Climate Refugees and Climate Conflict: Who's Taking the Heat for Global Warming?

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The spring and summer of 2007 brought a spate of alarming articles and reports about the security implications of climate change. Writing in the April issue of the *Atlantic Monthly*, journalist Stephan Faris attributed the violence in Darfur in large part to global warming-induced environmental degradation and drought. Several months later a report on the Sudan by the United Nations Environment Program (UNEP) drew similar conclusions, arguing that a combination of demographic pressures, resource scarcity and climate change were at the root of ethnic conflict in the region and increasingly threatened security in other parts of Africa as well (UNEP 2007).

Along with the Darfur stories came other dire predictions about the threat of so-called "climate refugees." In May, the U.K.-based NGO Christian Aid (2007a) released a report entitled *Human Tide: The Real Migration Crisis* that painted an apocalyptic scenario of millions of displaced climate refugees roaming the globe and wreaking havoc, creating "a world of many more Darfurs" (Christian Aid 2007b). Journalists and pundits alike jumped on the bandwagon. Writing in *Scientific American* online, Columbia University economist Jeffrey D. Sachs warned that climate change could soon force "hundreds of millions" of people to relocate (Sachs 2007). In the *New York Times* Canadian political scientist Thomas Homer-Dixon claimed that "Climate stress may well represent a challenge to international security just as dangerous – and more intractable – than the arms race between the United States and the Soviet Union during the cold war or the proliferation of nuclear weapons among the rogue states today" (Homer-Dixon 2007).

National security agencies have also entered the arena. A 2003 Pentagon-sponsored study of the impacts of abrupt climate change paints a grim neo-Malthusian scenario of poor, starving populations overshooting the reduced carrying capacity of their lands, engaging in violent conflict over scarce resources, and storming en masse towards our borders (Schwartz and Randall 2003). More recently, the defense think tank, CNA, gathered a team of 11 retired U.S. general and admirals to produce a report *National Security and the Threat of Climate Change* which argues that global warming could trigger widespread political instability in poor regions and large refugee movements to the U.S. and Europe (CAN 2007).

I am as worried about climate change as anyone who believes the phenomenon is real and likely to affect disproportionately the poorest and most vulnerable people on the planet. I also accept that in some places environmental changes due to global warming could exacerbate already existing economic and political divisions. However, whether or not violent conflict and mass migrations result depends on so many other factors that it is far too simplistic to see climate change as a major cause or trigger. Moreover, such threat scenarios ignore the way many poorly resourced communities manage their affairs without recourse to violence. A substantial body of research indicates that violent conflict in the Global South is much more connected to resource *abundance* (rich oil and mineral reserves, valuable timber, diamonds, etc.) than resource *scarcity* (e.g., see Fairhead 2001). Above all, it is institutions and power structures at the local, regional, national and international levels that determine whether conflict over resources turns violent or not.

The images and narratives in the articles and reports cited above have an all too familiar ring, drawing on neo-Malthusian environmental security discourses of the 1980s and 1990s that blamed

intrastate conflict in the Global South on environmental degradation, resource scarcity and migration. Then, as now, this line of reasoning not only naturalizes profoundly political conflicts, but casts poor people as victims-turned-villains, a dark, uncontrollable force whose movement ultimately threatens our borders and way of life.

As Nordas and Gleditsch note, neo-Malthusian climate conflict scenarios are largely based on speculation and questionable politicized sources. While there is little substantive research to substantiate their claims, they are nevertheless fast making their way into influential policy arenas. In April 2007, for example, the U.K. government was able to convince the U.N. Security Council to establish climate change as a security issue (Nordas and Gleditsch 2007).

Why are these narratives taking hold when there is little evidence to support them? To answer that question one needs to look at both their construction – the history of the key assumptions, stereotypes and images upon which they draw – as well their strategic uses by various actors and institutions. In the process, I argue, one cannot avoid the salience of race.

Western environmental thought has a long tradition of both racism and climatic determinism, with dangerous places and inferior races an especially common motif in the period of European expansionism. As historian David Arnold writes, "While race was often regarded as a self-sufficient and self-evident dynamic, used to explain and justify the superiority of Europeans on a global scale, geographical and climatic determinism was also used to bolster racial arguments" (Arnold 1996: 28) Climatic determinism was also linked to conflict. For example, in the early part of the 19th century, American geographer Ellsworth Huntington argued that drought and famine caused by climate changes rendered Asian societies in particular permanently unstable and uncivilized (Arnold 1996). It is remarkable how these assumptions, albeit with modifications, survive and thrive in the present day. Their resilience is due in part to how they draw on a reservoir of core racial stereotypes,[1] such as Africans as savages.

