

# The Militarization of Climate Change

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Things start to become militarized when their legitimacy depends on their association with military goals. When something becomes militarized, it appears to rise in value. Militarization is seductive.

(Enloe 2004: 145)

## The Militarization of Climate Change

Climate change has been identified as a top military concern. We should be worried. In his acceptance speech for the Nobel Peace Prize in December 2009, US President Barack Obama stressed the importance of climate change to national security, and the military's growing interest in the issue. Then, on February 1, 2010 the US Pentagon released its Quadrennial Defence Review (QDR) that includes, for the first time ever, climate change as a military concern. The QDR is a powerful document that shapes the military's operating principles and budgets for the next four years. The 2010 QDR argues that military roles and missions on the battlefield will need to be reformulated to address changing environmental conditions. Climate change is presented as a 'threat multiplier' that will propel food and water scarcity, environmental degradation, poverty, the spread of disease, and

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<sup>&</sup>lt;sup>2</sup> President Obama's Nobel Peace Prize is available online (last accessed July 26, 2011) http://www.cbc.ca/world/story/2009/12/10/obama-nobel-peace-text-transcript-speech.html

<sup>&</sup>lt;sup>3</sup> The attention to climate change in the QDR was in fact mandated by US Congress through the 2008 National Defense Authorization Act (Pew, 2010).

mass migration. Each of these could contribute to 'failed state' scenarios which will demand military intervention. In an earlier report of high-ranking admirals and generals at the Center for Naval Analyses, upon which the QDR builds, this 'threat multiplier' effect and 'failed state' scenario is also directly linked to future acts of extremism and terrorism (CNA, 2007; see also CNA, 2009; Korb et al, 2009; Warner and Singer, 2009; Parthemore and Rogers, 2010).

While the US military's interest in climate change has escalated, it is not alone. In 2007, the Australian Defence Force produced a 12 page study, Climate Change, the Environment, Resources and Conflict that proposed a new role for the military in resource protection, eg tackling illegal fishing as fish stocks relocate due to the changing climate. Two years later, a Department of Defence white paper identified climate change as a 'threat multiplier,' especially in the 'fragile states' of its neighbouring South Pacific islands (Australian Government, 2009). In the UK, the DCDC Global Strategic Trends Programme 2007-2036 report—issued from within the Ministry of Defence (MoD) and considered to be a source document for national defence policy—has asserted a future role for military engagement in climate change-related scenarios around humanitarian and disaster relief, and for protecting oil and gas resources in insecure areas (see also MoD, 2010). The DCDC report even indicated that intervention in outer space might be required so as 'to mitigate the effects of climate change, or to harness climatological features in the support of military or strategic advantage' (MoD 2006: 65). Other governments discussing militarization include Germany, France, and perhaps also, secretly, India and China (Mabey 2007: 9). Military experts from across Africa, Asia, Europe, Latin America and the US have issued a joint statement warning of the impending security impact of climate change.<sup>4</sup> There was even a special session on "Climate change and the military" organized by the Brookings Institution, Chatham House, and the Institute for Environmental Security at the COP15 meetings in Copenhagen in December 2009.5

What to make of this growing military interest in climate change? There is a longstanding literature that addresses the linking of environment and security discourses (eg Käkönen, 1994; Deudney, 1999; Homer-Dixon, 1999; Barnett, 2001, 2006; Dalby, 2002, 2009; Davis, 2007). Although cautionary in their approach, many of these authors suggest that linking the two concepts makes it possible to open up questions around both security and the environment. Ragnhild Nordås and Nils Petter Gleditsch, for example, broaden the security debate to address *human security*, which takes account of matters relating to issues such as migration, disease, food security (Nordås and Gleditsch, 2007). Others argue that

<sup>4</sup> A copy of the joint statement is available online on the Institute for Environmental Security website (last accessed July 26, 2011) <a href="https://www.envirosecurity.org/news/single.php?id=148">http://www.envirosecurity.org/news/single.php?id=148</a>. One of the core projects of the Institute for Environmental Security, an NGO headquartered at The Hague, is on "Climate Change and the Military."

<sup>&</sup>lt;sup>5</sup> A short report on this session is available online (last accessed July 26, 2011) <a href="http://www.e3g.org/programmes/climate-articles/delivering-climate-security-cop15-side-event-report/">http://www.e3g.org/programmes/climate-articles/delivering-climate-security-cop15-side-event-report/</a>.

hiving climate change to national security discourses may galvanize more public interest (Dalby, 2009)—something that has been attempted with the Kerry-Graham-Lieberman climate bill in the US. But while the literature on security and environment raises some important questions, I want to problematize both the way that security is being constituted through the military, and the concept of the environment that is being mobilized, by paying particular attention to how militarization is unfolding in the US.

