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# Representing Climate Change through the Lens of Environmental Security: Thirty Years of the Department of Defense Defining a Threat Multiplier and Military Resilience

Michael STRICOF

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- 1 During the Obama administration, the center-left press lauded the Department of Defense (DoD) for newly recognizing climate change as a national security threat. Articles in the *New York Times* and the *Washington Post* implied that the largest and most influential bureaucracy in the United States had taken a first step to correct American climate change skepticism, which it was hoped might lead to the government finally tackling global warming at a deeper level (Broder, Mooney). However, these journalistic sources greatly simplified the long-term role the Pentagon had already played in managing US environmental responses. Actions taken by the DoD meant acknowledging, struggling to understand, and finally representing climate change through the lens of “environmental security” over the course of more than twenty years before Obama took office. The process of defining, studying and planning for the issue by the Pentagon created a unique understanding and representation of environmental emergency that has been relatively consistent from the late 1980s to today. Evaluation of these actions help explain how the DoD has addressed climate change in recent years and foreshadows likely paths for the nation to follow in the future.
- 2 In recognizing environmental emergency as a national security issue, research has often increased at the same time political and international institutions were addressing the question in particularly explicit ways. In the mid-1990s, when the

Department of Defense first emphasized “environmental security,” peace research, international relations and contemporary history scholars were interested in defining this term for political science analysis (Græger, Porter). In the late 2000s, other research using discourse analysis placed “environmental conflict” and “environmental security” in the context of the globalization-driven elevation of a variety of security threats by focusing on international organizations such as the United Nations Security Council (Detraz and Betsill). International affairs scholars, similarly, have been concerned with the discourse around “security” and “climate” as either “securitizing”—that is making more warlike—climate policy or transforming existing security apparatuses into new mechanisms for addressing climate change (Trombetta).

- 3 This article attempts to address the issue in two interrelated ways. First, we will present a more complete history of environmental security issues in the DoD. Prior research tended to focus more narrowly on the then-immediate use of the term “environmental security.” A chronological view shows the evolutionary nature of the links between defense and the environment and better contextualizes specific developments. Second, recognizing the DoD’s long history of defining environmental security will help identify key terms and patterns that may improve our understanding of how the United States has addressed climate issues. The narrative which emerges allows us to understand defense climate priorities, regardless of variations in political leadership.
- 4 Like previous authors, this research borrows from discourse analysis due to an interest in how specific language reflects changing policies; “to consider how the use of a word in different contexts challenges and transforms the practices and meanings associated with it” (Trombetta 587). In critical geopolitics, the study of policymakers and their texts has proven essential in demonstrating how politics are defined. Gearóid Ó Tuathail studied “the power of certain national security élites to represent the nature and defining dilemmas of international politics in particular ways” with the power of “constituting, defining and describing security, threats, and perceived enemies in regularized ways” (Ó Tuathail 438). Although Martin Müller has critiqued this focus on elite “narratives” as an incomplete discourse, favoring instead decentering the autonomous actor and including practices, elite narratives are useful for this kind of study in which government definitions and actions are the focus (Müller 328). Narratives by US policy makers are particularly noteworthy, as “intellectuals of statecraft from core states—particularly those states which are competing for hegemony—have disproportionate influence and power over how international political space is represented,” as Ó Tuthail and John Agnew explain. Even when there is not immediate concrete action in a traditional sense, “simply to describe a foreign policy problem is to engage in geopolitics, for one is implicitly and tacitly normalizing a particular world” (Ó Tuthail and Agnew 194-195).
- 5 This study also adds an element of neo-institutionalism that is largely absent in the security studies and international relations debate about climate policy. In this regard, it is useful to recognize that large bureaucracies like the Pentagon tend to perpetuate certain patterns over time. Further, once a new topic is included in their area of responsibility such institutions tend to increase their role and influence regardless of the specific language then in vogue. As shall be discussed later, once the Pentagon claimed responsibility for environmental security in the 1990s, policy management for the issue continued even during periods when the terms that are the focus of discourse

analysis fell out of favor with the country's highest-level political leadership. Critically this reflects that an institutional knowledge base continued for the perpetuation of specific key concepts. This continuation has repeatedly proven to be able to provide definitions and knowledge as needed; for example, when changes in presidential administrations have returned to the acceptance of human influenced climate change as a reality. Importantly, this analysis reveals that seemingly new policies under President Obama were in fact built more upon more extensive past experience than is usually recognized.<sup>1</sup>

- 6 This historical approach uses documents previously published by the Department of Defense and defense policymakers particularly from the: Historical Office of the Office of the Secretary of Defense, Homeland Security Digital Library, National Archives, and Center for Climate and Security. Additionally, this article presents unpublished material from Les Aspin's personal papers at the Wisconsin Historical Society Library. Other government or news publications are also referenced, with slightly more reliance on journalistic sources and government press releases for contemporary information because there are few publicly available documents reflecting current internal government planning.

