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Is Climate Change a National Emergency?

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The next decade is critical for climate action. As sea levels rise, wildfires rage, and disasters increase in frequency and scale, it is clear that the U.S. must leverage an expanding menu of legal, policy, and technological tools to address climate change's destabilizing effects. At present, we remain off-track to reduce our collective greenhouse gas ("GHG") emissions and avoid irreversible, catastrophic harm. The emissions gap — the difference between the world's current emissions trajectory and what we must emit to avoid climate change's most severe consequences — continues to grow. Although President Biden and the 117th congressional leadership have pledged to combat the climate crisis, the Democrats' narrow Senate majority

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will make passing comprehensive climate legislation difficult. In the face of likely legislative paralysis, a diverse group of activists, policymakers, and lawmakers have called on the president to declare climate change a national emergency. Is climate change, and its multifaceted impacts, an emergency that warrants using supplemental legal authorities? If so, what federal emergency authorities are available? And what are the normative stakes to democratic governance if a president declares a climate emergency? This Article addresses these questions and others, arguing that climate change is unlike any problem facing the nation and the world. As climate change destabilizes the physical environment, it will force us to look with fresh eyes at all the legal tools available to address climate mitigation, climate adaptation, and how we respond to climate impacts. As such, presidents must consider using all legal authorities, including the National Emergencies Act (“NEA”), to address climate change.

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INTRODUCTION

*The President, who is Commander in Chief and who represents the interest of all people, must [be] able to act at all times to meet any sudden threat to the nation’s security. A wise President will always work with Congress, but when Congress fails to act or is unable to act in crisis, the President, under the Constitution, must use his powers to safeguard the nation.*¹

*Humanity is waging war on nature. This is suicidal. Nature always strikes back, and it is increasingly doing so with growing force and fury . . . we must use 2021 to address our planetary emergency.*²

The United States is in a state of emergency. Since the National Emergencies Act (“NEA”) was signed into law in 1976, presidents have declared sixty national emergencies, addressing a remarkably

¹ HARRY S. TRUMAN, 2 MEMOIRS BY HARRY S. TRUMAN: YEARS OF TRIAL AND HOPE 478 (1956).

² Andrew Freedman, *Pace of Climate Change Shown in New Report Has Humanity on ‘Suicidal’ Path, U.N. Leader Warns*, WASH. POST (Dec. 2, 2020, 12:16 PM EST), <https://www.washingtonpost.com/weather/2020/12/02/un-climate-report-2020-warmest-year/> [https://perma.cc/6PJK-ZLYG] (quoting U.N. Secretary General António Guterres).

diverse set of issues.³ Today, there are thirty-seven *active* emergencies in effect, and four emergencies were declared in just the last year.⁴ Because invoking emergency powers aggrandizes executive branch authority and creates the potential for abuse, the NEA has generated criticism and calls for reform — particularly following President Trump’s controversial declaration of a national emergency to construct a border wall.⁵

But Congress has delegated emergency authorities to the president via the NEA, and these authorities should not be dismissed out of hand. In 2020, the President turned to the NEA to address the COVID-19 pandemic, a transnational, non-traditional threat that shares much in common with climate change — a point highlighted by Professor Dan Farber.⁶ Further, Congress grants presidents wide discretion in determining what constitutes an emergency under the NEA’s statutory scheme. The NEA does not expressly define “national emergency,” nor does it provide criteria for its invocation.⁷

Declaring a climate emergency under the NEA serves as a “key” that unlock several statutory “doors.” These “doors” provide legal authorities that translate to substantive climate action. This authority could feasibly include the immediate prohibition of

³ Today’s emergencies, among others, prohibit transactions with narco-traffickers (Clinton Administration), block property of persons undermining democratic processes in Zimbabwe (Bush), block the property transfer by certain transnational criminal organizations (Obama), and secure the United States bulk-power energy supply system (Trump). L. ELAINE HALCHIN, CONG. RSCH. SERV., 98-505, NATIONAL EMERGENCY POWERS 12-17 (2020), <https://crsreports.congress.gov/product/pdf/RL/98-505/23> [<https://perma.cc/4EV2-Z6ZS>]. One active emergency has been continuously renewed and dates from the President Carter Administration in 1979. *See id.* at 12.

⁴ *Id.* at 12, 14.

⁵ Proclamation No. 9844, Declaring a National Emergency Concerning the Southern Border of the United States, 84 Fed. Reg. 4949 (Feb. 15, 2019), <https://www.govinfo.gov/content/pkg/FR-2019-02-20/pdf/2019-03011.pdf> [<https://perma.cc/JEF4-MXB8>].

⁶ Proclamation No. 9994, Declaring a National Emergency Concerning the Novel Coronavirus Disease (COVID-19) Outbreak, 85 Fed. Reg. 15337 (Mar. 13, 2020), <https://www.govinfo.gov/content/pkg/FR-2020-03-18/pdf/2020-05794.pdf> [<https://perma.cc/Z2KB-ZRLN>]. For a discussion of how emergency powers have been utilized in recent years, see Daniel A. Farber, *Exceptional Circumstances: Immigration, Imports, the Coronavirus, and Climate Change as Emergencies*, 71 HASTINGS L.J. 1143, 1145-46 (2020); Bruce Lindsay, *Climate of Exception: What Might a ‘Climate Emergency’ Mean in Law?*, 38 FED. L. REV. 255, 267 (2010).

⁷ The National Emergencies Act of 1976, 50 U.S.C. §§ 1601-1651 (2018). For a guide to emergency powers, see BRENNAN CTR. FOR JUST., A GUIDE TO EMERGENCY POWERS AND THEIR USE 3-43 (2019), https://www.brennancenter.org/sites/default/files/2019-10/2019_10_15_EmergencyPowersFULL.pdf [<https://perma.cc/MG3B-7QYC>] [hereinafter BRENNAN CENTER].

imports from illegally forested lands in the Amazon basin, investment in climate-resilient infrastructure, and underwriting investment in renewable energy and carbon-capture technology.⁸ While these authorities do not “solve” the climate crisis, they do offer supplemental, substantive authorities that represent real climate progress. Independent of the legal authorities, a climate emergency serves as a powerful signal of the severity of the climate threat and the need for broader action.

Given the difficulty of enacting comprehensive climate change legislation, lawmakers have actually called on the president to use his emergency authority.⁹ In this Article, I argue that climate change requires immediate action, and emergency legal authorities provide immediate, substantive authority that can address the current climate crisis.¹⁰ Of course, using emergency authority to address any threat should rightfully be scrutinized as was the case with litigation following the recent border “emergency” in *Sierra Club v. Trump*.¹¹ Yet the decision not to use all existing authority in the face of imminent harm must also be closely scrutinized. Witness the nation’s relatively slow initial response to activate the NEA to address the coronavirus crisis, delaying the provision of medical supplies.¹²

⁸ See *infra* Part III.

⁹ See, e.g., Coral Davenport & Lisa Friedman, *The Battle Lines Are Forming in Biden’s Climate Push*, N.Y. TIMES (Jan. 26, 2021), <https://www.nytimes.com/2021/01/26/climate/biden-climate-change.html> [<https://perma.cc/5595-S8Q6>] (showing how multiple authorities call on President Biden to use his emergency authority to address the climate crisis).

¹⁰ Traditional legal authorities and a “business as usual approach” will not be enough to address the climate crisis, a point increasingly made by climate scientists. See Will Steffen, Johan Rockström, Katherine Richardson, Timothy M. Lenton, Carl Folke, Diana Liverman, Colin P. Summerhayes, Anthony D. Barnosky, Sarah E. Cornell, Michel Crucifix, Jonathan F. Donges, Ingo Fetzer, Steven J. Lade, Marten Scheffer, Ricarda Winkelmann & Hans Joachim Schellnhuber, *Trajectories of the Earth System in the Anthropocene*, 115 PNAS 8252, 8257 (2018) (stating that current targets to reduce GHG emissions are off-track to “achieve the Stabilized Earth pathway requir[ing] a fundamental reorientation and restructuring of national and international institutions toward more effective governance at the Earth system level”). For an outstanding overview of the climate science, see J.B. Ruhl & Robin Kundis Craig, *4°C*, 106 MINN. L. REV. (forthcoming 2021).

¹¹ 379 F. Supp. 3d 883 (N.D. Cal. 2019); see Daniel Bodansky, *The Legitimacy of International Governance: A Coming Challenge for International Environmental Law?*, 93 AM. J. INT’L L. 596, 601 (1999).

¹² See, e.g., James E. Baker, *Use the Defense Production Act to Flatten the Curve*, JUST SEC. (Mar. 20, 2020), <https://www.justsecurity.org/69275/use-the-defense-production-act-to-flatten-the-curve/> [<https://perma.cc/R52V-BYDK>] (urging the government to make use of the Defense Production Act to combat the novel coronavirus).

Why is declaring climate change a national emergency potentially justified?

First, climate change has a unique temporal nature that distinguishes it from other complex public policy problems. GHG emissions accumulate over time, staying in the atmosphere for decades.¹³ Failure to take action today will result in massive physical destabilization tomorrow. Despite a pandemic-induced economic slowdown, we are failing to close the GHG emissions gap — the difference between actual emissions and the emissions targets necessary to avoid climate change’s most severe consequences. As GHG emissions rise, the earth warms, and the physical environment destabilizes at an ever-increasing rate. Extreme weather events strike with greater frequency and intensity.¹⁴ Inaction also raises the risk of climate “tipping points” and feedback loops such as massive ice sheet devastation and irreversible coral reef destruction.¹⁵

Even a dramatic decrease in emissions will not solve the climate crisis overnight. Scientists are now exclaiming that *transformational action* is required this decade. This is the “one shot” problem as policymakers have a single, limited window to take action to avoid irreversible, catastrophic harm.¹⁶ Any delay in combatting the climate crisis hinders future legal and policy options, creating so-called climate opportunity costs.

¹³ INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, GLOBAL WARMING OF 1.5°C, at 6 (Valérie Masson-Delmotte et al. eds., 2018) [hereinafter IPCC 1.5 REPORT]; U.S. GLOB. CHANGE RSCH. PROGRAM, FOURTH NATIONAL CLIMATE ASSESSMENT 82-83 (2018), https://nca2018.globalchange.gov/downloads/NCA4_2018_FullReport.pdf [<https://perma.cc/UUS6-EGJ7>] [hereinafter NCA4].

¹⁴ See Sarah Kaplan & Angela Fritz, *Climate Change Was Behind 15 Weather Disasters in 2017*, WASH. POST (Dec. 10, 2018), <https://www.washingtonpost.com/science/2018/12/10/climate-change-was-behind-weather-disasters/> [<https://perma.cc/576X-RKQH>]. Climate change is also causing extreme heat in many parts of the United States as seen in Portland, Oregon in June 2021. *Residents in the Pacific Northwest Are Getting Ready For Another Heat Wave*, NPR (Aug. 11, 2021), <https://www.npr.org/2021/08/11/1026672403/oregon-washington-climate-change-heat-wave> [<https://perma.cc/2F33-GHZJ>].

¹⁵ To highlight one example, scientists estimate that ninety-nine percent of tropical corals are projected to be lost if global temperatures rise by 2 degrees Celsius, an increase that the world is currently on track to surpass. Steffen et al., *Climate Trajectories*, *supra* note 10, at 8256-58 (finding that “tipping element behavior . . . are vulnerable to tipping within just a 1 °C to 3 °C increase in global temperature”).

¹⁶ For an overview of climate change’s destructive impacts on civilization, see Kurt M. Campbell & Christine Parthemore, *National Security and Climate Change in Perspective*, in CLIMATIC CATAclysm: THE FOREIGN POLICY AND NATIONAL SECURITY IMPLICATIONS OF CLIMATE CHANGE 1, 12-15 (Kurt M. Campbell ed., 2008).

Second, addressing climate change includes climate mitigation (reducing GHG emissions) and climate adaptation (living with climate impacts). Emergency authorities can address mitigation and adaptation efforts, both domestically and internationally.¹⁷ Prospective domestic climate, such as the American Clean Energy and Security Act has largely focused on climate mitigation.¹⁸ Even if successful, these efforts are unlikely to fully address climate change's multivariate effects.¹⁹

Climate change also has broad implications for a wide swath of interconnected issues such as environmental justice, economic security, and national security. Poorer communities, for example, are already facing climate change's disparate impacts today and must take adaptation measures concurrent with mitigation efforts.²⁰

Third, climate legislation has proven elusive and the last major environmental law passed by Congress occurred in 1990 with the passage of the Clean Air Act amendments.²¹ Even in the most promising scenario (climate legislation is passed immediately) future legislators will be tempted to chip away at these legislative gains over time.²² Climate legislative efforts are especially vulnerable to being unraveled over time as short-term burdens are continuously balanced against long-term benefits.²³

¹⁷ Climate change is a global collective action problem, and the U.S. contributes just fifteen percent of worldwide emissions on an annual basis (the U.S. is the world's largest cumulative GHG emitter). *Each Country's Share of CO2 Emissions*, UNION OF CONCERNED SCIENTISTS (Aug. 12, 2020), <https://www.ucsusa.org/resources/each-country-share-co2-emissions> [<https://perma.cc/3NJJ-HTNM>].

While it is beyond the scope of this paper, international emergency authorities are also relevant and could be invoked. See Mark Nevitt, *Is Climate Change a Threat to International Peace and Security?*, 42 MICH. J. INT'L L. 527, 577-78 (2021) [hereinafter *Is Climate Change a Threat*].

¹⁸ American Clean Energy and Security Act of 2009, H.R. 2454, 111th Cong. (2009), <https://www.congress.gov/bill/111th-congress/house-bill/2454> [<https://perma.cc/UQ57-8W4Q>].

¹⁹ And legislation runs the risk of being unraveled over time. Richard J. Lazarus, *Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future*, 94 CORNELL L. REV. 1153, 1153 (2009) (arguing that climate change "imposes costs on the short term for the realization of benefits many decades and sometimes centuries later").

²⁰ Joe McCarthy, *Why Climate Change and Poverty Are Inextricably Linked*, GLOB. CITIZEN (Feb. 19, 2020), <https://www.globalcitizen.org/en/content/climate-change-is-connected-to-poverty/?template=next> [<https://perma.cc/5G2E-Z9GT>].

²¹ Clean Air Act, 42 U.S.C. §§ 7401-7671 (2018).

²² See Lazarus, *supra* note 19, at 1225-31.

²³ *Id.* at 1153.

To be sure, the president possesses constitutional and administrative law authorities independent of emergency authorities.²⁴ Under the Clean Air Act, the EPA has the authority to regulate carbon dioxide as an “air pollutant.”²⁵ But these traditional lawmaking authorities, while important, will not be enough to close the emissions gap and avoid climate change’s irreversible and catastrophic impacts.²⁶

Fourth, a climate emergency declaration performs a powerful signaling function, shifting international and national attention to the urgency and severity of the climate crisis. It also shifts our collective gaze back to Congress, placing legislators on notice that follow-on emergency action may be forthcoming, particularly if legislative paralysis continues. Rather than displacing traditional law, emergencies authorities could be synchronized and work in harmony with parallel, traditional legal authorities and other efforts.²⁷ For these reasons, this Article argues that we must look at the full menu of legal tools available to address climate change, to include emergency authorities.²⁸

Of course, any emergency authority must be fully anchored in the Constitution, statute, and historical practice. The president possesses only the powers granted to him by the Constitution, or others delegated to him by an act of Congress.²⁹ This Article avoids the debate and controversy associated with reliance on inherent Article II authorities,

²⁴ See, e.g., Exec. Order No. 14,008, 86 Fed. Reg. 7619 (Jan. 27, 2021) [hereinafter Biden Climate Order] (providing an example of a president utilizing constitutional and administrative law authority through executive action). This is titled “Tackling the Climate Crisis at Home and Abroad.”

²⁵ *Massachusetts v. EPA*, 549 U.S. 497, 510 (2007). See generally *Lazarus*, *supra* note 19, 1221-25 (explaining how the EPA regulates carbon dioxide as an air pollutant).

²⁶ See WORLD METEOROLOGICAL ORG., UNITED IN SCIENCE 2020, at 3 (2020) [hereinafter UNITED 2020] (calling for transformational action); see also Steffen et al., *supra* note 10, at 8257 (discussing the need for innovative action across governance structures).

²⁷ As Professor Farber points out, addressing climate change — a global collective action problem — involves presidential foreign relations powers, an area where presidential powers are comparably stronger. Farber, *supra* note 6, at 1169.

²⁸ 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), <https://www.motherjones.com/politics/2019/03/what-democratic-president-could-do-climate-national-emergency/> [<https://perma.cc/H8LS-LAPZ>] (listing options for legal tools that can be used to address climate change).

²⁹ See, e.g., LOUIS HENKIN, FOREIGN AFFAIRS AND THE CONSTITUTION 53 (1987) (explaining how the powers granted to the president must come from the Constitution or Congress).

instead focusing on congressionally delegated emergency powers.³⁰ While the Constitution's grant of emergency authority to the president is relatively vague and its outer limits untested, Congress has already delegated emergency powers to the president. These delegated authorities have been widely used by all presidents to address a remarkably diverse set of challenges.³¹

This Article makes three novel contributions. This is the first Article to comprehensively connect the consensus climate science with both traditional and emergency legal authorities. In doing so, it argues that just as there is a GHG emissions gap, a governance gap is also emerging that tilts the balance toward emergency action. Second, this Article comprehensively pinpoints the exact legal authorities under the NEA that could be operationalized to address the climate crisis, building off Professor Dan Farber's work in this area.³² Third, this Article addresses both the democratic costs and substantive benefits of a climate emergency. In doing so, this Article addresses the criticisms of a climate emergency, contextualizing the threat posed by climate change with the risks of tapping into emergency powers.

Part I of this Article describes the current state of climate science, making clear that transformational action is needed today to address the climate crisis. Failure to take transformational action today will have catastrophic consequences in the near future. Part II explores the scope of emergency powers, to include the President's inherent Article II powers as well as specific, delegated authorities under the NEA.³³ Part III analyzes how the NEA and follow-on emergency powers could be immediately operationalized to reduce GHG emissions and invest in climate adaptation measures.³⁴ Part IV analyzes the challenges and

³⁰ National Emergencies Act of 1976, 50 U.S.C. §§ 1601-1651 (2018) (utilizing a congressionally-delegated Presidential authority to activate special powers during crises); see also Henry P. Monaghan, *The Protective Power of the Presidency*, 93 COLUM. L. REV. 1, 12-14 (1993). For a rich literature on the scope of emergency powers, see BRUCE ACKERMAN, *THE DECLINE AND FALL OF THE AMERICAN REPUBLIC* 72-75 (2010); ERIC POSNER & ADRIAN VERMEULE, *THE EXECUTIVE UNBOUND: AFTER THE MADISONIAN REPUBLIC* 10 (2010). For an overview of the emergency authorities in the Constitution, see Bruce Ackerman, *The Emergency Constitution*, 113 YALE L.J. 1029, 1041 (2004).

³¹ BRENNAN CENTER, *supra* note 7, at 3-43.

³² Farber, *supra* note 6.

³³ "Loose and irresponsible use of adjectives colors all non-legal and much legal discussion of presidential powers." *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 646 (1952) (Jackson, J., concurring).

³⁴ President Biden refers to climate change as a crisis and an emergency but has not affirmatively declared climate change a *legal* emergency. Thirty nations have declared a climate emergency under domestic law and several environmental groups have advocated that the Biden Administration declare a climate emergency. See Dino

opportunities in conceptualizing climate change as a national emergency. In doing so, this Article argues that climate change upends traditional notions of emergency. Climate change is aptly described as the mother of all “collective action problem[s].”³⁵ Its scope, scale, and severity are unlike any problem facing the nation and the world. This Article concludes by offering one possible roadmap for climate emergency action, drawing upon contributions from climate science and international environmental law.