First, the military's interest in climate change resurrects a narrow concept of security. Although the 2010 QDR recognizes impending concerns associated with human security (eg migration, disease and food security), it models the anticipated conflict through a traditional state-to-state war scenario, refracted through a neo-Malthusian conflict over resources (Dalby, 2009; Homer-Dixon, 1999). Resource conflict and other climate change impacts are mapped onto already vulnerable places in Sub Saharan Africa, the Middle East, and South and Southeast Asia (Broder, 2009; CNA, 2007; Podesta and Ogden, 2007-08; Werz and Manlove, 2009), where, it is argued, they will act as 'threat multipliers' that will escalate into 'failed state' scenarios. This perpetuates a model whereby the enemy to the nation is elsewhere, and that 'environmental threats are something that foreigners do to Americans or to American territory,' not as a result of domestic policies (Eckersley 2009: 87). In this vein, the CIA has established a Center on Climate Change and National Security to collect foreign 'intelligence' on the national security impact of environmental change in other parts of the world.<sup>6</sup>

The bifurcation of domestic security and external threat reinforces a fiction of territorial and nationalist integrity, and works against thinking about climate change as a global problem with a need for global responsibility and global solutions (Dalby 2009: 50; Deudney 1999: 189). Moreover, the model of external threats coheres easily with the competitive frame that has been established between China and the US, as they vie not only for economic ascendency and resource-acquisition, but also for energy security and environmental policies and initiatives. In this vein, Thomas Freidman has proposed a militant green nationalism, something along the lines of a triumphalist Green New Deal that will recapture US global hegemony (Friedman, 2009). Achieving this result requires, however, more political agreement across US Democrats and Republicans, and it is precisely here that reframing climate change as a military issue seems to be an effective strategy

<sup>&</sup>lt;sup>6</sup> The CIA press release is available online (last accessed July 26, 2011) <a href="https://www.cia.gov/news-information/press-releases-statements/center-on-climate-change-and-national-security.html">https://www.cia.gov/news-information/press-releases-statements/center-on-climate-change-and-national-security.html</a>

<sup>&</sup>lt;sup>7</sup> It is no coincidence that the US and Australia have been the first to include climate change in their defence policies, while also being the two most obstinate Western states with respect to the Kyoto Protocol. Although the QDR does emphasize environmental cooperation, this cooperation is limited to allies—again, phrasing the cooperation in militaristic terms.

<sup>&</sup>lt;sup>8</sup> I am grateful to Betsy Hartmann for pointing out this very important geopolitical context.

<sup>&</sup>lt;sup>9</sup> See also the short video 'Climate Patriots,' produced by the PEW Foundation and available online, which links patriotism with national energy security (last accessed July 26, 2011) <a href="http://www.pewclimatesecurity.org/news/debut-of-climate-patriots-video/">http://www.pewclimatesecurity.org/news/debut-of-climate-patriots-video/</a>

for cross-partisan agreement.<sup>10</sup> But what are the costs when militarization becomes necessary to legitimize climate change action?

The upshot is that the military is also legitimized, to the detriment of formal and informal politics. In a secretive and hierarchical military framework there is limited scope for public participation or legislative debate (UNEP 2007: 403). Militaries are about the 'maintenance of elite power' (Barnett 2001: 25). Issues regarding social justice are disregarded in favour of national objectives, while the vulnerabilities institutionalized through climate change are perpetuated (Barnett, 2006). This is particularly apparent vis-à-vis environmental refugees, which the Intergovernmental Panel on Climate Change estimates will swell to 150 million by 2050 (Reuveny, 2007). Militarism encourages the use of force against foreigners, with barriers erected to exclude those who bear the immediate impact of climate change, even though they are usually the least responsible for climate change. As Paul Smith notes, Operation Seal Signal, which the US deployed in 1994 to deal with 50,000 refugees from Haiti and Cuba, offers an instructive example of how the military addresses refugees, most of whom were held at Guantanamo Bay while their cases were processed (Smith, 2007). The responses to human tragedy in Haiti and Hurricane Katrina, when military priorities took hold over the immediate needs of the racialized, impoverished victims, speaks to the dangers of concocting security threats so that abandonment is prioritized over assistance (Giroux, 2006; Hallward, 2010). This is part of a worrisome trend of the rise of an 'aid-military complex' and military 'encroachment' on civilian-sponsored development (Hartmann 2010: 240).

Finally, the military's approach to climate change does not lend itself to addressing fundamental social structures that perpetuate environmental degradation: oil dependency, oil colonialism, and the deepening international fragmentation of rich and poor. The conditions that entrench insecurity are thus left unchallenged. Rather, attention is directed to long term defensive planning and risk scenarios around potential disaster outcomes with the military presented as the only, or simply the best and most capable, institution for dealing with the scope of the adversity (QDR 2010: 86). Since Robert Kaplan's polemic 'The Coming Anarchy,' much of the literature invokes similar disaster scenarios (Kaplan, 1994, see also 2008; Schwartz and Randall, 2003; Campbell et al, 2007; Dwyer, 2008). Security exercises are used to model these disasters; eg a 2008 exercise at the National Defense University in Washington that anticipated that refugees escaping flooding in Bangladesh would lead to religious and political conflict at the Indian border (Werz and Manlove, 2009). Worst possible outcomes are thus anticipated, and they these become the basis for actions in the present (de Goede 2008: 159). As Melinda Cooper writes vis-à-vis the worst-case security scenarios of the Schwartz and Randall report, 'It recommends that we intervene in the conditions of

<sup>10</sup> Many thanks, again, to Betsy Hartmann for drawing attention to the importance of these debates in US domestic politics.

emergence of the future before it gets a chance to befall us; that we make an attempt to unleash transformative events on a biospheric scale before we get dragged away by nature's own acts of emergence' (Cooper 2006: 126).

