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# On Environmental, Climate Change & National Security Law

Mark P. Nevitt

*University of Pennsylvania Law School*

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*On Environmental, Climate Change & National Security Law*

Mark Patrick Nevitt\*

*Abstract*

*This Article offers a new way to think about climate change. Two new climate change assessments — the 2018 Fourth National Climate Assessment (NCA) and the United Nations Intergovernmental Panel’s Special Report on Climate Change — prominently highlight climate change’s multifaceted national security risks. Indeed, not only is climate change a “super wicked” environmental problem, it also accelerates existing national security threats, acting as both a “threat accelerant” and “catalyst for conflict.” Further, climate change increases the intensity and frequency of extreme weather events while threatening nations’ territorial integrity and sovereignty through rising sea levels. It causes both internal displacement within nations and climate-change refugees across national borders. Addressing this new climate-security nexus brings together two historically distinct areas of law — environmental law and national security law. As we properly conceptualize climate change as a security threat, environmental law and national security law — once separate and often in conflict with each other — engage with each other in new and complex ways.*

*The first body, environmental and climate change law, largely values the protection and preservation of the human environment via a cooperative federalism model of environmental laws and policies. The second body of law, national security law, largely suspends environmental protections ex ante via myriad national security exemptions within existing environmental statutes. But in the climate-security context, what was once in conflict is increasingly aligned as we look to preserve our common future from all threats, however defined. If climate change is properly conceptualized as a security issue, how do these two bodies of law interact? Should a future President be afforded national security deference in addressing the threats posed by climate change? Is climate change potentially a national emergency? And if so, what actions can (or should) be taken?*

*This Article first describes and analyzes climate change as a national security issue, providing an overview of our understanding of climate change, climate science, and climate change’s multifaceted security effects. Second, I analyze where environmental, climate change, and national security law increasingly intersect to include*

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\* Mark P. Nevitt is a Sharswood Fellow, Lecturer-in-Law at the University of Pennsylvania Law School. Prior to his academic appointment at Penn, he served for 20 years in the Navy as both a naval flight officer and member of the Judge Advocate General’s Corps with a focus on environmental law. In particular, he thanks Professors Tim Mulvaney, Holly Doremus, Felix Mormann, Vanessa Casado-Perez, Arden Rowell, Rob Glicksman, Gabriel Weil, William Buzbee, Robert V. Percival, Sara Coalengelo, Victor Flatt, Sara Gosman, Jimmy May, Hajin Kim, Sebastien Jodion-Pilion, Bridget Fahey, Robin West, Ben Eidelsohn, Michael Gerrard, David Luban, Peter Byrne, and faculty workshops at Georgetown Law, Northwestern Law, the Sabin Colloquium on Innovative Environmental Scholarship at Columbia Law School, and the first annual “Enviro-Schmooze” at Texas A&M Law School for help with this Article. All mistakes are my own.

*a discussion of relevant U.S. law. Finally, I use one specific example — whether climate change is a national emergency — as a vehicle to highlight how these two areas of law interact in new and surprising ways.*

## Introduction

*The rise in sea levels associated with global warming has already harmed and will continue to harm Massachusetts. The risk of catastrophic harms, though remote, is nevertheless real.<sup>1</sup>*

*Our economy is on the line. Our future is on the line. Lives are on the line. So let's call this what it is, climate security, a life and death issue for our generation.<sup>2</sup>*

This Article offers a new way to think about climate change. In light of recent scientific studies<sup>3</sup> and national security intelligence estimates,<sup>4</sup> it is increasingly clear that climate change is not just an environmental issue — it is also a complex and multifaceted national security issue. In the face of the world's collective failure to date to implement policy or legal solutions to combat climate change, the world's most esteemed scientists predict that the physical environment will transform in stunning ways.<sup>5</sup> Today, the national security and intelligence communities in the United States and around the world are also sounding the alarm regarding climate change's national security impacts.<sup>6</sup> Yet legal scholarship has yet to adequately address this new “climate-security connection” and has not wrestled with the normative outcomes for the increasingly overlapping fields of environmental and national security law. This Article fills this ever-widening gap in legal scholarship.<sup>7</sup>

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<sup>1</sup> Massachusetts v. EPA, 549 U.S. 497, 526 (2007).

<sup>2</sup> Pete Buttigieg's Campaign Speech, Annotated, N.Y. TIMES, Apr. 15, 2019, <https://www.nytimes.com/2019/04/15/us/politics/pete-buttigieg-speech.html>

<sup>3</sup> FOURTH NAT'L CLIMATE ASSESSMENT, SUMMARY FINDINGS 2018 [hereinafter NCA 2018]. Full report available online at: [nca2018.globalchange.gov](http://nca2018.globalchange.gov).

<sup>4</sup> Daniel R. Coats, Director of National Intelligence, Statement for the Record: Worldwide Threat Assessment of the U.S. Intelligence Community 21-23 (Jan. 29, 2019) <https://www.dni.gov/files/ODNI/documents/2019-ATA-SFR--SSCI.pdf> [hereinafter Intel Report].

<sup>5</sup> UNITED NATIONS INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, SPECIAL REPORT: GLOBAL WARMING OF 1.5°C, (2018) [hereinafter UNIPCC 1.5 REPORT]; See also DAVID WALLACE-WELLS, THE UNINHABITABLE EARTH (2019). In the United States, cities, states, localities, and industries are making international commitments to meet and surpass the commitments made in the Paris Agreement. Hiroko Tabuchi & Henry Fountain, *Bucking Trump, These Cities, States and Companies Commit to Paris Accord*, N.Y. TIMES, Jun. 12, 2017 at A12. <https://www.nytimes.com/2017/06/01/climate/american-cities-climate-standards.html>.

<sup>6</sup> INTEL REPORT, *supra* note 4. See also Katherine J. Mach, et al., *Climate as a Risk Factor for Armed Conflict*, 571 NATURE 193; Matt McDonald, *Climate Change and Security: Towards Ecological Security?* 10 INT'L THEORY 153, 154 (2018); CTR. FOR NAVAL ANALYSIS: NATIONAL SECURITY AND THE THREAT OF CLIMATE CHANGE 13-18 (2007), available at <https://www.cna.org/reports/climate> [hereinafter CLIMATE SECURITY 2007].

<sup>7</sup> The one notable exception is Professor Sarah Light's outstanding and innovative scholarly work in this area. See, e.g. Sarah E. Light, *Valuing National Security: Climate Change, the Military and Society*, 61 UCLA L. REV. 1772 (2014); Sarah E. Light, *The Military-Environmental Complex*, 55 B.C. L. REV. 879 (2014). See also Benjamin Heath, *The New National Security Challenge to the Economic Order*, 129 YALE L. J. \_\_\_\_ (2019) (forthcoming)

Advances in climate science now forecast an uncertain future, defined by climate change’s security impacts. Indeed, this past year may well have marked a turning point in our collective understanding of climate change’s effects and threats. According to the 2018 United Nations Intergovernmental Panel on Climate Change’s (UNIPCC) Special Report of 1.5° Celsius and the 2018 Fourth National Climate Assessment (NCA), global mean temperatures may rise as high as four degrees Celsius over pre-industrial norms by the end of this century.<sup>8</sup> Climate change threatens national sovereignty and territorial integrity while increasing the frequency and intensity of extreme weather events.<sup>9</sup> Within the United States, climate change will cause massive sea level rise, impacting coastal property rights and destabilizing long-held notions of property law.<sup>10</sup> The implications are catastrophic for both the physical environment and human security.

In addition, advances in climate attribution science now showcase climate change’s impact on the frequency and intensity of extreme weather. California wildfires recently killed 85 people, and Hurricanes Dorian, Florence, and Michael ravaged our coastlines. Internationally, we are seeing a clear connection between climate change and environmental degradation to include drought, famine, and food insecurity.<sup>11</sup> Climate change acts as a “catalyst for conflict,” undermining political stability — particularly in nations with weak governance structures that lack the capacity and resources to adapt.<sup>12</sup> Further complicating matters, there are no special legal protections for climate-change refugees, who

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(showcasing how governments worldwide have adopted national security policies that address “an increasingly wide array of risks and vulnerabilities, including climate change”); J.B. Ruhl, *Climate Change Adaptation and the Structural Transformation of Environmental Law*, 40 ENVTL. L. 363 (2010).

<sup>8</sup> UNIPCC 1.5 REPORT, *supra* note 5. The latest report of the United Nations Intergovernmental Panel on Climate Change (UNIPCC) estimates that global warming is likely to reach 1.5 degrees Celsius above pre-industrial levels as early as 2030. In the past decade, the earth has witnessed the hottest mean temperatures in recorded human history, the opening of new sea-lanes in the Arctic, and an uptick in extreme weather events. *Id.* Climate change is defined as any identifiable change in climate over time “whether due to natural variability or as a result of human activity.” *Id.*

<sup>9</sup> NCA 2018, *supra* note 3.

<sup>10</sup> See e.g., J. Peter Byrne, *A Fixed Rule for a Changing World: The Legacy of Lucas v. South Carolina Coastal Council*, 53 REAL PROP. TR. & EST. L.J. 1-26 (2018). See also Cary Coglianese & Mark P. Nevitt, *Actually, We Are Already Paying a Climate Tax*, WASHINGTON POST, Jan. 24, 2019.

<sup>11</sup> See, e.g., Christopher Flavelle, *Climate Change Threatens the World’s Food Supply, United Nations Warns*, N.Y. TIMES, Aug. 8, 2019 at A1.

<sup>12</sup> For example, Syria experienced a massive drought exacerbated by climate change, leading to internal displacement, civil war, and a massively disruptive refugee crisis. Discounting climate change’s impact to the Syrian operational environment would have negative consequences on the military’s ability to respond.

disproportionately hail from Small Island Developing States (SIDS) and poorer nations most vulnerable to climate change.<sup>13</sup>

Yet in response to a series of climate-induced disasters and troubling scientific reports, the U.S. and international community stepped backwards. Nations emitted more carbon emissions this past year than at any other year in human history — and that pace is only rising.<sup>14</sup> At the time of this writing, the world lacks a binding legal agreement that will put the world back on track to reduce GHG emissions.<sup>15</sup> Even if all the Paris Climate Agreement commitments are met, the earth will continue to transform in dramatic ways.<sup>16</sup> Exacerbating matters, the current U.S. Administration has commenced the process of withdrawing from the Paris Agreement and has eliminated any mention of climate change from the most recent National Security Strategy.<sup>17</sup> Yet it is clear that we are reaching a tipping point for both the United States and international community to take collective action to address climate change. Indeed, climate change is not just the most important environmental issue of our time — it may very well be the most important national security issue of our time.

The precise consequences of such a dramatic climactic change remain uncertain but will surely test existing legal authorities and how we conceptualize different areas of law. Specifically, it will force us to re-conceptualize environmental law its underlying relationship

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<sup>13</sup> See, e.g., Alexander Gillespie, *Small Island States in the Face of Climatic Change: The End of the Line in International Environmental Responsibility*, 22 UCLA J. ENVTL. L. & POL'Y 107 (2004).

<sup>14</sup> Brady Dennis & Chris Mooney, *We are in trouble: Global Carbon emissions reached a record high in 2018*, WASHINGTON POST, Dec. 5, 2018 <https://www.washingtonpost.com/energy-environment/2018/12/05/we-are-trouble-global-carbon-emissions-reached-new-record-high/>

<sup>15</sup> For example, there is no comprehensive climate change legislation in the United States and the Paris Climate Accord relies upon a process-driven reporting system. The U.S. is in the process of withdrawing from the Paris Climate Accord at this time. This withdrawal will not be complete until Nov. 4, 2020, one day following the 2020 Presidential election.

<sup>16</sup> WALLACE-WELLS, *supra* note 5.

<sup>17</sup> Further, the current President has previously dismissed climate change as a mere hoax. “The concept of global warming was created by and for the Chinese in order to make U.S. manufacturing non-competitive.” Donald J. Trump @realDonaldTrump, 11:15AM – Nov. 6, 2012. It wasn’t always this way. In 1991, then-President Bush assessed that climate change “respects no international boundaries” and contributes to political conflict in his 1991 National Security Strategy. Climate change has been consistently mentioned in national security policy guidance since then. <http://nssarchive.us/NSSR/1991.pdf> See NATIONAL SECURITY STRATEGY OF UNITED STATES OF AMERICA (2015).

with national security.<sup>18</sup> This is only the beginning of what I call the *climate security century* where climate change will stress, challenge, and destabilize existing legal frameworks.<sup>19</sup>

As we conceptualize climate change as a massively destabilizing security threat, two different bodies of law — historically distinct and often in conflict — engage and interact with each other in novel ways. The first body of law, environmental law and the emerging field of climate change law, largely seek to protect and preserve the human environment via a cooperative federalism model of environmental laws and policies.<sup>20</sup> The second body of law — national security and the related field of emergency law — suspends environmental protections in the event of a national emergency declaration or national security determination.<sup>21</sup> For example, the Clean Air Act, the major U.S. federal environmental law that regulates carbon dioxide and other Greenhouse Gas (GHG) emissions,<sup>22</sup> authorizes the President to exempt emissions from stationary sources “if it is in the national security interests to do so.”<sup>23</sup> But what if excessive GHG emissions cause the underlying national security threat? Climate change demands *greater* environmental protections to reduce GHG emissions, regardless of its source.<sup>24</sup> In the absence of comprehensive climate legislation, what authorities are in place to address the threats posed by climate security?

This Article addresses these questions and others, proceeding in four parts. In Part I, I first describe, analyze, and contextualize climate change as a national security issue. This includes a descriptive overview of the latest climate change science, intelligence, and security

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<sup>18</sup> Cf. Jedidiah Purdy, *Climate Change and the Limits of the Possible*, Duke Law School Public Law & Legal Theory Paper No. 217; Duke Science, Technology & Innovation Paper No. 28 (Aug. 2008) Available at <https://ssrn.com/abstract=1259802> (stating that “[c]limate change looks to be more than just another environmental problem. It threatens to test the limits of our dominant ways of understanding and solving, not just environmental problems, but problems of political economy generally”).