I. CLIMATE SCIENCE AND THE NEED FOR TRANSFORMATIONAL ACTION

The science is now irrefutable: we must take transformational action today to avoid massive physical destabilization tomorrow.³⁶ It is increasingly clear that climate change is an existential crisis that requires immediate and innovative legal, technical, and policy solutions.³⁷ Despite a drop in global GHG emissions due to the economic slowdown and coronavirus pandemic, the world remains off-track to keep the earth’s temperature at a level that avoids climate change’s irreversible and catastrophic impacts.³⁸ We must make massive global reductions in GHG emissions to avoid climate change’s most

Grandoni, *The Energy 202: Biden Calls Climate Change an ‘Emergency.’ Now He’s Under Pressure to Officially Declare One.*, WASH. POST (Dec. 4, 2020, 8:36 AM EST), <https://www.washingtonpost.com/politics/2020/12/04/energy-202-biden-calls-climate-change-an-emergency-now-he-under-pressure-officially-declare-it-one/> [https://perma.cc/B37K-U8AT].

³⁵ Steven R. Brechin, *Climate Change Mitigation and the Collective Action Problem: Exploring Country Differences in Greenhouse Gas Contributions*, 31 SOCIO. F. 846, 846 (2016) (describing climate change as the collective action problem of our era).

³⁶ I borrow the term “transformational action” from the 2020 United in Science report issued by the World Meteorological Organization in conjunction with the United Nations, United National Environmental Program, IPCC, and other scientific and policy experts. UNITED 2020, *supra* note 26, at 3; Steffen et al., *supra* note 10, at 8256.

³⁷ UNITED 2020, *supra* note 26; *see also* Stephanie C. Herring, Nikolaos Christidis, Andrew Hoell, Martin P. Hoerling & Peter A. Stott, *Explaining Extreme Events of 2017 from a Climate Perspective*, 100 BULL. AM. METEOROLOGICAL SOC’Y, at si, s2 (Supp. 2019), <https://doi.org/10.1175/BAMSExplainingExtremeEvents2017.1> [https://perma.cc/8YPJ-LA2K] (finding that sixteen of seventeen extreme weather events were made more likely by human caused climate change); Mark Patrick Nevitt, *On Environmental Law, Climate Change, & National Security Law*, 44 HARV. ENV’T L. REV. 321, 323-25 (2020). Several authors have drawn upon the latest climate science in describing the existential threats posed by climate change. *See, e.g.*, BILL MCKIBBEN, *FALTER: HAS THE HUMAN GAME BEGUN TO PLAY ITSELF OUT?* (2019) (explaining how humans can confront the challenges presented by climate change); DAVID WALLACE-WELLS, *THE UNINHABITABLE EARTH LIFE AFTER WARMING* (2020) (using newest science to describe threats of climate change).

³⁸ UNITED 2020, *supra* note 26, at 18.

catastrophic impacts. The lack of climate progress and ongoing political paralysis has sparked a renaissance in global climate activism. Activists and politicians are now using emergency terminology, stating that we are in a state of planetary emergency that demands immediate action. Indeed, nations and localities have adopted the “climate emergency” terminology: over thirty countries and 1,400 localities have declared a state of climate emergency.³⁹

Tragically, the U.S. and international communities are falling far short of what is required to keep global temperatures at a level to avoid irreversible devastation.⁴⁰ Even if all the Paris Climate Accord goals are met, devastating consequences will follow. Indeed, the coronavirus crisis — and what it foreshadows for future climate action — should serve as a climate call to action. Despite a reduction in GHG emissions due to the pandemic-related economic slowdown, the world still did not reduce its aggregate GHG emissions to meet the targets established by the Paris Climate Accord.⁴¹ While any emissions reduction is welcome, the COVID-19 crisis reinforces the finding in the most recent *United in Science* report: we must take transformational action to have any chance of placing the earth on a stabilized pathway.⁴²

A. *The Growing Climate Emissions Gap & Climate Change’s Catastrophic Impacts*

Climate scientists have released a series of sobering climate reports in recent years, highlighting the immediacy of the climate threat. The U.S. Fourth National Climate Assessment estimates that at certain thresholds ice sheet disintegration will accelerate sea level rise, leading to widespread species extinction and managed retreat.⁴³ The U.N. Intergovernmental Panel on Climate Change (“IPCC”) recently reaffirmed that the window to avoid irreversible climate impacts is slamming shut.⁴⁴

³⁹ Grandoni, *supra* note 34.

⁴⁰ Sara C. Bronin, *What The Pandemic Can Teach Climate Attorneys*, 72 STAN. L. REV. ONLINE 155, 155 (2020).

⁴¹ UNITED 2020, *supra* note 26, at 18, 19.

⁴² *Id.* at 3; *see also* IPCC 1.5 REPORT, *supra* note 13, at 18.

⁴³ NCA4, *supra* note 13, at 45. “Under scenarios with high emissions and limited or no adaptation, annual losses in some sectors are estimated to grow to hundreds of billions of dollars by the end of the century. It is very likely that some physical and ecological impacts will be irreversible for thousands of years, while others will be permanent.” *Id.* at 1347.

⁴⁴ IPCC 1.5 REPORT, *supra* note 13, at 18.

In September 2020, the World Meteorological Organization, under the direction of the U.N. Secretary General, issued the sobering *United in Science 2020* report. *United in Science 2020* reaffirmed that the world remains far off-track to reduce international GHG emissions.⁴⁵ Indeed, the climate emissions gap — the difference between the world’s current emissions trajectory and our emissions allocation to avoid climate change’s most severe consequences — is growing.⁴⁶ Despite increased political and societal pressure, the emissions gap is larger than ever.⁴⁷ Further, the five-year period from 2016–2020 was estimated to be the warmest in recorded human history, with an average global mean surface temperature of 1.1 degrees Celsius above pre-industrial levels. Unless emissions decline sharply, *United in Science 2020* states that “temperature stabilization well beyond 2.0 degrees Celsius will be unlikely.”⁴⁸ Our current emissions trajectory sets us on course to a global average temperature increase of 3.0 to 3.2 degrees Celsius (5.4 to 5.7 degrees Fahrenheit) by the end of this century.⁴⁹ The emissions gap can be bridged but “urgent and concerted action” is needed by all countries:

It is still possible to bridge the Emissions Gap — but this will require urgent and concerted action by all countries and across

⁴⁵ UNITED 2020, *supra* note 26.

⁴⁶ *Id.* at 18. The Paris Climate Accord has the goal of “holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels.” Paris Agreement to the United Nations Framework Convention on Climate Change art. 2(1)(a), Dec. 12, 2015, T.I.A.S. No. 16-1104 [hereinafter Paris Accord].

⁴⁷ To keep the global mean annual surface temperature below 1.5 degrees Celsius, the gap is estimated at 29-32 Gigatonnes of carbon dioxide-equivalent (the total combined emissions of the six largest emitters). To keep the global mean annual surface temperature below 2.0 degrees Celsius, the Emissions Gap is estimated to be at 12-14 Gigatonnes of carbon dioxide equivalent (GtCO₂e). IPCC 1.5 REPORT, *supra* note 13, at 122-24. The United Nations defines the six largest emitters as China, United States, “EU28,” India, Russia and Japan. The United States has the highest *per capita* emissions rate of the six largest emitters. *Id.* at 18. The 1.5-degree level is important for several reasons; even at this level, over seventy percent of coral reefs will die and at 2.0 degrees, ninety-nine percent of coral reefs will be lost. *Id.* at 8. Six million people are vulnerable to sea level rise at a 1.5-degree Celsius increase and ten million are vulnerable at 2.0-degree Celsius increase. *Id.*

⁴⁸ UNITED 2020, *supra* note 26, at 7; see also Paul Voosen, *Global Temperatures in 2020 Tied Record Highs*, SCIENCE (Jan. 14, 2021), <https://www.science.org/news/2021/01/global-temperatures-2020-tied-record-highs> [<https://perma.cc/LJU7-835B>].

⁴⁹ UNITED 2020, *supra* note 26, at 18. “The findings of the [UNEP Emissions Gap Reports] are sobering: despite scientific warnings, increased political and societal attention and the Paris Agreement, global GHG emissions have continued to increase and the emissions gap is larger than ever.” *Id.*

all sectors. Looking beyond the 2030 timeframe, new technological solutions and gradual change in consumption patterns are needed at all levels. *Transformational action* can no longer be postponed.⁵⁰

The U.N. Framework Convention on Climate Change (“UNFCCC”) and 2015 Paris Climate Accord serve as the international legal framework to reduce global GHG emissions.⁵¹ But the Paris Accord’s framework relies heavily upon *voluntary* GHG emissions reporting, so-called Nationally Determined Contributions (“NDCs”).⁵² In the unlikely event that the Paris Agreement signatories meet their commitments, the emissions gap remains. The earth continues to warm at increasing rates. After all, GHG emissions stay in the atmosphere for decades. Under our current level of international climate ambition, we are on course for a global average temperature increase of 3.0 to 3.2 degrees Celsius by the end of the century, an increase that will have devastating impacts on human health and the health of the planet.⁵³

The *United in Science 2020* report places the emissions gap in increasingly dire terms. Reducing the emissions gap requires a fundamental change in consumption patterns from all nations and for all sectors; “no silver bullets exists and *all options* need to be brought into play.”⁵⁴ The global COVID-19 pandemic will “not have a significant impact on the longer-term climate mitigation challenge, unless the health crisis is used for reflection, and the many stimulus and recovery initiatives are used to build back better.”⁵⁵ By one estimate, GHG emissions initially plunged seventeen percent at the pandemic’s outset, but overall global emissions quickly rebounded

⁵⁰ *Id.* at 3 (emphasis added).

⁵¹ Paris Accord, *supra* note 46, at art. 2.

⁵² *Id.* at art. 4.

⁵³ The impacts are particularly cataclysmic for the world’s coral reefs, which will decrease dramatically under this scenario. The gap under the best-case Paris scenario is anticipated to be 15 GtCO₂e for a 1.5-degree goal and 32 GtCO₂e to meet the 2.0-degree goal. UNITED 2020, *supra* note 26, at 18. The United in Science report places both scenarios with a probability greater than sixty-six percent. *Id.*

⁵⁴ *Id.* at 20 (emphasis added).

⁵⁵ *Id.* at 19. Professor Hathaway and others have argued that we must learn from the COVID-19 pandemic, and other non-traditional threats (such as climate change) should be part of the national security paradigm. See, e.g., Oona Hathaway, *Covid-19 Shows How the U.S. Got National Security Wrong*, JUST. SEC. (Apr. 7, 2020), <https://www.justsecurity.org/69563/covid-19-shows-how-the-u-s-got-national-security-wrong/> [<https://perma.cc/5EQ9-RF53>] (arguing that we should broaden the security lens to include pandemics, other public health threats, and climate change).

and only declined by six percent for calendar year 2020.⁵⁶ Of course, the overall concentration of GHGs in the atmosphere rose in 2020. Indeed, the IPCC estimates that global greenhouse gas emissions must begin falling by 7.6 percent *each year* to avoid climate change's worst effects.⁵⁷ With vaccine distribution continuing and the global economy poised to come roaring back, we would need to duplicate the 2020 COVID-19 emissions reductions every year for an entire decade just to have just to have a chance of meeting the Paris Accord goals of a 1.5-degree Celsius ceiling global temperature increase above pre-industrial norms.⁵⁸

In sum, reducing GHG emissions will require addressing the deeper, structural systems that are behind the continual rise in worldwide GHG emissions. Transformational action could take many forms: technological innovation, legal governance solution, or some combination thereof. Regardless of how climate progress is achieved, any delay in taking action imposes growing climate opportunity costs that make it more difficult to bridge the emissions gap in the long term.

B. Beyond Climate Mitigation: The Need for Bold Climate Adaptation and Response Measures

Despite a temporary economic slowdown, 2020 is on track to be one of the hottest years on record.⁵⁹ And there are more GHGs in the earth's atmosphere than at any time in recorded human history.⁶⁰

⁵⁶ See Corine Le Quéré, Robert B. Jackson, Matthew W. Jones, Adam J.P. Smith, Sam Abernethy, Robbie M. Andrew, Anthony J. De-Gol, David R. Willis, Yuli Shan, Josep G. Canadell, Pierre Friedlingstein, Felix Creutzig & Glen P. Peters, *Temporary Reduction in Daily Global CO₂ Emissions During the COVID-19 Forced Confinement*, 10 NATURE CLIMATE CHANGE 647, 652 (2020); Chris Mooney, Brady Dennis & John Muyskens, *Global Emissions Plunged An Unprecedented 17 Percent During The Coronavirus Pandemic*, WASH. POST (May 19, 2020), <https://www.washingtonpost.com/climate-environment/2020/05/19/greenhouse-emissions-coronavirus/> [https://perma.cc/8TZF-24QG]; Voosen, *supra* note 48.

⁵⁷ Mooney et al., *supra* note 56. This requires close to a three percent cut in global emissions for a 2 degree Celsius target and more than seven percent per year on average for the 1.5 degree Celsius goal. IPCC 1.5 REPORT, *supra* note 13, at 355.

⁵⁸ If the world had started on this goal just ten years ago, the world would have only needed to reduce emissions by 3.3% each year. *Facts About Climate Emergency*, UN ENV'T PROGRAMME, <https://www.unep.org/explore-topics/climate-action/facts-about-climate-emergency> (last visited Oct. 4, 2021) [https://perma.cc/CZ7P-YMLX].

⁵⁹ See Voosen, *supra* note 48.

⁶⁰ *Greenhouse Gas Concentrations in Atmosphere Reach Yet Another High*, WORLD METEOROLOGICAL ORG. (Nov. 25, 2019), <https://public.wmo.int/en/media/press-release/>

The United States is the second largest climate emitter on an annualized basis (behind China) and the U.S. remains the world's largest historic emitter.⁶¹ Because climate change's impacts are already here, addressing climate change goes beyond just reducing our GHG emissions (mitigation). It must also address investment in climate resilient investment (adaptation) as well as prepare to respond to natural disasters and extreme weather (climate response). Consider the following examples of climate impacts as outlined in the National Climate Assessment, IPCC, and other climate science reports:

- **Sea-level Rise & Flood Risk:** A recent joint report by Climate Central and Zillow found that we are on a path to place 3.4 million existing homes worth \$1.75 trillion in the U.S. at increased flood risk by the end of this century — a figure made worse by climate change.⁶²
- **Wildfires and Extreme Weather:** In Australia and the American West, wildfires spread with increasing intensity, frequency, and devastation. Over 10,500 structures were destroyed in California and Oregon last year, with forty-six deaths attributed to fires across an expanding fire zone.⁶³ Massive wildfires destroyed the city of Paradise, California in 2019.⁶⁴ Outdated, underinvested electric grid infrastructure combined with climate-driven weather patterns create a volatile climate-risk cocktail.⁶⁵ The IPCC's most

greenhouse-gas-concentrations-atmosphere-reach-yet-another-high [https://perma.cc/22WK-YJPZ].

⁶¹ See *Each Country's Share of CO₂ Emissions*, UNION OF CONCERNED SCIENTISTS, <https://www.ucsusa.org/resources/each-country-share-co2-emissions> (last updated Aug. 12, 2020) [https://perma.cc/7LUY-LYBL].

⁶² CLIMATE CENT., OCEAN AT THE DOOR: NEW HOMES AND THE RISING SEA 2 (2019), https://ccentralassets.s3.amazonaws.com/pdfs/2019Zillow_report.pdf [https://perma.cc/UH38-VGD6].

⁶³ World Meteorological Org., WMO-No. 1264, *State of the Global Climate 2020*, at 25 (2021) [hereinafter *Global Climate 2020*].

⁶⁴ *California Wildfire That Killed at Least 85 People Fully Contained*, REUTERS (Nov. 25, 2018, 1:31 AM), <https://www.reuters.com/article/us-california-wildfires/california-wildfire-that-killed-at-least-85-people-fully-contained-idUSKCN1NU0A9> [https://perma.cc/6V9V-LMBV].

⁶⁵ See generally GRETCHEN BAKKE, *THE GRID: THE FRAYING WIRES BETWEEN AMERICANS AND OUR ENERGY FUTURE* 10 (2016) (describing the history and current state of the U.S. grid).

recent report found that human influence on extreme weather events has only strengthened in recent years.⁶⁶

- **Managed Retreat:** This is defined by Professor A.R. Siders as the “purposeful, coordinat[ed] movement of people and assets out of harm’s way.”⁶⁷ Managed retreat is a forward-looking adaptation tool that takes *ex ante* measures to save homes and lives. Sea level rise and its impacts on coastal development will result in massive, irreversible displacement of whole communities.⁶⁸

These three examples showcase in stark terms that we must come to terms with how to live with climate change’s impacts, necessitating increased investment in climate-resilient infrastructure. Climate-exacerbated impacts will result in managed retreat from climate-vulnerable communities at an extraordinary scale. Diffuse climate impacts also have broad environmental justice implications. The poorest and most vulnerable communities lack the fewest resources to adapt.

Finally, climate change will stress and destabilize our emergency response legal framework as we increasingly respond to climate-driven disasters at home and abroad.⁶⁹ Advances in climate-attribution science, which links extreme weather with climate change, demonstrates the largely reactive nature of our federal, state, and local emergency response framework.⁷⁰ The costs of extreme weather are stunning: Hurricane Maria — whose intensity was made worse by climate change — inflicted over \$125 billion worth of damage to Puerto Rico.

⁶⁶ Jason Samnow & Kasha Patel, *Extreme Weather Tormenting the Planet Will Worsen Because of Global Warming, U.N. Panel Finds*, WASH. POST (Aug. 9, 2021), <https://www.washingtonpost.com/weather/2021/08/09/ipcc-2021-extreme-weather-climate/> [https://perma.cc/RVD8-U5T6].

⁶⁷ A.R. Siders, *Managed Retreat in the United States*, 1 ONE EARTH PERSP. 216, 216 (2019), <https://doi.org/10.1016/j.oneear.2019.09.008> [https://perma.cc/DL5G-W46G] (describing managed retreat as the purposeful, coordinat[ed] movement of people and assets out of harm’s way); see also Katharine J. Mach, Caroline M. Kraan, Miyuki Hino, A.R. Siders, Erica M. Johnston & Christopher B. Field, *Managed Retreat Through Voluntary Buyouts of Flood-Prone Properties*, 5 SCI. ADVANCES 1, 1 (Oct. 9, 2019), <https://www.science.org/doi/10.1126/sciadv.aax8995> [https://perma.cc/T4WD-8BZR]; *Digital Dialogue No. 2: Improving Flood Risk Disclosure*, WHARTON RISK MGMT. & DECISION PROCESSES CTR. (Jan. 2019), <https://riskcenter.wharton.upenn.edu/digital-dialogues/improving-flood-risk-disclosure/> [https://perma.cc/5UWB-CTJN].

⁶⁸ NCA4, *supra* note 13, at 36.

⁶⁹ See, e.g., Robin Kundis Craig, *Adapting Water Law to Public Necessity: Reframing Climate Change Adaptation as Emergency Response and Preparedness*, 11 VT. J. ENV’T L. 709, 722 (2010) (describing Governor Schwarzenegger’s response to a water shortage).

⁷⁰ Herring et al., *supra* note 37, at s3.

In light of these sobering climate reports what policy and legal tools might be available? Reducing U.S. domestic GHG emissions alone does not guarantee that other nations follow suit. Taking such action will be insufficient to close the GHG emissions gap; GHG emissions from developing nations may well offset any decrease in U.S. emissions.⁷¹ But the converse is also true. If the U.S. fails to dramatically reduce its GHG emissions, it will be virtually impossible for the emissions gap to be bridged. As the world's largest economy and second largest annual GHG emitter, transformational U.S. action is a prerequisite to stabilize worldwide GHG emissions.

