifth NCA, released in November 2023, states that climate change “impacts the operations and missions of defense, diplomacy, and development agencies critical to U.S. national security.”¹⁸⁰ Climate-related shocks have undermined food and human migration patterns that affect national security interests.¹⁸¹ As a baseline, national security actors—including the military—must be prepared to address the full menu of threats.

Professor Sarah Light has written about the benefits of a national security lens to frame environmental and climate issues.¹⁸² And courts provide a certain amount of judicial deference to national security and military officials.¹⁸³ If, indeed, climate change is properly conceptualized as a security issue, there may be greater authorities available, particularly as executive branch officials act to respond to climate-driven disasters. The President already possesses authorities governing the armed forces.¹⁸⁴ For example, the president has authorities to respond to humanitarian assistance and disaster abroad under a variety of statutory authorities to include the Foreign Assistance Act and Humanitarian and Assistance Act.¹⁸⁵ And the president has authorities to use the military’s vast transportation network to fund humanitarian disaster relief and the provide disaster relief outside the United States to prevent the loss of life.¹⁸⁶ As climate change increases the demand for humanitarian assistance and disaster relief, these authorities will take on increased importance.

In addition, the military and national security institutions have a deeply embedded culture of planning and risk management.¹⁸⁷ This

¹⁸⁰ NCA5, *supra* note 1, at 17-8.

¹⁸¹ *Id.* at 37.

¹⁸² See generally Light, *The Military-Environmental Complex*, *supra* note 16.

¹⁸³ See, e.g., *Goldman v. Weinberger*, 475 U.S. 503, 507 (1986) (stating that courts “give great deference to the professional judgment of military authorities concerning the relative importance of a particular military interest”).

¹⁸⁴ See Jonathan Masur, *A Hard Look or a Blind Eye: Administrative Law and Military Deference*, 56 HASTINGS L.J. 441, 445 (2004) (describing the phenomenon of “juridical acceptance of the executive branch’s extraordinarily broad construction of its own statutory and constitutional powers during wartime”).

¹⁸⁵ 22 U.S.C. §§ 2292a–2292q; 10 U.S.C. § 401.

¹⁸⁶ 10 U.S.C. § 2561 (authorizing the appropriation of funds to the Department of Defense for the provision of transportation to support humanitarian assistance); 10 U.S.C. § 404(a)–(b) (authorizing the president to direct the Secretary of Defense to “provide disaster assistance outside the United States . . . when necessary to prevent loss of lives or serious harm to the environment”).

¹⁸⁷ Mark Nevitt, *The Commander in Chief’s Authority to Combat Climate Change*, 37 CARDOZO L. REV. 437, 502 (2015) (stating that the “modern [U.S.] military has enormous human and financial resources . . . [and] a strong cultural ethos build around planning for uncertainty”).

includes planning for future risks and potential conflict. In many respects, planning for climate change is not unlike planning for other, non-traditional security threats.

By applying the security lens to climate change, the United States is better capturing GHG emissions while recognizing that many nations—so called petrostates—will fight broader decarbonization efforts.¹⁸⁸

Finally, the national security community can serve as a powerful, third-party validator and trusted information broker. The annual defense spending bill can act as a legislative vehicle to address climate adaptation—witness the recent climate adaptation provisions in the most recent National Defense Authorization Act. The intelligence and the military community can be a powerful validator that can potentially cut through partisan gridlock and tensions on this issue. It can potentially unite and align decision-makers throughout government. This can drive behaviors and decision-making.