<sup>19</sup> Mark P. Nevitt, *Climate Change: Our Greatest National Security Threat?*, JUST SECURITY, (Apr. 18, 2019).

<sup>20</sup> See, e.g., J.B. Ruhl & James Salzman, *Climate Change Meets the Law of the Horse*, 62 DUKE L. J., 975, 988-89 (2013).

<sup>21</sup> The National Emergency Act of 1976, Public Law 94-412, 50 U.S.C. §§ 1601-1651. Cf. Jules Lobel, *Emergency Power and the Decline of Liberalism*, 98 YALE L. J. 1385 (1989).

<sup>22</sup> § 111(d), Clean Air Act.

<sup>23</sup> 42 U.S.C. § 7412 (i)(4) (2012).

<sup>24</sup> And the national security community is an enormous emitter of GHG emissions. Consider the emissions produced by the U.S. military. In a recent study released last month from by Brown University’s Watson Institute and Costs of War project, it estimated that the U.S. Department of Defense emits more GHG emissions than many European nations to include Portugal, Sweden, and Denmark. Indeed, if the U.S. Department of Defense was ranked against all the nations of the world, it would be the #55<sup>th</sup> largest emitter of GHG emissions. See Neta C. Crawford, *Pentagon Fuel Use, Climate Change, and the Costs of War*, BROWN UNIVERSITY WATSON INSTITUTE FOR INT’L AND PUBLIC AFFAIRS, [https://watson.brown.edu/costsofwar/files/cow/imce/papers/2019/Pentagon Fuel Use, Climate Change and the Costs of War Final.pdf](https://watson.brown.edu/costsofwar/files/cow/imce/papers/2019/Pentagon%20Fuel%20Use,%20Climate%20Change%20and%20the%20Costs%20of%20War%20Final.pdf) [hereinafter COSTS OF WAR].

reports. In Part II, I analyze where environmental, climate change, and national security law increasingly interact to include a discussion of relevant U.S. law. This includes existing environmental statutes, and recent climate change litigation. In Part III, I use one specific example — addressing whether climate change is a national emergency — as a vehicle to highlight how these two areas of law interact. I conclude in Part IV by addressing the risks and opportunities in conceptualizing climate change as a national security issue. This Part addresses how national security can serve as a powerful information broker and norm entrepreneur that can potentially drive resources, influence public perception, collective behavior, and action.<sup>25</sup> The Article concludes by highlighting the many ways that climate security issue shines light on dormant, shared values that have always been beneath the surface of both environmentalism and national security. After all, both areas of law seek to preserve the environment and protect the nation from all threats, however defined.

## I. Climate Change: A Non-Traditional National Security Threat

Environmental law and national security law have historically been treated as two different areas of law and, with a few notable exceptions, have rarely been in direct conversation with one another.<sup>26</sup> No longer.<sup>27</sup> In what follows, I describe how climate science and the rise of climate intelligence — informed by national security professionals — adds to our understanding of climate change’s security impacts. This Part describes the current state of climate science and the increasingly important role that the national security-intelligence community plays in climate change’s ongoing debate about its ongoing and future national security risks. Due to recent advances in climate attribution science, a much clearer linkage has emerged between human activity, climate change, and extreme weather patterns.<sup>28</sup> There

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<sup>25</sup> See Ann E. Carlson, *Recycling Norms*, 89 CAL. L. REV. 1231, 1257-58 (2001) (describing how governmental efforts in World War to encourage recycling for patriotic reasons were largely embraced by the American public).

<sup>26</sup> The relationship between environmental law and national security law has always been somewhat fraught as the military has sought national security exemptions via existing environmental statutes and through exemptions within the Administrative Procedure Act (APA). See, e.g., *Winter v. NRDC*, 129 S. Ct. 365 (2008) (upholding military exemptions within environmental law).

<sup>27</sup> Climate science makes clear that we will need to massively reduce GHG emissions from all sources and we will need a massive, scalable, energy transformation to secure a more livable future. FIFTH ASSESSMENT REPORT, UNITED NATIONS INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (UNIPCC), Summary for Policymakers, <http://www.ipcc.ch/report/ar5/> (last visited Aug 1, 2019) [hereinafter FIFTH ASSESSMENT].

<sup>28</sup> See AMERICAN METEOROLOGICAL SOCIETY, *Explaining Extreme Events of 2017 from a Climate Perspective*, available at: <https://www.ametsoc.org/ams/index.cfm/publications/bulletin-of-the-american-meteorological->

is a continual and evolving conversation between the scientific and intelligence communities centered around climate change’s risks. Specifically, sea level rise, storm surge, and extreme weather — all exacerbated by climate change — threaten our territorial integrity, national sovereignty in dramatic and fundamental ways.

*A. Climate Science and the Emerging Climate-Security Nexus*

Climate change is aptly described by Professor Richard Lazarus as an all-encompassing and complex “super-wicked” problem.<sup>29</sup> Today’s scientific consensus makes clear that climate change is “extremely likely” caused by human activity.<sup>30</sup> As discussed below, the UNIPCC’s most recent Special Report on climate change and the United States’ Fourth National Climate Assessment (NCA) reaffirm what our unhealthy planet already knows — the earth is warming at a faster rate than previously estimated, climate change impacts global security in new and complex ways, and the window to solve this climate security crisis is rapidly closing.<sup>31</sup> Both reports showcase climate change’s unmistakable, debilitating effects on global security, while simultaneously highlighting that the window to reduce GHG worldwide emissions is shutting.

1. The United Nations Intergovernmental Panel on Climate Change’s Special Report

In 2014, the UNIPCC issued its Fifth Assessment Report, highlighting climate change impacts on food security and human security.<sup>32</sup> In October 2018, the UNIPCC issued a Special Report on the impacts of global warming of 1.5 degrees Celsius above pre-industrial

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[society-bans/explaining-extreme-events-from-a-climate-perspective/](#) (determining that 15 of 16 extreme weather events were made more likely by human caused climate change).

<sup>29</sup> Richard Lazarus, *Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future*, 94 CORNELL L. REV. 1153 (2009).

<sup>30</sup> “Anthropogenic greenhouse gas emissions have increased since the pre-industrial era, driven largely by economic and population growth, and are now higher than ever. This has led to atmospheric concentrations of carbon dioxide, methane and nitrous oxide that are unprecedented in at least the last 800,000 years. Their effects, together with those of other anthropogenic drivers, have been detected throughout the climate system and are *extremely likely to have been the dominant cause of the observed warming since the mid-20th century*.” FIFTH ASSESSMENT REPORT, *supra* note 27.

<sup>31</sup> UNIPCC 1.5 REPORT, *supra* note 5.

<sup>32</sup> The U.N. Intergovernmental Panel on Climate Change (UNIPCC) recently reaffirmed the scientific consensus on climate change, emphasizing the need for immediate international action. *Id.* In August 2019, the UNIPCC issued a new Special Report on “Climate Change, Desertification, Land Degradation, Sustainable Land Management, Food Security, and Greenhouse gas fluxes in Terrestrial Ecosystems.” It stated, “Climate change, including increases in frequency and intensity of extremes, has adversely impacted food security and terrestrial ecosystems as well as contributed to desertification and land degradation in many regions (*high confidence*).” UNITED NATIONS INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE AND LAND (Draft Summary Report for Policy Makers) (Aug. 2019).



levels.<sup>33</sup> In this Special Report, international climate scientists determined that global temperatures are likely to increase 1.5 degrees Celsius above pre-industrial levels as early as 2030. The Report also warned that the window to take action to keep global temperatures from surpassing this threshold is rapidly closing and we will easily surpass this threshold without a dramatic reduction in GHG emissions.<sup>34</sup>

There must be a massive worldwide reduction in GHG emissions in order to limit global warming to below 1.5 degrees Celsius from baseline pre-industrial levels.<sup>35</sup> This is aligned with the Paris Climate Agreement’s goal of holding global average temperature below 2 degrees Celsius above pre-industrial levels while “pursing efforts to limit the temperature increase to 1.5 degrees above pre-industrial levels.”<sup>36</sup> Scientists estimate that global warming at or above 2 degrees Celsius beyond preindustrial levels will cause massive economic and environmental damage. Mass migration will take place from the regions most affected by climate change. Domestically, wildfires will burn at least twice as much forest area in the western United States than was typically burned by wildfires preceding 2019.<sup>37</sup>

The 2018 UNIPCC Special Report stated that absent a dramatic reduction in GHG emissions — in the vicinity of forty to seventy percent<sup>38</sup> — the world is well on track to surpass both the 1.5 degree Celsius and 2.0 degree Celsius increase.<sup>39</sup> Indeed, it is increasingly likely that the governing United Nations Framework on Climate Change and international legal instruments will fall far short to keep the temperature increase at bay. Sea-level rise will

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<sup>33</sup> FIFTH ASSESSMENT REPORT, *supra* note 27. The report was issued with the aim of “strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty.” *Id.* The next comprehensive UNIPCC report is scheduled to be issued in 2022.

<sup>34</sup> The report places a level of confidence in each finding as well as the assessed likelihood of an outcome or result *Id.* For example, “virtually certain” indicates a 99-100% probability of an outcome occurring, “very likely” indicates a 90-100% probability, and “likely” indicates a 66%-100% outcome. *Id.*

<sup>35</sup> This will require global reductions in greenhouse gas emissions from human sources of 40 to 60 percent from 2010 levels by 2030 and net-zero emissions by 2050.

<sup>36</sup> Paris Agreement, art 2.

<sup>37</sup> *See* Green New Deal Resolution (Sen. Markey (D-MA) and Rep. Ocasio-Cortez (D-NY)), ¶ 3 (A)-(F). The report also notes that at or above 2 degrees Celsius beyond pre-industrialized levels, the earth will lose 99 percent of all coral reefs, more than 350,000 people will be exposed to heat stress by 2050 and the United States risk damage of \$1 trillion dollars in public infrastructure and coastal real estate. The New Green Deal Resolution refers to “frontline and vulnerable communities” that will be particularly vulnerable to these effects. *See id.*

<sup>38</sup> *See* Rajendra K. Pachauri & Leo Meyer, Intergovernmental Panel on Climate Change, Climate Change 2014: Synthesis Report: Contribution of Working Groups I, II, and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate 20 (2015). *See also* Kirsten Davies & Thomas Ridell, *The Warming War: How Climate Change is Creating Threats to International Peace and Security*, 30 GEO. ENVTL. L. REV. 47, 51 (2017).

<sup>39</sup> The United States is currently the world’s second largest Greenhouse Gas emitter (behind China) and has emitted 20 percent of total global greenhouse gas emissions through 2015. UNION OF CONCERNED SCIENTISTS, *Each Country’s Share of CO2 Emissions*, <https://www.ucsusa.org/global-warming/science-and-impacts/science/each-countrys-share-of-co2.html> (last visited Aug 10, 2019).

increase throughout this century and will continue well past 2100 (where many of the climate models inexplicably stop). Significantly, the UNIPCC Special Report reinforces that climate change impacts national security:

Climate-related risks to health, livelihoods, food security, water supply, human security, and economic growth are projected to increase with global warming of 1.5 degrees Celsius and increase further with 2.0 degrees Celsius.<sup>40</sup>

The UNIPCC Special Report also found that disadvantaged and vulnerable populations are at higher risk of climate change’s adverse consequences, which will disproportionately impact Small-Island Developing States and developing countries.<sup>41</sup> Finally, in the unlikely event that the 2.0-degree Celsius goal is met, climate change will continue to intensify extreme weather and undermine national security. After all, GHG emissions stay in the atmosphere for decades after they are emitted.

## 2. The Fourth National Climate Assessment (NCA): Emphasizing Climate Change’s National Security Impacts

In November 2018, the U.S. government released the Fourth National Climate Assessment (NCA), addressing climate change impacts and risks, with a focus on climate change’s impacts in the United States.<sup>42</sup> In 1990, President George H.W. Bush signed a law requiring that the U.S. Global Change Research Program (USGCRP) deliver the National Climate Assessment to Congress and the President “no less than four years.”<sup>43</sup> This report must “analyze the effects of global change on the natural environment” and “[the] current trends in global change, both human-induced and natural, and projects major trends for the subsequent 25 to 100 years.”<sup>44</sup> Once again the scientific community is sounding the alarm on climate change’s national security impacts. Specifically, the Fourth National Climate Assessment states:

Climate change, variability, and extreme events, in conjunction with other factors, can exacerbate conflict, which has implications for U.S. national security. Climate impacts already affect U.S. military infrastructure, and the U.S. military is incorporating climate risks in its planning.<sup>45</sup>

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<sup>40</sup> UNIPCC 1.5 REPORT, *supra* note 5, at SPM-11.

<sup>41</sup> UNIPCC 1.5 REPORT, *supra* note 5.

<sup>42</sup> NCA 2018, *supra* note 3.

<sup>43</sup> Global Change Research Act of 1990. Pub. L. No. 101- 606, 104 Stat. 3096-3104, November 16, 1990. <http://www.gpo.gov/fdsys/pkg/STATUTE-104/pdf/STATUTE-104-Pg3096.pdf>

<sup>44</sup> *Id.*

<sup>45</sup> NCA 2018, *supra* note 3, at 107.