While the economy will almost certainly bounce back and COVID vaccines have emerged, the climate crisis will endure. If we simply accept the latest peer-reviewed science that highlights both the emission gap and our need to adapt to climate change's impacts, what law and policy tools might be available? In what follows, I address the role that federal emergency law could play in addressing the climate crisis. Tapping into emergency powers alone does not, by itself, solve the climate crisis. It does, however, have the potential to act as a supplemental authority to reduce our GHG emissions, invest in climate adaptation measures, and proactively respond to climate change's effects.

II. EXECUTIVE AUTHORITY TO COMBAT CLIMATE CHANGE

The President possesses a host of authorities to combat climate change: inherent Article II emergency authorities under the Constitution; latent, non-emergency executive authorities delegated by Congress; and emergency authority delegated by Congress pursuant to the NEA. I turn to each one below.

A. *Congressionally Delegated, Traditional Executive Authorities*

Outside of any emergency authority, the president possesses traditional executive and administrative authorities that are critical to address climate change. These are largely implemented via Executive Orders and administrative rulemakings. Within the United States, the executive branch relies upon the Clean Air Act and the EPA's authority to regulate GHG emissions as air pollutants.⁷² These are necessary, important authorities that must be employed to reduce GHG emissions

⁷¹ *Massachusetts v. EPA*, 549 U.S. 497, 524-25 (2007).

⁷² *Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act*, 74 Fed. Reg. 66,496 (Dec. 15, 2009).

at federal facilities, promote more sustainable policies in federal procurement and acquisitions, and address leases for fossil fuel extraction on federal lands.⁷³ But using the full force of executive authorities and administrative rulemaking to address climate change has run into legal challenges.⁷⁴

Reliance on traditional executive authorities does not require legislative action but can make a substantive impact on climate mitigation efforts. For example, the Department of Defense (“DoD”), the world’s largest employer and largest federal agency, is an enormous GHG emitter and fossil fuel consumer. One study recently estimated that the U.S. military is the 55th largest GHG emitter in the world when compared against other nations.⁷⁵ The president has wide latitude to reduce GHG emissions across the federal government — to include the military’s reliance on fossil fuels. This can be accomplished without turning to emergency authorities.⁷⁶

These executive authorities have been used by past presidents to address environmental, energy, and sustainability issues, but these actions run the risk of being quickly reversed by future Administrations. The Obama-era Climate Action Plan, for example, mandated that every federal agency identify at risk critical infrastructure exposed to climate impacts.⁷⁷ President Obama also

⁷³ President Biden recently directed the Secretary of Interior to “pause new oil and natural gas leases on public lands or in offshore waters pending completion of a comprehensive review and reconsideration of Federal oil and gas permitting and leasing activities on public lands or in offshore waters.” Biden Climate Order, *supra* note 24, at 7624.

⁷⁴ President Obama proposed a Clean Power Plan under the Clean Air Act. This has been tied up in litigation, thwarting its stated goal to reduce GHG emissions. It appears the President Biden will not revive the Clean Power Plan. See Jean Chemnick, *Biden Won’t Revive Obama’s Clean Power Plan, So Now What?*, E&E NEWS (Feb. 9, 2021, 7:00 AM EST), <https://www.eenews.net/stories/1063724547> [<https://perma.cc/2T7K-5MQ8>].

⁷⁵ The U.S. Department of Defense emits more GHG emissions than many European nations to include Portugal, Sweden, and Denmark. See NETA C. CRAWFORD, PENTAGON FUEL USE, CLIMATE CHANGE, AND THE COSTS OF WAR 1, 2 (2019) [hereinafter COSTS OF WAR]; see also U.S. GOV’T ACCOUNTABILITY OFF., GAO-14-504T, BUDGET ISSUES: OPPORTUNITIES TO REDUCE FEDERAL FISCAL EXPOSURE THROUGH GREATER RESILIENCE TO CLIMATE CHANGE AND EXTREME WEATHER 4 (2014) (“DoD manages a global real-estate portfolio that includes over 555,000 facilities and 28 million acres of land with a replacement value . . . close to \$850 billion.”).

⁷⁶ This was a strategy adopted by President in Obama. See e.g., Exec. Order No. 13,514, 74 Fed. Reg. 52,117 (Oct. 8, 2009) (“Federal Leadership in Environmental, Energy, and Economic Performance”); Exec. Order No. 13,653, 78 Fed. Reg. 66,817 (Nov. 6, 2013) (“Preparing the United States for the Impacts of Climate Change”).

⁷⁷ See e.g., Exec. Order No. 13,653, 78 Fed. Reg. 66,817, 66,820 (Nov. 6, 2013) (mandating federal agencies to “identify opportunities to support and encourage smarter, more climate-resilient investments”).

relied upon federal agency action, rulemaking, and existing environmental statutes — such as the Clean Air Act — to reduce GHG emissions throughout his presidency.⁷⁸ These actions were quickly reversed by the Trump Administration, and are in the process of being “un-reversed” by the Biden Administration.⁷⁹ The recent Biden Administration order on the climate crisis reinstated several Obama-era executive actions, while also taking further actions to pause oil and gas leases on public lands and prioritizing renewable energy sources in federal procurement.⁸⁰

In addition to executive actions and administrative authorities, certain statutes grant the President non-emergency authorities that will increase in importance as the climate crisis worsens. The Defense Production Act (“DPA”) is one such statute. The DPA, for example, is a recently rediscovered Cold War-era statute that was designed to harness the industrial capacity of the United States. While the DPA was drafted with steel, tanks, and manufacturing in mind, the DPA has been successfully deployed throughout the COVID-19 pandemic to accelerate the production of critical personal protective equipment.⁸¹ As applied to climate change, the DPA could be used to extend loan guarantees and accelerating the production for critical technology items (such as carbon capture and sequestration).

Enacted in 1950, the DPA stated the United States “is dependent on the ability of the domestic industrial base and services for the national defense and to prepare for and respond to military conflicts and natural or man-cause disasters”⁸² It lays out specific actions to ensure the vitality of the domestic industrial base.⁸³ Such actions include protecting and restoring critical infrastructure operations and the safeguarding of energy supplies.⁸⁴ The DPA defines “national defense” to encompass “programs for military and energy production or construction.”⁸⁵ The DPA authorizes the president to extend loan guarantees to “critical technology items”⁸⁶ and respond to industrial

⁷⁸ See *id.* at 66,820.

⁷⁹ See Biden Climate Order, *supra* note 24.

⁸⁰ *Id.*

⁸¹ James E. Baker, *Use the Defense Production Act to Flatten the Curve*, JUST. SEC. (Mar. 20, 2020), <https://www.justsecurity.org/69275/use-the-defense-production-act-to-flatten-the-curve/> [<https://perma.cc/G8XH-6J5C>].

⁸² 50 U.S.C. § 4502(a)(1) (2018).

⁸³ *Id.* § 4502.

⁸⁴ *Id.* § 4502(a)(2)(C)-(D).

⁸⁵ *Id.* § 4552(14).

⁸⁶ *Id.* § 4531.

shortfalls.⁸⁷ These loan guarantees can be made to any “industrial resource, critical technology item, or material that is *essential to national defense purposes*.”⁸⁸ Climate change is increasingly conceptualized as a national security issue by a diverse group of scholars, intelligence officials, and military officers.⁸⁹

Just as the DPA was employed in an innovative manner to address the coronavirus crisis, it could serve as a tool to address the climate crisis. For example, DPA’s funding authorities could be employed to underwrite renewable emergency investment and carbon capture and sequestration technology — both high-risk/high-reward ventures in the fight against climate change. The President must first identify critical technology items and determine that making such loan guarantees are essential to national defense purposes.⁹⁰ Scientists and scholars are increasingly emphasizing the role that carbon removal technologies have in the climate crisis as well as the need to make broad shifts to renewable energy at scale.⁹¹ Relatedly, the DPA’s authority could also be operationalized to provide immediate loan guarantees to incentivize the development of critical green technologies. The president could extend loan guarantees to companies researching innovative carbon capture and sequestration technologies or accelerating the development of renewable energy technologies.⁹²

The president has broad authorities under the DPA to purchase critical technology items for government use or develop production

⁸⁷ *Id.* § 4533.

⁸⁸ *Id.* § 4531 (emphasis added). National defense is not defined within the DPA, although the term “national security” was once used synonymously with national defense at the time of the DPA’s passage. *See generally* Nevitt, *supra* note 37, at 328-40 (describing the relationship between these two terms).

⁸⁹ *See* Daniel R. Coates, Off. of the Dir. of Nat’l Intel., Statement for the Record: Worldwide Threat Assessment of the U.S. Intelligence Community 21-23 (2019), <https://www.dni.gov/files/ODNI/documents/2019-ATA-SFR—SSCI.pdf> [<https://perma.cc/UR7Y-CLJH>].

⁹⁰ For example, without a loan guarantee, credit is not available to the loan applicant under reasonable terms or conditions to finance the activity. 50 U.S.C. § 4531(a)(2)(B). “National defense purposes” and “critical technology items” are also undefined within the statute. *See id.*

⁹¹ *See, e.g.*, Wendy B. Jacobs & Michael Craig, *Carbon Capture and Sequestration*, in LEGAL PATHWAYS TO DEEP DECARBONIZATION IN THE UNITED STATES 713, 713 (Michael B. Gerrard & John C. Dernbach eds., 2019) (explaining the role of carbon capture sequestration as a greenhouse gas emissions controller).

⁹² During a period of national emergency, a loan guarantee may use for “an activity that supports the production or supply of an industrial resource, critical technology item or material that is essential for national defense purposes.” 50 U.S.C. § 4531(a)(2)(A).

capabilities essential for the national defense.⁹³ Before tapping into these authorities, the president must first make a determination that the industrial resource, material, or critical technology is essential to the national defense.⁹⁴ The DPA could even be used to compel a company to accept a new governmental contract to produce a product that it otherwise does not provide. Such an authority was invoked to mass produce ventilators and other critical health supplies during the COVID-19 crisis. While this is a far more controversial use of the DPA's authority and increases the risk of litigation, tapping into these initial authorities does not initially require an emergency declaration. As a congressionally delegated authority, the president's power under the DPA's delegated authorities may well be at its maximum, "for it includes all that he possesses in his own right and all that Congress can delegate."⁹⁵

Outside the DPA, the president has been granted authority to withdraw from disposition any of the unleased lands of the Outer Continental Shelf.⁹⁶ The United States has an enormous continental shelf with vast untapped fossil fuel resources.⁹⁷ This is particularly important for Alaska's continental shelf in the Arctic, where climate change is rapidly melting ice caps and renewing interest in oil and gas extraction.⁹⁸ Tapping into this authority has the potential to make a substantive reduction in broader climate mitigation efforts.

Finally, Congress has recently given the Federal Emergency Management Agency ("FEMA") additional authorities to take hazard mitigation measures prior to natural disaster striking.⁹⁹ The Disaster Recovery Reform Act ("DRRA") was passed two years ago with a focus on taking hazard mitigation measures prior to a major disaster striking.¹⁰⁰ In doing so, it expanded the type of situations where

⁹³ 50 U.S.C. § 4533(a)(5)(A).

⁹⁴ *Id.*

⁹⁵ *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 635 (1952) (Jackson, J., concurring).

⁹⁶ 43 U.S.C. § 1341(a) (2018).

⁹⁷ See Hiroko Tabuchi & Tim Wallace, *Trump Would Open Nearly All U.S. Waters to Drilling. But Will They Drill?*, N.Y. TIMES (Jan. 23, 2018), <https://www.nytimes.com/interactive/2018/01/23/climate/trump-offshore-oil-drilling.html> [<https://perma.cc/WC3U-FWDS>].

⁹⁸ Juliet Eilperin, *Facing Catastrophic Climate Change, They Still Can't Quit Big Oil*, WASH. POST (Dec. 13, 2019), <https://www.washingtonpost.com/graphics/2019/national/climate-environment/climate-change-alaska/> [<https://perma.cc/FK24-3AZS>].

⁹⁹ 42 U.S.C. § 5133 (2018).

¹⁰⁰ See Disaster Recovery Reform Act of 2018, Pub. L. No. 115-254, § 1232, 132 Stat. 3186, 3438-69 (2018) [hereinafter FAA Reauthorization Act].

mitigation assistance is available, to include wildfires and windstorms.¹⁰¹ Under the DRRRA, the president may set aside funds from the Disaster Relief Fund to support pre-disaster mitigation projects.¹⁰² The DRRRA also authorizes assistance to state and local governments for building code and floodplain management administration and enforcement. This is of particular importance for communities attempting to update their zoning laws to take into account climate impacts on land use planning, such as sea level rise and recurrent flooding.¹⁰³ Finally, the president is delegated specific authorities to proactively provide fire management assistance regardless of whether a major disaster is declared “in any area affected by a fire for which assistance was provided”¹⁰⁴

All of these authorities have the potential for the president to take *ex ante* measures independent of an emergency or major disaster declaration to prepare for future disasters. These traditional authorities should be maximized prior to emergency powers being activated. They are increasingly critical for those parts of the country that are most prone to wildfires, recurrent flooding, and other extreme weather events. For parts of California that suffer from annual wildfires, steps could be taken in advance of the wildfire season to provide hazard mitigation assistance to aggressively manage forest through the provision of equipment and financial assistance.¹⁰⁵ The Table below provides a snapshot of non-emergency authorities that are increasingly relevant to address the climate crisis.

¹⁰¹ *Id.* at 3439; see also Shannon Collins Schroeder, Comment, *Does America’s New Disaster Relief Law Provide the Relief America Needs?*, 56 HOUS. L. REV. 1177, 1202 (2019).

¹⁰² 42 U.S.C. § 5133(i)(1)-(3); see FAA Reauthorization Act, *supra* note 100.

¹⁰³ Schroeder, *supra* note 101, at 1203.

¹⁰⁴ 42 U.S.C. § 5187(d).

¹⁰⁵ *Id.* § 5187(a). And there may be even greater authority under administrative law under national-security stylized rulemaking, an issue of increasing relevance for climate change. *But see* Robert Knowles, *National Security Rulemaking*, 41 FLA. STATE U. L. REV. 883, 883 (2014) (criticizing “a national security administrative state that is insular and unaccountable to the public”).

Table A: Climate Change & Non-Emergency Authorities

Legal Authority	Climate Change Utilization
Defense Production Act ¹⁰⁶	Investment in climate-related research and development via federal loans and procurement power. ¹⁰⁷
Withdrawal of unleased lands ¹⁰⁸	Presidential withdrawal “from disposition” of any unleased lands on the Outer Continental Shelf (e.g., fossil fuel extraction) ¹⁰⁹
Disaster Recovery Relief Act ¹¹⁰	Set aside funds from the Disaster Relief Fund ¹¹¹
Pre-Disaster Hazard Mitigation ¹¹²	Pre-Disaster Mitigation Fund & Flood Mitigation Assistance Program to assist with prophylactic climate adaptation efforts. ¹¹³
Fire Management Assistance ¹¹⁴	Specific authority for hazard mitigation assistance for areas affected by wildfires. ¹¹⁵

B. Constitutional Presidential Emergency Authorities

In addition to these non-emergency authorities, the President possesses Article II emergency authorities.¹¹⁶ The outer scope of these authorities remains untested and the subject of enormous scholarly debate.¹¹⁷ The U.S. Constitution lacks a generalized emergency provision that authorizes the suspension of traditional legal authorities and normal government processes in the event of an emergency.¹¹⁸ The term “emergency” is absent from the Constitution’s text. The most

¹⁰⁶ 50 U.S.C. § 4531 (2018).

¹⁰⁷ *Id.* § 4533.

¹⁰⁸ This is titled “Reservation of lands and rights” on the Outer Continental Shelf Lands. 43 U.S.C. § 1341 (2018).

¹⁰⁹ *Id.* § 1341(a).

¹¹⁰ FAA Reauthorization Act, *supra* note 100.

¹¹¹ *Id.*

¹¹² 42 U.S.C. § 5133 (2018).

¹¹³ *Hazard Mitigation Assistance*, FEMA (July 12, 2021), <https://www.fema.gov/hazard-mitigation-assistance> [<https://perma.cc/5ERE-58VK>].

¹¹⁴ 42 U.S.C. § 5187 (2018).

¹¹⁵ *Id.* § 5187(d).

¹¹⁶ U.S. CONST. art. II.

¹¹⁷ It is beyond the scope of this Article to fully address the scope of presidential authorities. See *generally* *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 585 (1952) (“The President’s power, if any . . . must stem from an act of Congress or from the Constitution itself.”).

¹¹⁸ See Monaghan, *supra* note 30, at 33.

relevant constitutional provision, the Suspension Clause, is an authority granted to Congress, not the President.¹¹⁹ While inherent emergency Article II authorities may be gleaned from the Constitution's text via the Vesting Clause, Take Care Clause, and Commander in Chief Clause, the precise scope of these authorities remains murky and the subject of immense debate and controversy.¹²⁰ And the Court has at times enabled presidential power — a point recently analyzed by Professor David Driesen.¹²¹

Nevertheless, presidents can potentially turn to certain constitutional emergency authorities, particularly when protecting the nation from outside threats.¹²² Under the Constitution's Vesting Clause, the "executive Power shall be vested in a President of the United States."¹²³ The Take Care Clause states that the President has the constitutional obligation and authority to "take Care that the Laws be faithfully executed"¹²⁴ Finally, the Constitution places the President as the "Commander in Chief of the Army and Navy of the United States"¹²⁵ The military and intelligence communities increasingly make clear that climate change is a national security threat. The military is increasingly called upon to respond to natural disasters at home and abroad and must defend military installations from a new "enemy"—climate-driven sea level rise.¹²⁶

But over-reliance on inherent and implied authorities — as opposed to expressly delegated authority — poses a far greater threat to democratic governance and civil liberties.¹²⁷ The gradual expansion of

¹¹⁹ "The Privilege of the Writ of Habeas Corpus shall not be suspended, unless when in cases of Rebellion or Invasion the public Safety may require." U.S. CONST. art. I, § 9, cl. 2.

¹²⁰ See *Youngstown*, 343 U.S. at 637; cf. Amy Stein, *A Statutory National Security President*, 70 FLA. L. REV. 1183, 1204-11 (2019) (describing how presidents have been afforded national security deference in their constitutional authorities).

¹²¹ See generally DAVID M. DRIESEN, *THE SPECTER OF DICTATORSHIP: JUDICIAL ENABLING OF PRESIDENTIAL POWER* (2021) (arguing that the loss of democracy should play a role in the Court's jurisprudence).

¹²² This theory of the protective power of the presidency was first articulated by Henry Paul Monaghan, *supra* note 30. See also Mark P. Nevitt, *The Commander in Chief's Authority to Combat Climate Change*, 37 CARDOZO L. REV. 435, 472, 484 (2015).

¹²³ U.S. CONST. art. II, § 1, cl. 1.

¹²⁴ *Youngstown*, 343 U.S. at 646.

¹²⁵ U.S. CONST. art. II, § 2, cl.1.

¹²⁶ See Nevitt, *supra* note 37, at 363-64.