Cooper's argument introduces my second concern regarding the militarization of climate change: the ways that the environment is being mobilized. As noted above, the focus on resource wars casts the environment as a 'hostile power' (Eckersley 2009: 87). Or, scarcity and degradation are 'naturalised,' while institutional causes are obscured (Hartmann 2010: 235). Either way, nature is an externality to be managed as the resurrection of the concept of 'the commons' in these debates affirms (see Posen, 2003). Advocacy groups and government representatives alike are using the 'commons' to inform their perspectives on climate change security. Abraham Denmark and James Mulvenon explicitly delineate the concept's legacy to Garrett Hardin's controversial piece, 'The tragedy of the commons,' and his argument that 'Freedom in a commons brings ruins to all' (Denmark and Mulvenon 2010: 7-8). Rather than privatization, the contemporary version of the polemic posits that military force is necessary to prevent the misuse and abuse of navigable passageways. In a web article entitled 'The Contested Commons' that is linked to the QDR2010, Undersecretary of Defense for Policy of the United States Michèle Flournoy and Shawn Brimley suggest that since WWII, US grand strategy has 'centered on creating and sustaining an international system that facilitates commerce, travel, and thus the spread of Western values including individual freedom, democracy, and liberty.'11 This 'uncontested access to and stability within the global commons' of air, sea, space and cyberspace has only been possible because of US military power. As the emergent multipolar world challenges its hegemony, they argue, it is in the US's interest to shore up its military and defend the 'global commons,' in partnership with its allies (see also Denmark and Mulvenon, 2010). The military build-up in the Arctic, where states are jockeying over access to previously unnavigable passageways and resources, is held out as an example of how emergent resource conflicts are taking shape, but also the need for a coordinated US approach to protect its interests (Carmen et al, 2010; Paskal, 2007).

The discourse around the 'commons' reinforces the idea that the environment is to be controlled and managed. This is equally the case with respect to how the militarization of climate change is also reshaping domestic politics and society. Catherine Lutz reflects that 'As or more important than the efficacy of a mode of warfare... has been the form of life it has encouraged inside the nation waging it' (Lutz 2002: 727). Her own critical work on militarism examines the social formations that are organized around the military, eg the racialized and gendered

<sup>11</sup> This article is available online through the Department of Defense (last accessed July 26, 2011) <a href="http://www.defense.gov/QDR/flournoy-article.html">http://www.defense.gov/QDR/flournoy-article.html</a>

<sup>&</sup>lt;sup>12</sup> The Center for a New American Security, which issued this report, was co-founded by Undersecretary of Defence for Policy of the United States Flournoy, and has been at the forefront of pushing a 'natural security' agenda in the US.

labour economies of suburban US formed around the production of nuclear weapons. Environmental relations need also be taken into consideration: they are constituted through the military which is charged with bringing nature under control: to model it, to manage it and to make it predictable in the name of security, albeit an anthropocentric security that is only 'understood in *human* terms' (Barnett 2001: 65; emphasis in the original). That the US military is increasingly becoming a site and source for new 'green' technologies is just one such manifestation of the orchestration of life for military purposes, and is suggestive of the problematic deepening and extension of the military-industrial-academic-scientific complex.

The QDR sets out the complex web of collaborations that will tackle climate change: the 'DoD will partner with academia, other U.S. agencies, and international partners to research, develop, test, and evaluate new sustainable energy technologies' (QDR 2010: 87). Military innovations such as GPS, radar and the Internet are offered as comparable examples of transformative technological innovation that have had immense social benefit (Warner and Singer 2009: 6). This provides a rationalization for the millions of dollars that are being siphoned into the military so that it can be at the frontlines of developing alternative energy projects. For example, the largest existing solar panel project in the US is at the Nellis Air Force Base, Nevada, where 70,000 solar panels are spread out across 140 acres to generate 14 megawatts (about 45 million KWh) a year. 13 A \$2 billion agreement signed in 2009 between DoD and Irwin Energy Security Partners will make Fort Irwin—the army's largest training camp located in California's Mojave Desert energy independent by 2022, with a 500MW solar project on 21 square miles.<sup>14</sup> Zero-energy homes are being built on US military bases. <sup>15</sup> A project is underway to introduce 4,000 electric cars into the armed forces to create one of the largest such fleets in the world (Pew 2010: 13). The first hybrid Navy vessel, a Wasp class amphibious assault ship, is already on the water (Rosenthal, 2010). In Iraq, the Tactical Garbage to Energy Refinery (or 'tiger') is converting garbage to biofuel to power generators. 16 In Helmand Province, Afghanistan, solar panels are being used on tents, for recharging computers and other equipment (Rosenthal, 2010). The Defense Advanced Research Projects Agency (DARPA)—the research and development office of the military in change of technological advancement—is developing alternative fuel sources, from products such as algae and rapeseed that