B. The Risks of Climatizing National Security: “Avocado Politics”

To be sure, outsourcing climate response to national security elites and decisionmakers creates its own risk, particularly as the political response to climate impacts can vary so widely. Further, framing an issue via a national security lens taps into broader executive branch authorities where the judiciary has historically provided a healthy source of deference.¹⁸⁹ Some scholars have expressed concern about emphasizing the national security implications of climate change, arguing that doing so may short-circuit the democratic processes, lead to needless militarization of issues, and lead to centralized decision-making.¹⁹⁰ Already within the United States, we are witnessing a contentious political debate over the merits of securitizing the southern border—an issue poised to increase in importance as climate-driven food insecurity in Central America causes more climate migration.¹⁹¹ Leading national security intelligence experts exclaimed that “cross-border migration probably will increase as climate effects put added stress on internally displaced populations already struggling under poor governance,

¹⁸⁸ NATIONAL INTELLIGENCE ESTIMATE, *supra* note 143, at 7 (stating that many nations that rely on fossil fuel exports “fear transition risk in international decarbonization efforts.”)

¹⁸⁹ This implicates both national security deference and military deference. For a discussion of military deference, *see id.*

¹⁹⁰ Jamshidi, *supra* note 18.

¹⁹¹ NATIONAL INTELLIGENCE ESTIMATE, *supra* note 143, at 13. (“We judge that the 11 countries especially will lack the financial resources or governance capacity to adapt to climate change effects, heightening the risk of instability-induced migration and displacement flows—including to the US southern border—and increasing their already substantial needs for foreign aid and humanitarian assistance.”).

violent conflict, and environmental degradation.”¹⁹² To be sure, the ongoing crisis at the U.S.-Mexican border is multivariate and it is difficult to project the total number of climate migrants.¹⁹³ Nevertheless, the policy responses to this uptick in migration vary widely, with conservative politicians clamoring for a more militarized border while some scholars have argued that law should take into account the underlying climate conditions as part of the asylum process.¹⁹⁴

Climate change has begun to capture the world’s attention, leading to more public awareness about the scope and scale of the underlying problem. Perhaps not surprisingly, there are increasing calls to use a wide-range of legal authorities to address the climate crisis.¹⁹⁵ In the face of climate denialism some certain political factions, climate activists, lawmakers, and policymakers have sought to capture the world’s attention by highlighting the apocalyptic nature of the climate crisis.¹⁹⁶ At the 2019 World Economic Forum in Davos, Switzerland, Greta Thunberg exclaimed that “I want you to panic” and “[e]ither we choose to go on as a civilization or we don’t.”¹⁹⁷ This rhetoric has sounded the alarm on climate change, but does run the risk of outsourcing climate action to powerful institutions to respond in non-progressive ways.¹⁹⁸

Nils Gilman has argued that if authoritarian-leaning politicians embrace these apocalyptic climate claims, the ways and means to avert climate disaster will be anything but democratic. Gilman warns of an emerging “Avocado Politics”—this brand of politics appears green on the outside but is rotten at its core. Avocado Politics “has deep roots on the Right and has very often been invoked to justify profoundly illiberal

¹⁹² NATIONAL INTELLIGENCE ESTIMATE, *supra* note 143, at 10.

¹⁹³ *Id.*

¹⁹⁴ See, e.g., J. Baxter Oliphant & Andy Cerda, *Republicans and Democrats Have Different Top Priorities for U.S. Immigration Policy*, PEW RSCH. CTR. (Sept. 8, 2022), <https://www.pewresearch.org/short-reads/2022/09/08/republicans-and-democrats-have-different-top-priorities-for-u-s-immigration-policy/> [<https://perma.cc/6KYC-8NMZ>].

¹⁹⁵ For a comparison on the need to declare climate change an emergency, compare Mark Nevitt, *Is Climate Change a National Emergency?*, 55 U.C. DAVIS L. REV. 591 (2021) with Elizabeth Goitein, *The Wrong Way to Tackle Climate Change*, BRENNAN CTR. FOR JUST. (Feb. 9, 2021), <https://www.brennancenter.org/our-work/analysis-opinion/wrong-way-tackle-climate-change> [<https://perma.cc/PM9X-RBH3>] (arguing that efforts to address climate change through emergency powers is counterproductive).

¹⁹⁶ The Green New Deal cited to the Second World War and the New Deal as a way to mobilize federal government action against climate change. Green New Deal, H. Res. 109, 116th Cong., at 4–5 (2019).