¹²⁷ In *Youngstown*, Justice Jackson was particularly dismissive of the President's assertion of inherent or implied powers, stating that such usage is "loose and irresponsible . . . without fixed or ascertainable meanings." *Youngstown*, 343 U.S. at 646-

emergency power has shifted power to the executive branch since World War II.¹²⁸ While the president is afforded deference in national security matters, broad presidential claims asserting “inherent constitutional powers” have been rejected by the Supreme Court.¹²⁹ President Truman famously advanced such a theory of emergency power in an attempt to justify the seizure of domestic steel mills during the height of the Korean War.¹³⁰ Writing for the Supreme Court, Justice Jackson stated, “[T]he Constitution did not contemplate that the title Commander in Chief of *the Army and Navy* will constitute him also Commander in Chief of the country, its industries and its inhabitants.”¹³¹

In addition, Professor Monaghan has argued that there is a narrower, inherent executive authority lurking within Article II: a presidential protective power.¹³² This power is particularly relevant when a swift response is required to face a crisis — surely the case with climate change.¹³³ It includes a “general authority to protect and defend the personnel, property, and instrumentalities of the United States from harm.”¹³⁴ As applied to climate change — which clearly harms people and property — the president could feasibly rely upon a discrete, protective power band of Article II authorities under this proposed protective power model. While the outer limits of the protective power are untested, presidential protective power could feasibly be invoked to

47 (Jackson, J., concurring); see *Korematsu v. United States*, 323 U.S. 214, 244 (1944) (Jackson, J., dissenting).

¹²⁸ See generally POSNER & VERMEULE, *supra* note 30 (describing the growing role of the Executive).

¹²⁹ See, e.g., *Youngstown*, 343 U.S. at 659 (Burton, J., concurring) (finding that the President does not have inherent constitutional power to seize private property when there is no imminent invasion or threatened attack).

¹³⁰ Elizabeth Goitein, *Emergency Powers, Real and Imagined: How President Trump Used and Failed to Use Presidential Authority in the COVID-19 Crisis*, 11 J. NAT'L SEC. L. & POL'Y 27, 29 (2020).

¹³¹ *Youngstown*, 343 U.S. at 643-44 (Jackson, J., concurring).

¹³² Monaghan, *supra* note 30, at 61-70.

¹³³ See Presidential Power to Use the Armed Forces Abroad Without Statutory Authorization, 4A Op. O.L.C. 185, 187 (1980) (The President has “the implicit advantage . . . over the legislature under our constitutional scheme in situations calling for immediate action,” given that imminent national security threats and rapidly evolving military and diplomatic circumstances may require swift response by the United States without the opportunity for congressional deliberation and action); see, e.g., *Dames & Moore v. Regan*, 453 U.S. 654 (1981) (holding that the President had congressional authority to order the transfer of Iranian assets in response to seizures of American nationals in Iran).

¹³⁴ Monaghan, *supra* note 30, at 11.

protect critical national security infrastructure from extreme weather events or take adaptation measures — such as protecting coastlines — as poorer communities are uniquely vulnerable to sea level rise and recurrent flooding.

Despite the Court’s skepticism toward inherent Article II emergency authorities, Presidents Roosevelt, Truman, and Nixon all relied upon such authorities to address diverse emergencies facing the nation.¹³⁵ In response, Congress crafted a wholesale change to the governing emergency statutory framework with the passage of the NEA in 1976.

C. *The National Emergencies Act (1976): A Statutory Tool to Declare a Climate Emergency?*

Once a president declares a national emergency under the NEA, an emergency “master key” is handed from Congress to the president. This key unlocks any one of the 136 “statutory doors.”¹³⁶ Since the NEA’s passage in 1976, sixty national emergencies have been declared and there are thirty-seven active emergencies currently in place.¹³⁷ While none of these 136 implementing statutes specifically address climate change, this Article identifies at least five relevant statutory doors that good candidates to be opened once a national climate emergency is declared. These statutory doors could be invoked to reduce the trade of fossil fuel products, subsidize renewable energy technology, and invest in climate adaptation measures at critical infrastructure.

Since the NEA was passed, national emergency declarations have been repeatedly renewed year after year. This is true regardless of the political party or President.¹³⁸ As such, reliance upon national emergency declarations have become increasingly normalized as a legal tool to address an ever-expanding swath of issues.¹³⁹ In what follows, I describe and analyze the scope of the NEA’s authorities, with a particular focus on the five authorities that could be activated to address the climate crisis.

¹³⁵ President Nixon, for example, declared an emergency in response to a postal strike, ordering the military to deliver mail. He also terminated international trade agreements, pointing to Article II emergency authorities. HAROLD C. RELYEA, CONG. RSCH. SERV., 98-505, NATIONAL EMERGENCY POWERS 1, 7 (2007).

¹³⁶ See *id.* at 3.

¹³⁷ HALCHIN, *supra* note 3, at 12-14.

¹³⁸ See BRENNAN CENTER, *supra* note 7, at 7-43.

¹³⁹ See Kim Lane Scheppele, *Small Emergencies*, 40 GA. L. REV. 835, 836-37 (2006) (arguing that there is a new “normal” constitutional order evidenced, in part, by America’s continual state of emergencies since the First World War).

1. The National Emergencies Act's History & Structure

The NEA delegates broad authorities to the president upon a national emergency declaration. This statute transformed the domestic emergency framework landscape. It was passed in the aftermath of the Nixon Administration and sought to clarify and circumscribe presidential emergency authority. The NEA was passed following the 1973 War Powers Resolution (“WPR”), an analogous legislative effort designed to reinvigorate Congress’s role in national security affairs.¹⁴⁰ The WPR placed reporting and consultation requirements on the President prior to the entry of military forces overseas.¹⁴¹

The NEA successfully overhauled domestic emergency law and pre-existing statutory delegations, placing existing delegations under the NEA framework’s umbrella. Prior to the NEA’s passage, a special congressional committee identified 470 different federal laws that delegated emergency authority to the president as well as four existing emergency declarations that relied upon Article II emergency proclamations.¹⁴² The four existing emergencies included an emergency bank holiday dating from 1933 and a Korean War emergency dating from 1950.¹⁴³ The NEA effectively reset the existing emergency declarations and folded the 470 federal laws under one statutory umbrella.

The NEA originally consisted of five sections (“subchapters”) to include: (1) termination of existing emergencies; (2) declaration and termination of future emergencies; (3) exercise of emergency powers and authorities; (4) accounting and reporting requirements; and (5) application to powers and authorities of other provisions of law.¹⁴⁴ Under the first subchapter, the NEA terminated all previous emergencies within two years of the NEA’s passage. This statutory reset did not, however, expressly end the 1933, 1950, 1970, and 1971

¹⁴⁰ War Powers Resolution, Pub. L. No. 93-148, 87 Stat. 555 (1973) (codified at 50 U.S.C. §§ 1541-1548).

¹⁴¹ *Id.*

¹⁴² RELYEA, *supra* note 135, at 8.

¹⁴³ *Id.* Emergencies in place included President Roosevelt’s declaration of a national emergency that established a bank holiday in the Great Depression, President Truman’s national emergency declaration in response to the outbreak of the Korean War, and two national emergency declarations by President Nixon addressing currency controls and a postal strike. S. REP. NO. 94-922, at 3 (1976); *see also* Patrick A. Thronson, Note, *Toward Comprehensive Reform of America’s Emergency Law Regime*, 46 U. MICH. J.L. REFORM 737, 739 (2013). The Korean War emergency declaration remained in effect well after active hostilities concluded on the Korean peninsula and continued throughout the Vietnam War. RELYEA, *supra* note 135, at 7-8.

¹⁴⁴ 50 U.S.C. §§ 1601-1651 (2018).

emergencies. But it did “return[] to dormancy the statutory authorities they had activated, thereby necessitating a new declaration to activate standby statutory authorities.”¹⁴⁵

Subchapter 2 consolidated the scattered 470 emergency powers under a single NEA umbrella, greatly reducing the range of statutes that can be used in the event of a national emergency.¹⁴⁶ Congress, however, continued to delegate broad authority and discretion to the President in making future emergency determinations. It also placed statutory guardrails to ensure a congressional role in such decisions. Specifically, the NEA states:

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.¹⁴⁷

Critically, “national emergency” is not defined within the NEA statutory scheme. In practice, this allows the President to invoke this authority capaciously to address a remarkably diverse set of emergencies. Once the President declares a national emergency, the President can use “any provision[] of law conferring powers and authorities to be exercised during a national emergency”¹⁴⁸

Subchapter 3 mandates that the President specify the provision of law that he is relying upon in the exercise of emergency powers. Subchapter IV places additional reporting requirements to Congress when a national emergency is declared, while Subchapter V carves out specific provisions from the NEA’s reach.¹⁴⁹ Of those 136 statutes and thirty-seven active emergencies, the International Emergency Economic Powers Act (“IEEPA”) is, by far, the most heavily relied upon emergency authority. Today, the IEEPA is used to block the transfer of property in numerous nations (e.g., Mali, Burundi, Zimbabwe) to address a diverse set of problems.¹⁵⁰

¹⁴⁵ RELYEA, *supra* note 135, at 10.

¹⁴⁶ *See* 50 U.S.C. § 1621 (2018).

¹⁴⁷ *Id.* § 1621(a).

¹⁴⁸ *Id.* § 1621(b).

¹⁴⁹ *See id.* § 1651.

¹⁵⁰ HALCHIN, *supra* note 3, at 12-14.

2. Continual Congressional Acquiescence & the National Emergencies Act

In seeking to reinvigorate Congress's role in emergency decision-making, Congress placed three separate provisions within the NEA that attempted to restrain the president's delegated emergency powers. First, Congress has the authority to terminate any emergency via a concurrent congressional resolution.¹⁵¹ Second, any emergency automatically terminates after one year if the president does not affirmatively renew it and issue a new proclamation in the Federal Register. Third, both Houses of Congress are required to meet every six months following an emergency declaration to determine whether the emergency warrants termination.¹⁵² For reasons discussed below, these statutory guardrails have fallen short of their stated goal to check the president's power.

First, once an emergency is declared, the follow-on authorities do not necessarily need to relate to the underlying *nature* of the national emergency.¹⁵³ This orthogonal relationship between the NEA and the implementing statutes provides broad presidential discretion. In essence, *any* national emergency declaration breathes life into these 136 follow-on provisions.¹⁵⁴

Second, Congress has largely failed to follow through and debate the validity of national emergencies once declared. Since 1976, sixty national emergencies have been declared and thirty-seven remain in effect. But Congress has not met or voted on whether to end a previously declared emergency as required by law.¹⁵⁵ This requirement has proven to be a statutory paper tiger, offering the appearance of congressional engagement but falling short in its implementation. Once a national emergency is declared, Congress quickly adjusts to the "new normal" emergency state. A certain congressional emergency acquiescence occurs. While emergencies automatically expire after one year,

¹⁵¹ 50 U.S.C. § 1622.

¹⁵² *Id.* § 1622(b) ("Not later than six months after a national emergency is declared, and not later than the end of six-month period thereafter that such emergency continues, each House of Congress *shall meet* to consider a vote on a joint resolution to determine whether that emergency shall be terminated." (emphasis added)).

¹⁵³ Elizabeth Goitein, *The Alarming Scope of the President's Emergency Powers*, ATLANTIC (Jan./Feb. 2019), <https://www.theatlantic.com/magazine/archive/2019/01/presidential-emergency-powers/576418/> [<https://perma.cc/MBM5-9CVY>].

¹⁵⁴ The Brennan Center for Justice at New York University Law School categorized the implementation statutes to cover a wide variety of matters to include federal personnel, asset seizure, control, and transfer, military and national defense, land management, public health, and international relations. See BRENNAN CENTER, *supra* note 7.

¹⁵⁵ Goitein, *supra* note 153.

presidents can unilaterally renew each emergency merely by notifying Congress and issuing an updated proclamation posted in the Federal Register.¹⁵⁶ Presidents routinely renew earlier emergency declarations, even those emergencies made by prior political opponents.¹⁵⁷

Third, the Supreme Court's 1983 decision in *INS v. Chadha* greatly diminished Congress's ability to end emergencies via a joint resolution of Congress. *INS v. Chadha* held that concurrent resolutions — so-called “legislative vetoes” — are unconstitutional.¹⁵⁸ Following *Chadha*, Congress has not amended the NEA to provide additional statutory guardrails to counter the unconstitutionality of concurrent resolutions.

3. What Qualifies as a Bona Fide Emergency Under the NEA?

The term “national emergency” is not defined within the NEA's text, effectively granting the President wide discretion in making any emergency determination to address a wide variety of threats. In the absence of a statutory definition, what could fairly be considered a bona fide “emergency?”¹⁵⁹

Some congressional policy experts have stated that there are at least four aspects of an emergency condition:

The first is its temporal character: an emergency is sudden, unforeseen, and of unknown duration. The second is its potential gravity: an emergency is dangerous and threatening to life and well-being. The third, in terms of governmental role and authority, is the matter of perception: who discerns this phenomenon? The Constitution may be guiding on this question, but not always conclusive. Fourth, there is the element of response . . . an emergency requires immediate action but is, as well, unanticipated and . . . cannot always be “dealt with according to rule.”¹⁶⁰

¹⁵⁶ 50 U.S.C. § 1641.

¹⁵⁷ As of this writing an emergency initially declared by President Carter is approaching its 44th year of renewal. HALCHIN, *supra* note 3, at 12.

¹⁵⁸ *Immigr. & Naturalization Serv. v. Chadha*, 462 U.S. 919, 959 (1983).

¹⁵⁹ A core rule of statutory construction states that we should construe terms to reflect the plain meaning as understood by ordinary people.

¹⁶⁰ RELYEA, *supra* note 135, at 4 (quoting EDWARD S. CORWIN, *THE PRESIDENT: OFFICE AND POWERS 1787-1957*, at 3 (4th ed. 1957)). The unforeseeability requirement is also reinforced in the plain language of emergency found in dictionaries. According to the *American Heritage Dictionary*, emergency is “[a]n unexpected situation or sudden occurrence of a serious and urgent nature that demands immediate action.” *Emergency*, AMERICAN HERITAGE COLLEGE DICTIONARY 448 (2d ed. 1991).

Applying the definition above, climate change is certainly a problem of enormous gravity, and the president has been delegated authority to make emergency determinations under the NEA. But is climate change truly unforeseen? And are traditional authorities unable to “deal with [climate change] according to rule?” The requirement that emergency authorities can only be employed to respond to unexpected events is difficult to apply to climate change. While the climate science makes clear that climate impacts are entirely foreseeable as the GHG emissions gap widens, the precise location, severity, timing, frequency, and impacts of extreme weather events are unknown. We know climate change is a problem of enormous magnitude, but its precise impacts remain uncertain.

Further, focusing on this unforeseeability requirement is out of step with how the NEA has been employed. This would effectively invalidate all or most of the thirty-seven active emergencies. Many of these emergencies have been in place for years, even decades.¹⁶¹ At what point in time is an emergency no longer unforeseeable, thus requiring a legislative response? Emergencies have been continually renewed, in full view of Congress.¹⁶² Congress may have truly lacked time to deliberate at an emergency’s initial declaration, but that is no longer the case in the years following the initial declaration. Any critique of a prospective climate emergency based upon unforeseeability grounds must acknowledge the difficulty in applying the foreseeability test to all other emergencies in place. Emergencies have been declared and renewed continuously (even for decades). Indeed, what was once unforeseeable becomes entirely foreseeable at some point in time. While not dispositive, this “unbroken, executive practice, long pursued to the knowledge of the Congress” bolsters the President’s authority in making an emergency determination.¹⁶³

In contrast to the definition offered by scholars and dictionaries, other relevant statutes use an entirely different emergency definition. In the Stafford Act, a statute particularly relevant for climate impacts and natural disaster clean-up following an extreme weather event, emergency is broadly defined as:

¹⁶¹ See HALCHIN, *supra* note 3, at 12-14.

¹⁶² See *id.*

¹⁶³ *Youngstown Sheet & Tube v. Sawyer*, 343 U.S. 579, 610-11 (1952) (Frankfurter, J., concurring) (“[A] systematic, unbroken, executive practice, long pursued to the knowledge of the Congress and never before questioned, engaged in by Presidents who have also sworn to uphold the Constitution, making [it] as it were such exercise of power part of the structure of our government, may be treated as a gloss on ‘executive Power’ vested in the President by § 1 of Art. II.”).

. . . 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, or to lessen or avert the threat of a catastrophe in any part of the United States.¹⁶⁴

The Stafford Act's focus is on saving lives and protecting public health and safety, with the goal of alleviating the effects of a threat or catastrophic event.¹⁶⁵ Such a definition seems ready-made for an *ex ante* climate emergency under the NEA. Climate change will result in an uptick in the frequency, magnitude, and severity of extreme weather events that threaten life and property.

Further, many climate scientists use an entirely different definition of emergency. In their conception of emergency, climate experts focus on risk and urgency, de-emphasizing foreseeability.¹⁶⁶ Urgency is defined as the intervention time left to avoid a bad outcome.¹⁶⁷ This is of particular relevance for ascertaining what legal steps should be taken to address the climate crisis. We are in a particularly critical decade to take climate action if we have a hope to keep global temperatures below 1.5-2.0 degrees Celsius. In addition, catastrophic "bad outcomes" such as climate tipping points or "green swan events" might be here soon.¹⁶⁸ No one truly knows. But due to the time lag inherent in climate change,

¹⁶⁴ 42 U.S.C. § 5122(1) (2018). Under the Stafford Act, "[m]ajor disaster' means any natural catastrophe (including any hurricane, tornado, storm, high water, winddriven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought), or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance under this chapter to supplement the efforts and available resources of States, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby." *Id.* § 5122(2).

¹⁶⁵ 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.

¹⁶⁶ Timothy M. Lenton, Johan Rockström, Owen Gaffney, Stefan Rahmstorf, Katherine Richardson, Will Steffen & Hans Joachim Schellnhuber, Comment, *Climate Tipping Points — Too Risky to Bet Against*, 575 NATURE 592, 592-95 (2019) ("We define emergency (*E*) as the product of risk and urgency. Risk (*R*) is defined by insurers as probability (*p*) multiplied by damage (*D*). Urgency (*U*) is defined in emergency situations as reaction time to an alert (τ) divided by the intervention time left to avoid a bad outcome (*T*). Thus: $E=R \times U = p \times D \times \tau / T$ ").

¹⁶⁷ *See id.* at 595.

¹⁶⁸ *See id.* at 592-93.

failure to take immediate action today increases the likelihood of bad outcomes.

Courts have generally been deferential to presidents in their exercise of emergency authority, particularly when the President uses congressionally-delegated emergency authorities in full view of Congress.¹⁶⁹ The Court did not address the question of what constitutes an emergency in *Doe v. Rumsfeld*, one of the few cases challenging the President's authority under the NEA.¹⁷⁰ In *Center for Biological Diversity v. Trump*, a case addressing the legality of the emergency at the southern border, the court invoked the political question doctrine when it held that there are no judicially manageable standards for determining what "emergency" means.¹⁷¹ In *Sierra Club v. Trump*, a lawsuit filed by an environmental group to halt the funding of the U.S.-Mexico border wall, the plaintiffs did not dispute that the President had properly declared a national emergency.¹⁷² The Ninth Circuit glossed over whether the situation at the U.S.-Mexico border was a national emergency within the meaning of the NEA.¹⁷³ Instead, the court focused on the legality of implementing the military construction statute.¹⁷⁴

Outside the NEA context, Professor Robin Craig has argued that we should reframe climate change's destabilizing impacts on natural resources (such as water) as an emergency.¹⁷⁵ This provides legal and political flexibility to take action.¹⁷⁶ Consider the following cases where the Supreme Court has addressed the emergency exception in the context of the regulatory takings doctrine.

In one of the few Supreme Court cases addressing what constitutes an emergency that predate the NEA's passage, the Court ruled that an

¹⁶⁹ See, e.g., *Doe v. Rumsfeld*, 435 F.3d 980, 986 (9th Cir. 2006) ("The Supreme Court has recognized that under Article I, Congress has wide latitude in delegating its powers" (citing *Mistretta v. United States*, 488 U.S. 361, 373 (1989))).

¹⁷⁰ See *id.*

¹⁷¹ *Ctr. for Biological Diversity v. Trump*, 453 F. Supp. 3d 11, 32 (D.D.C. 2020); see also *Beacon Prods. Corp. v. Reagan*, 633 F. Supp. 1191, 1194-95 (D. Mass. 1986).