 $\underline{http://www.defenseindustrydaily.com/Baking-in-the-Mojave-Sun-US-Army-Awards-2B-Fort-Irwin-Solar-\underline{Farm-Project-05858/}$ 

<sup>&</sup>lt;sup>13</sup> On a visit to the site in May 2009, President Obama lauded the development for both its environmental and economic importance. Reported in WIRED magazine online (last accessed July 26, 2011) http://www.wired.com/dangerroom/2009/05/obama-shines-light-on-air-forces-super-solar-array/

<sup>14</sup> This report is available on the online Defense Industry Daily (last accessed July 26, 2011)

<sup>&</sup>lt;sup>15</sup> The Clarkson Online provides information about the zero-energy homes being built in Fort Campbell, KY (last accessed July 26, 2011) <a href="http://www.clarksvilleonline.com/2010/10/15/campbell-crossing-constructs-first-zero-energy-homes-on-a-military-installation/">http://www.clarksvilleonline.com/2010/10/15/campbell-crossing-constructs-first-zero-energy-homes-on-a-military-installation/</a>

<sup>&</sup>lt;sup>16</sup> Report from cnet news, available online (last accessed July 26, 2011) <a href="http://news.cnet.com/8301-11128-3-9972359-54.html">http://news.cnet.com/8301-11128-3-9972359-54.html</a>

are less carbon-intensive.<sup>17</sup> The objective of biofuels development is to make military transport more sustainable, like the 'Great Green Fleet' of aircraft carriers and support ships that is in development for 2016 (Shachtman, 2010).

It is not that this 'greening' of the military is unwarranted, or that these technological developments are not desirable. If there is to be a military at all, it might as well be more sustainable. As it is, the US military is the world's single largest energy consumer—it consumes more than any other private or public institution, and more than 100 nations (Warner and Singer 2009: 1; see also Deloitte, 2009; Sanders, 2009). This comprises 0.8% of total US energy, and about 78% of government energy use—roughly 395,000 barrels of oil a day, equivalent to all of Greece (Warner and Singer 2009: 2). Its operations abroad are equally rapacious. In the first-ever energy audit in a war zone it was revealed that US marines in Afghanistan used 800,000 gallons of fuel each day. Figures from Iraq show that between 2003 and 2007 the war generated 141 million metric tons of carbon dioxide equivalent—more than 139 countries (Reisch and Kretzmann 2008: 4). There is thus a clear case for reducing the military's damaging impact on the landscape.

The question that the 'greening' of the military sidesteps, however, is whether there should indeed be a military at all. Moreover, even if the military persists, should it be where climate change innovations are located? Should public funds be directed into the military to fight climate change? In a speech on energy security in March, 2010, President Obama lauded the \$2.7 billion already spent that year by the DoD on energy efficiency measures. This investment is being used to support select military partnerships, with a strong emphasis on privatization. The solar panel project at Nellis Air Force Base Nevada, mentioned above, is a privately financed and owned initiative by MMA Renewables, with equity investments from Citi and Allstate. The panels will be owned by the financiers; Nellis will lease the land, and purchase the power. The Fort Irwin project agreed to in October 2009 operates along similar lines, and is a partnership with the Clark Energy Group and Acciona Solar Power. The zero-energy homes being installed in Kentucky are a public-private partnership between the US Army and Actus Lend Lease. Universities are also complicit: the Tactical Garbage to Energy Refinery at

<sup>&</sup>lt;sup>17</sup> Information on the DARPA biofuels project is available online (last accessed July 26, 2011) <a href="http://www.darpa.mil/Our\_Work/STO/Programs/Biofuels.aspx">http://www.darpa.mil/Our\_Work/STO/Programs/Biofuels.aspx</a>

<sup>&</sup>lt;sup>18</sup> A report on the energy audit is available in the *Guardian* online (last accessed July 26, 2011) http://www.guardian.co.uk/environment/2009/aug/13/us-marines-afghanistan-fuel-efficiency

<sup>&</sup>lt;sup>19</sup> The text of President Obama's speech is available on the Council on Foreign Relations website (last accessed July 26, 2011) <a href="http://www.cfr.org/publication/21787/">http://www.cfr.org/publication/21787/</a>

<sup>&</sup>lt;sup>20</sup> The details regarding the agreement are available online through onet news (last accessed July 26, 2011) http://news.onet.com/8301-11128 3-9829328-54.html

<sup>&</sup>lt;sup>21</sup> This details of this partnership were reported online in Reuters (last accessed July 26, 2011) http://www.reuters.com/article/idUS169031+15-Oct-2009+PRN20091015

<sup>&</sup>lt;sup>22</sup> See the Campbell Crossing website (last accessed July 26, 2011) <u>www.campbellcrossingllc.com</u>

the Victory Base Camp in Baghdad, for example, has been developed in conjunction with Purdue University.<sup>23</sup>