## 1. Historical overview of “environmental security” in the Department of Defense

### 1.1 Early definitions of environmental security

- 7 While the US military has had a role in modifying the environment since the beginning of the nation especially with Army Corps of Engineers civil construction work on dams and canals, the modern understanding of environmental security in the DoD can be dated to the late 1980s. In 1987, the United Nations World Commission on Environment and Development published a paper, *Our Common Future*, which coined the term “environmental security.” This launched the phrase into academic and political debates (Trombetta 585). The report expressed the hope that environment concerns would become part of national security policy: “The whole notion of security as traditionally understood in terms of political and military threats to national sovereignty—must be expanded to include the growing impacts of environmental stress—locally, nationally, regionally, and globally.” *Our Common Future* also used “environmental security” as an explicit challenge to traditional definitions of “security”: “There are no military solutions to ‘environmental insecurity’” (24). However, reframing the environment as a security issue did mean the military needed to seek (non-combat) solutions.
- 8 In 1988, The US Army Corps of Engineers became directly involved in environmental research as part of the United States contribution to the first Intergovernmental Panel on Climate Change (IPCC) report, by providing research on coastal engineering and waterways maintenance in the face of possibly changing sea levels and warmer weather (Coastal Engineering Research Center). In 1989, the Environmental Protection Agency (EPA) also called for the Corps of Engineers to consider the impact of climate change on its national infrastructure projects, notably coastal protection, flood control and navigation work (Smith and Tirpak iv). Although the Corps of Engineers is a relatively unique part of the military, its early involvement with climate-based issues would prove to be a consistent priority for this important institution.

- 9 In 1990, a student at the Naval War College, Terry P. Kelley, defended his master's thesis about the implications of climate change for Navy planning. His thesis recognized that rising sea levels and warming oceans could have "significant effects" on Navy bases and operations. It was careful to note, "No conclusive evidence exists to prove global warming as fact," but the circumstantial evidence and emerging scientific consensus, along with the potential impacts of global warming were "significant enough to warrant serious examination by the Navy" (ii). This tone of cautious recognition and advanced planning represented a typical military response to uncertainty. While much of the politicized climate debate in the United States has revolved around the need for certainty (a yes-no question: is global warming the result of human action or not?) the military had long been focused on planning in the face of uncertainty. From this perspective, even a small chance with such significant consequences was worth preparations, and, as the author noted, "Nearly all areas of operational effectiveness are threatened by these environmental changes should they occur" (ii).
- 10 In addition, events in the early 1990s made the Department of Defense acutely aware of the need to prepare for missions caused by potentially increasingly severe weather. As part of a growing interest in defining the post-Cold War role related to "military operations other than war" the DoD highlighted interventions in humanitarian and relief operations. Disaster relief was particularly topical in late 1992. In August, Hurricane Andrew, which ranked as the most destructive since 1935, struck Florida. Within a three-week period, Hurricane Iniki hit Hawaii and Typhoon Omar caused extensive damage in Guam. At the height of the response in September 1992, 22,800 active duty and 5,700 National Guard troops were deployed to Florida to establish temporary housing, provide medical support, aid with food and water distribution, work on debris removal and construction, and reestablish lines of communication. More than 3,000 more soldiers were deployed for the other disasters (General Accounting Office *Disaster Assistance*, Forces Command). Secretary of Defense Dick Cheney highlighted the response to these natural disasters as part of the "wide range of missions critical to our [...] national security interests" in his final annual report in January 1993 (Cheney vi).
- 11 Deployment for extreme weather events was not a new DoD role but in the context of the 1990s it was often understood as a meaningful "new mission" (Huntington 39). Disaster relief missions became recognized as part of the need to address climate change as a national security issue throughout the 1990s. From these modest beginnings, the military took on a dramatically increased role in studying, defining and planning for climate change at the start of the Clinton administration.

## 1.2 Environmentalism and base closures in the Bill Clinton administration

- 12 From the beginning of the Clinton administration, environmentalism was an important goal, especially for Vice President Al Gore. His book, *Earth in the Balance*, climbed up the best seller lists in late 1992 during the final stretch of the presidential election campaign. During this same year, Gore's last as a senator, he pushed for a Strategic Environmental Initiative, noting that environmental cleanup could provide one of the best opportunities for alternate employment of the defense-industrial base, where

cutbacks were already underway following a drop in military spending as the Cold War wound down (Woodward 52, 97). Clinton's first economic plan included a BTU tax which Gore advocated not only as a deficit reduction measure, but also because it would be a meaningful way to start fighting global warming. Although Gore's BTU tax was not included in Clinton's final economic plan, the administration made fighting global warming a part of many government departments' plans (Woodward 128, 222).

- 13 Simultaneously, the DoD faced direct pressure to fight pollution and consider greener future infrastructure. In 1990, Congress passed the second Base Realignment and Closure Act, creating plans for three rounds of base closures in 1991, 1993 and 1995. Of the eight criteria legally guiding base closure recommendations, the final one was the "environmental impact", which greatly increased the importance of environmental questions within the DoD (Defense Base Closure and Realignment Commission 1991 vi). By the rules of the Comprehensive Environmental Response, Compensation and Liability Act, no transfer of federal land to new ownership could occur until *all* remedial action to protect human health and the environment had been completed (Lockwood and Siehl 10). This process led to the first comprehensive military infrastructure environmental studies, bringing to light serious pollution concerns at nearly every military base. In March 1991, the Pentagon had identified 17,482 sites at domestic bases in need of some sort of environmental remediation. 107 of these sites were included on the National Priorities List, or "Superfund," the list of the most contaminated places in the United States (Sorenson 78). By September 1991, the Department of Defense estimated that remediation at all of its contaminated sites would cost \$24.5 billion, probably significantly underestimating the actual costs given later experiences (General Accounting Office *Hazardous Waste* 1). Although cleanup financing proved to be insufficient, considerable funds were spent. In 1992, \$1.3 billion was provided for restoration of land at closing bases. This increased to \$2.3 billion in 1995, before the Republican Congress set a new, \$500 million per annum maximum for base environmental cleanup with the hope that would help keep the majority of defense dollars for military modernization and readiness (Siehl and Knight 9).
- 14 Although legal requirements were eventually modified to help close bases faster to allow them to be used for civilian economic production, the explicit requirement to study the environmental impact of nearly all domestic and most foreign military infrastructure helped to bring environmental priorities to the forefront. Managing environmental degradation and pollution became a recognized goal for the military, as a future cost-saving mechanism if nothing else.
- 15 The Clinton administration published a technology policy report in March 1993 which provided guidelines for several federal agencies, particularly the DoD. This included calls to consider long-term environmental impacts in investments and acquisition, mirroring the lessons from base closures: "Agencies should evaluate bids based on their ability to minimize life-cycle cost rather than acquisition cost, including environmental, health and safety costs borne by the public" (Clinton and Gore 28). The environmental policy also demanded climate change research:
- The Federal government will invest in research to better understand global warming, ozone depletion, and other phenomena important to local, regional, and global environments. This research is essential if we are to fully assess the damage mankind is doing to our planet and take effective action to address it. (25)
- 16 The Department of Defense was specifically cited as a lead agency for this work.