¹⁷² *Sierra Club v. Trump*, 977 F.3d 853, 901 n.12 (9th Cir. 2020) ("We therefore have no occasion in this case to address the issues raised . . . as to whether the President was correct in concluding that the situation at the southern border properly qualifies as a 'national emergency.' We likewise are not presented with any issue concerning the availability of any other emergency authority under any other statute, nor do we have before us any possible constitutional limitations on the use of any such other authorities.").

¹⁷³ See *id.* at 864 ("The NEA empowers the President to declare national emergencies.").

¹⁷⁴ *Id.*

¹⁷⁵ Craig, *supra* note 69, at 710-12.

¹⁷⁶ *Id.* at 710.

emergency is characterized by urgency and relative infrequency of occurrence.¹⁷⁷ An emergency is equivalent to a public calamity resulting from a fire, flood, disaster not reasonably subject to anticipation.¹⁷⁸ Climate scientists predict, generally, that we can reasonably anticipate an uptick in extreme weather.¹⁷⁹ This will lead to increased natural disasters in both frequency and intensity. But we do not know with great precision where to anticipate the next climate disaster.

The public necessity doctrine is also implicated in the climate emergency discussion, particularly as it relates to the uptick in extreme weather events.¹⁸⁰ In *United States v. Caltex*, decided in 1952, the Court ruled that “in times of imminent peril — such as when fire threatened a whole community — the sovereign could, with immunity, destroy the property of a few that the property of many and the lives of many more could be saved.”¹⁸¹ More recently, in *Lucas v. South Carolina Coastal Commission*, Justice Scalia reaffirmed the continual relevance of emergency doctrine as applied to regulatory takings challenges by private property owners. He explained:

[t]he principal “otherwise” that we have in mind is litigation absolving the State (or private parties) of liability for the destruction of “real and personal property, in cases of actual necessity, to prevent the spreading of a fire” or to forestall other grave threats to the lives and property of others.¹⁸²

Relying upon two nineteenth-century takings cases, *Bowditch v. Boston* and *United States v. Pacific R. Co.*, Scalia highlighted that the government is absolved from providing just compensation to homeowners due to emergency factors outside the government’s control. In *Bowditch*, the Supreme Court held that the City of Boston was not liable for a taking when it demolished a building in an effort to thwart a major fire.¹⁸³ In *United States v. Pacific R. Co.*, the Court held

¹⁷⁷ See *Home Bldg. & Loan Ass’n v. Blaisdell*, 290 U.S. 398, 440 (1934) (“[A] temporary and conditional restraint, where vital public interests would otherwise suffer . . .”).

¹⁷⁸ *Id.* at 439.

¹⁷⁹ Herring et al., *supra* note 37, at s1.

¹⁸⁰ See Robin Kundis Craig, *Drought and Public Necessity: Can a Common-Law “Stick” Increase Flexibility in Western Water Law?*, 6 TEX. A&M L. REV. 77, 79-81 (2018).

¹⁸¹ *United States v. Caltex, Inc.*, 344 U.S. 149, 154 (1952).

¹⁸² *Lucas v. S.C. Coastal Couns.*, 505 U.S. 1003, 1029 n.16 (quoting *Bowditch v. City of Boston*, 101 U.S. 16, 18 (1879)) (citing *United States v. Pac. R.R. Co.*, 120 U.S. 227, 238 (1887)).

¹⁸³ *Bowditch v. City of Boston*, 101 U.S. 16, 17-18 (1879).

that the government was not liable for the destruction of private property caused by military operations in the Civil War.¹⁸⁴

To be sure, in *Lucas*, the Court is relying upon Reconstruction-era cases, far removed from our current understanding of climate science, climate change, and its follow-on impacts. Yet this common law emergency doctrine continues to lurk in the background, providing supplemental authorities for governmental action wholly independent of the NEA. This common law emergency authority will likely grow in importance as cities and localities wrestle with climate change's massively destabilizing effects while protecting the most vulnerable communities from storm surge, wildfires, and other extreme weather.

Regardless of emergency definitions proposed by scientists, scholars, statutes, or courts, Congress has chosen not to define the term within the NEA, effectively delegating this decision to the President. The two emergency definitions that appear most relevant to climate change — the Stafford Act and emergency as defined by climate scientists — emphasize risk, urgency, and the need to take action to avoid a bad outcome.

As discussed below, the NEA does provide several substantive, supplemental authorities to address climate domestically and internationally — I turn to these authorities below.

III. CLIMATE CHANGE AND THE NATIONAL EMERGENCIES ACT

In what follows, I describe and analyze how the NEA and its implementing statutes could be used to address the climate crisis. This Article largely focuses on *ex ante* authorities that can be employed immediately. A fuller discussion of *ex post* Stafford Act emergency authorities is beyond this Article's scope, although the Stafford Act will assuredly take on increased importance as we respond to climate-driven natural disasters. In addition, while the NEA is a federal emergency statute, cities, states, and localities possess broad emergency police powers that could also be utilized to address the climate crisis. To date, thirty different nations have declared some version of a climate emergency and hundreds of climate emergencies have already been declared at the state and local level, independent of any federal action.¹⁸⁵

¹⁸⁴ *United States v. Pac. R.R. Co.*, 120 U.S. 227, 238-39 (1887).

¹⁸⁵ *See, e.g., Grandoni, supra* note 34 (noting that over thirty counties have declared climate emergencies). As Professor Scheppele has noted, such "small emergencies" have become increasingly common and normalized. According to Professor Scheppele, the emergency mode is a viable and legal alternative within the law. *See generally* Scheppele, *supra* note 139, at 855 (stating that "[t]he President's use of emergency powers often

Relying upon traditional authorities alone will fail to close the emissions gap.¹⁸⁶ We are woefully off target to close the difference between the world's current path and measures needed to manage climate change.¹⁸⁷ To avoid climate change's catastrophic, irreversible impacts and meet the Paris Accord's goals, nations must roughly triple their current emissions-cutting pledges.¹⁸⁸ Doing so will require making fundamental changes to our way of life. The specific climate emergency authorities are outlined below in the sequential order of their potential use, taking into account the underlying legitimacy of their use.

A. *First, Declare Climate Change a National Emergency*

Prior to unlocking any of the NEA's follow-on authorities, the President must first determine that climate change (or one of its impacts) is a national emergency. This could take many forms. The President could choose to make a generalized climate change emergency declaration, or he could specify a specific climate impact that is the basis for the national emergency (e.g., wildfires, droughts, sea level rise, or other extreme weather). Making an initial emergency declaration does not immediately operationalize any emergency powers, but it does serve a signaling function, drawing upon the powerful rhetorical value of an emergency declaration. A climate emergency declaration would align with the consensus climate science, which has already acknowledged a state of planetary emergency and the need for urgent action.¹⁸⁹

Some members of Congress have already begun to call for such a climate emergency declaration. Senator Bernie Sanders (I-VT) and others recently proposed a Senate Resolution that calls on the legislative branch to declare climate change a national emergency under the NEA.

happens in a parallel legal universe, not one that steps outside the law to contain a crisis.”).

¹⁸⁶ See UNITED 2020, *supra* note 26, at 18 (stating that “postponing transformational action is not an option” when it comes to closing the emissions gap). See generally Steffen et al., *supra* note 10 (concluding that incremental linear changes are not enough to stabilize the Earth's system).

¹⁸⁷ See UNITED 2020, *supra* note 26, at 20 (concluding that there is an “enormous challenge facing the global community in achieving the temperature goals of the Paris Agreement”); Steffen et al., *supra* note 10, at 8257 (stating that international initiatives are not enough to meet the Paris agreement target).

¹⁸⁸ Brady Dennis, Chris Mooney & Sarah Kaplan, *The World's Rich Need to Cut Their Carbon Footprint by A Factor of 30 to Slow Climate Change*, U.N. Warns, WASH. POST (Dec. 9, 2020, 5:00 AM EST), <https://www.washingtonpost.com/climate-environment/2020/12/09/carbon-footprints-climate-change-rich-one-percent/> [perma.cc/U2LJ-F3BA].

¹⁸⁹ See *supra* Part I.

It states that there must be “massive-scale mobilization to halt, reverse, and address [climate change’s] consequences and causes.”¹⁹⁰ 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.”¹⁹¹ By drawing on the power of the “emergency” language to highlight the severity of the climate threat, the resolution seeks to marshal national attention for future action. Declaring a climate emergency may shift the focus and inertia back to Congress to pass climate legislation. It also provides explicit notice to Congress that follow-on emergency action may follow, particularly if Congress refuses to act on climate. Doing so may well act as a prod for congressional action with the potential to break the congressional logjam on climate — a successful approach in other contexts.¹⁹²

Of course, political backlash to a climate emergency declaration could follow — it is impossible to say. Under the NEA, emergencies are in place for just one year and are not automatically renewed. The President must take follow-on action to provide notice of the emergency declaration in the Federal Register. In the event of political backlash, the President could discretely let the climate emergency run its course and choose not to renew it after one year. This would simply return to the status quo. Once a climate emergency is declared, I’ve identified five emergency implementing authorities that are good candidates to address the climate crisis head-on.

B. The Defense Production Act: Supplemental Emergency Authorities

As a first step after declaring a national emergency, the President could turn to the powerful Defense Production Act (“DPA”) and its delegated powers to jumpstart climate-related research and development.¹⁹³ As discussed *supra* Part II, activating DPA authorities

¹⁹⁰ S. Con. Res. 22, 116th Cong. (2019) (“Whereas the United States Department of State, Department of Defense, and 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.”).

¹⁹¹ *Id.* Sen. Schumer (D-NY) has also invited President Biden to declare a climate emergency, stating “[I]f there ever was an emergency, climate is one.” Davenport & Friedman, *supra* note 9.

¹⁹² See Benjamin Ewing & Douglas A. Kysar, *Prods and Pleas: Limited Government in an Era of Unlimited Harm*, 121 YALE L.J. 350, 354 (2011). As Professor Sarah Light has argued in the national security context, linking the shared values between environmental and national security law can raise awareness and further validate climate science. See Sarah E. Light, *Valuing National Security: Climate Change, the Military, and Society*, 61 UCLA L. REV. 1772, 1778 (2014).

¹⁹³ See 50 U.S.C. §§ 4532-4533 (2018).

does *not* necessarily require an emergency declaration, but doing so can provide additional funding authorities. The DPA can first be used independent of emergency authorities, providing a legal “one-two punch.” To do so, the President must link DPA authorities with a national defense purpose.¹⁹⁴ Declaring a climate emergency provides additional DPA loan limits in excess of \$50 million dollars to the private sector for “critical technology items, or essential materials needed for national defense purposes.”¹⁹⁵ This option could be used for both renewable energy start-ups and the development of capital-intensive and high-risk/high-reward ventures like carbon capture and sequestration (“CCS”) technology. Tapping into these authorities can help with DoD’s own climate mitigation efforts, with follow-on utilization outside the military. Under the Defense Advanced Research Project Agency (“DARPA”), the U.S. military has a rich tradition of developing technologies — such as the Internet and GPS — that benefit both the military and the private sector.

CCS requires enormous research and development costs, which have served as a barrier to private investment. But CCS holds great promise in our collective efforts to reverse GHG emissions. By one estimate, CCS has the potential to capture up to ninety percent of carbon dioxide produced by a typical coal-fired power plant.¹⁹⁶ Because CCS requires high capital expenditures, property acquisition, and significant pipeline infrastructure to be fully operationalized, it is a technology ripe for government incentives and funding.¹⁹⁷ One can envision the DPA being employed in a manner that first activates its non-emergency authorities to jump-start private-sector renewable energy investment across a broad section of clean energy technologies (wind, solar, geothermal). If a climate emergency is declared, the President can trigger additional funding authorities to incentivize carbon capture technology and more capital-intensive renewable energy technologies.

¹⁹⁴ The President can point to the recent Interim National Security Strategy and the increasingly understood link between climate change and national defense. *See infra* Part IV.A.

¹⁹⁵ 50 U.S.C. §§ 4531(a)(1), (d)(1)(A); *see also* Sarah E. Light, *The Military-Environmental Complex*, 55 B.C. L. REV. 879, 885-86 (2014) (linking national security with climate change); Nevitt, *supra* note 37, at 357.

¹⁹⁶ PETER FOLGER, CONG. RSCH. SERV., R41325, CARBON CAPTURE: A TECHNOLOGY ASSESSMENT 3 (2013).

¹⁹⁷ *See* Jacobs & Craig, *supra* note 91, at 719.

C. *The International Emergency Economic Powers Act (“IEEPA”):
Protecting the Amazon and Prohibiting the Import of Illegally Forested
Products*

The IEEPA is the most used emergency arrow within the presidential emergency quiver: thirty-one of thirty-seven national emergencies rely upon authorities found in the IEEPA.¹⁹⁸ The IEEPA provides another possible pathway to address climate change that also draws upon the President’s broad constitutional authorities in foreign affairs and international relations.¹⁹⁹ The IEEPA was passed in 1977, just one year after the NEA’s passage. It states in pertinent part:

Any authority granted to the President by section 1702 may be exercised to deal with any *unusual and extraordinary threat*, which has its source in whole or substantial part outside the United States, to the national security, foreign policy, or economy of the United States, *if the President declares a national emergency* with respect to such threat.²⁰⁰

Further, the IEEPA’s widespread usage has been upheld by the courts and Congress has largely acquiesced in its widespread use.²⁰¹

Consider the first time that the IEEPA was used, reflecting both the power and the durability of this statute. Two years after the IEEPA’s passage, the American Embassy in Iran was seized, and U.S. diplomatic personnel were captured and held hostage. President Carter declared a national emergency and blocked the removal or transfer of Iranian government property within the jurisdiction of the United States.²⁰² The Supreme Court held that the President acted lawfully when he declared a national emergency and used the IEEPA to seize Iranian assets.²⁰³ Writing for the majority, Justice Rehnquist found that the IEEPA’s authorities are “sweeping and unqualified” and President Carter was authorized to order the transfer of Iranian assets as authorized by the

¹⁹⁸ See Halchin, *supra* note 3, at 12-14; EMILY E. ROBERTS, CONG. RSCH. SERV., LSB10252, DECLARATIONS UNDER THE NATIONAL EMERGENCIES ACT, PART 1: DECLARATIONS CURRENTLY IN EFFECT 2-11 (2019); EMILY E. ROBERTS, CONG. RSCH. SERV., LSB10253, DECLARATIONS UNDER THE NATIONAL EMERGENCIES ACT, PART 2: DECLARATIONS NO LONGER IN EFFECT 2-9 (2019).

¹⁹⁹ See U.S. CONST. art. II, § 2.

²⁰⁰ 50 U.S.C. § 1701(a) (2018) (emphasis added).

²⁰¹ See *Dames & Moore v. Regan*, 453 U.S. 654, 673-74, 688 (1981).

²⁰² See *id.* at 662-63 (President Carter’s use of the IEEPA to block the removal or transfer of all property and interests of the government of Iran).

²⁰³ *Id.* at 686.

IEEPA.²⁰⁴ Remarkably, over forty years and seven presidents later, this Carter-era emergency remains in effect. It has been renewed annually by every president, regardless of political party. In practice, the IEEPA serves as the “Swiss-Army knife” of emergency powers, with broad flexibility to address both traditional and non-traditional threats.²⁰⁵

The IEEPA was also used throughout the 1980s to impose sanctions against numerous nations (e.g., South Africa, Libya, Iran, Nicaragua) and there are currently thirty-one active emergencies that sanction or block property of certain person in a remarkably diverse group of countries (e.g., Zimbabwe, Yemen, Ukraine) to address a diverse set of issues.²⁰⁶ In response to the brutal South Africa apartheid regime, for example, President Reagan declared an emergency and used the IEEPA to sanction the white-led South African government.²⁰⁷ Critics characterized this as merely “perceiving a sudden danger” that pre-empted legislative action that was a dangerous use of emergency powers.²⁰⁸ The U.S. was slow to respond to the apartheid crisis, but the use of national emergency authorities signaled a fundamental shift in U.S. policy toward South Africa. It also did not prevent future legislative efforts: Congress passed the Comprehensively Anti-Apartheid Act the following year and legal apartheid in South Africa crumbled under the weight of emergency powers, legislative action, and international pressure. While short-lived, this example showcases the power and reach of the IEEPA to address particularly egregious domestic behavior within foreign nations.

²⁰⁴ *Id.* at 671 (quoting *Charles T. Main Int'l., Inc. v. Khuzestan Water & Power Auth.*, 651 F.2d 800, 807 (1st Cir. 1981)).

²⁰⁵ The IEEPA was also used in the aftermath of the September 11th terrorist attacks when President George W. Bush signed Executive Order 13,224. Exec. Order No. 13,224, 66 Fed. Reg. 49,079 (Sept. 23, 2001) (prohibiting transactions with any suspected foreign terrorists as well as any foreigner or any U.S. citizen suspected of providing support). More recently, the IEEPA was employed to impose sanctions following foreign interference in the 2016 U.S. election. Exec. Order No. 13,848, 83 Fed. Reg. 46,843 (Sept. 12, 2018).

²⁰⁶ HALCHIN, *supra* note 3, at 12-14. Every one of the ten emergencies declared by President Obama that is currently in effect relies upon IEEPA authorities. *Id.* at 12-13.

²⁰⁷ Exec. Order No. 12,532, 50 Fed. Reg. 36,861 (Sept. 9, 1985). The IEEPA emergency was ultimately revoked by President George H.W. Bush in 1991 following a change in South African leadership and the release of President Nelson Mandela from prison. Exec. Order No. 12,769, 56 Fed. Reg. 31,855 (July 10, 1991).

²⁰⁸ See, e.g., *What National Emergency? Whose?*, N.Y. TIMES (Sept. 26, 1985), <https://www.nytimes.com/1985/09/26/opinion/what-national-emergency-whose.html> [<https://perma.cc/93KG-85PQ>] (discussing Regan's declaration of a national emergency in response to apartheid in South Africa).

Most recently, a national emergency was declared and the IEEPA activated to address the security of the nation's electricity supply. In an "Executive Order on Securing the United States Bulk-Power System," President Trump declared that "the unrestricted foreign supply of bulk-power system electric equipment constitutes an unusual and extraordinary threat to the national security, foreign policy, and economy of the United States."²⁰⁹ In taking action under the IEEPA, the President prohibited the importation of bulk power system electric equipment where there is an undue risk of sabotage that poses an undue risk of catastrophic effects on the security or resiliency of United States critical infrastructure. This recent example once again showcases the IEEPA's wide aperture to address a wide varieties of issues.²¹⁰

To be sure, the IEEPA can only be used to deal with any "unusual and extraordinary threat" that derives "in whole or substantial part outside the United States."²¹¹ While the IEEPA was crafted well before advances in climate science, climate change and its corresponding impacts fall within the purview of the IEEPA's statutory language. Climate change requires transformational action both inside and outside the United States, consistent with the IEEPA text.²¹² And climate change is a complex collective action problem where eighty-five percent of GHG emissions originate outside the U.S.²¹³ After all, the U.S. emits just fifteen percent of worldwide emissions on an annual basis — the remaining emissions derive in "substantial part outside the United States" consistent with the IEEPA's statutory requirements.²¹⁴ And we increasingly understand that climate change impacts the national security, foreign policy, and economy of the United States.²¹⁵ I envision three ways that the IEEPA could be employed if a climate emergency is declared.

First, the IEEPA could be used to impose certain sanctions on so-called "climate rogue states" that engage in particularly harmful climate activities that have a disproportionately harmful impact on global

²⁰⁹ Exec. Order No. 13,920, 85 Fed. Reg. 26,595 (May 1, 2020).

²¹⁰ See *id.*

²¹¹ 50 U.S.C. § 1701(a) (2018).