¹⁹⁷ Greta Thunberg, ‘Our House Is on Fire’: Greta Thunberg, 16, Urges Leaders to Act on Climate, GUARDIAN (June 25, 2019), <https://www.theguardian.com/environment/2019/jan/25/our-house-is-on-fire-greta-thunberg16-urges-leaders-to-act-on-climate> [<https://perma.cc/A5MD-Z6ED>].

¹⁹⁸ Nils Gilman, *The Coming Avocado Politics*, BREAKTHROUGH INST. (Feb. 7, 2020), <https://thebreakthrough.org/journal/no-12-winter-2020/avocado-politics> [<https://perma.cc/8EWP-CR92>].

policies.”¹⁹⁹ Austria experienced this temporary convergence of strange political bedfellows in 2020 when the new Austrian Prime Minister Sebastian Kurz pledged to unite the “best of both worlds’ by mandating 100 percent renewable energy by 2030” while clamping down on asylum seekers.²⁰⁰ In his efforts to forge a new political coalition with the Austrian Green party, the Prime Minister Kurz embraced a traditional “Green” agenda while simultaneously clamping down on authoritarian measures, but with the cover of addressing the climate crisis.

Gilman’s vision of an emerging Avocado Politics runs the risk of taking hold in the United States. Consider the ongoing border security crisis at the U.S.-Mexican border and the resulting political strife.²⁰¹ Climate change is forcing “economic changes abroad,” which are “expected to increase the rate of immigration to the United States.”²⁰² As policymakers look ahead to the nation’s future security challenges, questions about the proper response to climate impacts will take center-stage. As the U.S. looks to address climate change at home and abroad, how should the U.S. respond to this future uptick in climate migration? Put another way, does conceptualizing climate change as a security threat empower lawmakers to build border walls and keep out displaced climate migrants?²⁰³ The border crisis has already sparked a governmental shutdown centered around funding the border wall. And the military continues to deploy to the border to supplement the Customs and Border Patrol (CBP) agency. This is surely not the response that many climate progressives seek.

In addition, the per capita GHG emissions in the Global North far outweigh the per capita GHG emissions for people residing in the Global South. Migration to Europe and the United States is a sure-fire way to increase anyone’s carbon footprint, a climate reality that could be seized upon by an anti-immigrant strand of politics.²⁰⁴

As a non-traditional security threat, it is difficult, if not impossible, to ever “win” any “war” against climate change.²⁰⁵ Conceptualizing

¹⁹⁹ *Id.*

²⁰⁰ *Id.*

²⁰¹ The Fifth National Climate Assessment notes that climate impacts “often cascade through social and ecological systems and across borders and may lead to longer-term losses.” NCA5, *supra* note 1, at 1-20.

²⁰² U.S. GLOB. CHANGE RSCH. PROGRAM, FIFTH NATIONAL CLIMATE ASSESSMENT OVERVIEW: UNDERSTANDING RISKS, IMPACTS, AND READINESS 1-26 (2023) (stating that “[e]xtreme events, such as extended drought, wildfire, and major hurricanes, have contributed to human migration and displacement”).

²⁰³ See Masur, *supra* note 184; Koh, *supra* note 61.

²⁰⁴ Gilman, *supra* note 198.

²⁰⁵ The signing of the Japan-U.S. treaty on the decks of the USS Missouri signaled the end of the Second World War.

climate change as a security issue will require new objectives and measures for what constitutes progress and success.