### 1.3 Defining environmental security in the Clinton administration

- 17 Against this background of pollution management for military base closures and White House interest in managing climate change, the Department of Defense adopted a significant environmental renewal program in the first year of the Clinton administration. Under Secretary of Defense Les Aspin the Pentagon set up an Office of Environmental Security. This demonstrated an attempt to give the DoD an entirely new role:

The Clinton/Aspin Pentagon is playing a new and unlikely role in this time of change in the post-Cold War era: the Department of Defense for the first time is embracing the idea that environmental protection is a key element of national security. The new Pentagon hopes to become a leader in the environmental field by designing a far reaching effort to protect natural resources. The plan is to emphasize environmental protection in everything from acquisition process to base clean up and conversion. If DoD succeeds, it will be a major change from years of environmental indifference to everything from maintenance of military bases to development of new weapons. (Spivack)

- 18 Within the initial plans, the terms environmental security and environmental protection were used nearly interchangeably. Indeed, the Clinton administration-wide goals were clear about combatting climate change and pollution. For example, proposed procurement reform sought to reduce the harmful effects to the public of environmentally destructive production and use, while research was encouraged to “take effective action” to reduce the damage to mankind. This implied that the Department of Defense would prioritize reducing carbon emissions and pollution in addition to planning for climate impacts on coasts or deployments in response to severe weather events.
- 19 The Department of Defense did officially add environmentalism to its procurement analysis during the Clinton years to: “Ensure the translation of mission needs/requirements into stable, affordable, *environmentally sound*, technically feasible, and best value solutions” (Perry 11, emphasis added). In practical terms, however, little was accomplished to actually make the military operate in a greener fashion.
- 20 Perhaps the most concrete development during the Clinton era was in the creation of new DoD sub-departments to work on environmental security. For example, the Aspin Department of Defense created a new position for managing environmental questions at the Deputy Undersecretary level. Sherri Goodman served as Deputy Undersecretary of Defense for Environmental Security for the duration of the Clinton administration, from 1993-2001. Retrospectively, Goodman defined environmental security as a convergence of traditional national security and environmental protection. In traditional security models, threats were the result of events, a nation invading another nation; Goodman’s environmental security allowed for the inclusion of climate change in security policy as a “slow-onset threat”. In this regard, climate change was thought likely to harm already challenged communities around the world, leading to greater “instability” in critical regions. This view came to underlie much of American military climate policy, the idea that climate change, instead of being a threat itself, was a “threat multiplier”. Goodman defined a threat multiplier with questions: “How do environmental impacts interact with the political dynamic in any particular location? And then how do you do appropriate planning in a national security



context?” This implied that the Pentagon had to anticipate the impacts of climate change while preparing for resulting traditional conflicts. In creating an office dedicated to addressing these questions, the Aspin Department of Defense sought to ensure that climate change and environmental impacts would remain an important part of the Pentagon threat assessment process.

- 21 By the end of the Clinton years, two main lines of environmental security had been established. First, there were direct impacts of extreme weather or pollution on military installations and operations that would require action to either reduce future costs or improve current deployments. Second, there was clear recognition that the possibility of long-term environmental change could act as a threat multiplier with resulting increased international instability leading to more traditional military conflicts. These two themes have proven to be relatively resilient throughout the subsequent administrations.

#### 1.4 Undercurrents of environmental security during the climate change skeptic George W. Bush Administration

- 22 The combination of a new focus on counterterrorism and Republican climate change skepticism reduced the emphasis on global warming in the DoD under George W. Bush. However, having already been integrated into national security planning, recognition of climate change did not disappear.
- 23 During the Bush administration, Goodman’s position was eliminated and its responsibilities merged back into the Deputy Under Secretary of Defense for Installations. This office was renamed Installations and Environment and retained responsibility for further environmental impact studies throughout the Bush years (2001-2009), although the elimination of the previous administration’s dedicated environmental security office did send a clear signal that environmental issues were considered less important.
- 24 This de-emphasis is delineated in documents that reflect high-level defense planning from 2001 through 2009: the *Quadrennial Defense Reviews* (2001 and 2006), the *National Military Strategy* (2004), and the *National Defense Strategies* (2005 and 2008). In these documents there is no explicit reference to global warming, environmental security or climate security. Only in the 2008 *National Defense Strategy* is climate change mentioned, and environmental security factors discussed directly (Department of Defense 2008 5). Even though the majority of these documents no longer explicitly referenced global warming, analysis reveals there was still an important undercurrent of environmental concerns. For example, the two Bush administration *National Security Strategies* (2002 and 2006), the most important and highest-level administration-wide strategy planning documents, retained references to energy security. Both promoted green technologies as a part of creating energy independence (White House 2002 19-20, White House 2006 25-27). The 2002 version specifically emphasized reducing greenhouse gas emissions as an additional benefit of achieving this strategic goal (White House 2002 19-20).
- 25 More than other challenges, extreme weather events kept environmental security in the forefront during the Bush administration’s second term. The final planning document of his first term, the 2004 *National Military Strategy* linked natural disaster and terrorism as threats that underlay the military’s evolving mission: “Protecting the United States also requires integrating military capabilities with other government and