When environmental issues are filtered through the military, however, less money is available for innovation in other sectors, unless they are working in partnership with the military. Military investment in green initiatives, for example, is not likely to develop innovations around public transport, but rather focus on the kind of transportation required for military needs, which will then become available to consumers—much as Sports Utility Vehicles (SUVs) are an offshoot of four-wheel drive military vehicles. Moreover, a military-driven agenda contributes to a more protectionist approach around technological innovation that is exacerbated alongside an uneven landscape of investment (UNEP 2007: 404).<sup>24</sup>

The priorities around climate change are thus skewed by the military. As President Obama affirmed in his March 2010 speech, the primary national interest is really with energy independence, not energy reduction.<sup>25</sup> At the same time that he was applauding the greening of the military, the President announced the expansion of offshore oil and gas exploration, including in the Bay of Mexico. (This expansion was later suspended in wake of the BP Deepwater Horizon disaster, before being resumed.) The military has also presented a case for mitigating the reliance on (foreign) oil and developing renewable energy, which has more to do with the impact on military personnel in the field than with ecological principles. In the last five years, fuel consumption at US forward operating bases in conflict zones has increased from 50 million gallons to 500 million gallons a year (Deloitte 2009: 15). This creates a dangerous situation for the 'long tail' of convoys that are needed to supply these bases (Pew 2010: 7). Some reports indicate that more than three quarters of US casualties in war zones are the result of supply vehicles that have been targeted by improvised explosive devices (IEDs), and convoys have been identified by Commandant General James Conway as 'one of his most pressing problems related to risk of casualties' (Deloitte 2009: 15; see also CNA, 2009). Shachtman (2010) reports that in Iraq, 'In one month, 44 trucks and 220,000 gallons of fuel were lost.' This is a problem that the QDR takes explicitly on board. Whereas climate change is presented as a 'threat multiplier,' energy efficiency is described as a 'force multiplier, because it increases the range and endurance of forces in the field and can reduce the number of combat forces diverted to protect energy supply lines, which are vulnerable to both asymmetric and conventional

<sup>&</sup>lt;sup>23</sup> See the report on this project on cnet news, available online (last accessed July 26, 2011) http://news.cnet.com/Portable%2C-trash-powered-generator-ready-for-deployment/2100-11395\_3-6155753.html?tag=mncol;txt

<sup>&</sup>lt;sup>24</sup> The UNEP models four possible approaches to climate: markets first, policy first, sustainability first, and security first, and establishes that the last would produce the worst outcome (Dalby 2009: 4). A 'security first' approach is described as a 'Me First' attitude that 'has as its focus a minority: rich, national and regional. It emphasizes sustainable development only in the context of maximizing access to and use of the environment by the powerful' (UNEP 2010: 401).

<sup>&</sup>lt;sup>25</sup> A copy of President Obama's speech is available online on the Council on Foreign Relations website (last accessed July 26, 2011) <a href="http://www.cfr.org/publication/21787/">http://www.cfr.org/publication/21787/</a>

attacks and disruptions' (QDR 2010: 87). The reduction of casualties is thus propelling much of the impetus for renewable energy, even though it is couched in climate change rhetoric (see also Warner and Singer 2009: 2; Deloitte 2009: 27). Notably, there is no mention, across any of the policy documents that have appeared, about the devastating environmental impact of war upon the landscapes where it takes place, and the need to prevent or even mitigate this destruction.

Back at home, military personnel returning from war are being enrolled as climate 'warriors.' During the 2009 election campaign Obama announced a 'Green Vets Initiative' that would provide 'green' training and jobs in the private sector for the 837,000 vets of Iraq and Afghanistan. While this exact initiative has not been introduced, the government has promoted 'Green Energy Jobs' through its Veterans Workforce Investment Program and through the American Recovery and Reinvestment Act.<sup>26</sup> This is a reconfiguration, and privatization, of the civilianmilitary pact of cradle-to-grave provision of social welfare (see Lutz 2002: 730). To this end, programs have begun popping up across the US. The 'Green Collar Vets' is a non-profit organization in Texas that helps retrain and reskill vets for the green economy.<sup>27</sup> The organization 'Veterans Green Jobs,' in partnership with several educational institutions and organizations such as Walmart, Whole Foods, and the Sierra Club, provides vets of four states with training opportunities for the 'green' economy. What differentiates their program, they argue, is that their keystone course 'Green 101,' makes explicit the links between green programs and national security. 28 Veterans are also taking on a more activist role to promote the shift to renewable energy. A group of US Vets, sponsored by Operation Free (whose mission is 'to secure America with clean energy'), travelled to Copenhagen to discuss the national security dimensions of climate change (and groups have also travelled across the US to visit Senate Offices, and to the White House).<sup>29</sup>

Domestic programs for vets, and resource and research investments for 'greening' the military point to some fundamental ways that domestic social formations are being reorganized in support of the militarization of climate change. This is part of militarism's typical 'double move': on the one hand, war is projected as being 'over there' while the 'second move saturates our daily lives with warness' (Ferguson 2009: 478). Domestic measures to address energy security are put forward as calculable, rational and even compassionate measures, while the 'foreign' threat is presented as non-state, elusive, and undetermined—and hence coherent with much of the discourse around diffuse 'new wars' and terrorist threats (Kaldor, 2006). At the same time, there is also greater convergence between the