Second, there is a growing risk of a “climate-reconstruction complex” as disasters increase in scope and scale. Upon leaving the presidency in 1961, President Eisenhower warned of a “military-industrial complex” whereby a “permanent armaments industry of vast proportions . . . [and] three and a half million men and women are directly engaged in the defense establishment.”²⁰⁶ Eisenhower warned that “we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex.”²⁰⁷

The U.S. military is already at the U.S.-Mexican border. Climate impacts, such as drought, extreme heat, food security, will continue to worsen the migration crisis, leading to calls for *even more* militarization at the border. In recent months, the Biden administration and Texas Governor Greg Abbott have argued about the military’s role at the border, with National Guard members from around the nation supporting Governor Abbott in securing the border.²⁰⁸ While the underlying reasons for the increase influx of migrants are complex, the NIE highlights the role that climate stressors at the Northern Triangle nations (Guatemala, Honduras, and Nicaragua), leading to increases in cross-border migration.²⁰⁹

Meanwhile, disaster response contractors benefit from costly FEMA post-disaster contracts, which inevitably flow following a natural disaster.²¹⁰ The defense contractor Raytheon has acknowledged the business opportunities presented by climate change, noting that “demand for [Raytheon] military products and services . . . may arise as results of droughts, floods, and storm events occur as a result of climate change . . . Expanded business opportunities will arise to Raytheon as a result of these security concerns and the possible consequences.”²¹¹

²⁰⁶ Dwight D. Eisenhower, *Military-Industrial Complex Speech, 1961*, YALE L. SCH.: THE AVALON PROJECT, http://avalon.law.yale.edu/20th_century/eisenhower001.asp [https://perma.cc/8K2S-2TEA]; see also Curtis Cranston, *The U.S. Military’s Environmental Protection Efforts: Unexpected Eco-Friendly Solutions to Land Management Problems*, 60 B.C. L. REV. 1023 (2019).

²⁰⁷ Eisenhower, *supra* note 206.

²⁰⁸ See, e.g., *Governor Abbot Condemns President Biden’s National Guard Power Grab*, OFF. OF THE TEX. GOVERNOR (May 6, 2024), <https://gov.texas.gov/news/post/governor-abbott-condemns-president-bidens-national-guard-power-grab> [https://perma.cc/GSQ4-5HR8].

²⁰⁹ National Intelligence Estimate, *supra* note 143, at 10, 13 (noting that “11 countries . . . lack the governance capacity to adapt to climate change effects, heightening the risk of instability-induced migration and displacement flows . . . [at] the U.S. Southern border”).

²¹⁰ And this implicates the National Flood Insurance Program, where the federal government pays out billions for claims related to repeatedly flooded properties. *Repeatedly Flooded Properties Cost Billions*, PEW CHARITABLE TRS., at 2 (Oct. 2016), https://www.pewtrusts.org/-/media/assets/2016/10/repeatedly_flooded_properties_cost_billions.pdf [https://perma.cc/349L-3VXJ].

²¹¹ Jeremy Schulman, *Defense Contractor: Climate Change Could Create “Business Opportunities”*, MOTHER JONES (Aug. 14, 2013), <https://www.motherjones.com/environment/2013/08/raythe>

Contractors with expertise in the disaster response stand to benefit from lucrative FEMA contracts. Just like our experience with defense contractors, there are powerful financial incentives at play that cannot be ignored.

Finally, if everything is categorized as national security, the term loses context and meaning. There must be some limiting principle when discerning what national security is and isn't. After all, invoking national security taps into powerful authorities that have broad implications for civil liberties and democratic governance.²¹²

C. Climatizing National Security: Towards A More Balanced Approach

Securitizing climate change requires being clear-eyed about climate change's security implications but not outsourcing climate solutions to national security elites and institutions in a manner that short-circuits democratic processes. We have witnessed an uptick in humanitarian assistance and disaster response both at home and abroad—a demand signal that scientists and intelligence officials alike will continue apace as the world exceeds the Paris Agreement's goal of keeping worldwide temperatures below 1.5 degrees Celsius. Global South nations will suffer the most, and major militaries of the world will be called upon to assist with the natural disaster response. As humanitarian assistance and disaster response missions increase, the U.S. military in particular will be called upon to respond.²¹³

Within this increasingly dire scenario, there are some opportunities outside the United States for collaboration and greater military-to-military engagement. For example, some of the nation's most vulnerable to climate change are in Southeast Asia and the Pacific region. This includes Bangladesh and many Small Island Developing States (SIDS). With rising tensions between China and the United States in the region, an opportunity exists for greater Chinese-U.S. cooperation on humanitarian assistance and cooperation to prepare for the inevitable call for disaster response.²¹⁴

on-climate-change-security/ [https://perma.cc/VF58-KYPS].