law enforcement agencies to manage the consequences of an attack or natural disaster” (Joint Chiefs of Staff 2). Hurricane Katrina, which devastated New Orleans and the surrounding area in 2005, was a focal point during the second Bush term. The 2006 *National Security Strategy* emphasized the importance of the military in providing relief, even if it framed assistance in terms of external actions. Recalling Cheney’s 1992 annual report, the Bush *National Security Strategy* cited recent deployments: “The U.S. military provided critical logistical support in the response to the Southeast Asian tsunami and the South Asian earthquake until U.N. and civilian humanitarian responders could relieve the military of these vital duties.” Accordingly, the military might be called upon to respond to

Environmental destruction, whether caused by human behavior or cataclysmic mega-disasters such as floods, hurricanes, earthquakes, or tsunamis. Problems of this scope may overwhelm the capacity of local authorities to respond, and may even overtax national militaries, requiring a larger international response. (White House 2006 47)

- 26 The lines between traditional and environmental security were easily blurred during this period which was dominated by the “irregular” warfare of the post-September 11<sup>th</sup> “war on terror.” Responses to environmental destruction were defined as an additional albeit more irregular threat which was just as potentially demanding of military force use:

These challenges are not traditional national security concerns, such as the conflict of arms or ideologies. But if left unaddressed they can threaten national security. We have learned that: Preparing for and managing these challenges requires the full exercise of national power, up to and including traditional security instruments. (47)

- 27 These references show that continued recognition of environmental security issues remained important as part of high-level DoD plans. Although the explicit link to climate change was not emphasized, the assessment of risk allowed for the possibility that man-made actions were part of threats which demanded military action.

## 1.5 Bureaucratic inertia and explicit environmental security planning in the Bush administration

- 28 Undercurrents of environmental security, in the logic of risk assessment and the kinds of deployments it demanded, were therefore still visible in top-level Bush administration planning despite the politicized climate skepticism of the Republican Party. Reading only these documents might nevertheless create the impression that the military minimized climate emergency during the Bush years, by limiting attention to certain issues or reframing natural disasters away from recognition that this might reflect longer term climate change trends. However, the recognition of climate emergency and the endurance of environmental security remained clearly visible in lower-level publications, providing evidence of the bureaucratic inertia which gave this framework endurance and permitted consistency with later planning. These were not statements of administration policy, per se, but as delineated below these publications demonstrate that at least to some degree, planning and threat assessment related to climate change remained constant in the military.
- 29 Rear Admiral Richard F. Pittenger and Woods Hole Oceanography Institution President Robert B. Gagosian published an article in a National Defense University journal in 2003

entitled, “Global Warming Could have a Chilling Effect on the Military”. In this paper, the authors discussed climate change thresholds which could rapidly accelerate global warming and change war-fighting conditions dramatically. Arguing that, “History is filled with examples of military leaders who have suffered at the mercy of climate conditions that they failed to contemplate adequately”, they concluded, “Military planners should begin to consider potential abrupt climate change scenarios and their impacts on national defense” (1).

- 30 Environmental security as defined during the Clinton administration also remained in vogue within the extra-governmental national security analysis community. Sherri Goodman and a military advisory board of eleven retired admirals and generals continued to push for recognition of the national security threat of climate change through the CNA Corporation, a federally-funded research and development center based in Arlington, Virginia. In 2007, they published a report that reemphasized climate change’s potential as a “threat multiplier” and called for strategies to “mitigate” and “adapt” to this “risk” (Sullivan et al. 3). Taking on the parlance of the moment, they emphasized among other compounding factors the “hostile and stressing factors” that could lead to deployments not only for natural disasters but also in response to regional instability which could create hotbeds for wars and terrorism (6). The belief that “The national security consequences of climate change should be fully integrated into national security and national defense strategies”, was a holdover from the previous decade, including the twin goals of “mitigating the effects we can control and adapting to those we cannot”—meaning helping to reduce carbon emissions and support the areas most affected by climate change (mitigation), as well as building new weapons and strategies to respond to at this point inevitable consequences of global warming (adaptation) (7). While this paper was not a direct government product, the CNA Corporation received government funding and may be considered as part of the network reflective of bureaucratic inertia regarding climate-change based threat assessments.
- 31 Just as it had during the late 1980s and early 1990s, the Navy remained the branch of the military most concerned with climate change as it threatened coasts and navigation in particular. The Bush administration official policy statement that was perhaps the most explicit in this regard was the 2007 maritime strategy, *A Cooperative Strategy for 21<sup>st</sup> Century Seapower*, prepared by the Navy, Marine Corps and Coast Guard. It highlighted two kinds of new threats that were multiplied by the effects of climate change, following the now-familiar logic of environmental security analysis: first, that the opening of previously ice blocked arctic seas to commerce and potential military maneuvers could increase competition especially for access to natural resources; and second, that climate change could lead to instability as “catastrophic storms, loss of arable lands, and coastal flooding, could lead to loss of life, involuntary migration, social instability, and regional crises” (6-7).
- 32 This continued recognition of climate change as a threat multiplier along the environmental security lines established in the 1990s fed back into defense planning risk assessment. The 2008 *National Defense Strategy* presented an overview of just about everything globally that was considered to pose an existential threat to America, including: international terrorism, the “rogue states” of North Korea and Iran, and the emergence of potential rivals in China and Russia. It further recognized that the United States not only needed to counter these risks but also threat multipliers that included

climate change. “Over the next twenty years physical pressures—population, resource, energy, climatic and environmental—could combine with rapid social, cultural, technological and geopolitical change to create greater uncertainty” (4).