<sup>&</sup>lt;sup>26</sup> News of the Veterans Workforce Investment Program is available online at RenewableEnergyWorld.com (last accessed July 26, 2011) <a href="http://www.renewableenergyworld.com/rea/news/print/article/2011/03/us-labor-department-to-release-us-2m-to-train-veterans-for-green-jobs">http://www.renewableenergyworld.com/rea/news/print/article/2011/03/us-labor-department-to-release-us-2m-to-train-veterans-for-green-jobs</a>

<sup>&</sup>lt;sup>27</sup> See the Green Collar Vets website (last accessed July 26, 3011) http://www.greencollarvets.org/

<sup>&</sup>lt;sup>28</sup> See the Veteran Green Jobs website (last accessed July 26, 2011) <a href="http://veteransgreenjobs.org/green-jobs-training/green-jobs-training-info">http://veteransgreenjobs.org/green-jobs-training-info</a>

<sup>&</sup>lt;sup>29</sup> See the Operation Free website (last accessed July 26, 2011) http://www.operationfree.net

inside and the outside, and between the environment and the military in the ways that the discourses are mobilized and mapped out (Cooper, 2006). Indeed, as Mikkel Vedby Rasmussen notes, there is a coherence between pre-emptive military doctrines and precautionary environmental strategies: both are based upon a rationale for urgent action based on anticipated future disaster scenarios (Rasmussen 2006: 124). Notably, however, it is only when environmental issues are harnessed to security claims that the precautionary approach gains traction.

Hiving climate change to national security ensures that environmental issues will garner more attention, as is argued by many of the experts on the environment and security noted above. But as I have sought to illustrate in this paper, instead of opening up questions regarding security or the environment, these are foreclosed by a military approach. It reduces the concept of security to a nationalist, defensive strategy modelled on future disaster scenarios of resource conflict. Moreover, it perpetuates an externalized concept of nature that is to be commanded and controlled, with no real sense of ecological prioritization. Rather, energy security emerges as the primary focus for innovation and investment to combat geopolitical concerns around the reliance on foreign oil and the threat to military personnel in the field. At the same time, increased spending on the military is legitimized as it becomes a source of 'green' initiatives. Where does this leave politics, and more precisely, as Melinda Cooper asks, 'What becomes of an anti-war politics when the sphere of military action infiltrates the 'grey areas' of everyday life, contaminating our 'quality of life' at the most elemental level?' (Cooper 2006: 129). If we support climate change initiatives, are we then pro-military? If we are anti-military, do we jeopardize climate change action? As the militarization of climate change unfolds, it is this interpenetration that needs to be disrupted, both with respect to martial approaches to the environment, and with respect to the troubling attempts to use the mobilization of climate change to re-moralize war and the military.

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#### References

Australian Government (2009) *Defending Australia in the Asia Pacific Century: Force 2030*; Department of Defence; available online (last accessed July 26, 2011):

http://www.defence.gov.au/whitepaper/docs/defence\_white\_paper\_2009.pdf

Barnett, Jon (2006) "Climatic change, insecurity and justice" in WN Adger, J Paavaola, MJ Mace and S Huq, ed. Fairness in Adaptation to Climate Change; Cambridge, MA: MIT Press: 115-.

Barnett, Jon (2001) Meaning of Environmental Security: Ecological Politics and Policy in the New Security Era; New York: Zed Books.

- Broder, John M (2009) "Climate change seen as threat to US security" New York Times, August 8, 2009; available online (last accessed July 26, 2011): <a href="http://www.nytimes.com/2009/08/09/science/earth/09climate.html?pagewanted=1&\_r=1">http://www.nytimes.com/2009/08/09/science/earth/09climate.html?pagewanted=1&\_r=1</a>
- Campbell, Kurt M, Jay Gulledge, JR McNeill, John Podesta, Peter Ogden, Leon Fuerth, R James Woolsey, Alexander TJ Lennon, Julianne Smith, Richard Weitz, and Derek Mix (2007) *The Age of Consequences: The Foreign Policy and National Security Implications of Global Climate Change*; Center for Strategic and International Studies and the Center for a New American Security; available online (last accessed July 26, 2011):