²¹² See UNITED 2020, *supra* note 26, at 2-3 (describing extreme climate change over the past 20 years and emphasizing the need for "urgent and concerted action by all countries across all sectors").

²¹³ *Global Greenhouse Gas Emissions Data*, EPA, <https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data> (last visited Aug. 7, 2021) [<https://perma.cc/TL7H-BDBW>] [hereinafter *Global Greenhouse*].

²¹⁴ 50 U.S.C. § 1701(a); *Global Greenhouse*, *supra* note 213.

²¹⁵ See Matt McDonald, *Discourses of Climate Security*, 33 POL. GEOGRAPHY 42, 44-45, 47-51 (2013).

climate efforts.²¹⁶ This is analogous to how the IEEPA has been used to sanction nations engaging in particularly harmful or dangerous activities. Using the IEEPA in such a manner would no doubt be controversial. After all, climate change is a global collective action problem, all nations contribute GHG emissions, and the U.S. is the largest historical emitter.

But consider the harm being done to the global climate effort in Brazil, which is currently failing to protect enormous swaths of the Amazon rainforest (the “lungs of the planet”) under Brazilian President Jair Bolsonaro’s stewardship. The Amazon has historically served as a massive global carbon sink, soaking up an enormous amount of GHG emissions.²¹⁷ Brazilian President Bolsonaro has demonstrated an unwillingness to enforce existing domestic regulations that protect the Amazon rainforest, placing Brazilian domestic economic interests over international climate interests.²¹⁸ Yet what happens in the Amazon does not stay in the Amazon. As climate change is a global collective action problem, the U.S. and international community have limited tools to shape particularly negligent climate behavior within any nation’s borders.²¹⁹ Meanwhile the president could potentially tap into IEEPA

²¹⁶ I borrow the term “climate rogue states” from Professor Craig Martin. See Craig Martin, *Atmospheric Intervention? The Climate Change Crisis and the Jus ad Bellum Regime*, 45 COLUM. J. ENV’T L. 331, 334 (2020).

²¹⁷ The importance of sinks and reservoirs was recently highlighted in the Paris Climate Accord, which required that “[p]arties should take action to conserve and enhance, as appropriate, sinks and reservoirs of greenhouse gases . . . including forests.” Paris Accord, *supra* note 46, at art. 5(1). The Framework Convention on Climate Change states that all parties shall “[p]romote sustainable management, and promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all greenhouse gases not controlled by the Montreal Protocol, including biomass, forests and oceans” United Nations Framework Convention on Climate Change art. 4(1)(d), May 9, 1992, S. Treaty Doc. No. 102-28, 1771 U.N.T.S. 107.

²¹⁸ See Franklin Foer, *The Amazon Fires Are More Dangerous Than WMDs*, ATLANTIC <https://www.theatlantic.com/ideas/archive/2019/08/amazon-fires-show-limits-sovereignty/596779/> (last updated Aug. 25, 2019) [<https://perma.cc/4UDW-EHQX>] for a discussion about destruction of the Amazon rainforest during Bolsonaro’s time as president. Some have even speculated that there may be pressure in the near future to use military force to save the Amazon, a proposition which is deeply troubling but nevertheless reflects the harm to climate action that is underway in the Amazon. For a broader discussion of international law’s coercive role in mandating climate action, see Bruce Gilley & David Kinsella, *Coercing Climate Action*, 57 SURVIVAL 7, 15 (2015); Stephen M. Walt, *Who Will Save the Amazon (and How)?*, FOREIGN POL’Y (Aug. 5, 2019, 5:31 PM) <https://foreignpolicy.com/2019/08/05/who-will-invade-brazil-to-save-the-amazon/> [<https://perma.cc/LNR5-SQHY>].

²¹⁹ International law upholds individual sovereignty over each nation’s natural resources. U.N. Charter art. 2, ¶ 4.

authorities to sanction Brazil or block the property of certain persons engaging in illegal forestry activities in the Amazon.

Second, the IEEPA could be used to halt the trade and transport of particularly harmful products that continue to be extracted from the Amazon, often via illegal logging.²²⁰ Many products from illegally deforested lands in the Amazon can still be imported into the United States without fear of sanction. Right now, U.S. trade policy is not synchronized with climate policy, a point recently made by several policy experts and diplomats.²²¹ The IEEPA can actually help synchronize sound climate policy with trade policy through its enforcement mechanisms.

Third, outside the Amazon, the IEEPA could be used to limit international trade of particularly pernicious climate products such as nitrous oxide or single-use plastic containers. Nitrous oxide is a particularly pernicious climate product that has an outsized impact on GHG emissions. One ton of nitrous oxide is equivalent to nearly 300 tons of carbon dioxide, and it stays in the atmosphere for over 100 years.²²²

In sum, the IEEPA is a particularly promising statute to address climate change. First, the IEEPA is a powerful grant of emergency powers that taps into foreign relations powers, an area where the President enjoys broader constitutional powers.²²³ And there is longstanding historical practice in using the IEEPA to address a capacious set of problems.²²⁴ The IEEPA can be used as a legal scalpel, pinpointing specific problems that have evaded oversight. Second, the IEEPA is a congressional delegation of foreign relations authority to the president, an area where the president possesses comparably broader constitutional authorities and where civil libertarian concerns are more

²²⁰ See, e.g., Foer, *supra* note 218 (discussing preventative measures for the destruction of the Amazon rainforest).

²²¹ CLIMATE PRINCIPALS, AMAZON PROTECTION PLAN: POLICY RECOMMENDATIONS FOR U.S. ACTION FOR AMAZON FORESTS 2 (2021), https://climateprincipals.org/wp-content/uploads/2021/01/Amazon-Protection-Plan-Final_Climate-Principals.pdf [<https://perma.cc/TCQ6-KSNG>].

²²² *Overview of Greenhouse Gases: Nitrous Oxide*, EPA, <https://www.epa.gov/ghgemissions/overview-greenhouse-gases#nitrous-oxide> [<https://perma.cc/GCM5-AT5S>].

²²³ See *United States v. Curtiss-Wright Exp. Corp.*, 299 U.S. 304, 319 (1936).

²²⁴ See *Dames & Moore v. Regan*, 453 U.S. 654, 670-71 (1981); *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 610-11 (1952) (Frankfurter, J., concurring) (“[A] systematic, unbroken, executive practice, long pursued to the knowledge of the Congress and never before questioned, engaged in by Presidents who have also sworn to uphold the Constitution, making as it were such exercise of power part of the structure of our government, may be treated as a gloss on ‘executive Power’ vested in the President by § 1 of Art. II.”).

muted.²²⁵ Critics of emergency power correctly focus on the potential for emergency legal authorities to harm domestic civil liberties, but the IEEPA largely sidesteps this concern. In taking action outside U.S. borders, the President will be afforded even greater deference by judicial challenges. In *Youngstown*, Justice Jackson would “indulge the widest latitude of interpretation” when the “instruments of national force . . . [are] turned against the outside world.”²²⁶ But when this power is “turned inward . . . it should have no such indulgence.”²²⁷ There is also some support that this unilateral action is generally consistent with international principles that prohibit states from knowingly allowing their territory to cause harm to other states.²²⁸

Of course, declaring a climate emergency and employing the IEEPA to sanction other nations would expose the United States to international criticism. The U.S. is, after all, the world’s largest historical GHG emitter and has been an unreliable partner at times in international climate negotiations. The IEEPA could potentially sidestep core legitimacy concerns if it were used with precision, focusing on developed nations that have energy choices but still engage in particularly harmful climate activities.

D. Emergency Military Construction Authorities: Climate Infrastructure Investment

In the recent national emergency governing the construction of a border wall, the President activated the emergency provisions within the Military Construction Codification Act. This emergency authority states:

In the event of a declaration of war or the declaration by the President of a national emergency in accordance with the National Emergencies Act that requires use of the armed forces, the Secretary of Defense, without regard to any provision of law, may undertake military construction projects, not otherwise authorized by law that are necessary to support such use of the armed forces.²²⁹

²²⁵ See U.S. CONST. art. II, § 2, cl. 2; *Curtiss-Wright Exp. Corp.*, 299 U.S. at 319-20.

²²⁶ *Youngstown*, 343 U.S. at 645 (Jackson, J., concurring).

²²⁷ *Id.*; see also Harold Hongju Koh, *Why the President (Almost) Always Wins in Foreign Affairs: Lessons of the Iran-Contra Affair*, 97 YALE L.J. 1255, 1311 (1988).

²²⁸ See *Trail Smelter Arbitration (U.S. v. Can.)*, 3 R.I.A.A. 1905, 1938-77 (1941).

²²⁹ 10 U.S.C. § 2808(a) (2018).

The use of this statute to build a border wall stretches this statute beyond its plain meaning — a point made recently by the Ninth Circuit.²³⁰ Nevertheless, emergency military construction authorities are of increased relevance for climate change, and there is a comparably stronger — but by no means certain — legal basis to use this authority to invest in climate resilient infrastructure at military installations.²³¹

To activate section 2808 authorities, the emergency must “require[] use of the armed forces,” and the military construction project must be necessary to “support such use of the armed forces.”²³² Does a climate emergency and tapping into the military construction statute authority “require use of the armed forces?” Possibly.²³³ The military, often via the state-based National Guard or Coast Guard, are increasingly called upon and required to respond to an ever-expanding menu of extreme weather events. Humanitarian assistance and disaster response is now a core military mission.²³⁴ The uptick in extreme weather events increases the likelihood that the armed forces will be used for a wide variety of natural disaster-related missions such as wildfire evacuation, post-disaster recovery, and defense support to local and civil authorities. Consider the tragedy that now unfolds every wildfire season in California and parts of the United States. The military assists local first responders in responding to the extended wildfire seasons, providing

²³⁰ *Sierra Club v. Trump*, 977 F.3d. 853, 901-07 (9th Cir. 2020).

²³¹ Proclamation No. 10142, 86 Fed. Reg. 7225 (Jan. 20, 2021), <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/proclamation-termination-of-emergency-with-respect-to-southern-border-of-united-states-and-redirection-of-funds-diverted-to-border-wall-construction/> [<https://perma.cc/MZ2B-B6E2>] (announcing there will no longer be shifting of funds to the border wall).

²³² 10 U.S.C. § 2808(a).

²³³ The Ninth Circuit held that the use of the 2808 authority to construct a border wall failed the “require use of armed forces” prong. “[The] border wall construction might make DoD’s support more efficient and effective does not rise to the level of ‘required’ or ‘needed.’” *Sierra Club*, 977 F.3d. at 881. The dissenting opinion took a different view: “If (as I have explained) the requirement that the emergency must be one ‘that requires use of the armed forces’ pertains to the ‘declaration’ itself, then that phrase merely describes the *content* of the required ‘declaration’ and does not supply a freestanding requirement to be examined *separately* from that declaration. As a result, the statute does not require a separate inquiry into whether the findings made by the President in the required declaration are substantively valid; it merely requires a ‘declaration’ meeting the statutory requirements . . . as a result, the statute does not require a separate inquiry into whether the findings made by the President in the required declaration are substantively valid. it merely requires a ‘declaration’ meeting the statutory requisites.” *Id.* at 902 (Collins, J., dissenting).

²³⁴ See 10 U.S.C. § 401(a)(1) (“[T]he Secretary of a military department may carry out humanitarian and civic assistance activities in conjunction with authorized military operations of the armed forces . . .”).

firefighting equipment and aiding with the evacuation of people fleeing their homes.²³⁵

In addition, military construction projects such as investment in climate-resilient infrastructure on or adjacent to nearby military installations likely meet the second prong: the construction project must “support such use of armed forces.” Military installations rely upon energy sources from energy suppliers outside the installation. Military installations and their energy providers are increasingly threatened by rapidly spreading wildfires and extreme weather events. Servicemembers evacuated their families during the 2020 California wildfire season.²³⁶ Efforts to shore up the energy supply and grid adjacent to military installations would reasonably support the armed forces, consistent with statutory requirements. If a climate emergency is declared, I envision two possible scenarios where this 2808 authority could be used.

First, the military construction authority could invest in critical, climate resilient infrastructure at military installations. Advances in climate attribution science make clear that climate change exacerbates both the frequency and intensity of extreme weather.²³⁷ This causes a heightened risk to critical national security infrastructure at military installations.²³⁸ Both Hurricanes Michael and Florence, for example, inflicted billions of dollars of damage to national security infrastructure at Tyndall Air Force Base and Camp Lejeune following the 2018 hurricane season. The uptick in extreme weather also undermines national security readiness as these bases include critical military assets. Despite congressional action to mandate that the military report on climate change’s threat to military installations, congressional appropriations have failed to keep pace with the underlying threat. Why not take *ex ante* measures under the NEA to reduce climate risk prior to disaster striking?

Second, this authority could be used to invest in and shore up the electric grid, particularly if the funding focuses on investing in vulnerable grid infrastructure adjacent to key military infrastructure

²³⁵ See U.S. Dep’t of Def., Directive No. 5525.5: DoD Cooperation with Civilian Law Enforcement Officials 1, 15 (Jan. 15, 1986).

²³⁶ This actually occurred during the wildfire season at Travis Air Force Base in Northern California and Camp Pendleton, California during wildfire season.

²³⁷ Herring et al., *supra* note 37, at s1. See generally Michael Burger, Jessica Wentz & Radley Horton, *The Law and Science of Climate Attribution*, 45 COLUM. J. ENV’T. L. 57, 60 (2020) (describing the increase in frequency in extreme weather events).

²³⁸ Mark P. Nevitt, *The Commander in Chief’s Authority to Combat Climate Change*, 37 CARDOZO L. REV. 437, 440 (2015).

that supports the armed forces.²³⁹ Military installations do not produce their own energy — they rely upon private energy companies outside the installation fence-line. Energy is fed into the military installation via a complex, antiquated, and increasingly vulnerable electric grid.²⁴⁰ As wildfires increase in size and intensity, utility companies responsible for grid security and maintenance are increasingly shutting off power to both homeowners and military installations well in advance of extreme weather events. As such, it almost certainly meets 10 U.S.C. § 2808's requirement to "support such use of the armed forces" as it protects mission-essential energy.²⁴¹

Indeed, the outdated, inefficient, and vulnerable electric grid may well be properly conceptualized as a networked national security infrastructure that is in need of repair and investment.²⁴² Public underinvestment in the electrical grid has been a causal factor in massive wildfires in parts of California and Oregon. The 2018 Camp Fire near Paradise, California, for example, killed eighty-five people and destroyed large swaths of the city of Paradise. The Paradise Fire originated from outdated grid infrastructure and it spread rapidly due to drought and climate-exacerbated weather patterns. Investing in the electrical grid via section 2808 authority could serve as a proactive climate adaptation measure that helps safeguard our national security, saves lives and property, and protects critical national security infrastructure that "supports such use of the armed forces."²⁴³

²³⁹ One of the goals of the Green New Deal is building or upgrading to energy efficient, distributed, and "smart" power grids, and working to ensure affordable access to electricity.

²⁴⁰ See generally BAKKE, *supra* note 65 (providing a history and overview of the U.S. grid infrastructure).

²⁴¹ 10 U.S.C. § 2808(a) (2018).

²⁴² BAKKE, *supra* note 65. The President could feasibly expand the section 2808 authority to strengthen the electrical grid from all threats. There is actually recent precedent for attempting to use related emergency powers to address electric grid reliability, albeit in a manner that harmed the environment and actually increased GHG emissions. Eric Wolff & Darius Dixon, *Rick Perry's Coal Rescue Runs Aground at White House*, POLITICO (Oct. 15, 2018), <https://www.politico.com/story/2018/10/15/rick-perry-coal-rescue-trump-850528> [https://perma.cc/CC2H-WCLB]. "Under section 202(c) of the Federal Powers Act, the Secretary of Energy can take emergency action to maintain the operation of the electric grid." Farber, *supra* note 6, at 1147-48. A broader grid emergency could be declared that invests in grid reliance measures irrespective of the energy source, particularly as we better understand the intersectionality of climate change, grid reliability, and national security.

²⁴³ See Farber, *supra* note 6, at 1169-71. It is beyond the scope of this article to fully address energy security matters and energy emergency authorities. For an outstanding discussion of these emergency authorities, see THE CNA CORP., NATIONAL SECURITY AND THE THREAT OF CLIMATE CHANGE 39 (2007) [hereinafter CAN 2007]; THE CNA CORP.,

E. *Emergency Authorities to Coordinate Domestic Transportation*

The Transportation Security Administration (“TSA”), an agency located within the Department of Homeland Security, possesses remarkably broad authorities to coordinate domestic transportation in the event of a national emergency.²⁴⁴ Specifically, during a national emergency the Transportation Security Administrator has special authorities to “coordinate domestic transportation, including aviation, rail, and other surface transportation, and maritime transportation (including port security).”²⁴⁵ In an emergency, the TSA Administrator may coordinate and oversee the transportation-related responsibilities of other departments and agencies of the Federal Government²⁴⁶ and “carry out such other duties, and exercise such other powers” that the Secretary of Homeland Security prescribes.²⁴⁷

This emergency transportation authority has broad appeal to address climate change as the U.S. transportation sector is a leading contributor of GHG emissions.²⁴⁸ Nevertheless, the outer scope of this authority remains untested, in part because it is so infrequently invoked.²⁴⁹ Outside of the need to reduce GHG emissions from the transportation sector, our transportation infrastructure is increasingly vulnerable to climate change’s impacts. Sea level rise, extreme weather, and high-tide flooding expose governmental under-investment in roads, railways, and bridges. High temperatures negatively impact airplane efficiency and the ability to take off, particularly on elevated runways that are wrestling with extreme heat exacerbated by climate change.²⁵⁰

In an emergency the Administrator is authorized to “carry out such duties” and “coordinate domestic transportation.”²⁵¹ While we lack clear precedent to contextualize and provide clear precedent for their use, consider some ways in which this authority might be employed. Once the President makes a climate emergency declaration, he

POWERING AMERICA’S DEFENSE: ENERGY AND THE RISKS TO NATIONAL SECURITY 9 (2009) [hereinafter CNA 2009] (quoting General James Mattis) (stating that the military should be unleashed “from the tether of fuel”); Amy L. Stein, *Energy Emergencies*, 115 NW. U. L. REV. 799, 799 (2020).

²⁴⁴ 49 U.S.C. § 114(g) (2018).

²⁴⁵ *Id.* § 114(g)(1)(A).

²⁴⁶ *Id.* § 114(g)(1)(B). This authority does not include oversight over the Department of Defense. *Id.*

²⁴⁷ *Id.* § 114(g)(1)(D).

²⁴⁸ NCA4, *supra* note 13, at 481.

²⁴⁹ *See id.*

²⁵⁰ *Id.* at 489.

²⁵¹ 49 U.S.C. §§ 114(g)(1)(A)-(D).

specifically empowers the Secretary of Homeland Security and TSA Administrator to use this authority to both reduce transportation sector GHG emissions and safeguard critical transportation infrastructure.²⁵² This could prioritize less carbon-intensive freight shipping, such as rail or electric trucks. More broadly, this coordination authority could also potentially be used to help the environmental planning process to inform better siting conditions for airports, taking into account climate change and extreme heat events. Less carbon intensive transportation options such as commercial electric vehicle (“EV”) production and charging stations could be prioritized and fast-tracked via federal permitting that takes into account climate-friendly practices. Using this authority to fund climate adaptation measures at airports, roads, and train stations will likely be more challenging as the “coordination” authority is silent on funding authorities.