- 33 Because of the politicized climate skepticism of the Republican Party, it is tempting to assume the DoD would have moved to suppress environmental security from its planning concerns. During this period and with the apparently new, more gripping national security threat of post-September 11<sup>th</sup> international terror as well as the two significant regional wars in Iraq and Afghanistan, environmental security might appear at first glance to have receded. However, a detailed review of the key high-level documents reveals continuing strong undercurrents regarding environmental security concerns, albeit without explicit mention of climate change. The recognition of ongoing and increasingly frequent challenges wrought by climate change is visible in lower-level publications, providing evidence of strong bureaucratic inertia that permitted consistency with later planning. Thus, the George W. Bush administration established a pattern of military discussion of climate impacts that was sensitive to political considerations but did not eliminate the topic. Particularly, mid-level planning work like the 2007 maritime strategy demonstrates that once recognition and response had begun, climate change would not be removed from threat assessment by political swings or new topics of concern. Major points about climate insecurity remained within the *National Security Strategies* and the administration’s final *Defense Strategy*. This allowed the incoming Obama administration to promote even more explicit discussion of climate crisis and environmental security without it truly representing a radical shift in DoD planning.

## 1.6 Public rhetoric in the Barack Obama administration

- 34 The Obama administration has been given credit for recognizing global warming as a national security issue. As this article has already demonstrated, this view overlooks earlier administrations’ recognition of climate change as an important threat. For example, prior to Obama’s election, Congress in its the 2008 defense budget authorization, required the Department of Defense to explicitly consider climate impacts in their strategy development process, taking the previously well-established DoD themes of climate change as a source of instability and a threat multiplier and requiring higher-level consideration (Broder). Obama had of course discussed climate change in his campaign; however, prior long-standing Department of Defense recognition of climate-based issues would prove to be significant for the entire length of his administration. For example, the specific language Obama used once in office when addressing climate change issues often mirrored that contained in the pre-existing documents used within the Pentagon related to environmental security.
- 35 It is not necessary to cite every example of the DoD mentioning climate-related risks nor Obama’s references to climate as a national security issue—both were frequent during his eight years in office (2009-2017). Rather, for the purposes of this discussion, it is most important to note that the military view during his time in office remained consistent with the underlying perspectives expressed during previous administrations. The most significant change occurred in how *explicitly* climate was included in the most significant and public planning documents and in the president’s

use of environmental security as a rhetorical tool for other parts of his environmental programs, as shall be discussed in the following paragraphs.

- 36 Under Obama there was an undeniable increase in the relative importance of environmental security issues within top-level planning documents. For example, the 2010 *Quadrennial Defense Review* had an entire section dedicated to climate change and energy as security issues. But even within this increasingly prominent role, the discussion of climate change followed two now-familiar lines that had long been used within DoD documents. Climate change was first and foremost cited as a threat multiplier: “While climate change alone does not cause conflict, it may act an accelerant of instability or conflict”. Secondly, it was realized as primarily a technical problem for logistical concerns, “DoD will need to adjust to the impacts of climate change on our facilities and military capabilities,” in order to ensure that US bases and equipment would continue to function as their local environment shifted (84-85). Ultimately, the most interesting part of this report was the fact that climate and energy security was given its own separate large section, five whole pages, rather than the mere few paragraphs in the previous administration’s high-level planning work.
- 37 These same themes continued throughout the increasingly frequent references to climate change from Obama’s Department of Defense. In 2014, Secretary of Defense Chuck Hagel discussed both of the familiar environmental security issues. He highlighted the need for resilience in basing and operations: “Our coastal installations are vulnerable to rising sea levels and increased flooding, while droughts, wildfires and more extreme temperatures could threaten many of our training activities”; “Our supply chains could be impacted, and we will need to ensure our critical equipment works under more extreme weather conditions” (Hagel qtd. in Banusiewicz). Concretely, this meant surveying vulnerabilities at all military installations and modifying war games and training to include predicted new environmental conditions. At the same time, Hagel employed the term “threat multiplier” to consider the risks of increased regional instability, exacerbating terrorism, and drawing resources for humanitarian relief operations (Hagel qtd. in Banusiewicz).
- 38 Military recognition of climate change was also used as a rhetorical crutch by Obama to support its wider acceptance as an established reality, because the Pentagon had already established that the effects of global warming represented a national security threat. Throughout his administration, Obama used this logic in support of his other policies to curb global warming and its impacts beyond its military implications. As an early example of this, Obama argued in his Nobel Peace Prize acceptance speech at the end of 2009:
- There is little scientific dispute that if we do nothing, we will face more drought, more famine, more mass displacement—all of which will fuel more conflict for decades. For this reason, it is not merely scientists and environmental activists who call for swift and forceful action. It's military leaders in my own country and others who understand our common security hangs in the balance. (Obama 2009)
- 39 Specific other actions also saw the rest of the federal government following the lead of the Department of Defense. Facing limits to what Washington could impose on the private sector, especially without support from the majority-Republican Congress from 2011 to the end of his two terms, much of Obama’s climate policies related to management of the federal government. In 2009, an executive order called for the government to be more sustainable. In 2013, another executive order required agencies

to create new climate adaptation plans, particularly related to threats to the agencies' specific missions. The rest of the federal government was essentially pushed to catch up with the Department of Defense, which had been considering the impacts of climate change on its core missions since the late 1980s.