National security is mentioned fourteen times in its Report in Brief.<sup>46</sup> Furthermore, the Fourth National Climate Assessment added an entirely new chapter addressing national security, U.S. humanitarian assistance, and disaster relief absent that was absent from the Third National Climate Assessment.<sup>47</sup> The NCA further highlights climate change’s “interconnected impacts,” noting that extreme weather and climate-related impacts on one system can result in increased risk and failures in other systems to include water resources, food production, public health, and national security.<sup>48</sup> It states:

Climate change, variability, and extreme events increase risks to national security through direct impacts on U.S. military infrastructure and, more broadly, through the relationship between climate-related stress on societies and conflict. Direct linkages between climate and conflict are unclear, but climate variability has been shown to affect conflict through intermediate processes, including resource competition, commodity price shocks, and food insecurity.<sup>49</sup>

These interconnected impacts are both transnational and transsubstantive. As climate change exacerbates food insecurity and water insecurity both inside and outside U.S. borders, there exists an increased threat of conflict and displacement that places a stress on migrants fleeing food insecurity, drought, and related environmental stressors.<sup>50</sup> Climate change can also lead to commodity price shocks, increase the risk of infectious diseases, and exacerbate resource competition.<sup>51</sup>

Both the UNIPCC and NCA reports showcase how climate change increases the intensity and likelihood of extreme weather events. Indeed, advances in climate attribution science demonstrate that the threats posed by climate change increase the likelihood of natural disasters.<sup>52</sup> Recently, the American Geophysical Union reported that human-caused climate

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<sup>46</sup> The NCA states that “[n]atural variability and changes in climate increase risks to our national security by affecting factors that can exacerbate conflict and displacement outside of U.S. borders, such as food and water insecurity and commodity price shocks. More directly, our national security is impacted by damage to U.S. military assets such as roads, runways, and waterfront infrastructure from extreme weather and climate-related events.” NCA 2018, *supra* note 3, at 50. Contrast this to the U.S.’s most recent National Defense Strategy and National Security Strategy, which eliminated any mention of climate change from these important policy documents.

<sup>47</sup> NCA 2018, *supra* note 3, at 61. This Chapter is titled “Climate Effects on U.S. International Interests.”

<sup>48</sup> NCA 2018, *supra* note 3, at 13-14.

<sup>49</sup> NCA 2018, *supra* note 3, at 606.

<sup>50</sup> For example, Guatemala recently suffered a severe food drought and shortage. Gena Steffens, *Changing Climate Forces Desperate Guatemalans to Migrate*, NAT’L GEOGRAPHIC, Oct. 23, 2018.

<sup>51</sup> NCA 2018, *supra* note 3, at 108.

<sup>52</sup> See AMERICAN METEOROLOGICAL SOCIETY, *Explaining Extreme Events of 2017 from a Climate Perspective*, available at: <https://www.ametsoc.org/ams/index.cfm/publications/bulletin-of-the-american-meteorological-society-bams/explaining-extreme-events-from-a-climate-perspective/> (finding that 15 of 16 extreme weather events were made more likely by human caused climate change).

change increased both the likelihood and severity of 15 of 16 extreme weather events in 2017.<sup>53</sup> As climate scientists refine their models, we will likely be able to predict with greater certainty the future likelihood of extreme weather events and better pinpoint their size and location.

In addition, climate change’s costs are staggering — and only increasing. The Office of Management and Budget recently estimated that the federal government spent over \$300 million in direct costs to address extreme weather events and fires alone in the past decade.<sup>54</sup> And between 1980 and 2013, the United States suffered over \$260 billion dollars in flood damage.<sup>55</sup> According to one leading insurance firm, natural disasters cost the world an average of \$184 billion per year and 106,000 lives.<sup>56</sup> Climate-driven weather events also threaten the infrastructure at our military bases and harm military readiness, discussed in greater detail below.<sup>57</sup> Finally, independent of these two reports, GHG emissions have actually been increasing — following a decrease in GHG emissions in the aftermath of the 2008 recession, they are once again on the rise.<sup>58</sup>

The UNIPCC Special Report and NCA scientific reports have caught the eye of a more mainstream publishing audience. At a 2-degree Celsius rise above pre-industrial levels — which we are on track to meet and surpass — author David Wallace-Wells foreshadows the world that we may well inhabit by 2050 in *The Uninhabitable Earth*:

As temperatures rise, this could mean many of the biggest cities in the Middle East and South Asia would become lethally hot in summer, perhaps as soon as 2050. There would be ice-free summers in the Arctic and the unstoppable disintegration of the West Antarctic’s ice sheet, which some scientists believe has already begun, threatening the world’s coastal cities with inundation. Coral reefs would mostly disappear. And there would be tens of millions of climate refugees, perhaps many more, fleeing droughts, flooding and extreme heat, and the possibility of multiple climate-driven natural disasters striking simultaneously.<sup>59</sup>

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<sup>53</sup> *See id.*

<sup>54</sup> U.S. OFFICE OF MANAGEMENT AND BUDGET (2016).

<sup>55</sup> Alice Hill, *Threat Multiplier: Exploring the National Security and Policy Implications of Climate Change*, 28 GEO. ENV’T L. REV. ONLINE 1, (2015).

<sup>56</sup> *Id.* at 4. Pacific Gas & Electric recently declared bankruptcy in the face of massive California wildfires with at least some commentator speculating that this was the U.S. economy’s first “climate bankruptcy.” *See* Ian Gray & Gretchen Bakke, *Pacific Gas and Electric is a company that was just bankrupted by climate change. It won’t be the last*, WASH. POST, Jan 30, 2019. <https://www.washingtonpost.com/news/monkey-cage/wp/2019/01/30/pacific-gas-and-electric-is-a-company-that-was-just-bankrupted-by-climate-change-it-wont-be-the-last/>

<sup>57</sup> Mark P. Nevitt, *Pentagon’s Climate Change Report Lacks Analysis Law Requires*, JUST SECURITY (Jan. 23, 2019).

<sup>58</sup> Brady Dennis & Chris Mooney, *We are in trouble: Global Carbon emissions reached a record high in 2018*, WASHINGTON POST, Dec. 5, 2018 <https://www.washingtonpost.com/energy-environment/2018/12/05/we-are-trouble-global-carbon-emissions-reached-new-record-high/>

<sup>59</sup> Wallace-Wells, *supra* note 5, at 10.

*B. National Security & Intelligence Communities: Increasingly in Conversation with Climate Scientists*

Just as climate scientists have increasingly articulated the future threats and risks posed by climate change, national security professionals have increasingly integrated the best available science into their intelligence reports, policy pronouncements, and governing analysis. There is now a continually ongoing, two-way conversation between the scientific and security communities as the national security and intelligence communities continually sound the alarm on climate change’s multifaceted national security threats.<sup>60</sup> Today, the CIA, national security and broader intelligence community are now actively engaging with the latest climate science, to include the UNIPPC and NCA.<sup>61</sup> Further, with one recent, notable exception, climate change has been mentioned in every Presidential National Security Strategy (NSS) since 1991.<sup>62</sup>

As discussed below, this rise of climate security and climate intelligence has the potential to drive national strategy, operations, public perceptions, and existing resources.<sup>63</sup> While the current Administration’s EPA is actively dismantling domestic environmental and climate regulations, climate security remains “sticky” and durable, keeping climate change in

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<sup>60</sup> See Bishop Garrison, *The President’s Constitutional Responsibility to Confront Climate Change and Invest in Renewable Energy for National Security*, 45 HAST. CONST. L. Q. 671 (2018) (asserting that the Commander in Chief clause places an affirmative duty on the President to combat climate change as the “decision-maker for all military actions”). I don’t take a position on whether this emerging “climate security” field is distinct or a “Law of the Horse,” but I argue that it is a vastly undertheorized field that is deserving of more attention for several reasons. Despite these earlier pronouncements from the President, DoD, scientists and intelligence community, the threats posed by climate change were completely omitted as a national security threat in the latest National Security Strategy (NSS) and National Defense Strategy (NDS). It wasn’t always this way. In 1991, then-President George Bush assessed that climate change “respects no international boundaries” and contributes to political conflict in his 1991 National Security Strategy. U.S. NAT’L SECURITY STRATEGY (1991).

<sup>61</sup> William Broad, *CLA is Sharing Data with Climate Scientists*, N.Y. TIMES, Jan. 4, 2010. The term climate change has been placed in every National Security Strategy (NSS) since the first Bush Administration. Unfortunately, the term climate change was dropped from the 2017 National Security Strategy.

<sup>62</sup> Climate change was not directly addressed in the 2017 National Security Strategy issued by President Trump. As far back as 1990, the military has addressed the security implications of global climate change. See Terry Kelly, *Global Climate Change, Implications for the United States Navy*, U.S. NAVAL WAR COLLEGE (1990) (on file with author).

<sup>63</sup> Intelligence is defined as the product resulting from the collection, processing, integration, evaluation, interpretation, analysis of available information concerning foreign nations, hostile or potentially hostile forces or elements, or areas of actual or potential operations. DOD DICTIONARY, *infra* note 92, at 114 (emphasis provided). “One role of the intelligence community is the collection, analysis, and dissemination of information about threats to national security.” NATIONAL SECURITY LAW 489 2016 (DYCUS, BERNEY, BANKS, RAVEN-HANSEN, VLADECK ED.).

the public and congressional eye.<sup>64</sup> Even under the current Administration, which has rolled back previous climate initiatives, new legislation on climate has been recently enacted through the national security appropriations process. For example, the 2018 National Defense Authorization Act prohibited military construction in the 100-year floodplain — an important climate adaptation measure that passed a Republican-controlled Congress and was signed by President Trump.<sup>65</sup> The 2019 defense spending bill required the Department of Defense to provide a report ranking the military installations most vulnerable to climate change. This year, Congress has held multiple congressional hearings from scientists and experts to better understand the national security risks posed by climate change.

Consider, too, how the intelligence communities have recently and steadily warned of the threats posed by climate change. In 2008, the George W. Bush administration produced a National Intelligence Estimate, first addressing the effects of climate change on national security.<sup>66</sup> In 2010, the Director of National Intelligence stated:

We continue to assess that global climate change will have wide-ranging implications for U.S. national security interests over the next 20 years because it will aggravate existing world problems — such as poverty, social tensions, environmental degradation, ineffectual leadership, and weak political institutions.<sup>67</sup>

In 2015, President Obama signed the federal Climate Action Plan, requiring federal agencies to report on climate change’s impacts and directing DoD to assess the vulnerability of its coastal facilities.<sup>68</sup> This was followed up by a 2016 National Intelligence Estimate (NIE) that incorporated the findings from the United Nations Intergovernmental Panel on Climate Change (UNIPCC) Fifth Assessment into its report, highlighting projected trends in extreme

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<sup>64</sup> Recent national defense authorization acts signed by President Trump have addressed climate change measures at military installations. The pending Intelligence Authorization Act before Congress has a provision establishing a new “Climate Security Fusion Center.” (draft legislation on file with author).

<sup>65</sup> Shana Udvardy, *New Defense Bill Strengthens the Militaries Flood Readiness*, UNION OF CONCERNED SCIENTISTS, Aug 7, 2018, <https://blog.ucsusa.org/shana-udvardy/new-defense-bill-strengthens-the-militarys-flood-readiness-and-saves-taxpayer-dollars-all-while-addressing-climate-change>

<sup>66</sup> National Intelligence Assessment on the National Security Implications of Global Climate Change to 2030: Hearing Before the H. Permanent Select Comm. on Intelligence and the House Select Comm. on Intelligence and the House Select Comm. on Energy Independence and Global Warming, 110th Cong. 2-3 (2008)(statement for the record of Thomas Fingar, Deputy Director, National Intelligence for Analysis and Chairman, National Intelligence Council (noting that climate change “will have wide-ranging implications for US national security interests over the next 20 years”).

<sup>67</sup> Dennis C. Blair, *Annual Threat Assessment of the US Intelligence Community for the Senate Select Committee on Intelligence*, Feb. 2, 2010, available at [http://www.dni.gov/testimonies/20100202\\_testimony.pdf](http://www.dni.gov/testimonies/20100202_testimony.pdf)

<sup>68</sup> *The President’s Climate Action Plan*, EXEC. OFFICE OF THE PRESIDENT, <http://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf> (last visited Aug. 1, 2019).

weather events that are exacerbated by climate change.<sup>69</sup> The 2016 National Intelligence Assessment outlined six wide-ranging national security challenges (“possible pathways”) for the United States and other countries over the next 20 years: (1) threats to the stability of countries; (2) heightened social and political tension; (3) adverse effects on food prices and availability; (4) increased risks to human health; (5) negative impacts of investments and economic competitiveness; and (6) potential climate discontinuities and “secondary surprises.”<sup>70</sup>

In 2019, the United States’ Office of the Director of National Intelligence (ODNI) issued a new threat assessment report, stating that the “negative effects of environmental degradation and climate change” will impact human security, threaten public health, and lead to historic levels of human displacement within and across borders.<sup>71</sup> It further noted:

global environmental and ecological degradation, as well as climate change, are likely to fuel competition for resources, economic distress, and social discontent through 2019 and beyond. Climate hazards such as extreme weather, higher temperatures, droughts, floods, wildfires, storms, sea level rise, soil degradation, and acidifying oceans are intensifying, threatening infrastructure, health, and water and food security.<sup>72</sup>

In sum, the national security and intelligence communities, which have historically focused on traditional security threats such as aggression and inter-state conflict, now address non-traditional security threats such as environmental security and climate change.<sup>73</sup> This literature must be read in conjunction with the National Climate Assessment, UNIPCC reports, and related scientific reports. While national security and intelligence reports are not immune to criticism, they have remained fairly durable and are somewhat (but not entirely) protected from the politicization of climate science.<sup>74</sup> After all, the military enjoys a

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<sup>69</sup> The U.N. Intergovernmental Panel on Climate Change (UNIPCC) recently reaffirmed the scientific consensus on climate change, emphasizing the need for immediate international action. *Fifth Assessment Report*, UNITED NATIONS INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (UNIPCC), <http://www.ipcc.ch/report/ar5/> (last visited Aug 1, 2018).

<sup>70</sup> NAT’L INTELLIGENCE COUNCIL, Implications for U.S. National Security of Anticipated Climate Change, Sep 21, 2016.