  <a href="http://csis.org/files/media/csis/pubs/071105">http://csis.org/files/media/csis/pubs/071105</a> ageofconsequences.pdf
- Carmen, Commander Herbert E, Christine Parthemore, and Will Rogers (2010) Broadening Horizons: Climate Change and US Armed Forces. Centre for New American Security; available online (last accessed July 26, 2011): <a href="http://www.cnas.org/files/documents/publications/CNAS%20Publication">http://www.cnas.org/files/documents/publications/CNAS%20Publication</a> Cli <a href="mate%20Change%20and%20the%20US%20Armed%20Forces">mate%20Change%20and%20the%20US%20Armed%20Forces</a> April%2020. <a href="mategotype="page-15">pdf</a>
- CAP (2009) Integrating Security: Preparing for National Security Threats of the 21<sup>st</sup> Century. Centre for American Progress; available online (last accessed July 26, 2011): <a href="http://www.americanprogress.org/issues/2009/11/pdf/integrating-security.pdf">http://www.americanprogress.org/issues/2009/11/pdf/integrating-security.pdf</a>
- CNA (2009) Powering America's Defense: Energy and Risks to National Security. Center for Naval Analyses; available online (last accessed July 26, 2011): <a href="http://www.cna.org/reports/energy">http://www.cna.org/reports/energy</a>
- CNA (2007) *National Security and the Threat of Climate Change*. Center for Naval Analyses; available online (last accessed July 26, 2011): <a href="http://www.cna.org/nationalsecurity/energy/">http://www.cna.org/nationalsecurity/energy/</a>
- Cooper, Melinda (2006) "Pre-empting emergence: the biological turn in the war on terror" *Theory, Culture and Society* 23(4): 113-135.
- Dalby, Simon (2009) Security and Environmental Change; Cambridge: Polity.
- Dalby, Simon (2002) *Environmental Security*; Minneapolis: University of Minnesota Press.
- Davis, Jeffrey Sasha (2007) "Introduction: Military natures: militarism and the environment" *GeoJournal* 69(3): 131-134.
- Deloitte (2009) Energy Security: America's Best Defense; available online (last accessed July 26, 2011): http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/AD/us\_ad\_EnergySecurity052010 .pdf

- de Goede, Marieke (2008) "Beyond risk: premediation and the post 9/11 security imagination" *Security Dialogue* 39(2-3): 155–176.
- Denmark, Abraham M and James Mulvenon (2010) *Contested Commons: The Future of American Power in a Multipolar World*. Center for a New American Security; available online (last accessed July 26, 2011): http://www.cnas.org/node/4011
- Deudney, Daniel H (1999) "Environmental security: a critique" in Daniel H Deudney and Richard H Matthew, ed. *Contested Grounds: Security and Conflict in the New Environmental Politics*; Albany: State University of New York Press: 187-222.
- Dyer, Gwynne (2008) Climate Wars; Scribe Publications: Melbourne.
- Eckersley, Robyn (2009) "Environmental security, climate change, and globalizing terrorism" in Damian Greenfel and Paul James, ed. *Rethinking Insecurity*, *War and Violence: Beyond Savage Globalization?* London: Routledge: 85-97.
- Enloe, Cynthia (2004) *The Curious Feminist: Searching for Women in a New Age of Empire*; Berkeley: University of California Press.
- Ferguson, Kathy E (2009) "The sublime object of militarism" *New Political Science* 31(4): 475-486.
- Friedman, Thomas L (2009) Hot, Flat and Crowded: Why We Need a Green Revolution and How it Can Renew America; New York: Picador.
- Giroux, Henry A (2006) "Reading Hurricane Katrina: race, class and the biopolitics of disposability" *College Literature* 33(3): 171-196.
- Hallward, Peter (2010) "Securing disaster in Haiti" *Monthly Review Zine*; available online (last accessed July 26, 2011): <a href="http://mrzine.monthlyreview.org/2010//hallward240110.html">http://mrzine.monthlyreview.org/2010//hallward240110.html</a>
- Hartmann, Betsy (2010) "Rethinking climate refugees and climate conflict: rhetoric, reality and the politics of policy discourse" *Journal of International Development* 22(2): 233-246.
- Homer-Dixon, Thomas (1999) *Environment, Scarcity and Violence*; Princeton: Princeton University Press.
- Käkönen, Jyrki, ed. (1994) *Green Security or Militarized Environment*; Aldershot, UK: Dartmouth.
- Kaldor, Mary (2006) *New and Old Wars: Organized Violence in a Global Era*; Cambridge: Polity Press.
- Kaplan, Robert (2008) "Waterworld" The Atlantic January/February.
- Kaplan, Robert (1994) "The coming anarchy" *The Atlantic* February.

- Korb, Lawrence, Sean Duggan, and Laura Conley (2009) *Integrating Security: Preparing for the National Security Threats of the 21<sup>st</sup> Century.* Centre for American Progress; available online (last accessed July 26, 2011): <a href="http://www.americanprogress.org/issues/2009/11/integrating\_security.html">http://www.americanprogress.org/issues/2009/11/integrating\_security.html</a>
- Lutz, Catherine (2002) "Making war at home in the United States: militarization and the current crisis" *American Anthropologist* 104(3): 723-735.
- Mabey, Nick (2007) Delivering Climate Security: International Security Responses to a Climate Changed World; London: Royal United Services Institute, Whitehall Paper No 69.
- MoD (2010) Adaptability and Partnership: Issues for Strategic Defence Review. *UK Ministry of Defence*; UK Ministry of Defence; available online (last accessed July 26, 2011): <a href="http://www.mod.uk/NR/rdonlyres/790C77EC-550B-4AE8-B227-14DA412FC9BA/0/defence">http://www.mod.uk/NR/rdonlyres/790C77EC-550B-4AE8-B227-14DA412FC9BA/0/defence</a> green paper cm7794.pdf
- MoD (2006) *The DCDC Global Strategic Trends Programme 2007-2036*. Prepared by the Development, Concepts and Doctrine Centre, a Directorate General within the UK Ministry of Defence; available online (last accessed July 26, 2011):