- 40 Rhetorically, the Obama administration offered almost no new information for our analysis of the acknowledgement, understanding, or representation of environmental security within the US Department of Defense. His 2015 *National Security Strategy* recognized climate change as an “urgent and growing threat to our national security” along the lines that had been established by Pentagon studies and plans for nearly twenty years (White House 2015 12). The most significant change was in the frequency of the references and how the military’s recognition of climate issues was useful to support his administration’s non-military based attempts to mitigate climate change.

### 1.7 Donald Trump’s Pentagon: greener than expected?

- 41 At the start of the Trump administration, there was an almost palpable sigh of relief from the centrist political press when the Department of Defense continued to recognize climate change as a national security risk. Nominees for Secretary of the Navy, Richard Spencer, and Secretary of Defense, James Mattis, directly acknowledged climate change issues during their Senate confirmation hearings (Thompson, Henry). *Politico* hailed Mattis as the “lone green hope” in the Trump administration, while an opinion piece in *US News & World Report* led with the subtitle “The Pentagon finally gets it: climate change is a national security issue”, demonstrating a profound lack of historical memory (Wolff). Two years into the Trump administration, the Pentagon delivered a report to Congress that outlined climate change threats to military bases and operations. *Bloomberg* reported on the news in the same tone of relief as had previous publications during the Mattis confirmation hearings, while at the same time exaggerating the likely impacts of this report (Capaccio, Dlouhy and Natter).
- 42 The overall acceptance of the idea of environmental security thirty years after the publication of *Our Common Future* and the first modern Pentagon studies of climate impacts on national security should not be surprising, given the level at which the military had integrated climate change into threat assessments and the Department of Defense had included these challenges as part of its long-term strategic planning. As was true during the separate Bush administrations, top-level planning documents in the Trump years have not often included explicit discussion of climate change but at the same time these documents have not completely rejected the need for the DoD to consider environmental-based security issues. This further supports the contention of this article that once the DoD bureaucracy has taken hold of an idea and planned accordingly, short periods of less direct discussion due to changing political tides tend not to wash away all past work. This undercurrent of consistency, despite the surface changes related to political ebb and flow, is as clear when one looks at mid-level planning documents during the George W. Bush years as when it provided the foundation for exerting the relatively quick resurgence of explicit recognition of the need to directly address climate change as part of providing environmental security during the subsequent Obama administration.
- 43 The main public defense planning document that is currently available from the Trump administration is a summary report of the 2018 National Defense Strategy. This short

and streamlined document focused narrowly on the military threats to the United States, predominately acknowledging a shift towards near-peer state competitors like China and Russia rather than “rogue states” such as North Korea or terrorist networks (Mattis). The only thing that could be labeled a “threat multiplier” in this short assessment was rapid technological change, but that was concerned with means of deploying violence directly through new weapons and not more distant multipliers like climate change. Therefore, the lack of an environmental security component does not signal that the issue has vanished from Department of Defense consideration; many of the broader elements of the Pentagon’s threat assessment were not addressed in this document. Still, the lack of explicit recognition of climate emergency suggests that environmental security had receded back to the relatively low level of emphasis it held during the Bush years.

44 Even though discussion of man-made climate change was seemingly depressed at the White House and political appointee level of other departments, environmental security lived on in lower-level Department of Defense studies. In 2019, the US Army War College published a report on the *Implications of Climate Change for the U.S. Army* which simply assumed “based on the preponderance of evidence available, that significant changes in climate have already occurred, likely to worsen in the years ahead.” Much like Kelley’s thesis at the Naval War College nearly thirty years earlier, this study avoided the “often rancorous and politically charged” debate about its causes, but did “assume that human behavior can *mitigate* both the size and consequences of negative impacts that result from climate change” (Brosig et al. 1) As mentioned above, a different 2019 report required by Congress emphasized the risks to US military bases, especially naval bases that could be impacted by rising sea levels and coastal erosion (Colman). Even more compelling than congressionally required work, in 2020 the Pentagon began a new research project named “Resource Competition, Environmental Security and Stability,” which examined how changing environmental factors (such as increasing desertification of Africa) accelerate threats (like Boko Haram’s growing influence in the Lake Chad region) (Garamone). The military, under Trump, also continued to increase its activities in the arctic, a long-since recognized shift due to climate change. For example, during 2018, an American aircraft carrier patrolled the Arctic Circle. In 2019, a surface action group made a similar patrol and the Navy awarded a contract for three new icebreakers (Department of Defense “Contracts for April 23, 2019”). In 2020, another patrol sailed through the Barents Sea (Larter). Environmental security clearly lived on in the Pentagon through the Trump years. Reviewing how the DoD has understood and acknowledged climate change and its consequences can shed some light on current and future defense planning.

## 2. The language of environmental security

### 2.1 Security, risks and threat multipliers

45 In 1993, the Aspin Department of Defense emphasized both “environmental security” and “environmental protection.” Environmental protection needs little explanation. It considered that the Pentagon had a mission to minimize negative environmental impacts and that one of the measures of its success would be the state of the environment. This was a positive role for the military, aligning their actions with the main US government office concerned with environmental policy, the Environmental

Protection Agency. This was, however, never meaningfully implemented. Due to concerns focused on economic growth, Clinton lobbied to reduce the environmental cleanup requirements for base closures, by allowing non-remediated sites to be turned over to commercial use if it could help local economies. For example, after the 1993 base closure round, leasing of land to civilian authorities was allowed for bases to be reused for economic development before cleanup was completed. This permitted communities to begin attracting businesses immediately, rather than waiting several years before the land could be legally transferred (Defense Base Closure and Realignment Commission 1995 2.2). It also meant that the environmental protection mission was abdicated in the very process that had previously made it seem essential.