²¹² Nevitt, *Is Climate Change a National Emergency?*, *supra* note 195, at 633–34.

²¹³ Former Secretary of the Navy Ray Mabus recently testified that the United States Navy received a request for humanitarian assistance from foreign nations every two weeks. *Promoting American Energy Security by Facilitating Investments in Climate Solutions: Hearing Before the S. Comm. on Env't and Pub. Works*, 117th Cong. 4 (2022) (written statement of Ray Mabus, former United States Secretary of the Navy). Outside the United States, the New Zealand military has elevated the humanitarian assistance and disaster response mission as a core military mission.

²¹⁴ In 2023, the United States and China signed the "Sunnylands Statement on Enhancing Cooperation to Address the Climate Crisis." While this statement did not focus on disaster response, it did reinforce the need for international cooperation on a host of measures, to include adaptation and resilience. See Press Release, Office of the Spokesperson, Sunnylands Statement

In sum, climate change is a complex collective action problem that transcends borders, existing frameworks, and institutions. And framing climate change within one specific discourse is not an either/or decision that are in competition with each other. Perhaps climate change is best framed as an “all-of-the above” discourse national security, ecological security, international security, and human security issue.²¹⁵ We should emphasize each discourse depending on what problem we are addressing and attempting to solve. These framework discourses are not in competition with each other, but at times overlap and complement each other. Similarly, climate security should be framed as either an adaptation or mitigation or response problem. Climate security implicates all three of these security frameworks, and we should first ground the discussion in specifying what issue we are seeking to address.

IV. CONCLUSION

Unlike many traditional national security threats, climate change exacerbates and destabilizes existing threats. Climate change acts as both a threat multiplier and catalyst for conflict as nations compete for food, water, and natural resources. Climate change may not be the direct cause of the California wildfires, but it sets the drier weather conditions that exacerbate and increase the fire frequency and scale. Internationally, it may not be the sole cause of a drought in Yemen or food insecurity in the sub-Saharan Africa, but climate change accelerates existing threats.

Conceptualizing climate change as a national security issue raises profound legal and ethical issues that are real, ripe, and unresolved. Normatively, lawyers, policymakers, and scholars will be wrestling with the proper response to address climate change’s myriad security impacts. These legal and policy responses should be carefully tailored to not excite civil libertarian equities. Indeed, securitizing climate change is not without risk, but failure to address climate’s security impacts has its own costs. As a general matter, we must be proactive in addressing climate change’s security impacts before they occur; there is growing evidence that sound, *ex ante* climate measures investments deliver a high return on investment.²¹⁶

on Enhancing Cooperation to Address the Climate Crisis (Nov. 14, 2023), <https://www.state.gov/sunnylands-statement-on-enhancing-cooperation-to-address-the-climate-crisis/> [https://perma.cc/4AYE-668M].

²¹⁵ For an outstanding discussion of framing climate change via a human security lens, see Jamshidi, *supra* note 18, at 36; see also MARWA DAUDY, THE ORIGINS OF THE SYRIAN CONFLICT: CLIMATE CHANGE AND HUMAN SECURITY (2020).

²¹⁶ In the adaptation context, by one measure for every dollar spent on pre-disaster hazard measures, six dollars are saved in disaster response. See Rebecca L. Kihlsinger, *Before Disaster*

This Article offers a tripartite framework to address the growing field of climate security and help guide future, responsible policy responses. Decreasing GHG emissions (mitigation) is a different challenge than investing in climate resilient infrastructure (adaptation) or directing the military to respond to climate-induced disasters at home and abroad (response). How the national security establishment responds to these challenges is of increased importance. This Article offers a pathway and framework to ground the discussion and pave the way for sound governance solutions that adhere to core democratic governance tenets while addressing climate's security impacts proactively.