Contemporary literature on policy narratives also helps explain how certain narratives persist because they are *useful* to powerful interests. For example, Emery Roe has coined the phrase "crisis narrative" to describe the Malthusian population/scarcity scenarios applied indiscriminately to different African countries which are designed to justify the intervention of Western development agencies (Roe 1995). Often a part of this narrative is the unproven assertion that vast areas of the continent are experiencing a "soil fertility crisis" (Keeley and Scoones 2003). Racial stereotypes are deeply embedded in these crisis narratives. Their primary association with Africa, moroever, provides a link to negative domestic stereotypes about African-Americans.

This paper explores the connection between past and present narratives which link migration and conflict to environmental change. Section One focuses on the evolution of climate refugees/conflict discourses. Section Two looks at the role of climate change narratives about Hurricane Katrina in linking racist assumptions about Africans and African-Americans. Section Three considers the intended and unintended consequences of portraying climate change as a national security threat. Who has the most to gain and who has the most to lose?

I. *From Environmental Refugees to Climate Refugees*

The relationship between environment and security has a long and complicated history in the U.S. It has deep ideological roots in the peculiar qualities of U.S. mainstream environmentalism in which neo-Malthusian fears of overpopulation, ignorance of international development issues, apocalyptic predictions of imminent ecological collapse, romantic beliefs in the wilderness and 'pure' nature, and the associated conviction that people are necessarily bad for the environment serve as a dark filter through which to view poor people in the Global South. These perspectives have helped give rise to and reinforce a powerful policy narrative that I call the "degradation narrative" (Hartmann 2003, 2006).

Drawing on old colonial stereotypes of destructive Third World peasants and herders, degradation narratives go something like this: population-pressure induced poverty makes Third World peasants degrade their environments by over-farming or over-grazing marginal lands. The ensuing soil depletion and desertification then lead them to migrate elsewhere as 'environmental

refugees', either to other ecologically vulnerable rural areas where the vicious cycle is once again set in motion or to cities where they strain scarce resources and become a primary source of political instability (Hartmann 2003). Despite salient critiques by international development scholars and practitioners,[2] the degradation narrative has proved particularly popular in Western policy circles because it kills a number of birds with one stone: it blames poverty on population pressure, and not, for example, on lack of land reform or off-farm employment opportunities; it blames peasants for land degradation, obscuring the role of commercial agriculture and extractive industries; and it targets migration both as an environmental and security threat.

With the waning of the Cold War, growing interest in sustainable development and alternative visions of security increased the authority of the degradation narrative. In particular, concern began to mount about the dangers posed by so-called 'environmental refugees'. It is not clear who first coined this term; analyzing its origins, Patricia Saunders goes all the way back to Malthus and points to neo-Malthusian environmentalist Lester Brown and the Worldwatch Institute as its contemporary originators. Central to the concept is the assumption that population pressure is one of the main precipitating causes of environmental degradation and resulting migration (Saunders 2000).

In 1995 the Climate Institute in Washington, D.C. published a report *Environmental Exodus: An Emergent Crisis in the Global Arena* which further popularized and legitimized the concept of environmental refugees. Authored by the neo-Malthusian environmental writer Norman Myers, the report offered a working definition of environmental refugees:

> Environmental refugees are persons who can no longer gain a secure livelihood in their traditional homelands because of environmental factors of unusual scope, notably drought, desertification, deforestation, soil erosion, water shortages and *climate change* [my emphasis], also natural disaster such as cyclones, storm surges and floods. In face of these environmental threats, people feel they have no alternative but to seek sustenance elsewhere, whether within their own countries or beyond and whether on a semi-permanent or permanent basis. (Myers 1995: 18-19)

The report stressed the role of population pressure as a cause of environmental degradation; in many cases, Myers wrote, environmental refugees are actually "population pressure" refugees (63).

The report made the statistical claim that there were at least 25 million environmental refugees in the world, compared with 22 million refugees of "traditional kind" (1). Despite the fact that the 25 million figure was arrived at more by conjecture than scientific method,[3] it began to circulate widely in the international policy arena. For example, in 1999 the *World Disasters Report* of the International Federation of the Red Cross and Red Crescent Societies cited it as fact (Saunders 2000). It is interesting to note that the Myers report was already making a link between climate change and environmental refugees and was published by a NGO working to heighten policymakers' interest in global warming. Myers now makes the claim that there are 250 million environmental refugees, a figure which is presented in the Christian Aid report *Human Tide* (Nordas and Gleditsch 2007).

In addition to unreliable statistics, the 'environmental refugee' concept has a number of shortcomings. First, it is depoliticizing because it naturalizes the economic and political causes of environmental degradation and masks the role of institutional responses to it. Should people forced to leave their homelands because of the development of a large dam, mine tailings, petroleum pollution, or flooding caused by illegal logging all be categorized together as 'environmental refugees'? Shouldn't the powerful actors primarily responsible for the degradation and displacement – whether they be local bigwigs, government agencies, international financial institutions, or private corporations -- be identified *by name*? In the case of extreme natural events such as droughts, storms and floods, whether or not people are forced to migrate permanently from their homes usually depends on pre-existing social relations (who is most vulnerable) and post-disaster responses (what kind of aid/relief is provided and who receives it). Economic, ethnic, age and gender stratification all matter, as well as the political disposition of those who dispense relief (Wisner et al 2004).