<sup>71</sup> DANIEL R. COATS, OFFICE OF DIRECTOR OF NAT’L INTELLIGENCE (ODNI), *Statement for the Record: Worldwide Threat Assessment of the Intelligence Community*, Jan. 29, 2019, available at: <https://www.dni.gov/files/ODNI/documents/2019-ATA-SFR--SSCI.pdf>

<sup>72</sup> *Id.*

<sup>73</sup> For a discussion of what is meant by national security and its evolving definition, see Sanford Gaines, *Sustainable Development & National Security*, 30 WM. & MARY ENVTL. L. & POL’Y REV. 321, 345-52 (2006).

<sup>74</sup> Following the release of the 2019 National Intelligence Threat Assessment, there were efforts made by the Trump Administration to block reports on climate change and national security by governmental experts.



comparably high approval rating among the American public (especially when compared to Congress). As discussed below, the national security and intelligence community can serve as a powerful validator of the most pressing security threats facing the nation and the world.<sup>75</sup> But embracing the security community by climate and environmental advocates comes with its own risk. And national security is such a broadly defined term that it can be wielded in a manner that may undermine the underlying goal to minimize GHG emissions. For example, in 2018 Secretary of Energy Rick Perry argued that national security required the continual operation of coal-fired power plants.<sup>76</sup>

## II. Environmental Law, Climate Change, and National Security Values

### A. *Environmental and Climate Change Law's Values*

Environmental law is a relatively new field of law, with origins in tort and property law.<sup>77</sup> Environmental law is generally characterized as an area of positive law, as evidenced by the large body of statutes, regulations, and judicial decisions interpreting the legislation.<sup>78</sup>

Environmental law largely seeks to protect and preserve the human environment via a cooperative federalism model of environmental laws and policies.<sup>79</sup> Professor Lazarus in *Making of Environmental Law* explains that environmental values include the embracing of science, appreciation of all life forms, a concern with the quality of human life and health, a global rather than a nationalist view, and sense of urgency regarding the survival of life on

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See Rod Schoonover, *The White House Blocked My Report on Climate Change and National Security*, N.Y. TIMES, Jul. 30, 2019 at A31.

<sup>75</sup> Intelligence reports are necessarily produced by individual countries — there is not an international intelligence report that is akin to the UNIPCC. NATO, however, has routinely highlighted the importance of environmental security matters, to include climate change. See also Sarah E. Light, *Valuing National Security: Climate Change, the Military and Society*, 61 UCLA L. REV. 1772, 1797 (2014).

<sup>76</sup> <https://www.politico.com/story/2018/10/15/rick-perry-coal-rescue-trump-850528>

<sup>77</sup> Dan Tarlock, *Is There a There There in Environmental Law?*, 19 J. LAND USE & ENVTL. L. 213 (2004). In this Article, Professor Tarlock proposes five candidate principles of environmental law to include “minimize uncertainty before and as you act.”

<sup>78</sup> Tarlock, *supra* note 76, at 231 n.64 (2004) (finding that the “simplest definition of positivism is enacted law.”). See Todd S. Aagaard, *Environmental Law as a Legal Field: An Inquiry in Legal Taxonomy*, 95 CORNELL L. REV. 221, 264-71 (2010) (describing environmental law as encompassing to characteristics: (1) physical public resources; and (2) pervasive interrelatedness. In addition, Professor Aagaard addresses scientific uncertainty. The very term “environmental law” did not even exist prior to 1969. See also RICHARD J. LAZARUS, *THE MAKING OF ENVIRONMENTAL LAW* 47 (2004). Scholars generally note that the first major environmental case heard by the Supreme Court did not occur until 1965. See *Scenic Hudson Preservation Conference v. FPC*, 354 F.2d. 608 (1965). The first major environmental federal environmental law, the National Environmental Policy Act, was signed into law in 1970. 42 U.S.C. §§ 4321-4370f (2012).

<sup>79</sup> For an overview of the history of environmental law and its corresponding values, see RICHARD LAZARUS, *THE MAKING OF ENVIRONMENTAL LAW* (2004).



earth.<sup>80</sup> It also values a strong sense of urgency regarding the survival of life on earth.<sup>81</sup> Environmental law places a strong emphasis on sustainability, has a revulsion toward waste, values a long-term time horizon, and an enduring interest in environmental justice.<sup>82</sup>

Scholars have labeled the term *environmental* as “so all-encompassing that it has been robbed of any operative meaning; it needs contours.”<sup>83</sup> Within the United States, the Clean Air Act currently forms the statutory legal basis for the regulation of GHG emissions.<sup>84</sup> In *Massachusetts v. EPA*, the Supreme Court held that the Clean Air Act authorizes the EPA to regulate GHG emissions in the event that it forms a “judgment” that such emissions contribute to climate change, and that the State of Massachusetts had standing to challenge the agency’s failure to do so.<sup>85</sup> At issue was the loss of sovereign Massachusetts land due to coastal erosion and sea level rise.<sup>86</sup> Following *Massachusetts v. EPA*, the EPA issued an endangerment finding and later took steps to regulate GHG emissions.<sup>87</sup>

In recent years, legal scholarship has increasingly wrestled with an offshoot of environmental law — climate change law.<sup>88</sup> Until recently much of the emphasis within climate change law has focused on climate mitigation measures — the reduction of GHG emissions to stem anthropogenic climate change. The development of law and scholarship concerning adapting to climate change and responding to extreme weather events *ex post* has largely lagged the climate mitigation discussion.<sup>89</sup> But this, too, has begun to change. For example, in the aftermath of an inadequate governmental response following Hurricane

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<sup>80</sup> *Id.*

<sup>81</sup> See, e.g., ROBERT PAEHLKE, ENVIRONMENTALISM, AND THE FUTURE OF PROGRESSIVE POLITICS, 137-145 (1989).

<sup>82</sup> *Id.*

<sup>83</sup> Tarlock, *supra* note 76, at 221.

<sup>84</sup> This authority for the EPA to regulate carbon dioxide and related GHG emissions derived from the seminal Supreme Court case, *Massachusetts v. EPA*, 549 U.S. 497 (2007).

<sup>85</sup> *Massachusetts v. EPA*, 549 U.S. 497 (2007).

<sup>86</sup> *Id.*

<sup>87</sup> The Clean Power Plan was released shortly thereafter, the central regulatory action by the Obama Administration to address climate change. Unfortunately, this effort was stalled by the Supreme Court in 2015 and the Trump Administration is currently in the process of repealing the Clean Power Plan. See, e.g., JAMES E. MCCARTHY, CONG. RESEARCH SERV. RECONSIDERING THE CLEAN POWER PLAN (2017).

<sup>88</sup> J.B. Ruhl & James Salzman, *Climate Change Meets the Law of the Horse*, 62 DUKE L. J., 975, 988-89 (2013).

<sup>89</sup> One of the notable exceptions includes the work of Professors Dan Farber and Rob Verchick. See DANIEL A. FARBER, JIM CHEN, ROBERT R.M. VERCHICK & LISA GROW SUN, DISASTER LAW AND POLICY (2d ed. 2010). Other scholars have begun to draw linkages between climate change and human rights law. See also John H. Knox, *Linking Human Rights Law and Climate Change at the United Nations*, 32 HARV. ENVTL. L. REV. 477 (2009) (describing the human rights implications of climate change on small island developing states); Lisa Grow Sun and Ronnell Anderson Jones, *Disaggregating Disasters*, 60 UCLA L. REV. 884, 917-18 (2013).

Katrina, Professors Dan Farber and Rob Verchick published a casebook on disaster law, connecting broader environmental stressors with disaster response.<sup>90</sup>

Internationally, climate adaptation efforts also largely took a back seat to climate mitigation efforts until the United Nations Conference of Parties in Bali in 2007. It was assumed that “the impacts of climate change would arise slowly over time and could be dealt with piecemeal, as they emerged.”<sup>91</sup> Indeed, until recently policymakers and scholars believed that we had considerably more time to adapt to climate change’s effects. In addition, adaptation measures were once anathema to many climate advocates — to include former Vice- President Al Gore, who worried that focusing on adaptation would reinforce “the terrible moral consequences . . . of delay.”<sup>92</sup>

Scientists and policy makers recognize that time is no longer on our side, particularly when it comes to the national security impacts of climate change. As we need to adapt and prepare for climate change today, we must take into account climate change’s wide-ranging national security impacts. The renewed focus on climate change’s national security impacts reflects the broader trend of opening the “climate aperture” beyond mitigation measures to encompass its effects on adaptation, human rights, disaster response, and national security.

*B. National Security Law: An Ever-Expanding Area of Law Increasingly in Conversation with Climate Change*

The term “national security” is not well defined in law and remains a multifaceted and expanding concept.<sup>93</sup> National security is understood to broadly encompasses whatever

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<sup>90</sup> *Id.* See also Ruhl & Salzman, *supra* note 87, at 988-89.

<sup>91</sup> Ian Burton, *Beyond Borders: The Need for Strategic Global Adventures*, INT’L INST. FOR ENV’T & DEV. (Dec. 2008).

<sup>92</sup> AL GORE, *EARTH IN BALANCE* (1992).

<sup>93</sup> National security is not defined in law but is defined within joint military doctrine. It includes “A collective term encompassing both national defense and foreign relations of the United States with the purpose of gaining . . . [a] military or defense advantage over any foreign nation . . . [a] favorable foreign relations position . . . [a] defense posture capable of successfully resisting hostile or destructive action from within or without, overt or covert.” JOINT PUBLICATION 1-02, *DICTIONARY OF MILITARY AND ASSOCIATED TERMS* 162 (Nov 2010) [hereinafter *DOD DICTIONARY*]. The linkage between environmental security and national security was first acknowledged in the 1995 National Security Strategy signed by President William J. Clinton. (“Not all security risks are [immediate or] military in nature. Transnational phenomena such as terrorism, narcotics trafficking, *environmental degradation*, natural resource depletion, rapid population growth and refugee flows also have security implications for both present and long-term American policy. In addition, an emerging class of transnational environmental issues are increasingly affecting international stability and consequently will present new challenges to U.S. strategy.”) NATIONAL SECURITY STRATEGY OF ENGAGEMENT AND ENLARGEMENT (Feb. 1995), at 1.

threatens to significantly degrade the quality of life of the people.<sup>94</sup> At the time of the nation’s founding, national security centered around notions of the common defense. For example, in his earliest pronouncements of a strong federal government, Alexander Hamilton articulated a common defense rationale for the federal government. He conceived the purpose of the Union as for “the common defense of the members; the preservation of the public peace as well as against internal convulsions as external attacks . . .”<sup>95</sup> In doing so, he argued that a broad range of threats may ultimately arise and the new nation must be prepared to respond.<sup>96</sup>

At its core, the field of national security encompasses use of force matters to include defending the nation from an armed attack.<sup>97</sup> It includes “defense of national territory and welfare against external threats, especially threats of military or quasi-military attack.”<sup>98</sup> National security is associated with “military defense of a sovereign territory from *any* foreign threat.”<sup>99</sup> Historically, that foreign threat has included other nation states but has evolved to encompass non-state actors and so called non-traditional security threats.

Earlier Supreme Court rulings focused on “national defense” and addressed congressional and executive authority over war powers and foreign affairs.<sup>100</sup> Gradually, the term common defense evolved to “national security.”<sup>101</sup> During World War II, Harvard Professor Pendleton Herring chaired the Committee of Records of the War Administration, publishing the U.S. government’s official account of the war and later authoring the National

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<sup>94</sup> Relatedly, the more generalized term “security” remains a slippery, vague and undertheorized concept. See Aziz Rana, *Who Decides on Security?*, 44 CONN. L. REV. 1417, 1425 (2012) (noting that political actors with divergent ideological commitments defend the often-competing goals of security).

<sup>95</sup> THE FEDERALIST NO. 23 (Alexander Hamilton).

<sup>96</sup> “[The common defense authorities] ought to exist without limitation, because it is impossible to foresee or define the extent of national exigencies, or the correspondent extent and variety of the means which may be necessary to satisfy them.” *Id.*

<sup>97</sup> See Light, *supra* note 75, at 1797. For example, President Trump has characterized trade as a national security issue.

<sup>98</sup> See, e.g., Ronald Reagan, Address to the Nation on National Security, Feb. 26, 1986, available at [http://reagan2020.us/speeches/address\\_on\\_national\\_security.asp](http://reagan2020.us/speeches/address_on_national_security.asp). Sanford Gaines, *Sustainable Development and National Security*, 30 WM. & MARY ENVTL. L. & POL’Y REV. 345-46 (2006).

<sup>99</sup> See, e.g., Rodrigo Alberto Vazquez Martinez, *Environmental Security and the Role of Law*, 32, <https://ssrn.com/abstract=2873500>. Elizabeth L. Chaleckiat, *Environmental Security: A Guide to the Issues (ABC-CLIO, 2013) 5–14* Jutta Brunnee, ‘*Environmental Security in the Twenty-First Century: New Momentum for the Development of International Environmental Law?*’, 18 *Fordham Int’l L. J.* (1994–1995) 1742–1747 at 1742.

<sup>100</sup> See, e.g., *United States v. Robel*, 389 U.S. 258, 264 (1968) (“[T]his concept of “national defense” cannot be deemed an end in itself, justifying any exercise of legislative power designed to promote such a goal. Implicit in the term “national defense” is the notion of defending those values and ideals which set the Nation apart.”).

<sup>101</sup> See, e.g., Sarah E. Light, *Valuing National Security: Climate Change, the Military and Society*, 61 UCLA L. REV. 1772, 1797 (2014).