F. Suspension of Fossil Fuel Extraction on Federal Lands

Finally, during a state of war or national emergency, the Outer Continental Shelf Lands Act (“OCSLA”) authorizes the President to suspend *existing* federal leases on the outer continental shelf.²⁵³ As discussed earlier, the President has authorities independent of a climate emergency declaration to withdraw unleased outer continental shelf lands from future fossil fuel extraction.²⁵⁴ President Biden recently activated this authority to suspend future oil and gas extraction on federally owned lands.²⁵⁵ And the President has already limited fossil

²⁵² The National Highway plan was developed and designed for national security reasons under President Eisenhower. Note that this authority is held by the Transportation Security Administrator, an agency under the Department of Homeland Security. This would inevitably require close coordination with the Department of Transportation. The new Secretary of Transportation, Pete Buttigieg has repeatedly highlighted the importance of the transportation sector taking into account climate change. See, e.g., Alexander Burns, *Pete Buttigieg’s Campaign Kickoff: Full Speech, Annotated*, N.Y. TIMES (Apr. 15, 2019), <https://www.nytimes.com/2019/04/15/us/politics/pete-buttigieg-speech.html> [<https://perma.cc/4MEJ-H9PK>] (stating that climate change “might be the great security issue of our time”).

²⁵³ 43 U.S.C. § 1341(c) (2018).

²⁵⁴ The President may “from time to time, withdraw from disposition any of the unleased lands of the outer Continental Shelf.” *Id.* § 1341(a). Relatedly, the President has broad authorities to establish “national defense areas” that restrict operations (such as drilling) in designated areas. *Id.* § 1341(d).

²⁵⁵ Biden Climate Order, *supra* note 24, at 7624-25. (“To the extent consistent with applicable law, the Secretary of the Interior shall pause new oil and natural gas leases on public lands or in offshore waters pending completion of a comprehensive review and reconsideration of Federal oil and gas permitting and leasing practices in light of the Secretary of the Interior’s broad stewardship responsibilities over the public lands

fuel extraction on certain federal lands, to include the Alaska National Wildlife Refuge (“ANWR”).

In addition to these traditional authorities, all current federal leases authorizing oil and fossil fuel extraction on outer continental shelf lands contain a national security clause that suspends operations upon a recommendation of the Secretary of Defense.²⁵⁶ Similar to the transportation emergency, this suspension authority is broad, and its outer limits are untested. If broadly implemented, it could have an immediate, substantive impact on climate mitigation efforts. The United States has one of the world’s largest exclusive economic zones and outer continental shelves, which contains an enormous amount of untapped oil and gas resources. But the statute makes clear that just compensation must be provided to the lessee if operations are suspended.²⁵⁷ The requirement to reimburse existing leaseholders will make it difficult to scale this authority rapidly in the event that a climate emergency is declared.²⁵⁸ Nevertheless, this authority could feasibly be used to immediately suspend federal leaseholders that engage in particularly harmful behavior. Recently studies have shown the stunning impact of “routine” venting, flaring, and leaking during oil and natural gas production — an enormous source of GHG emissions.²⁵⁹ The Secretaries of Defense and Homeland Security have a vested interest in preventing environmental disasters prior to their occurrence. The U.S. Coast Guard, for example, plays a critical role in environmental enforcement and led the environmental cleanup in the Deepwater Horizon offshore oil leak in 2009.

The Table of emergency statutes below highlights the key climate emergency authorities, in the recommended order of their potential activation.

and in offshore waters, including potential climate and other impacts associated with oil and gas activities on public lands or in offshore waters.”).

²⁵⁶ 43 U.S.C. § 1341(c).

²⁵⁷ *Id.* The Fifth Amendment’s Takings Clause states that “nor shall private property be taken for public use, without just compensation.” U.S. CONST. amend. V. There remains an open question whether the suspension of fossil fuel leases requires just compensation if, indeed, this governmental action falls under an emergency exception to the Takings Clause. See discussion *supra* Part II.C.3.

²⁵⁸ See 43 U.S.C. § 1341(c). The outer continental shelf is the portion of the continental shelf that extends beyond the Exclusive Economic Zone.

²⁵⁹ The Department of Interior has already highlighted this concern on federal leases. See Waste Prevention, Production Subject to Royalties, and Resource Conservation, 81 Fed. Reg. 83,008, 83,009 (Nov. 18, 2016) (stating that “the vented or leaked gas contributes to climate change, because the primary constituent of natural gas is methane, an especially powerful greenhouse gas (GHG), with climate impacts roughly 25 times that of carbon dioxide”).

Table B: Relevant Climate Emergency Authorities

Statute	Climate Emergency Utilization
National Emergencies Act ²⁶⁰	Serves as the statutory “key” to unlock the various statutory provisions below.
Climate Emergency Declaration	Signals the severity of the climate crisis. Communicates possible forthcoming emergency measures to Congress.
Defense Production Act Emergency	Increases loan authority in excess of \$50 million for green energy investment and carbon capture technology. ²⁶¹
International Emergency Economic Powers Act ²⁶²	(1) Prohibits import or export of pernicious climate products (e.g. nitrous oxide) of illegally forested products; ²⁶³ (2) sanctions “climate rogue states” that engage in destructive climate behavior (e.g. Brazilian destruction of Amazon rainforest); (3) blocks property of persons engaging in illegal forestation.
Military Construction Authority ²⁶⁴	(1) Investment in climate resilient infrastructure at military installations; (2) invest in renewable energy construction projects or adjacent grid reinvestment; (3) invest in energy security initiatives. ²⁶⁵

²⁶⁰ 50 U.S.C. § 1621(a) (2018).

²⁶¹ *Id.* § 4531(d).

²⁶² *Id.* § 1701 (“Any authority granted to the President by section 1702 of this title may be exercised to deal with any unusual and extraordinary threat, which has its source in whole or substantial part outside the United States, to the national security, foreign policy, or economy of the United States, if the President declares a national emergency with respect to such threat.”).

²⁶³ A “climate rogue state” could include Brazil via the massive Amazon deforestation or Saudi Arabia, which owns Aramco (responsible for an estimated 4.38% of worldwide GHG emissions). Matthew Taylor & Jonathan Watts, *Revealed: The 20 Firms Behind a Third of all Carbon Emissions*, *GUARDIAN* (Oct. 9, 2019, 7:00 AM EDT), <https://www.theguardian.com/environment/2019/oct/09/revealed-20-firms-third-carbon-emissions> [<https://perma.cc/4TDQ-CCV8>].

²⁶⁴ 10 U.S.C. § 2808 (2018).

²⁶⁵ *See supra* Part III.D.

Invest in Climate Transportation Initiatives ²⁶⁶	The Transportation Security Administrator has authority to “coordinate domestic transportation” to include aviation, rail, surface, and maritime transportation during a national emergency. ²⁶⁷ Incentivize carbon-friendly travel via federal policies and permitting procedures.
Suspension of oil drilling on federal land ²⁶⁸	Suspends fossil fuel extraction on “any lease” on federal lands during a national emergency. ²⁶⁹

IV. CLIMATE-EMERGENCY OPPORTUNITIES & CHALLENGES

Climate change is truly a unique, even “super wicked” problem.²⁷⁰ This is largely due to climate’s temporal dimension: the longer we wait to act, the greater the climate impacts and the potential for irreversible, catastrophic, harm. Further, climate change accelerates existing threats and destabilizes environmental conditions such as food insecurity and droughts. In what follows, I address the close linkage between climate change and national security, a recognition that bolsters taking emergency action. As I attempt to reconcile the costs for inaction within an existing emergency powers framework, I propose borrowing principles from both climate science and international environmental law. Both are clear-eyed about the mounting costs of inaction and the harm to future generations. Such costs grow non-linearly over time. I next address the criticisms of a climate emergency declaration, concluding with a roadmap for possible climate-emergency action.

A. *Climate Change, National Security, and Emergency Powers*

While “national security” and “emergency” are not synonymous, they share close, connective tissue. The president possesses broad national security authorities and has an affirmative duty to protect the American people.²⁷¹ A diverse group of military, national security, and intelligence

²⁶⁶ 49 U.S.C. § 114(g) (2018).

²⁶⁷ *Id.*

²⁶⁸ 43 U.S.C. § 1341 (2018) (titled “Reservation of lands and rights” on the Outer Continental Shelf Lands).

²⁶⁹ *Id.* § 1341(c).

²⁷⁰ Lazarus, *supra* note 19, at 1159.

²⁷¹ U.S. CONST. art. II, § 2.

community professionals are increasingly sounding the alarm on climate change's national security impacts.²⁷² Climate change is not just an environmental issue, it is also a complex national security issue, acting as both a "threat accelerant" and "catalyst for conflict."²⁷³

We have seen an increasing number of intelligence and national security professionals sound the alarm on the need for climate action. The coronavirus crisis has highlighted the need to address non-traditional security threats as the United States has lost more lives in the coronavirus pandemic than were lost in World War II.²⁷⁴ And Congress has shown an increasing interest in climate-security matters, reaffirming the view that climate change is properly conceptualized as a bona fide emergency where immediate action is needed. Consider the following examples of the increasingly close connection between national security and climate change.

First, Congress has affirmatively recognized climate change as a national security threat in recent bipartisan funding bills, stating:

[C]limate change is a direct threat to the national security of the United States and is impacting the stability in areas of the world both where the United States Armed Forces are operating today, and where strategic implications for future . . .²⁷⁵

Second, for decades both the national security community and intelligence agencies have consistently stated in their reports that climate change is a significant threat that requires our attention. Military combatant commands are already required to incorporate drivers of instability — such as climate change — into their planning for future conflicts. The Director of National Intelligence recently stated:

[G]lobal environmental and ecological degradation, as well as climate change, are likely to fuel competition for resources,

²⁷² Nevitt, *Is Climate Change A Threat*, *supra* note 17, at 528-34; see THE CNA CORP., CNA 2009, *supra* note 243, at 2.

²⁷³ See CNA 2007, *supra* note 243.

²⁷⁴ Will Stone & Carrie Feibel, *The U.S. 'Battles' Coronavirus, But Is It Fair to Compare Pandemic to a War?*, NPR (Feb. 3, 2021, 5:00 AM ET), <https://www.npr.org/sections/health-shots/2021/02/03/962811921/the-u-s-battles-coronavirus-but-is-it-fair-to-compare-pandemic-to-a-war> [<https://perma.cc/W43L-HLN8>].

²⁷⁵ National Defense Authorization Act for Fiscal Year 2018, Pub. L. No. 115-91, § 335, 131 Stat. 1283 (2017). Congress's view is in sharp contrast to its approach to the border emergency where Congress affirmatively objected to the expenditure of the money to build a U.S.-Mexico border wall. See H.R.J. Res. 46, 116th Cong. (2019); 165 Cong. Rec. H2799, H2814-15 (2019).

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.²⁷⁶

This has been accompanied by similar pronouncements by the U.S. government's leading scientists, who sounded the alarm bells on climate change's impacts in the 2018 Fourth National Climate Assessment:

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.²⁷⁷

Third, outside the national security realm, the EPA has already made a formal finding that GHGs endanger human life and welfare both within the United States and globally.²⁷⁸

Failure to use applicable emergency powers for political reasons can also be an abuse of power, particularly when viewed through the lens of the president's protective power.²⁷⁹ Climate change is not just a human security and national security issue, it also raises fundamental questions of fairness, equity, and environmental justice.²⁸⁰ The poorest communities face the brunt of climate change's impacts, but they lack the resources to respond and adapt to climate's impacts. Congress, scientists, scholars, national security professionals have increasingly sounded the alarm on climate change's security implications, with leading climate scientists calling for transformational action to avoid climate change's worst effects.²⁸¹ Climate change is a non-traditional threat more akin to our pandemic emergency response, which has already cost 500,000 American lives (and counting). Our slow response to the coronavirus crisis highlights that our collective failure to activate

²⁷⁶ Coates, *supra* note 89, at 23.

²⁷⁷ NCA4, *supra* note 13, at 605.

²⁷⁸ *Endangerment and Cause or Contribute Findings for Greenhouse Gases Under the Section 202(a) of the Clean Air Act*, EPA, <https://www.epa.gov/ghgemissions/endangerment-and-cause-or-contribute-findings-greenhouse-gases-under-section-202a-clean> (last visited Aug. 28, 2021) [<https://perma.cc/XR26-STDT>].

²⁷⁹ See Monaghan, *supra* note 30, at 32-38.

²⁸⁰ See Maryam Jamshidi, *The Climate Change Crisis Is a Human Security, Not a National Security Issue*, 93 S. CAL. L. REV. POSTSCRIPT 36, 41-42 (2019).

²⁸¹ See UNITED 2020, *supra* note 26, at 2-4.

emergency authorities can also be costly. There are sound ethical arguments that suggest that the President has a responsibility to use all legal tools at his disposal.

B. *Climate Emergency Criticisms*

Climate emergency skeptics must reckon with the growing, non-linear costs for continual climate inaction, particularly the cost imposed on the most vulnerable populations. Climate change has three unique characteristics that penalize inaction and passivity: the rising severity of climate impacts, the irreversibility of climate impacts, and the urgency with which we must approach climate change to avert catastrophic harm.²⁸² Complicating matters, GHG emissions emitted today stay in the atmosphere for decades, wreaking havoc on our planet while limiting adaptation options for future generations.

Skeptics of using emergency powers to address climate change make four primary arguments: (1) climate change does not meet the traditional definition of emergency; (2) a climate emergency presents a risk to democratic governance; (3) emergency powers will not suffice to combat climate change; and (4) a climate emergency may not survive legal challenges.²⁸³ To be clear, these are all legitimate, fair concerns that deserve careful consideration. But any critique of using emergency powers must acknowledge a climate emergency's substantive legal authorities and the opportunity costs in delaying action. I turn to these criticisms below.

1. Climate Change Does Not Meet the "Emergency" Definition

Traditional conceptions of what constitutes an emergency — with the dictionary's emphasis on unforeseeability and the need to take immediate action — can be difficult to apply to climate change. This mismatch is due to the inherent risk in delaying climate action, climate change's multivariate effects, and not knowing with great precision

²⁸² See generally Steffen et al., *supra* note 10 (discussing the "threshold, that if crossed, could prevent stabilization of the climate").

²⁸³ See, e.g., Soren Dayton & Kristy Parker, *Why President Biden Should Not Declare a Climate Emergency*, JUST. SEC. (Feb. 10, 2021), <https://www.justsecurity.org/74616/why-president-biden-should-not-declare-a-climate-emergency/> [<https://perma.cc/35F2-RDD2>] ("President Biden should not use a national emergency to take action on climate change"); Elizabeth Goitein, *Declaring Climate Change an 'Emergency' Won't Help Biden Fight It*, WASH. POST (Jan. 29, 2021, 6:00 AM), <https://www.washingtonpost.com/outlook/2021/01/29/biden-climate-change-emergency-executive-order/> [<https://perma.cc/MU47-BKV4>] (stating that climate change is not an emergency and "using emergency powers to address it would be a misuse of those powers").

when or where extreme weather events might strike. The dictionary, of course, is not the starting and ending point of what fairly constitutes a bona fide emergency. Further, climate scientists use an entirely different definition of emergency, emphasizing risk, urgency, and the intervention time needed to avoid “bad outcome[s].”²⁸⁴ This definition incorporates a severity component favoring immediate action — as is surely the case with climate change.²⁸⁵

Nor has Congress explicitly defined emergency within the NEA, effectively giving the president wide discretion in employing it year after year. Since its passage, the NEA has not been used in a manner that remains bound to unforeseeable circumstances — the thirty-seven emergencies have often reacted to discrete events. And these emergencies are renewed, year after year, following the initial emergency declaration. This has occurred in full view of Congress. At what point does an unforeseeable emergency morph into a clearly foreseeable crisis that requires congressional action?

The unforeseeability requirement is also quite difficult to apply to climate change and its associated impacts. Consider extreme weather. Climate science makes clear that rising GHG emissions stay in the earth’s atmosphere for decades, resulting in rising temperatures and an uptick in extreme weather events. These weather events strike erratically, with increasing ferocity and intensity. While we know that climate change will drive extreme weather events, their precise time and location is wholly unforeseeable.²⁸⁶

The cost for delay in acting equates to even greater planetary destabilization. Climate scientists are in agreement that there are escalating, non-linear costs in delaying climate action.²⁸⁷ Unlike other public policy problems, we are entering a critical decade where it is increasingly clear that we have “one shot” to address the climate crisis. Mistakes — legal “mulligans” — are simply not an option.²⁸⁸ The United States has been wrestling with other difficult public policy

²⁸⁴ Lenton et al., *supra* note 166, at 595 (alterations in original).

²⁸⁵ *Id.*

²⁸⁶ See generally Michael Burger, Jessica Wentz & Radley Horton, *The Law and Science of Climate Attribution*, 45 COLUM. J. ENV'T L. 57 (2020) (explaining how arbitration science “seeks to isolate the effect of human influence of the climate . . . to clarify the extent to which anthropogenic climate change causes both slow onset changes and extreme events”); Herring et al., *supra* note 37 (exploring how climate change can potentially increase the likelihood and strength of extreme weather events).

²⁸⁷ See UNITED 2020, *supra* note 26, at 2.

²⁸⁸ See Kelly Levin, Benjamin Cashore, Steven Bernstein & Graeme Auld, *Overcoming the Tragedy of Super Wicked Problems: Constraining Our Future Selves to Ameliorate Global Climate Change*, 45 POL'Y SCI 123, 127 (2012).

problems for decades, from immigration to health care. But these problems, while difficult do not suffer from the one shot problem. We had “several shots” to pass comprehensive health care legislation after failing to do so in 1993. As the earth’s warming accelerates, we lack the luxury of coming back to lawmakers for a retry.²⁸⁹ Indeed, failure to make substantive progress this decade will have catastrophic, even irreversible future effects.²⁹⁰ As we enter the critical climate decade, this intervention time is closing rapidly, favoring the use of all existing legal tools to avoid climate catastrophe. As Professors Rittel and Weber have noted, traditional political problems are shaped by compromise, but the physical environment “is the final arbiter of whether policy responses are appropriate.”²⁹¹

Finally, critics note that the NEA’s statutory provisions were written without climate change in mind.²⁹² But this critique similarly applies to many of the other thirty-seven declared emergencies. The IEEPA, for example, was not expressly passed with destruction of the Amazon basin in mind, but it was also not passed to address any number of current emergencies (such as the emergency situation in Burundi or Zimbabwe).

2. Climate Emergency Poses a Risk to Democratic Governance

Second, critics of a climate emergency will exclaim that climate impacts are entirely predictable; legislators have just chosen to not address it. Addressing climate change via emergency powers poses an unacceptable risk to democratic governance. Yet a climate emergency declared under the NEA does not rely upon inherent Article II authorities to combat climate change. Critics will contend that a climate emergency declaration is merely a continuation of further, unwarranted accretion of presidential powers. But with one notable exception (the border wall “emergency”), Congress has largely acquiesced to the NEA’s widespread use. The NEA is a congressionally delegated authority to the President. For forty-four years, the NEA has been widely used and operationalized in full view of Congress. Congress’s approach to the existing emergency framework can be fairly characterized by

²⁸⁹ *Id.*

²⁹⁰ See IPCC 1.5 REPORT, *supra* note 13, at 3-5.

²⁹¹ Levin et al., *supra* note 288, at 127.

²⁹² See, e.g., Goitein, *supra* note 283 (critiquing a national emergency declaration to address climate change).

congressional acquiescence.²⁹³ Congress has not followed through on its obligation to consider whether to terminate the emergency and passing legislation to reform the statute.²⁹⁴ While presidents have increasingly relied upon the NEA in declaring an ever-expanding menu of emergencies, this has taken place in full view of Congress without congressional follow-up or reforming the national emergency statutory framework.