  <a href="http://www.cuttingthroughthematrix.com/articles/strat\_trends-23jan07.pdf">http://www.cuttingthroughthematrix.com/articles/strat\_trends-23jan07.pdf</a>
- Nordås, Ragnhild and Nils Petter Gleditsch (2007) "Climate change and conflict" *Political Geography* 26(6): 627-638.
- O'Brien, Karen (2006) "Are we missing the point? Global environmental change as an issue of human security" *Global Environmental Change* 16(1): 1-3.
- Parthemore, Christine and Will Rogers (2010) *Promoting the Dialogue: Climate Change and the Quadrennial Defense Review*. Centre for New American Security; available online (last accessed July 26, 2011): <a href="http://www.cnas.org/files/documents/publications/QDR&ClimateChange Parthemore Rogers Jan2010 code406 workingpaper 2.pdf">http://www.cnas.org/files/documents/publications/QDR&ClimateChange Parthemore Rogers Jan2010 code406 workingpaper 2.pdf</a>
- Paskal, Cleo (2007) *How Climate Change is Pushing the Boundaries of Security and Foreign Policy*; Chatham House; available online (last accessed July 26, 2011): <a href="http://www.chathamhouse.org.uk/research/eedp/papers/view/-/id/499/">http://www.chathamhouse.org.uk/research/eedp/papers/view/-/id/499/</a>
- Pew (2010) Reenergizing America's Defense: How the Armed Forces are Stepping Forward to Combat Climate Change and Improve the US Energy Security Posture; Pew Charitable Trusts Foundation Report; available online (last accessed July 26, 2011): <a href="http://pewclimatesec-cdn-remembers.s3.amazonaws.com/172e73107e0952fd86378269bdeb62f6.pdf">http://pewclimatesec-cdn-remembers.s3.amazonaws.com/172e73107e0952fd86378269bdeb62f6.pdf</a>
- Podesta, John and Peter Ogden (2007-08) "The security implications of climate change" *The Washington Quarterly* 31(1): 115-138.
- Posen, Barry (2003) "Command of the Commons" *International Security* Summer: 5-46.

- QDR (2010) *Quadrennial Defence Review Report*. US Department of Defence; available online (last accessed July 26, 2011): <a href="http://www.defense.gov/qdr/">http://www.defense.gov/qdr/</a>
- Reuveny, Rafael (2007) "Climate change-induced migration and violent conflict" *Political Geography* 26(6): 656-673.
- Reisch, Nikki and Steve Kretzmann (2008) *A Climate of War: The War in Iraq and Global Warming*. Oil Change International Report; available online (last accessed July 26, 2011): <a href="http://priceofoil.org/wp-content/uploads/2008/03/A%20Climate%20of%20War%20FINAL%20(March%2017%202008).pdf">http://priceofoil.org/wp-content/uploads/2008/03/A%20Climate%20of%20War%20FINAL%20(March%2017%202008).pdf</a>
- Rosenthal, Elisabeth (2010) "US military orders less dependence on fossil fuels"

  New York Times, October 4, 2010. Available online (last accessed July 26, 2011):

  <a href="http://www.nytimes.com/2010/10/05/science/earth/05fossil.html?r=2&th&emc=th">http://www.nytimes.com/2010/10/05/science/earth/05fossil.html?r=2&th&emc=th</a>
- Sanders, Barry (2009) *The Green Zone: The Environmental Costs of Militarism*; AK Press.
- Schwartz, Peter and Doug Randall (2003) *An Abrupt Climate Change Scenario and Its Implications for United States National Security*; available online (last accessed July 26, 2011):

  <a href="http://www.edf.org/documents/3566">http://www.edf.org/documents/3566</a> AbruptClimateChange.pdf</a>
- Shachtman, Noah (2010) "Green monster" *Foreign Policy* May/June. available online at <a href="http://www.foreignpolicy.com/articles/2010/04/26/green monster">http://www.foreignpolicy.com/articles/2010/04/26/green monster</a>
- Smith, Paul J (2007) "Climate change, mass migration and the military response" *Orbis* 51(4): 617-633.
- UNEP (2007) GEO4 Global Environment Outlook: Environment for Development. United Nations Environment Program; available online (last accessed July 26, 2011): <a href="http://www.unep.org/geo/geo4/report/GEO-4">http://www.unep.org/geo/geo4/report/GEO-4</a> Report Full en.pdf
- Warner, Jerry and Peter W Singer (2009) Fueling the 'Balance': A Defense Energy Strategy Primer; Brookings Institute; available online (last accessed July 26, 2011):

  <a href="http://www.brookings.edu/~/media/Files/rc/papers/2009/08">http://www.brookings.edu/~/media/Files/rc/papers/2009/08</a> defense strategy singer.pdf</a>
- Werz, Michael and Kari Manlove (2009) *Climate Change on the Move: Climate Migration will Affect the World's Security*; Center for American Progress; available online (last accessed July 26, 2011): <a href="http://www.americanprogress.org/issues/2009/12/on">http://www.americanprogress.org/issues/2009/12/on</a> the move.html