Security Act.<sup>102</sup> Professor Herring argued that international affairs had become domestic problems, invoking a term — “national security” — that mirrored the Great Depression discourse of “economic security.”<sup>103</sup> National security law focuses on safeguarding the nation and responding to emerging threats. It seeks to protect and preserve national interests, uphold sovereign interests, and protect the lives of its military members and citizens. Within the national security infrastructure resides the military, which has a deep planning culture designed and equipped to prepare for future conflicts and threats — however defined.<sup>104</sup>

The “classical national security” view encompasses the defense of national territory and welfare against external threats, especially threats of military or quasi-military attack.<sup>105</sup> “New-Age” or neo-classical national security is unanchored from this definition and embraces and encompasses elements of the classical definition as well as environmental security. The challenges posed by climate change represent this next evolution.<sup>106</sup>

The modern field of national security law now includes traditional and non-traditional threats. It is best understood as a multifaceted concept rather than a monolithic one.<sup>107</sup> As such, the concept of national security has continued to evolve from purely military/strategic concerns to environmental concerns.<sup>108</sup> Indeed, scholars and policy experts have begun to incorporate environmental concerns into broader conceptions of national security, exclaiming that climate change is a catalyst for conflict.<sup>109</sup> Scholars and policy experts have begun to incorporate environmental concerns into broader conceptions of national security.<sup>110</sup>

While it is beyond the scope of this paper to comprehensively address international law and UN Security Council’s growing interest and engagement in climate change, a parallel trend has emerged outside the United States as international security institutions are

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<sup>102</sup> For an account of Professor Herring’s role in the development of the term national security, *see generally* Rana, *supra* note 93, at 1458-62.

<sup>103</sup> PENDLETON HERRING, THE IMPACT OF WAR 15-16 (1941); Rana, *supra* note 93, at 1462.

<sup>104</sup> *See generally* STEPHEN DYCUS, NATIONAL DEFENSE AND THE ENVIRONMENT 185-86 (1996).

<sup>105</sup> *See, e.g.*, President Ronald Reagan, Address to the Nation on National Security, Feb. 26, 1986.

<sup>106</sup> This has not been without some controversy. The current Administration has recently established a National Security Working Group to analyze the recent National Climate Assessment that declared climate change a national security issue. *See* Juliet Eilperin, Josh Dawsey, and Brady Dennis, *Latest Plan to Take Aim at Climate Consensus*, WASH. POST, Feb. 25, 2019 at A1.

<sup>107</sup> *See, e.g.*, Light, *supra* note 75, at 1798.

<sup>108</sup> *Id.* at 1798.

<sup>109</sup> *Id.* at 1798.

<sup>110</sup> *Id.* at 1798.

increasingly engaged with non-traditional security threats.<sup>111</sup> Consider how the United Nations Security Council (UNSC), the entity entrusted with the responsibility to maintain international peace and security, has expanded its definition of threats to international peace and security.<sup>112</sup> Since the end of the Cold War, the UNSC has shown an increased willingness to address non-traditional threats to international peace and security beyond aggression and inter-state conflict. This includes terrorism, health crisis (such as the Ebola and AIDS), and other matters of environmental and ecological security. The United Nations Security Council has also convened several high-level meetings addressing climate change as a security issue. While it has not yet declared climate change a threat to international peace and security, the UN Security Council has shown a willingness to address the security impacts of climate change within recent Security Council Resolutions.

National security threats have grown in recent years to encompass “whatever threatens to significantly degrade the quality of life of the people.”<sup>113</sup> Environmental threats—particularly the threats posed by climate change—satisfy this capacious definition. And this is increasingly recognized by the Defense Department, intelligence communities, and massive national security apparatus.

*C. Environmental Law and National Security: From Conflict to Alignment?*

Other scholars have accurately described national security as a public good akin to clean air and water: “it is a classic public good that is too costly and unwieldy for individuals to provide for themselves, and it is impossible to exclude individuals from enjoying it once it is provided.”<sup>114</sup> Climate change’s security challenges represent this continual evolution.<sup>115</sup>

Due to advances in climate attribution science, climate security’s effects are increasingly real and all-encompassing. Consider extreme weather’s damage inflicted upon national security infrastructure at Tyndall Air Force Base and Camp Lejeune following the

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<sup>111</sup> U.N. CHARTER, art. 24. For an outstanding overview of many of the potential tools available to the UN Security Council in addressing climate change, see CLIMATE CHANGE AND THE UN SECURITY COUNCIL (Shirley V. Scott & Charlotte Ku ed., Edward Elgar) (2018) [hereinafter CLIMATE SECURITY]; Pierre Thielberger, *Climate Change and International Peace and Security: Time for a Green Security Council?* In FROM COLD WAR TO CYBER WAR (H.J. Heintze & P. Thielberger eds) (2016).

<sup>112</sup> U.N. CHARTER, art. 39.

<sup>113</sup> Dycus, *supra* note 11, at 3.

<sup>114</sup> Light, *supra* note 75, at 1797.

<sup>115</sup> This has not been without some controversy. The current Administration has recently established a National Security Working Group to analyze the recent National Climate Assessment that declared climate change a national security issue. See Juliet Eilperin, Josh Dawsey, and Brady Dennis, *Latest Plan to Take Aim at Climate Consensus*, WASH. POST, Feb. 25, 2019 at A1.

2018 hurricane season.<sup>116</sup> Moreover, climate security has both a domestic and international dimension with implications for environmental justice; for example, the world must address climate change refugees, many of whom are fleeing environmental degradation in developing countries.

The field of environmental security predates climate security. It recognizes that environmental degradation and our race to use natural resources can undermine international peace and security.<sup>117</sup> State and non-state actor threats are largely exogenous while the threats posed by climate change are both exogenous and endogenous. And these climate-environmental threats serve as both a threat-accelerant to existing environmental stressors and a catalyst for conflict as states struggle with food and water insecurity exacerbated by climate change.<sup>118</sup>

Climate change acts as a threat accelerant to existing environmental stressors. There is no longer a direct conflict between national security and environmental law. Climate security concerns will require a role reversal and a rethinking of the historically combative relationship between national security and environmental law.

Environmental statutes have historically been at odds with national security values and objectives.<sup>119</sup> Within the major environmental statutes, Congress has carved out exemptions for national security activities that are in the “paramount interest of the United States.”<sup>120</sup> For example, the Clean Air Act delegates legal authority to the EPA to regulate GHG emissions. However, within the same statutory framework, Congress has also delegated to the President the authority to exempt any emission source of any “department, agency, or instrumentality of the executive branch from compliance with such a requirement if he determines to be in the paramount interest to do so.”<sup>121</sup>

Scholars such as Professors Babcock and Dycus have highlighted the numerous ways in which national security concerns are in conflict with the environmental values discussed

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<sup>116</sup> It is estimated that the cost of this clean-up will exceed several billion dollars.

<sup>117</sup> See, e.g., Rodrigo Alberto Vazquez Martinez, *Environmental Security and the Role of Law*, 31-32, available at: <https://ssrn.com/abstract=2873500>

<sup>118</sup> MILITARY ADVISORY BD., CTR. FOR NAVAL ANALYSES, NATIONAL SECURITY AND THE ACCELERATING RISKS OF CLIMATE CHANGE (2014).

<sup>119</sup> See Hope Babcock, *National Security and Environmental Laws: A Clear and Present Danger?*, 25 VA. ENVTL. L. J. 105 (2007).

<sup>120</sup> See generally Mark P. Nevitt, *Defending the Environment: A Mission for the World's Militaries*, 36 HAW. L. REV. 27 (2014) (describing how the domestic environmental laws apply to the largest militaries of the world).

<sup>121</sup> 42 U.S.C. § 7418 (b).

above.<sup>122</sup> For example, energy and defense officials have sought to suspend environmental protections in the event of national emergency or for reasons of national security.<sup>123</sup> There was an uptick in such requests in the aftermath of 9/11.

Consider, too, how environmental laws values are implemented via positive law, and how these values may at times be in tension with underlying national security objectives. For example, the Clean Air Act’s underlying, value-based goal is to protect human health, welfare, and the environment. Under the Clean Air Act, environmental protections are suspended for reasons of national security or when the President determines that it is in the “paramount interest” of the United States to do so.<sup>124</sup> In addition, the Administrative Procedure Act (APA), which is often the vehicle for challenging agency actions when an environmental statute lacks a citizen-suit provision, exempts “military or foreign affairs” functions from rulemaking.<sup>125</sup> The Clean Air Act authorizes the President to suspend his or her authority in the name of national security:

The President may exempt any stationary source from compliance with any standard or limitation under this section for a period of not more than 2 years if the President determines that the technology to implement such standard is not available and that it is in the national security interests of the United States to do so.<sup>126</sup>

But as we better understand the relationship between GHG emissions and climate change’s security impacts, we will need a massive reduction of GHG emissions to keep global mean temperatures below 2 degrees Celsius. Climate change demands *greater* environmental protections, particularly from the military which is an enormous emitter of GHG emissions.<sup>127</sup> Indeed, in one recent study, the U.S. military emitted more GHG emissions than many sizable European nations.<sup>128</sup>

Further, a temporal tension exists between perceived short-term benefits and climate change’s pernicious, long-term costs. Short-term environmental exemptions may be sought

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<sup>122</sup> See *id.* at 107 (highlighting the post 9/11 tension between “the safety and continuation of the Republic and other values we hold dear, among them a healthy environment”). See also Steven Dycus, *Osama’s Submarine: National Security and Environmental Protection after 9/11*, 30 Wm. & Mary Env’tl. L. & Pol’y Rev. 1, 6 (2005).

<sup>123</sup> See, e.g., Steven Dycus, *Osama’s Submarine: National Security and Environmental Protection after 9/11*, 30 WM. & MARY ENVTL. L. & POL’Y REV. 1, 6 (2005).

<sup>124</sup> 42 U.S.C. § 7411.

<sup>125</sup> 5 U.S.C. § 553 (a)(1). Further, it does not include “military authority exercised in the field in time of war or occupied territory” in its definition of agency. 5 U.S.C. § 551 (G).

<sup>126</sup> 42 U.S.C. § 7412 (i)(4).

<sup>127</sup> COSTS OF WAR, *supra* note 24.

<sup>128</sup> *Id.*

for what is perceived to be a short-term national security benefit. But this has long-term negative implications for both the environment *and* national security. GHG emissions remain in the atmosphere for a long period of time, exacerbating climate change's effects and serving as a long-term threat to international peace and security. For that reason, any request for an environmental national security exemption under the Clean Air Act has the effect of potentially undermining the long-term security situation. In the face of this temporal tension and the nature of anthropogenic climate change, lawmakers should rethink this existing environmental exemption within the Clean Air Act, refining what is meant by “paramount interest” and either doing away with this exemption or raising the standard to receive one.

In addition, national security has a far different origin story when compared to environmental law. National security law has largely developed “top down” — it is the historic province of policy elites and institutions at the federal and international level. Indeed, the National Security Act created the modern, massive Department of Defense apparatus and Central Intelligence Agency. Both have enormous budgets and the Department of Defense is the largest employer in the world. Under the Intelligence Reform Terrorism Prevention Act (IRTPA) of 2004, a civilian Office of the Director of National Intelligence (ODNI) lies at the top of a sprawling intelligence hierarchy.<sup>129</sup> States and localities have historically played a more limited role with critical national security functions — raising Armies, declaring war, concluding treaties — entrusted to the federal government via the Constitution. For example, within the United States, the federal armed force dwarfs the size of state National Guards. In contrast, environmental law has emerged from the “bottom-up” — the result of grassroots organizing, advocacy, and the desire for environmental change from a diverse coalition of students, engaged citizen-environmentalists, scientists, and organizers.<sup>130</sup>

Climate change has stressed and will continue to stress this federal, more top-down model. Extreme weather fueled by climate change will place an increasing burden on disaster response at the state and local levels. States have historically played a leading role in environmental matters while cities and localities have recently taken a leadership role in sustainability and climate mitigation efforts in the face of White House and EPA indifference (or outright hostility).

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<sup>129</sup> Intelligence Reform and Terrorism Prevention Act of 2004 (“IRTPA”), Pub. L. No. 108-458, § 6603, 118 Stat. 3638 (2004)

<sup>130</sup> *See generally* RICHARD J. LAZARUS, *THE MAKING OF ENVIRONMENTAL LAW* 47 (2004). RACHEL CARSON, *SILENT SPRING* (1962).



In many ways, the ongoing dialogue between the environmental and national security communities is a long overdue acknowledgement of the shared values between the two areas that have always been present. National security and protecting the environment both ultimately share the same goals of ensuring our well-being and preserving our rich national heritage.<sup>131</sup> This has important consequences for separation of powers as the President has been granted much greater deference in national security matters.

In fact, national security law and environmental law share many commonalities that have always existed, albeit just below the surface. Climate change is forcing us to think about the core normative values underlying these fields of law, which are both are fairly new. National security planners and policymakers bring a risk-based approach in their planning for future threats, not unlike the precautionary principle, a common thread that runs through much if environmentalism and natural resource management. And national security policymakers routinely plan for “known unknowns” — threats that we know may exist at a fundamental level but about which we seek greater certainty.<sup>132</sup> As we look ahead, climate change is the ultimate “known unknown” — we know that the earth is warming, but we are uncertain about how much the Earth will warm, where and when weather extremes might occur and whether tipping points will, in fact, occur.<sup>133</sup>

When commenting on the nature of the threat posed by climate change, retired Admiral James Stavridis (former four-star NATO and European Commander) stated:

What makes climate change so pernicious is that while the effects will only become more catastrophic far down the road, the only opportunity to fix the problem rests in the present . . . waiting “to be sure climate change is real” condemns us to a highly insecure future if we make the wrong bet.<sup>134</sup>

In addition, national security and environmental law both require constant and continuous updates to ensure they are receiving the best science, facts, and intelligence. This fact and data driven approach drives much of the decision-making process. Environmental law places a heavy emphasis on science and the need to reduce inevitable “uncertainty through the constant generation and application of new knowledge.”<sup>135</sup> National security decisionmakers place a high emphasis on intelligence and fact-finding; they are constantly

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<sup>131</sup> *Id.*

<sup>132</sup> See William B. Gall, *Climate’s Troubling Unknown Unknowns*, N.Y. TIMES at A23 (Apr. 23, 2019).

<sup>133</sup> *Id.*

<sup>134</sup> James Stavridis, *America’s Most Pressing Threat? Climate Change*, BLOOMBERG OPINION, Jan. 11, 2018.