Indeed, the NEA requires that Congress would meet within six months of any national emergency declaration “to determine whether that emergency shall be terminated.”²⁹⁵ But since the NEA’s passage, Congress has failed to follow through on this requirement. And presidents, regardless of political party, have shown a reluctance to “undeclare” emergencies put in place by prior Presidents. This suggests that there is a certain stickiness and durability to emergency declarations that may even transcend partisan politics. President Biden, for example, has renewed emergency declarations put in place by President Trump, despite disagreeing with him on substantive policy matters.²⁹⁶ And President Carter’s use of the IEEPA against Iran has been renewed over forty times, to include four Republican presidents.

In light of this broad delegation and the NEA’s widespread use, should our emergency statutory framework be amended or clarified? Perhaps.²⁹⁷ But any critique of the NEA’s overuse applies equally to climate change and the other thirty-seven active emergencies. Of the thirty-seven emergencies currently in place, only two can be fairly considered in the same category as climate change in terms of severity, urgency, and complexity: (1) the national emergency declared in the aftermath of the September 11th terrorist attacks; and (2) the COVID-19 emergency. The vast majority of the other emergencies can be fairly described as ad hoc, reactive, and in response to problems far less severe

²⁹³ *But see* *Sierra Club v. Trump*, 379 F. Supp. 3d 883, 895 (N.D. Cal. 2019) (describing congressional attempts to halt the border wall emergency).

²⁹⁴ *See* 50 U.S.C. § 1622(a)(1) (2018).

²⁹⁵ *Id.* § 1622(b).

²⁹⁶ *See, e.g.*, Joseph R. Biden Jr., *Notice on the Continuation of the National Emergency with Respect to Hong Kong*, WHITE HOUSE (July 7, 2021), <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/07/07/notice-on-the-continuation-of-the-national-emergency-with-respect-to-hong-kong/> [https://perma.cc/K3XF-P474] (announcing Biden’s decision to extend an executive order made by Donald J. Trump).

²⁹⁷ Sen. Mike Lee (R-UT) recently introduced the “Article One Act” that seeks to reform the NEA by placing a sixty day sunset provision if Congress does not specifically approve the emergency. *See* Dayton & Parker, *supra* note 283.

than climate change.²⁹⁸ These emergencies simply pale in comparison to climate change's severity, risk, and time left to avoid catastrophic, irreversible impacts.

Further, climate science makes clear that we will need to take a diverse, multifaceted approach to tackle the climate crisis. Climate governance has been hampered by a sclerotic governance structure without a central authority to harness climate efforts and initiatives, hindering climate progress.²⁹⁹ Climate legislation that institutes a domestic carbon tax, for example, would do wonders for domestic climate mitigation efforts, but would fall short in systematically addressing broader climate adaptation efforts. A climate emergency could actually focus and centralize climate efforts as the president can ratchet emergency powers as needed in response to the threat, scientific advances, and climate progress.

As Professor Lazarus and others have articulated, climate change is a stunningly difficult, "super-wicked" problem to solve via traditional legislative efforts.³⁰⁰ Any legislative or administrative rulemaking effort that tackles climate change will be under constant political pressure to be unraveled as the benefits to any legislation may not be seen for decades, but the costs are imposed today.³⁰¹

Lawmakers (and powerful, outside interests) will always be calculating the short-term costs and long-term benefits behind any climate action. So long-term success via any climate legislative effort requires innovative, built-in institutional design features. Lawmakers must take on the role of Ulysses in the *Odyssey*, putting safeguards in place to avoid the sirens' song of future repeal. Addressing climate change will require lawmakers to think beyond normal time horizons in the pursuit of durable legislative efforts that last for generations. This includes protecting the future at the expense of paying a political cost today — a difficult proposition in the best of circumstances.³⁰² Any climate legislation imposes short-term costs for the realization of benefits that will arrive decades and even centuries later.³⁰³

²⁹⁸ See, e.g., HALCHIN, *supra* note 3, at 12-14 tbl.2 (describing emergencies associated with the International Criminal Court and blocking property of certain persons who threaten the international situation in the Western Balkans).

²⁹⁹ See Levin et al., *supra* note 288, at 125-27.

³⁰⁰ See Lazarus, *supra* note 19, at 1159-61.

³⁰¹ See Levin et al., *supra* note 288, at 123 (highlighting four key features of climate change).

³⁰² See Lazarus, *supra* note 19, at 1159-60.

³⁰³ *Id.* at 1157.

Congressional action continues to be hindered by political economy problems exacerbated by outside interest groups that re-frame and distort the consensus science. Ideally, Congress would pass climate legislation today, but the last major environmental law was passed in 1990 when there was far greater bi-partisan support for congressional environmental action. Any dismissal of a climate emergency must be realistic about the likelihood of comprehensive, climate legislation passing.

In sum, Congress must continue to work diligently to pass climate legislation and incentivize technological climate innovation. EPA and other agencies can make substantive climate progress via the rulemaking process. That is already occurring. Yet it is increasingly clear that reliance upon traditional legal authorities alone will not be enough to avoid climate change's irreversible and catastrophic effects.³⁰⁴ Climate scientists make increasingly clear that taking transformational action today is not just a quaint suggestion. It is a necessary predicate for the world to have any chance of keeping global temperatures at a level that avoids cataclysmic harm.³⁰⁵

3. A Climate Emergency Does Not Solve the Climate Crisis

Critics of a climate emergency also point out that climate emergency authorities are simply inadequate to address the climate crisis.³⁰⁶ Similar arguments were made in *Massachusetts v. EPA*, when EPA attempted to justify its failure to regulate GHG emissions as an air pollutant under the Clean Air Act.³⁰⁷ The Bush-era EPA argued that taking a piecemeal approach would conflict with a hypothetically comprehensive approach by the President.³⁰⁸ This would further hamper the President's ability to persuade key developing countries to reduce their GHG emissions.³⁰⁹ Ruling for the majority, Justice Stevens rejected this argument, noting that agencies, like legislation, do not generally resolve massive problems in on fell regulatory swoop.³¹⁰ A climate emergency is by no means a

³⁰⁴ See discussion *supra* Part I.A.

³⁰⁵ GLOBAL CLIMATE 2020, *supra* note 63, at 5-7 (providing evidence of a rising global temperature).

³⁰⁶ See, e.g., Dayton & Parker, *supra* note 283 (highlighting reasons why "President Biden should not use a national emergency to take action on climate change").

³⁰⁷ *Massachusetts v. EPA*, 549 U.S. 497, 513 (2007).

³⁰⁸ *Id.*

³⁰⁹ *Id.*

³¹⁰ *Id.* at 524 ("[A] reduction in domestic emissions would slow the pace of global emissions increases, no matter what happens elsewhere.").

magical legal elixir for the climate crisis, but it does offer supplemental, substantive legal authorities.

Climate emergency critics insist that we should instead focus on making a large-scale transformation of the American economy away from fossil fuels. That's certainly true. Yet emergency authorities, such as the DPA, can actually help accelerate that needed energy transformation by super-charging renewable energy investment and investing in other critical climate technologies.³¹¹

Prospective climate legislation could even work harmoniously with emergency law, triggering emergency authorities when certain conditions — such as the cumulative amount of GHG emissions in the atmosphere — are met. Such an emergency tripwire provision would prioritize traditional lawmaking efforts but acknowledge that certain climate conditions may require emergency action. As we enter this critical decade we will not have the luxury of time to revisit earlier lawmaking efforts. A tripwire emergency provision could also alleviate legitimacy concerns by providing congressional “buy-in” in advance of a climate emergency.

4. A Climate Emergency Will Not Survive Legal Challenges

A climate change emergency declaration would likely prompt litigation from the fossil fuel industry and other affected stakeholders. A climate emergency that does not activate follow-on authorities will not create a cause of action within Article III. In the few cases addressing the scope of the NEA, courts have acknowledged the lack of judicially manageable standards in refusing to rule on the legality of an emergency determination.³¹² Even in the recent, controversial border wall emergency declaration that Congress voted to oppose,³¹³ the Ninth Circuit glossed over whether the situation at the U.S.-Mexico border was a national emergency within the meaning of the NEA.³¹⁴

Youngstown Sheet & Tube Co. v. Sawyer would likely serve as the starting point in weighing the success of any litigation challenging a climate-emergency declaration.³¹⁵ The president would likely assert that

³¹¹ See *supra* Part III.

³¹² See, e.g., *Ctr. for Biological Diversity v. Trump*, 453 F. Supp. 3d 11, 30-34 (D.D.C. 2020) (“[T]he court lacks jurisdiction over Plaintiff’s . . . challenges to the President’s emergency declaration because they present non-justiciable political questions”).

³¹³ See H.R.J. Res. 46, 116th Cong. (2019); 165 Cong. Rec. H2799, H2814 (daily ed. Mar. 17, 2019).

³¹⁴ *Ctr. for Biological Diversity*, 453 F. Supp. 3d at 27 (stating the “the NEA authorizes the President to declare [a] national emergency”).

³¹⁵ *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579 (1952).

he is acting in the first of Justice Jackson's groupings, arguing that he is acting pursuant to the National Emergencies Act and accompanying statutes — "express or implied authorization."³¹⁶ Further, the President would argue, Congress had completely failed to amend or update the National Emergencies Act and Congress taken an active role in terminating prior emergencies — is this not evidence of a "gloss on Executive Power."³¹⁷ Hypothetical litigants, likely from the fossil fuel industry, would argue that 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.³¹⁸ Challenges to presidential authority will be bolstered if the President uses his authority to seize domestic coal plants or elements of the fossil fuel industry within the United States. But authorities such as the IEEPA will be viewed far more favorably. 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."³¹⁹

Relatedly, climate legislation and agency action on climate must also survive judicial review. Indeed, the recent transformation of the Supreme Court breathes life into administrative law doctrines — such as *Chevron* deference³²⁰ and the nondelegation doctrine.³²¹ This may make it more difficult for agencies to regulate GHG emissions and implement climate legislative achievements.³²² Indeed, in the face of a widening emissions gap and broad acceptance about climate change's

³¹⁶ *Id.* at 635 (Jackson, J., concurring).

³¹⁷ *Id.* at 610-11 (Frankfurter, J., concurring).

³¹⁸ *Id.* at 637 (Jackson, J., concurring).

³¹⁹ *Id.* at 645-46 (Jackson, J., concurring).

³²⁰ *Chevron U.S.A., Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837 (1984).

³²¹ The nondelegation doctrine is the principle that Congress is prohibited from delegating its legislative power to administrative agencies. *See, e.g.*, *Pan. Refin. Co. v. Ryan*, 293 U.S. 388 (1935) (holding that Congress violated the nondelegation doctrine by vesting legislative powers in the President without guidelines).

³²² Mark P. Nevitt, *The Remaking of the Supreme Court: Implications for Climate Change Litigation and Regulation*, 42 *CARDOZO L. REV.* 101, 102 (2020); *see, e.g.*, *Gundy v. United States*, 139 S. Ct. 2116 (2019) (rejecting a challenge to the nondelegation doctrine by a 5-3 vote). Both Justices Kavanaugh and Barrett, who were not part of this opinion, have expressed an openness to examine the nondelegation doctrine, which could undermine the implementation of a possible cap and trade system. *See Paul v. United States, cert. denied*, 140 S. Ct. 342, 342 (2019). If there is a successful nondelegation challenge to future climate legislation, we may need to turn to existing NEA authorities out of necessity.

destabilizing impacts, emergency authorities may need to be reframed from an extraordinary measure to a prudent, necessary one.

Outside of any *Youngstown* analysis, reliance on emergency powers in the face of legislative intransigence imposes a governance cost that can be difficult to quantify but can't be dismissed. But in analyzing whether to declare a climate emergency, the immense cost of doing nothing and the temporal dimension of GHG emissions must be taken into account.³²³

Finally, how can a human-exacerbated phenomenon that will last centuries qualify as an imminent disaster?³²⁴ For one, climate attribution science increasingly makes clear that these impacts are not in the distant future. They are being felt today in the form of extreme weather patterns, historic wildfires, and semi-regular flooding that was once thought to be a once in every 500-year event. These impacts are only getting worse each year. And climate tipping-points — such as the devastating rupture of the Antarctic ice sheet — will have irreversible effects that could limit our future ability to respond. Climate change's impacts are no longer imminent. Their impacts are already here, and we are already paying a high cost for our collective inaction. Second, and most importantly, climate science makes clear that the window for climate action is already here. But it is rapidly closing. The imminence is not *just* dealing with the consequences of climate change, which are already here. It is the urgency and need to take immediate action or else face catastrophic harm.³²⁵

C. Normative Roadmap for Climate Action

Finally, might a climate emergency unfold and in what order should these authorities be activated? First, President Biden (or any future president) should strongly consider affirmatively declaring a climate emergency under the National Emergencies Act, without *initially* activating any follow-on authorities. This would remain in place for one year, with an option for follow-on renewal. Declaring a climate emergency effectively shifts the onus back to Congress to

³²³ Goitein, *supra* note 283 (critiquing the use of a national emergency declaration as a means to address climate change); see, e.g., Dayton & Parker, *supra* note 283 (arguing that President should encourage Congress to take back the power rather than use an emergency power to take action on climate change).

³²⁴ See Martin, *supra* note 216, at 332-34.

³²⁵ See *id.* at 391-92, for an outstanding discussion of imminence in the climate context, highlighting the need to separate risk from imminence.

take legislative action to address the climate crisis.³²⁶ Further, it provides a powerful signal to Congress that follow-on emergency action may be forthcoming if legislative efforts collapse. Declaring a climate emergency is an expeditious step that “involves minimal procedural requirements and limited opportunities for judicial review.”³²⁷ A climate emergency also serves as a signal to the outside world that the United States is fully committed to squarely addressing the climate crisis. Simply declaring a climate emergency — as thirty nations have already done — would send an important message at home and abroad about the seriousness of the crisis and the real potential for follow-on legal action. This will require an intense, nuanced communications strategy to both Congress and the public that links the climate emergency with a clear action plan.³²⁸ The President must make clear that executive action and emergency action are not enough to solve the climate crisis, with the express purpose of incentivizing congressional action.

Congress could then do any number of things: address climate change via legislation or amend the emergency framework (or any one of its authorizing statutes) to limit the power that it provides to the President. Second, the President and his experts should make scientifically informed decisions regarding what follow-on authorities should next be invoked. The obvious place to start is the Defense Production Act, which does not specifically require an emergency declaration, but provides greater loan guarantees in the event of a national emergency. From here, the President can potentially take follow on steps under the Military Construction Authority to shore up climate resilient investment at military bases and consider using the IEEPA to shine light on the actions of climate rogue states or prohibit the import of products from the Amazon basin. The final two climate emergency authorities — suspension of drilling on the outer continental shelf and emergency transportation coordination authorities — deserve far more careful study about their efficacy and cost prior to their activation.³²⁹

³²⁶ The last time Congress attempted to pass comprehensive climate legislation occurred in 2009, but this never left the Senate committee.

³²⁷ Farber, *supra* note 6, at 1172.

³²⁸ See Joseph P. Reser & Graham L. Bradley, *Fear Appeals in Climate Change Communication*, CLIMATE SCI. (Sept. 26, 2017), <https://oxfordre.com/climatescience/view/10.1093/acrefore/9780190228620.001.0001/acrefore-9780190228620-e-386> [<https://perma.cc/QWR4-A8W7>] (discussing how fear appeals can backfire if not carefully tailored).

³²⁹ See Ewing & Kysar, *supra* note 192, at 363 n.36.

Reliance on the emergency authorities outlined in Part III does not fully solve the climate crisis.³³⁰ Nor does it by override or supplant existing authorities within the traditional legal framework. That work continues. What a climate emergency does is provide substantive, supplemental authorities that work hand-in-hand with traditional legal authorities both domestically and internationally. As the emissions gap widens, turning to these emergency powers may not just be a prudent exercise of existing legal authorities. It may be necessary for the President to protect the nation and its citizens from rising temperatures that massively destabilize the earth's physical environment.³³¹

Any climate emergency must be open and transparent to Congress and the American people. My approach favors using expressly delegated statutory powers, and disfavors reliance on inherent Article II authorities. Congress has already provided — and largely acceded to — particular grants of statutory power to the President “waiting in the wings for just such a moment to arise.”³³²

CONCLUSION

As the World Meteorological Organization has made clear, we are in a state of planetary emergency.³³³ Legal governance institutions and domestic U.S. law have failed to take the necessary steps to combat climate change. Emissions are rising, and we have a short window to reverse course to lower GHG emissions. The earth, in turn, continues to undergo a massive physical destabilization in the face of rising GHG emissions. This destabilization will only grow over time, with the rising potential for climate “tipping points” and “green swan” events leading to a massive loss of life and destruction of the physical environment.³³⁴ James Speth has noted that “the surest path to widespread cultural

³³⁰ See *supra* Part III.

³³¹ See Monaghan, *supra* note 30, at 33-35.

³³² Scheppele, *supra* note 139, at 857.

³³³ See GLOBAL CLIMATE 2020, *supra* note 63, at 5-7 (discussing evidence of a rising global temperature and the associated repercussions).

³³⁴ I borrow the term “green swan” from Nassim Taleb. See NASSIM N. TALEB, *THE BLACK SWAN: THE IMPACT OF THE HIGHLY IMPROBABLE* (6th ed. 2007); see also Patrick Bolton, Morgan Despres, Luiz Awazu Pereira da Silva, Frédéric Samama & Romain Svartzman, *The Green Swan: Central Banking and Financial Stability in the Age of Climate Change*, BANQUE DE FRANCE (2020) <https://www.bis.org/publ/othp31.pdf> [<https://perma.cc/HL3K-ZW8A>]; Steve Zwick, *Coronavirus Is Bad, but the Green Swan Is Worse*, ECOSYSTEM MARKETPLACE (Feb. 3, 2020), <https://www.ecosystemmarketplace.com/articles/coronavirus-is-dangerous-but-the-green-swan-is-worse/> [<https://perma.cc/DA3X-PAQE>].

change is a cataclysmic event that profoundly affects shared values and delegitimizes the status quo and existing leadership.”³³⁵

The urgency is real. As is the need for innovative legal, policy, and technological solutions. Environmentalist Bill McKibben recently exclaimed that “the next ten years for climate change is what February is for the coronavirus.”³³⁶

To be clear, the U.S. needs comprehensive climate legislation that reduces our reliance on fossil-fuels and sets use on a path to shift to renewable, sustainable energies. But tapping into emergency powers provides additional, supplemental authorities that work hand-in-hand with traditional legal authorities. The climate crisis forces us to look with fresh eyes at the legal tools at our disposal. The approach outlined in this Article actually reflects a sobering recognition of the steps needed to take to face the climate crisis. Indeed, declaring a climate emergency today might actually be a prudent, responsible action in the face of climate change’s sheer magnitude and destabilizing impacts. The short-lived drop in GHG emission during the novel coronavirus crisis demonstrates the deep, structural challenge needed to keep global temperatures at a manageable number. It also acknowledges and addresses a growing governance gap between what is required to address the climate crisis and what political actors are actually doing.

While not an elixir, emergency powers can activate supplemental, targeted authorities that help close the climate governance gap. In doing so, we must balance the potential abuse of emergency authority with the legitimate use of delegated emergency powers to address the “climate crisis.” In the face of a growing emissions gap, tapping into emergency powers to address the climate crisis should take this dynamic into account.

³³⁵ JAMES G. SPETH, *THE BRIDGE AT THE END OF THE WORLD: CAPITALISM, THE ENVIRONMENT, AND CROSSING FROM CRISIS TO SUSTAINABILITY* 211 (Yale Univ. Press 2008); see also Martin, *supra* note 216, at 333-34.

³³⁶ Rachel Westrate, *What Does the COVID-19 Pandemic Mean for Climate Change?*, LAWFARE (June 23, 2020, 8:01 AM), <https://www.lawfareblog.com/what-does-covid-19-pandemic-mean-climate-change> [<https://perma.cc/V76K-ZCG8>] (quoting activist Bill McKibben on Professor Noah Feldman’s podcast).