46 The main development from the Clinton years was the adoption by the defense bureaucracy of the term “environmental security.” Although originally a call to fully reconsider what should be considered as “security” and to search for non-military solutions to climate change, this term reflected a narrower set of goals for the US Department of Defense. Over the course of the next nearly three decades, a number of other specific terms have defined American conceptions of environmental security.

47 The first key factor in the military’s understanding of climate change relates to how the Pentagon measures “risk.” Unlike in electoral politics, military assessments accepted the uncertainty of climate science and planned accordingly, because the military attempts to have contingency plans for most significant cases of uncertainty. As the 2007 CNA Corporation report explained clearly:

This approach shows how a military leader’s perspective often differs from the perspectives of scientists, policymakers, or the media. Military leaders see a range of estimates and tend not to see it as a stark disagreement, but as evidence of varying degrees of risk. They don’t see the range of possibilities as justification for inaction. Risk is at the heart of their job: They assess and manage the many risks to America’s security. Climate change, from the Military Advisory Board’s perspective, presents significant risks to America’s national security. (Sullivan et al. 9-11)

48 For believers in climate emergency waiting for US action, there is something quite hopeful in this definition of military risk assessment, while at the same time it should also serve as a limit to potential optimism. Clearly, the military does not need perfect proof before planning; general scientific consensus is more than enough if the risks are too great to ignore. However, this recategorizes climate risk as equivalent to many other threats to American national security and demands a response appropriate within its specific military framework.

49 The major DoD prior and current understanding of the security risks associated with environmental degradation in the environmental security framework is the role of climate change as a “threat multiplier”. From the earliest analysis in the George H.W. Bush administration, through the Clinton administration in high level planning documents, surviving the George W. Bush years in mid-level planning and extra-governmental research, reaching a peak as Obama used the concept to support broader policies, and refusing to disappear in the current Trump administration, the role of climate change as a threat multiplier has been the most consistent means of analysis employed by the Department of Defense for defining environmental security challenges. This concept serves two not entirely compatible purposes.



## 2.2 The utility of the threat multiplier framework

50 First, the “threat multiplier” concept recognizes the potential severity of climate change, making the problem real and urgent. By making climate change a part of other threats—allowing it to be coupled with terrorism for example—it can be integrated into whatever issues are actively considered most pressing. This can, when desired, allow some politicians to emphasize climate risks more easily as was the case with Barack Obama, who used environmental security as an argument multiplier, relying on military recognition of the threat of climate change to serve as a justification for broader climate action outside of the DoD, as was evident in his Nobel Prize acceptance speech.

51 The case of US definitions of the Syrian conflict in 2015 are a particularly clear illustration of elite efforts to solidify the threat multiplier narrative. Beginning in defense intellectual circles, then expanding in academic research, and culminating in presidential declarations, US elites rapidly defined Syria as a perfect case of the threat of climate change, building off their past narrative construction of environmental security. In 2012, the founders of the Center for Climate and Security, a think tank created in 2010 to study environmental security, published a short paper suggesting unrest in Syria was in part caused by climate change-related drought (Femia and Werrell). In 2015, academic research seemed to confirm this hypothesis (Kelley et al., Werrell et al.). A study by climate scientists published in March in the *Proceedings of the National Academy of Sciences* was particularly widely quoted in the scientific and lay press (Kelley et al., see also Selby et al. for further history and criticism of these publications). Just over two months later, Obama used this new research in his Coast Guard Academy commencement address about climate change and security. Obama claimed that the “urgent need to combat and adapt to climate change” was “one of those most severe threats” facing the nation. To reinforce his point, he argued that the results of climate change were already visible in the growing strength of Boko Haram, and borrowing from recent academic results, in the crisis in Syria:

Yet what we also know is that severe drought helped to create the instability in Nigeria that was exploited by the terrorist group Boko Haram. It’s now believed that drought and crop failures and high food prices helped fuel the early unrest in Syria, which descended into civil war in the heart of the Middle East. (Obama 2015)

52 Syria and Nigeria were small pieces of a broader puzzle challenging the United States. Obama used them as examples to illustrate the severity of climate risks, and concluded that the future would need to be interpreted through the threat multiplier framework:

Around the world, climate change increases the risk of instability and conflict. Rising seas are already swallowing low-lying lands, from Bangladesh to Pacific islands, forcing people from their homes. Caribbean islands and Central American coasts are vulnerable, as well. Globally, we could see a rise in climate change refugees. And I guarantee you the Coast Guard will have to respond. Elsewhere, more intense droughts will exacerbate shortages of water and food, increase competition for resources, and create the potential for mass migrations and new tensions. All of which is why the Pentagon calls climate change a “threat multiplier.” (Obama 2015)

53 This military-focused environmental security discourse aligned chronologically with other environmental priorities in the Obama administration. In June 2014, The EPA proposed a state-by-state approach to reducing greenhouse gas emissions by converting coal-fired power plants in the Clean Power Plan. The final version of this

regulation was unveiled by the White House in August 2015. The Paris Climate Agreement (COP 21), the high-water mark of Obama's climate change foreign policy, was simultaneously being negotiated.