<sup>135</sup> Tarlock, *supra* note 76, at 220.

updating their intelligence and facts to reduce risk. Intelligence seeks to minimize uncertainty before taking action.<sup>136</sup> Environmental law takes a risk-based approach that can lead to a prohibition of an activity.<sup>137</sup> Similarly, national security planners are routinely evaluating and weighing the risks facing the nation.<sup>138</sup>

*D. Shared Values?: Sea Level Rise, Territorial Integrity and Sovereignty*

Consider, for example, how both environmental and national law uphold sovereignty as a core value. National security law focuses on safeguarding the nation and responding to emerging threats, however defined. It seeks to protect and preserve national interests, uphold sovereign interests, and protect the lives of its military members and citizens. National security law has historically emphasized national sovereignty and the protection of territorial integrity. Climate change, too, is threatening our territorial integrity and sovereignty as ice sheets melt, sea levels rise, and coastal erosion occurs.

Climate-change litigation demonstrates, in part, this convergence of values, particularly as it relates to sovereignty and territorial integrity. In what follows, I highlight three climate change cases all of which share core values with both environmental and national security law.

1. *Massachusetts v. EPA* (2004)

In *Massachusetts v. EPA*, the Supreme Court held that the Clean Air Act authorizes the EPA to regulate GHG emissions in the event that it forms a “judgment” that such emissions contribute to climate change.<sup>139</sup> At issue was the loss of sovereign Massachusetts land due to coastal erosion and sea level rise.<sup>140</sup> In doing so, the Court found standing for the state litigants based upon climate change’s pernicious impact on sea level rise that Justice Stephens highlighted the “sovereign prerogatives” that are surrendered when a state entered the Union.<sup>141</sup> These sovereign prerogatives are now lodged in the Federal government. Hence,

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<sup>136</sup> Cf. Tarlock, *supra* note 76, at 248-53 (highlighting the five candidate principles to structure environmental decision processes)

<sup>137</sup> Tarlock, *supra* note 76, at 253-54 (proposing five “candidate principles” of environmental law). See also Tracy Hester et al, *Restating Environmental Law*, 40 COLUM. J. ENVTL. L. 1 (2015) (finding that environmental law “embodies an accumulation of complex legal and policy decision intended to protect human health and the environment . . .”).

<sup>138</sup> Professor Holly Doremus identifies four distinctive features of environmental law that make it especially intractable to include “high level of uncertainty” — yet another feature shared with national security law, which must also assess future risks in a highly uncertain world. Holly Doremus, *Constitutive Law and Environmental Policy*, 22 STAN. ENVTL. L. J. 295, 318-19 (2003).

<sup>139</sup> *Massachusetts v. EPA*, 549 U.S. 497 (2007).

<sup>140</sup> 127 S. Ct. 1438 (2007).

<sup>141</sup> *Massachusetts v. EPA*, 549 U.S. 497, 519 (2007).

the Court found that Massachusetts had “special solicitude” in the standing analysis. Congress has ordered EPA — a federal agency — to protect Massachusetts from air pollutants that “cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare.”<sup>142</sup> In the Court’s injury analysis, the Court relied upon scientific experts’ testimony that global warming is causing sea levels to rise, “swallow[ing] Massachusetts’ coastal land.”<sup>143</sup> Further, the severity of injury will only increase over time.

In ruling for Massachusetts, Justice Stevens highlighted that Massachusetts is not a “normal litigant.” It surrenders certain sovereign prerogatives, foreign affairs, and national security functions when it entered into the Union. Today, Massachusetts can’t negotiate a climate treaty with China or India and enforce its provisions as a legally binding matter without running afoul of the Supremacy Clause. Nor can it declare war or competently defend itself from attack by outside threats.<sup>144</sup> These sovereign prerogatives are now lodged in the Federal government, which has a special duty to protect Massachusetts from injury, not unlike if Massachusetts was invaded by a foreign enemy. Today’s “enemy” is climate change.

## 2. *Native Village of Kivalina v. Exxon Mobil Corp* (2012)

Consider, too, the climate security implications of a second climate change litigation case, *Native Village of Kivalina v. Exxon Mobil Corp*. In *Kivalina*, native Alaskan Villagers sued Exxon Mobil and several large fossil fuel producers, alleging that their massive GHG emissions eroded their land and threatened their village with imminent destruction.<sup>145</sup> The plaintiffs, who reside on a barrier reef in the Arctic Circle, are uniquely vulnerable to climate change’s impact. Sea ice protects the village from storm waves and surges, yet climate change is rapidly melting the protective sea ice. Massive erosion is occurring in the village, harming critical infrastructure, and threatening the city with imminent detestation.<sup>146</sup> If the village is not relocated immediately, it may cease to exist.<sup>147</sup>

## 3. Our Children’s Trust: *Juliana v. United States* (2016).

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<sup>142</sup> *Id.* at 519.

<sup>143</sup> *Id.* at 522.

<sup>144</sup> Of course, Massachusetts does possess a state-based National Guard that reports to the State Governor.

<sup>145</sup> *Native Village of Kivalina v. Exxon Corp.* 696 F. 3d 849 (2012).

<sup>146</sup> *Id.* at 853.

<sup>147</sup> *Id.* “[I]t is believed that the right combination of storm events could flood the entire village at any time.... Remaining on the island ... is no longer a viable option for the community.” U.S. GOV’T ACCOUNTABILITY OFFICE, GAO 04–142, ALASKA NATIVE VILLAGES: MOST ARE AFFECTED BY FLOODING AND EROSION, BUT FEW QUALIFY FOR FEDERAL ASSISTANCE 30, 32 (2003).

Finally, in *Juliana v. United States*, the plaintiffs (children-litigants) sued the federal government for violating their constitutional rights to an environment. In *Juliana*, the litigants argue that “this is a constitutional case of great urgency about the physical and emotional security of American youth.”<sup>148</sup> In doing so, the litigants argue that the Government violated their due process by harming their personal security and bodily integrity.<sup>149</sup> In making a novel substantive due process claim before the Ninth Circuit, the litigants assert that the United States infringed upon their right to life and personal security by knowingly authorizing the extraction of fossil fuels, despite knowing of their immense cost. Further, the litigants point to numerous national security harms to include storm surges, hurricanes, droughts, wildfires, and a generalized “national security destabilization” throughout various regions of the world.<sup>150</sup> Once again, *Juliana* showcases how climate change shines light on overlapping values between environmental law and national security law. After all, both seek to safeguard the security, health, and welfare of each of each citizen.

### III. Is Climate Change a National Emergency?

In the face of congressional inaction on climate change, commentators have begun to speculate that emergency action may ultimately be necessary to reduce our GHG emissions.<sup>151</sup> Do existing statutes allow the President, independent of Congress, to *ex ante* declare climate change a “national emergency?”<sup>152</sup> As discussed below, Congress has already delegated emergency authority to the President via the 1976 National Emergencies Act (NEA).<sup>153</sup> Using the National Emergencies Act to address climate change gained new attention in February 2019 when it was invoked by President Trump for a non-traditional threat when he declared that the “current situation at the southern border presents a border security and humanitarian crisis that threatens core national security interests and constitutes a national emergency.”<sup>154</sup>

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<sup>148</sup> *Id.* at 2.

<sup>149</sup> *Juliana v. U.S.*, Answering Brief (Case No. 18-36802) (Feb. 22, 2019).

<sup>150</sup> *Juliana v. U.S.*, 217 F. Supp. 3d 1224, 1265 (D. Or. 2016) (summarizing the injuries asserted by the children-litigants).

<sup>151</sup> See, e.g., Jackie Flynn Mogensen, *Five Things a Democratic President Could do by Declaring a National Emergency Over Climate Change*, MOTHER JONES, Mar. 8, 2019. A related question — Is climate change a threat to international peace and security? — is beyond the scope of this paper. In recent years, the Security Council has shown an increased willingness to proactively address non-traditional security threats beyond aggression and inter-state armed conflict. This suggests a greater role for the UNSC on matters of environmental and climate security.

<sup>152</sup> Mogensen, *supra* note 150.

<sup>153</sup> The National Emergency Act of 1976, Public Law 94-412, 50 U.S.C. §§ 1601-1651.

<sup>154</sup> Presidential Proclamation on Declaring a National Emergency Concerning the Southern Border of the United States, Feb. 15, 2019.

While this border emergency declaration was (and remains) enormously controversial, it nevertheless showcased how existing law grants the President broad discretion to utilize existing emergency authorities to combat traditional and non-traditional security threats. Since President Trump’s border declaration, commentators, scholars, and politicians have begun to speculate whether climate change could potentially be declared a national emergency by a future President.<sup>155</sup> In what follows, I describe the scope of the National Emergencies Act and address what measures a future President could take to combat climate change. While the President is afforded broad discretion to declare a national emergency to address wide-ranging threats, a climate emergency declaration will have difficulty in implementing follow-on measures based upon existing case law.<sup>156</sup>

#### A. *The National Emergencies Act and Climate Change*

Under the NEA, the President has broad authority to declare a national emergency:

With respect to acts of Congress authorizing the exercise, during the period of a national emergency, of any special or extraordinary power, the President is authorized to declare such national emergency. Such proclamation shall immediately be transmitted to Congress and published in the Federal Register.<sup>157</sup>

Once a national emergency is declared, the President can turn to existing delegated legal authorities baked into the text of other statutes. In essence, an emergency declaration breathes life into over 120 statutory provisions covering a wide variety of issues. The Brennan Center for Justice at New York University Law School categorized these statutes as addressing federal employees (58); asset seizure, control, and transfer (27); military and national defense (23); land management (12); public health (9); and international relations (7). There are no emergency provisions that address climate change specifically and the existing environmental provisions actually *suspend* environmental protections during times of national emergency.<sup>158</sup>

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<sup>155</sup> Following President Trump’s emergency declaration, Senator Marco Rubio stated, “We have to be careful about endorsing broad uses of executive power. Tomorrow the national emergency might be climate change.” Sen. Marco Rubio, CNBC (R-FL). Sen. Claire McCaskill (D-MO) wrote, “[T]he Pentagon, Congress and this administration have all said climate change is a serious threat to national security . . . [w]ill the next President bypass Congress and declare an emergency? The door can swing both ways.” Scott Waldman, *Next president could declare a climate emergency, GOP fears*, E&E NEWS, Jan. 11, 2019.

<sup>156</sup> *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579 (1952).

<sup>157</sup> 50 U.S.C. § 1621 (a).

<sup>158</sup> See, e.g., 42 U.S.C. § 7410 (f) (authorizing the President to make a determination (following a Governor’s petition) that a national or regional emergency exists, thereby suspending any part of a state Clean Air Act implementation plan). John Schwartz & Tik Rook, *Could a Future President Declare a Climate Emergency?*, THE N.Y. TIMES, Jan. 16, 2019.

The National Emergencies Act (NEA) was passed in the aftermath of Vietnam and Watergate, following congressional concern that too much emergency power was already vested in the executive branch.<sup>159</sup> Further, once a national emergency was declared, presidents were reluctant to “undeclare” them. For example, President Truman issued a declaration of national emergency in 1950 in response to hostilities in Korea that remained in effect throughout the Vietnam War.<sup>160</sup>

The term “emergency” is not defined in statute and Congress provides the President with broad discretion in making this determination. Congress can terminate the emergency by concurrent resolution.<sup>161</sup> The NEA envisions that Congress would meet within six months of a national emergency declaration “to determine whether that emergency shall be terminated.”<sup>162</sup> But since the NEA’s passage, Congress has largely failed to follow-through on terminating prior emergencies. Since the National Emergencies Act was passed in 1976, it has been invoked 41 times and there are currently 31 emergencies in effect.<sup>163</sup> Further, the NEA authorizes Congress to terminate the emergency by concurrent resolution,<sup>164</sup> but this legislative veto authority was declared unconstitutional in *INS v. Chadha*.<sup>165</sup>

As a foundational matter, the NEA was passed to curtail, cleanup, and clarify the executive branch’s emergency authorities — which had expanded throughout the mid-20th century. The National Emergencies Act was passed to expand and delegate further authorities to the President.<sup>166</sup>

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<sup>159</sup> For an outstanding summary of the legislative background of the National Emergencies Act, see HAROLD C. RELYEA, NATIONAL EMERGENCY POWERS, CONG. RES. SERV., AUG. 30, 2007. [hereinafter CRS EMERGENCY].

<sup>160</sup> CRS EMERGENCY, *supra* note 159, at 8. The NEA kept in place four national emergency proclamations that were issued pursuant to a President’s Article II constitutional authority in 1933, 1950, 1970, and 1971.

<sup>161</sup> 50 U.S.C. § 1622 (a)(1). But this concurrent resolution amounted to a “legislative veto” provision. This was invalidated by the Supreme Court in *Immigration and Naturalization Service v. Chadha*, 462 U.S. 919 (1983). This provision was amended in 1985 to substitute a “joint resolution” to terminate a national emergency. 99 Stat. 405, 448 (1985). See also CRS EMERGENCY, *supra* note 158, at 12.

<sup>162</sup> 50 U.S.C. § 1622 (b).

<sup>163</sup> Kate Aronoff, *Climate Change, Not Border Security, is our Real National Emergency*, THE INTERCEPT, JAN. 28, 2019 (quoting the analysis of Jeffrey Toobin). Under U.S. domestic law, there are four emergency framework statutes: (1) The National Emergencies Act of 1976; (2) The Public Health Service Act of 1944; (3) Robert T. Stafford Disaster Relief Act and Emergency Act of 1988; and (4) Defense Drawdown Act of 1961. Separate from these four framework statutes, there are other statutory provisions that become available once the President declares a national emergency.

<sup>164</sup> 50 U.S.C. § 1622 (a)(2).

<sup>165</sup> *INS v. Chadha*, 462 U.S. 919 (1983).

<sup>166</sup> 50 U.S.C. § 1601. . . Effective two years after the statute’s approval, the NEA terminated “all powers or authorities possessed by the President [or] any other officer or employee of the Federal government . . . as a result of the existence of any declaration of national emergency . . .”*Id.*

Since the NEA’s passage, presidents have invoked its activities liberally, regardless of political party. President Carter declared two national emergencies in 1979 addressing Iranian government property — that emergency remains in effect.<sup>167</sup> President Reagan declared six national emergencies in his two presidential terms, President George H.W. Bush declared five, and President Clinton declared sixteen national emergencies ranging from blocking the proliferation of weapons of mass destruction to regulating the anchorage and movement of vessels with respect to Cuba.<sup>168</sup>

*B. Climate Change as a National Emergency?*

In what follows, I address the existing statutory framework currently in place that could be utilized by future Presidents to address climate change as a national emergency. The analysis focuses on the National Emergencies Act as a mechanism to address climate change as a national emergency *before* any specific climactic event. The Public Health Service Act and Stafford Act are relevant for fully understanding the authorities in place in the *aftermath* of extreme weather events and public health emergencies.<sup>169</sup> Of course, outside of these existing statutory grants of authority following an emergency declaration, the President possesses independent national security power to defend the nation against any threat (however defined) under the U.S. Constitution.<sup>170</sup>

Surveying the field of available emergency provisions, there are no explicit provisions that would authorize the seizure of GHG-emitting power plants, limit vehicle miles traveled, or otherwise reduce the amount of GHG emissions from different industries. Contrary to the underlying goals of a national climate emergency declarations — that would seek an abatement

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<sup>167</sup> Exec. Order 12,170 Blocking Iranian Government Property, 3 C.F.R., 1979 Comp., pp. 457-458.

<sup>168</sup> CRS EMERGENCY, *supra* note 159, at 14-15.

<sup>169</sup> The Stafford Act authorizes a Governor to petition the President for a declaration of major disaster or emergency when she reaches “a finding that a disaster is of such severity and magnitude that effective response is beyond the capabilities of the State and affected local governments and that Federal assistance is necessary.” 42 U.S.C. § 5170. It defines emergency as “any occasion or instance for which, in the determination of the President, Federal assistance is needed to supplement State and local efforts and capabilities to save lives and to protect property and public health and safety to lessen or avert the threat of a catastrophe in any part of the United States.” 42 U.S.C. § 4122. The Public Health Service Act authorizes the Secretary of Health and Human Services to declare a public health emergency. This was most recently invoked in 2017 when President Trump instructed the HHS Secretary to combat the opioid crisis. Pres. Memo, *Combating the National Drug and Opioid Crisis*, 82 FR 50305, Oct. 26, 2017.

<sup>170</sup> U.S. CONST. art. II. There is no comprehensive emergency regime within the Constitution. Congress has the authority to suspend the writ of habeas corpus “when in Case of Rebellion or Invasion the public Safety may require it.” The Constitution provides “for calling forth the Militia to execute the Laws of the Union, suppress Insurrections and repel Invasions.” For an overview of the President’s authority as Commander in Chief to combat climate change, see Mark P. Nevitt, *The Commander in Chief’s Authority to Combat Climate Change*, 37 CARDOZO L. REV. 437 (2015).

of Greenhouse Gas (GHG) emissions — some of the existing provisions loosen or eliminate environmental restrictions during time of declared national emergency. For example, under the Clean Air Act, the Governor of a State may petition the President to determine that a national or regional energy emergency exists of such severity that a temporary suspension of part of the Clean Air Act implementation plan.<sup>171</sup> The Energy Policy and Conservation Act of 1975 waives the 30-day comment period on proposed rules and regulations “if the President finds that such waiver is necessary to act expeditiously during an emergency affecting the national security of the United States.”<sup>172</sup> Further, these emergency provisions are largely based on responding to sudden changes where Congress lacks adequate time to act. One of the few existing environmental-related emergency provisions that could potentially assist in a climate change emergency addresses the prohibition.<sup>173</sup> Of course, *ex post* emergency declarations following natural disasters via emergency declarations such as the Stafford Act remain legally valid options. Nevertheless, there are several non-explicit provisions that an innovative President could arguably turn to in the event she desires to declare a climate change a national emergency.

First, a law addressing governmental oil leases on the outer continental shelf could suspend offshore oil drilling operations in the United States’ continental shelf.<sup>174</sup> This obscure provision in natural resource regulation requires oil leases to have clauses that suspend the lease (and, hence oil production) during national emergencies.<sup>175</sup>

Second, the Secretary of Transportation has broad delegated authority to coordinate transportation during national emergencies.<sup>176</sup> The transportation sector is an enormous source of greenhouse gas emissions.<sup>177</sup> Read broadly, if climate change is declared a national emergency, the Secretary of Transportation could restrict the trucking and automobile industry’s greenhouse gas emissions. This could potentially be used to decrease GHG emissions from auto and truck use on federally-funded highways.

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<sup>171</sup> 42 U.S.C. § 7410 (f).

<sup>172</sup> 42 U.S.C. § 6393(a)(2)(A).

<sup>173</sup> 7 U.S.C. § 5712(c) (2012).

<sup>174</sup> 43 U.S.C. § 1341 (2012).

<sup>175</sup> 43 U.S.C. § 1341. Thank you to Professor Daniel Farber for first alerting me to this provision.

<sup>176</sup> 49 U.S.C. § 114 (2012).

<sup>177</sup> Env’tl Protection Agency, *Fast Facts on Transportation Greenhouse Gas Emissions*, <https://www.epa.gov/greenvehicles/fast-facts-transportation-greenhouse-gas-emissions> (last visited Aug 6, 2019).



Third, the emergency military construction statute — the same law being invoked to fund a border wall — is another potential tool to invest in climate adaptation measures at military installations vulnerable to storm surge and sea level rise.<sup>178</sup> While the law is not focused on environmental or climate change, there exists a valid legal basis for investment in climate resilient infrastructure. After all, the law requires that any construction must “require use of the armed forces” and be “necessary to support such use of the armed forces.”<sup>179</sup> Relatedly, there are provisions that authorize the re-programming of funds in the event of a declared national emergency. This could serve as a vehicle to fund climate adaptation measures in localities particularly vulnerable to sea level rise.<sup>180</sup>

Fourth, the President has the authority to extend loan guarantees to critical industries in national emergencies<sup>181</sup> and respond to industrial shortfalls.<sup>182</sup> These authorities could potentially be utilized to support renewable energy and electric vehicle production.

A climate change emergency declaration would be enormously controversial and would likely be the subject of litigation, primarily from the fossil fuel industry. *Youngstown Sheet & Tube Co. v. Sawyer*, 33 U.S. 579 (1952) would serve as the starting point in weighing the success of any litigation stemming from a climate-emergency declaration.<sup>183</sup> The President would likely assert that she is acting in the first of Justice Jackson’s groupings, arguing that she was merely acting pursuant to the National Emergencies Act and accompanying statutes — “express or implied authorization.”<sup>184</sup> Further, the President would argue, Congress had completely failed to amend or update the National Emergencies Act; nor has Congress taken an active role in terminating prior emergencies — is this not evidence of a “gloss on Executive Power?”<sup>185</sup> Hypothetical litigants, likely from the fossil fuel industry, would instead argue that

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<sup>178</sup> 10 U.S.C. § 2808 (2012).

<sup>179</sup> *Id.*

<sup>180</sup> In the event of a declaration of war or a declaration by the President of a national emergency in accordance with the National Emergencies Act (90 Stat. 1255; 50 U.S.C. 1601) that requires or may require use of the Armed Forces, the Secretary, without regard to any other provision of law, may (1) terminate or defer the construction, operation, maintenance, or repair of any Department of the Army civil works project that he deems not essential to the national defense, and (2) apply the resources of the Department of the Army’s civil works program, including funds, personnel, and equipment, to construct or assist in the construction, operation, maintenance, and repair of authorized civil works, military construction, and civil defense projects that are essential to the national defense. 33 U.S.C. § 2293.

<sup>181</sup> 50 U.S.C. § 4531

<sup>182</sup> 50 U.S.C. § 4533.

<sup>183</sup> *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579 (1952).

<sup>184</sup> *Id.* at 636 (Jackson, J. concurring).

<sup>185</sup> *Id.* at 610-11 (Frankfurter, J. concurring).

the President’s powers were at the “lowest ebb” — Congress had yet to pass climate change legislation and had not provided explicit or implicit authority to the President to address climate change via the Clean Air Act or other environmental statutes.<sup>186</sup> Challenges to Presidential authority will be bolstered if the President uses her authority to seize domestic coal plants or elements of the fossil fuel industry within the United States. After all, Justice Jackson would “indulge the widest latitude of interpretation” when the “instruments of national force . . . [are] turned against the outside world.” But when this power is “turned inward . . . it should have no such indulgence.”<sup>187</sup>

Nevertheless, there may be a rhetorical advantage of declaring a “climate emergency” without actuating specific powers under the National Emergencies Act. At the time of this writing, Senator Sanders (I-VT) just proposed a new climate emergency resolution, exclaiming that there must be “massive-scale mobilization to halt, reverse, and address [climate change’s] consequences and causes.”<sup>188</sup> While the Senate Resolution makes clear that “nothing in this concurrent resolution constitutes a declaration of a national emergency for purposes of any Act of Congress,” it seizes upon the climate emergency vernacular to highlight the severity of the threat and provide a potential means to rally support and spur action.

#### **IV. Climate Change & National Security: Weighing Opportunities and Risks**

There is increasingly an alignment in values between climate change and national security. Human-caused climate change is accelerating environmental degradation, causing drought, famine, quickly leading to humanitarian crisis.<sup>189</sup> Unlike existing national security waivers built into environmental law, the “securitization” of climate change seeks to limit greenhouse gas emissions and provide for greater environmental protections. Yet the climate

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<sup>186</sup> *Id.* at 637 (Jackson, J. concurring).

<sup>187</sup> *Id.* at 645-46 (Jackson, J. concurring).

<sup>188</sup> S. Con. Res. \_\_\_\_ (116<sup>th</sup> Cong.) (Sen. Sanders I-VT) (“Whereas the Department of State, the Department of Defense, and the intelligence community have identified climate change as a threat to national security, and the Department of Homeland Security views climate change as a top homeland security risk.”)

<sup>189</sup> Consider the case of Syria, a nation that suffered a drought immediately before a costly Civil War, displacing 1.5 million people within Syria. A domestic crisis quickly became a regional crisis. And a regional crisis soon became a global crisis. Gregg Badichek, *The Threat Divider: Expanding the Role of the Military in Climate Change Adaptation*, 41 COLUM. J. ENV'T'L.L. 139, 144-45 (2016). For example, climate change severely exacerbated a five-year drought in Syria that “contributed to massive agriculture failures and population displacements.” CTR. FOR NAVAL ANALYSIS: NATIONAL SECURITY AND THE THREAT OF CLIMATE CHANGE 13-18 (2007), available at <https://www.cna.org/reports/climate> [hereinafter CNA 2007]. DEP’T OF DEFENSE, *Response to Congressional Inquiry on National Security Implications of Climate-Related Risks and a Changing Climate* 4 (Jul. 23, 2015).

security conceptualization is not without risk. In what follows, I highlight the numerous ways that this climate change-national security connection presents both opportunities and risks.

*A. Opportunity: Intelligence and National Security as Climate Change Validators and Norm Entrepreneurs*

Unfortunately, climate change science is heavily politicized, undermining governmental action. Despite the IPCC’s overwhelming conclusion that global climate change is caused by human activity, a recent survey by the Pew Research Center found that only 67 percent of Americans believe there is “solid evidence” of “global warming.”<sup>190</sup> This is heavily divided along political party lines. Within the United States, there remains significant skepticism concerning the veracity of anthropogenic climate change despite the overwhelming scientific evidence outlined in Part I. This has influenced the public’s perception of the threats posed by climate change, thwarting action on climate.

But the national security, intelligence, and military communities can act as a credible, non-partisan information broker. And there are hopeful signs that the national security community’s increasing interest in climate change may help reverse some of this skepticism and validate climate change as an important national security issue. This can help drive resources and research.<sup>191</sup> Indeed, the national security community can serve as a potential bulwark in validating the existing science and highlighting the importance of climate change as an issue that deserves our collective attention.<sup>192</sup>

Take the U.S. military, a critical subset of the national security community. As an institution, the American public places a high degree of confidence in the military as a non-partisan arbiter of the threats facing the nation, however defined. This, in part, stems from the military’s apolitical nature.<sup>193</sup> And the intelligence community (heavy staffed with military members) is viewed as a credible, non-partisan voice on the threats facing the nation and the world.

The military can play an important role in changing societal norms and as a validator of climate science. The military is a largely apolitical institution that enjoys high favorability ratings with the American public. A recent Gallup poll showed that 72% of people had “a

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<sup>190</sup> Light, *supra* note 75, at 1780.

<sup>191</sup> There appears to be a strong historical basis for this. In the early 19<sup>th</sup> century following the War of 1812, federal funding for roads enjoyed strong political support when it was connected to military necessity.

<sup>192</sup> See generally Light, *supra* note 75.

<sup>193</sup> For example, uniformed members are legally prohibited from having an active role in political activities. DEP’T OF DEF. INST., POLITICAL ACTIVITIES BY MEMBERS OF THE ARMED FORCE (Feb. 2008).

great deal” or “quite a lot” of confidence in the military but only 12% of the population felt the same about Congress.<sup>194</sup> The military has a deep planning culture that manages risk — not unlike environmental law’s risk-based approach to conservation and natural resource management. At its core, climate change is like any other national security risk. We know it is occurring, but we do not know precisely how it will affect us. As climate change transforms the operational environment, the military has the duty and responsibility to protect the nation’s national security interests, regardless of their source.

Outside the environmental context, the military has often been at the vanguard of important societal and policy changes. For example, President Truman issued Executive Order 9981 in 1948, abolishing segregation in the military sixteen years prior to the passage of the Civil Rights Act.<sup>195</sup> Many scholars have concluded that contact between white and black soldiers in the U.S. military correlated with greater support for racial integration in civilian life.<sup>196</sup> By extension, greater engagement and contact with the national security implications of climate change may have similar effects.