- 54 Second, the very concept of climate change as primarily a threat multiplier means that climate change may be considered by some as not an important danger in and of itself. On one level, the danger is simply about harsher weather which requires changes in basing and operations. The Pittenger and Gagosian article about climate change thresholds cited above is a good example of this kind of logic. While they emphasized the fact that global warming could become dramatically worse, their advice to the military was to understand the potentially changing environment so as to better prepare for combat in warming seas, and to improve cold-weather navigation for newly accessible Arctic Ocean routes (7). In short, their advice was to recognize and understand the new environmental emergency so as to be more "resilient" in traditional military operations. "Resilience" and "adaptation" are effectively synonymous in the defense literature on climate change. They also represent a key concept that explains how environmental security translates into concrete plans and influence national climate policy by defining terms and ideas that are then shared with other departments. A 2016 presidential memorandum from Obama provides a standard and concise national security definition applied broadly: "(i) 'Resilience' refers to the ability to anticipate, prepare for, and adapt to changing conditions and to withstand, respond to, and recover rapidly from disruptions".
- 55 Additionally, treating climate change as a threat multiplier meant realizing it could lead to greater instability worldwide in politics, economics and ultimately war. In this sense, the Pentagon understood "stability" as the object being threatened and in need of response, not the environment itself as is generally the case with other representations of climate emergency outside of the DoD. Loss of freshwater, damaged coastlines, migration, and floods were considered not so much as results to be avoided by confronting the causes of climate change but rather as possible events that would result in political, social and economic instability that could lead to human violence (National Intelligence Council).
- 56 Focus on stability and resilience by addressing the threat multiplier of climate change, means that Pentagon environmental security is not about prevention of climate change by, for example, reducing emissions. Instead, the DoD has taken steps to adapt its preparedness and strategies for possible increased military missions that may result because of climate change. The military is by its very nature primarily interested in addressing issues related to armed conflict, and with this perspective predominantly represents climate change as a destabilizing force that leads to traditional security questions. The DoD's acceptance of climate change as a reality is its most important contribution because this might in turn lead other governmental and private sector segments of the nation to take direct action to help *prevent* further climate changes.

## Conclusion

- 57 This historical account clarifies what environmental security means in the United States within the Department of Defense. The DoD has been the principal bureaucracy for determining its definition as well as having the responsibility to develop plans to mitigate climate change's direct threats to the nation and its potential to increase the

frequency or severity of other more traditional military threats. Recognizing the DoD's extensive and long history in the understanding and representation of environmental issues, that have continued beyond the reach of changes of the top political leadership, will hopefully help researchers better assess the nation's overall response to climate change, now and in the near future.

- 58 This recognition should be tempered by the knowledge that the Department of Defense will never be the primary agency responsible for reducing carbon emissions or changing economic policies within the US to otherwise mitigate global warming. The outsized influence of military policy in the United States, and the bureaucratic advantage the Department of Defense holds in a consistent position of influence guiding national strategy, may very well lead the US to generally respond to climate emergency on defense terms. That is to say, to treat the results of climate change as a series of specific security challenges to address to protect the homeland, rather than taking direct action to help prevent this global emergency. Ultimately, the military is fundamentally concerned with the application of violence, and its recognition of problems that cannot be solved with force is at best a means for increasing political awareness and at worst a source of distracting solutions to strategic challenges that are really second order effects of the environmental problems that confront the entire planet.

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## NOTES

1. . Since at least Robert K. Merton's *Social Theory and Social Structure* (1949) bureaucracies have been seen as self-perpetuating and conformist. In public policy, this translates into a definition of bureaucratic inertia. Graham Allison's analysis of bureaucratic interests in international relations (organizational process model) offers a first conception of how large institutions like the Department of Defense provide narrow options to policymakers as they adopt and refine areas of influence; see Graham Allison and Philip Zelikow, *Essence of Decision: Explaining the Cuban Missile Crisis*, 2nd ed. (New York: Longman, 1999, 1st ed. 1971). More recently this bureaucratic inertia has been explained as path dependency; see Paul Pierson, "Increasing Returns, Path Dependence, and the Study of Politics," *American Political Science Review* 94, no. 2 (June 2000): 251-267.

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## ABSTRACTS

One of the key ways in which environmental emergency is recognized in the United States is as a military issue through the lens of environmental security. This article proposes an expanded understanding of this concept by taking a historical look at the evolving role of the Department of Defense in defining environmental security from the late 1980s, when the term first gained traction, through the Donald Trump administration. This approach highlights consistent themes in the Pentagon's environmental mitigation and adaptation plans, notably through its definition of climate change as a threat multiplier and the need to increase the military's resilience to changing weather conditions. By tracing the Department of Defense's response to environmental risks over more than three decades, a consistently refined narrative emerges which allows us to understand defense climate priorities, regardless of varying political leadership.

L'une des manières importantes par laquelle les États-Unis reconnaissent l'urgence climatique est en tant que problème militaire sous l'angle de la sécurité climatique. Cet article propose d'étendre la compréhension de ce concept en portant un regard historique sur l'évolution du rôle que joue le Département de la défense dans la définition de la sécurité climatique à partir des années 1980 quand ce terme est entré en dans le langage courant. Cette approche souligne des thématiques cohérentes ayant vocation à maîtriser et accompagner le changement climatique, notamment à travers sa définition du réchauffement du climat comme un "multiplicateur de menaces" et le besoin d'augmenter la résistance de l'infrastructure militaire aux conditions climatiques défavorables. En analysant les réponses proposées par le Département de la défense

face aux risques climatiques pendant plus de trente ans, on observe un fil narratif toujours plus peaufiné qui nous permet de comprendre les priorités de la Défense en ce qui concerne le climat, indépendant des changements de la direction politique du pays.

## INDEX

**Mots-clés:** Département de la défense, sécurité climatique, protection de l'environnement, politique américaine

**Keywords:** Department of Defense, environmental security, environmental protection, American politics

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