Conceptualizing climate change as a national security issue can play an important role in validating climate change as an issue that demands our attention and resources. While climate science has been subject to intense scrutiny and politicization, the national security and military intelligence reports addressing threats caused by climate change remain largely (but not entirely) resistant to politicized attacks. Professor Light has described the military as the “unequivocal validator of climate science.”<sup>197</sup>

Framing issues as bona fide national security challenges can similarly be a powerful linguistic tool that drives resources and public perceptions. Climate change language has slowly become “securitized.”<sup>198</sup> For example, former Secretary of State John Kerry recently exclaimed that climate change was a “weapon of mass destruction” while former Defense

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<sup>194</sup> Jim Norman, GALLUP, *Americans Give Military Branches High Marks*, <https://news.gallup.com/poll/211112/americans-give-military-branches-similar-high-marks.aspx> (last visited Aug. 1, 2019).

<sup>195</sup> Exec. Order 9981 (Jul. 26, 1948).

<sup>196</sup> See, e.g., Kenneth L. Wilson, *The American Soldier Revisited: Race Relations and the Military*, 59 SOC. SCI. Q. 451, 465 (1975).

<sup>197</sup> Light, *supra* note 75, at 1797-98. See also Sarah Light, *The Military-Environmental Complex*, 55 B.C. L. REV. 879 (2014).

<sup>198</sup> Richard Lazarus, *Combatting Climate Change*, 126 HARV. L. REV. F. 142, 154 (2013). The preamble of the Paris Agreement states, “[t]he need for an effective and progressive response to the urgent *threat* of climate change on the basis of the best available evidence . . .” (emphasis provided). Jeff McMahon, *Former Defense Secretary Compares Climate Change to Nuclear War*, FORBES, Dec. 9, 2018.

Secretary William Perry recently compared climate change to a slowly unfolding “nuclear war.”<sup>199</sup> And some climate scientists and politicians are now urging a “wartime footing” to radically transform the economy in the face of challenges posed by climate change. Representative Ocasio-Cortez (D-NY) and Senator Markey (D-MA) have explicitly acknowledged climate change’s national security impacts in their Green New Deal proposal, stating that climate change:

constitutes a direct threat to the national security of the United States . . . by impacting the economic, environmental, and social stability of countries and communities around the world and by acting as a threat multiplier.<sup>200</sup>

President Obama stated that we “must do more to combat climate change.”<sup>201</sup> Professor Lazarus has written of “Presidential Combat Against Climate Change,” highlighting the apolitical nature of military leaders that only care about real science, not just “political” science.<sup>202</sup>

Increasingly, national security preferences and desired outcomes are aligned with environmental values and outcomes. Professor Light and others have accurately described national security as a public good akin to clean air and water: “it is a classic public good that is too costly and unwieldy for individuals to provide for themselves, and it is impossible to exclude individuals from enjoying it once it is provided.”<sup>203</sup> National security law seeks to protect and preserve national interests, protect the lives of its military members, and be prepared for future conflicts. The precautionary principle is a bedrock component of environmental law that seeks to protect the environment. National security law and military planning more generally take a similar approach. Culturally, military planners and decision-makers are comfortable making decisions without complete intelligence and facts

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<sup>199</sup> Jeff McMahon, *Former Defense Secretary Compares Climate Change to Nuclear War*, FORBES, Dec. 9, 2018. And leaders of Small Island Developing States (SIDS) have also utilized a more securitized language in their discourse about the threats posed by climate change on their future.

<sup>200</sup> 116th Congress, H.R. “Green New Deal.” “Recognizing the duty of the federal government to create a Green New Deal.” (Rep. Ocasio-Cortez (D-NY) and Rep. Markey (D-MA)). Using this militarized climate language is not without controversy. Representative Ocasio-Cortez (D-NY) have declared the threat of climate change our generation’s World War II. Kate Aronoff, *Climate Change, Not Border Security, is our Real National Emergency*, THE INTERCEPT, Jan. 28, 2019. In addition, Sen. Elizabeth Warren (D-MA) has proposed climate legislation addressing climate change’s security impacts.

<sup>201</sup> President Obama, State of the Union Address, Feb 12, 2013.

<sup>202</sup> Richard Lazarus, *Presidential Combat Against Climate Change*, 126 HARV. L. REV. F. 142, 154 (2013). The Paris Agreement on Climate Change adopted the threat language in its preamble, recognizing the need for an effective and progressive response of climate change based on the basis of the best available scientific knowledge.

<sup>203</sup> Light, *supra* note 75, at 1797.

In the face of the politicization of climate science and official climate denial by several high-ranking political leaders, the U.S. Department of Defense (DoD) and the national security intelligence community continue to report on and acknowledge the myriad national security threats posed by climate change. These intelligence reports increasingly engage with climate science reports.

There is certain durability to the climate change as a national security issue that transcends politics. For example, DoD guidance on planning for climate change remains in effect. The 2014 Climate Adaptation Roadmap stated that climate change “will affect the Department of Defense’s ability to defend the Nation and poses immediate threats to U.S. national security.”<sup>204</sup> The former Pacific Commander, Admiral Locklear, publicly stated that climate change is the greatest long-term threat in the Pacific region.<sup>205</sup> Former Secretary of Defense, James Mattis, has publicly spoken about the threats posed by climate change and in his confirmation hearing to serve as the Secretary of Defense openly addressed climate change as a national security threat.<sup>206</sup>

The military has a deep planning culture that takes a risk-based approach.<sup>207</sup> Mission planning includes “identification and assessment of the effects of climate change on the DoD mission” and “anticipating and managing any risks that develop as a result of climate change to build resilience.”<sup>208</sup> It must continuously weigh uncertainty and wrestle with risk. Planning for changes in the operational environment is a defining aspect of the military planning process. The military now defines climate change within existing doctrine as:

Variations in average weather conditions that persist over multiple decades or longer that encompass increases and decreases in temperature, shifts in precipitation, and changing risk of severe weather events.<sup>209</sup>

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<sup>204</sup> See DEPARTMENT OF DEFENSE, 2014 CLIMATE CHANGE ADAPTATION ROADMAP (2014).

<sup>205</sup> See, e.g., Bryan Bender, *Chief of U.S. Pacific forces calls climate biggest worry*, BOSTON GLOBE, Mar. 9, 2013 (quoting Admiral Sam Locklear who called climate change the biggest long-term security threat in the Pacific theater).

<sup>206</sup> “Climate change is impacting stability in areas of the world where our troops are operating today. It is appropriate for the Combatant Commands to incorporate drivers of instability that impact the security environment in their areas into planning.”

<sup>207</sup> See Light, *supra* note 75 (hypothesizing that “linking a reduction in reliance on fossil fuels to the value of promoting national security . . . has the potential to change individual attitudes and beliefs . . . about energy use and climate change.”)

<sup>208</sup> *Id.* at 3.

<sup>209</sup> DOD DICTIONARY, *supra* note 92, at 36.

Within the military, understanding the operational environment<sup>210</sup> is crucial to military strategy and success. Today, military planners must consider and take into account future changes to the *operational* environment. As environmental law and climate change law have a heavy emphasis to changes in the *physical* environment, national security planners have historically had a heavy focus and emphasis on planning for changes to the *operational* environment. Climate change is already dramatically transforming the operational environment. Consider climate change’s dramatic impact in the Arctic, and what that will mean for climate security matters. Climate change is already dramatically impacting the Arctic, which is warming two to three times faster than the rest of the world.<sup>211</sup> Certain “black swan” tipping-point events—such as marine sheet instability in Antarctica or massive loss of the Greenland ice sheet—could result in multi-meter rise in sea level rise over hundreds or thousands of years. Recent scientific report indicate that the Antarctic ice sheet is melting as much as six times faster than the rest of the world and oceans are warming at a much faster rate than previously estimated.<sup>212</sup> These instabilities could be triggered this century as the temperatures rise around 1.5 degrees Celsius to 2.0 degrees Celsius.<sup>213</sup>

Even the United Nations Security Council has begun to address climate change as a threat to international peace and security, holding several high-level meetings to better understand the threat posed by climate change.<sup>214</sup> While the Security Council has stopped short of making a legal determination that climate change is a “threat to international peace and security”—thereby actuating certain powers—it has discussed climate change’s destabilizing effects in two resolutions. Two recent UN Security Council Resolutions specifically highlighted the “adverse effects of climate change and ecological change” in destabilizing the security situation in both Lake Chad Basin and the Somalia.<sup>215</sup>

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<sup>210</sup> The term “operational environment” is defined to as “a composite of the circumstances, and influences that affect the employment of capabilities on the decisions of the commander.” DoD Dictionary, *supra* note 92, at 173.

<sup>211</sup> For an overview of the stress that climate change is placing on the physical environment in the Arctic, see generally Robert V. Percival & Mark P. Nevitt, *Polar Opposites: Assessing the State of Environmental Law in the World’s Polar Regions*, 59 B.C. L. REV. 1655 (2018).

<sup>212</sup> See, e.g. Chris Mooney, *Antarctic Ice Loss Has Tripled in a Decade. If that Continues, We are in Serious Trouble*, WASH. POST, Jun. 13, 2018.

<sup>213</sup> UNIPCC 1.5 REPORT, *supra* note 5, at SPM-9.

<sup>214</sup> Leila Mead, *UN Security Council Addresses Climate Change as a Security Risk*, INT’L INST. FOR SUSTAINABLE DEVELOPMENT, Jul 31, 2018.

<sup>215</sup> UNSCR 2349 (¶ 26), UNSCR 2408 (2017).

In sum, conceptualizing climate change via the lens of national security can potentially spur action, or at least maintain existing measures on climate change. In recent years, the executive branch and Congress has largely undone many of the climate change efforts from the previous Administration. Yet Congress has begun to take steps within the yearly defense budget to address climate change impacts on national security infrastructure.<sup>216</sup> The Republican-controlled Congress recently required that the Department of Defense (DoD) issue a report on the “vulnerabilities to the military resulting from climate change over the next 20 years.”<sup>217</sup> Further, while the current President has not taken proactive steps to address climate change, many of the Obama-era guidance on climate change is still in effect, to include the DoD climate adaptation roadmap and guidance on construction in flood zones.

*B. Risks: Co-opting Environmental Law – National Security Expansion without a Limiting Principle*

But conceptualizing climate change as a security issue is not without risk. While both areas of the law are relatively new, their genesis and evolution could not be more different. National security law came into fruition in the aftermath of World War II with the passage of the 1947 National Security Act. National security law is much more a top-down, hierarchical, institution-based area of law — think of the DoD, CIA, and Office of Director of national Intelligence. In contrast, environmental law emerged in the 1960s from the “bottom-up” in response to ecological devastation described by environmental pioneers such as Rachel Carson. There may be mutual distrust between these two areas of law and communities that must be mended.

Further, the executive branch has expanded the scope and breadth of national security matters, particularly in the aftermath of the Cold War.<sup>218</sup> In recent years, the President has sought to expand conceptions of national security in international trade and a border “crisis” between the U.S. and Mexico. In doing so, it has which has sought to increase its authority and widen the definition of what is considered a national emergency. Congress, in turn, has

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<sup>216</sup> American Clean Energy and Security Act of 2009 (Waxman-Markey Bill), H.R. 2454, 111th Cong. (2009).

<sup>217</sup> Section 335, Langevin Amendment; Fiscal Year 2018 National Defense Appropriations Act.

<sup>218</sup> ROSA BROOKS, HOW EVERYTHING BECAME WAR AND THE MILITARY BECAME EVERYTHING (2017); HAROLD KOH, THE NATIONAL SECURITY CONSTITUTION (1990).



yet to define national security and courts have struggled to place limitations on national security's left and right limits.<sup>219</sup>

National security is a powerful and increasingly capacious term that the executive branch often relies upon when it desires a certain policy preference. There is a risk in diluting this term to lose all of its meaning. In recent years, we have seen national security rationales used in the areas of immigration, trade, and elsewhere at the expense of personal liberty. Is the convergence of environmental, climate change and national security law part of a broader continuation of national security casting a wide shadow over a cast of issues? And is there a concern that national security is so encompassing that it is beginning to lose all its meaning?

## V. Conclusion

Not only is climate change a “super wicked” environmental problem — it also accelerates existing national security threats, acting as both a “threat accelerant” and “catalyst for conflict.” Climate change will force us to think anew about how different areas of law engage with each other. It acts as a destabilizer of the physical environmental and existing law while also connecting areas of law that were historically not in close conversation. While environmental law and the emerging field of climate change law have historically been in conflict with national security law, that is slowly changing. Climate science makes clear that we must massively reduce GHG emissions from all sources this century or face devastating security consequences. National security and intelligence reports reinforces what science is telling us. We will need to invest in a massive, scalable energy transformation to secure a more livable future. And Sea level rise, storm surge, and extreme weather — all exacerbated by climate change — threatens our sovereignty and national security in new and dramatic ways.

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<sup>219</sup> See Laura Donohue, *The Limits of National Security*, 48 AM. CRIM. L. REV. 1573, 1577-80 (2011) (describing the difficulties in defining “national security”). Aziz Rana, *Who Decides on Security?*, 44 CONN. L. REV. 1417, 1423 (2012). Under existing military joint doctrine, “national security” 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 or group of nations; (b) a favorable foreign relations position; (c) a defense posture capable of successfully resisting hostile or destructive action from within or without, overt or covert.” DoD Dictionary, *supra* note 92, at 162.

In the absence of a binding legal framework to comprehensively address climate change's enormous impacts, policymakers may increasingly turn to the full menu of legal authorities that are available, such as the National Emergencies Act. But this, too, will be enormously controversial and risky for democratic governance as it bypasses. Nevertheless, there is a growing space between the actions that are needed and the actions that are actually undertaken on climate. As climate change increasingly engages with the national security community, we must be aware of the risks and opportunities in addressing matters of climate security.