Secondly, the concept of environmental refugee is dehistoricizing. To understand why particular populations and landscapes are more vulnerable to the effects of environmental change requires moving beyond the immediate present to explore the past. For example, when Hurricane Mitch struck Honduras and Nicaragua in 1998, the floods and landslides that displaced many communities were mainly due to 50 years of deforestation to clear land for export crops such as beef, coffee, cotton and bananas (Wisner et al 2004). Who set that particular pattern of agricultural and economic development in motion, who has benefited and who has lost from it – these are considerations missing from the over-arching categories of both 'natural disaster' and 'environmental refugee.'

Thirdly, rooted as it is in neo-Malthusian thinking, the concept of 'environmental refugee' overemphasizes the role of demographic pressures in migration. The causes of migration are extremely complex and context-specific, and moreover, there is little evidence to support the view that demographic pressure is at the root of many population movements (Suhrke 1997). In addition, negative neo-Malthusian narratives of migration obscure the positive roles migration can play in improving people's livelihoods and diminishing vulnerability to environmental change. Often migration from rural areas is not a linear phenomenon or a rejection of rural livelihoods, but instead a vital part of sustaining them. Black (1998) notes that in the African Sahel migration is less a response to environmental decline than a strategy of income diversification, with remittances playing a major role in household and regional economics.

Despite such shortcomings, the environmental refugee concept was deployed by a variety of political actors. Sustainable development advocates found it useful to focus policy attention on environmental degradation issues (Black 1998) and population agencies to drum up support for international family planning assistance (Hartmann 2003, 2006; Hartmann and Hendrixson 2005). It also appealed to Western interests in favor of more rigid immigration controls, including limiting the grounds for political asylum. Kibreab argues that the term was invented in part to "depoliticize the causes of displacement, so enabling states to derogate their obligation to provide asylum" (Kibreab 1997:21, cited in Saunders 2000:240). Interestingly, in 1999 Climate Institute director John Topping told me that there was considerably more media and policy interest in Norman Myers' report in Europe than in the U.S. because at that time Europeans were more anxious about immigration than Americans (Personal Communication, May 27).

As the concept gained favor, environmental refugees were increasingly portrayed as a security threat. As Black notes, whatever the precise number and definition of environmental refugees:

> a common feature of the literature is to talk of 'millions' of displaced people, and their dramatic impact on host regions, such that regional security is threatened. The image is one of misuse or overuse of the environment leading to progressive decline in the resource base, and possibly contributing to further dramatic (and unintended) environmental collapse. Environmentalists and conflict specialists see common cause in talk of 'environmental refugees'; even if the linkages between conflict and refugees remain to be proven (Black 1998:23).

In the 1990s Canadian political scientist Thomas Homer-Dixon propelled the degradation narrative and its negative depiction of migration into the 'high politics' of national security. Homer-Dixon's environmental conflict model maintains that scarcities of renewable resources such as cropland, fresh water, and forests, induced in large part by population growth, contribute to migration and violent intrastate conflict in many parts of the developing world. In his own words:

> Population growth and unequal access to good land force huge numbers of people onto marginal lands. There, they cause environmental damage and become chronically poor. Eventually, they may be the source of persistent upheaval, or they may migrate yet again, helping to stimulate ethnic conflicts or urban unrest elsewhere (Homer-Dixon 1999:155).[4]

This conflict, in turn, can potentially disrupt international security as states fragment or become more authoritarian.[5]

Homer-Dixon's work had a major influence in Washington policy circles particularly in the early years of the Clinton administration when Al Gore championed the environment as a cause. Also

instrumental in the promotion of Homer-Dixon's ideas was generous financing from private population funders seeking support from the national security establishment for U.S. government involvement in the 1994 International Conference on Population and Development in Cairo (Hartmann 2003, 2006; Hartmann and Hendrixson 2005). The Woodrow Wilson Center's Environmental Change and Security Project also gave Homer-Dixon and other academics, policymakers, and military officials involved in environmental security a platform from which to spread their views (Hartmann 2003). A measure of Homer-Dixon's success was that in 1994 and 1995 the Clinton administration's *National Security of Engagement and Enlargement*, an important blueprint for foreign and defense policy, stated boldly in the preface that "large-scale environmental degradation, exacerbated by rapid population growth, threatens to undermine political stability in many countries and regions" (White House 1995: 47).

  While the influence of the environmental conflict model waned in the latter days of the Clinton administration and was pushed further backstage after 9/11 and George W. Bush's "war on terror," its legacy persists today in the climate change arena where degradation narratives again link environmental change to violent conflict. UNEP's report, *Sudan: Post-Conflict Environmental Assessment*, for example, draws on Homer-Dixon's model and related research to make claims that overpopulation of both people and livestock, coupled with environmental stresses such as water shortages related to climate change, are at the root of conflict in the region. According to the report,

> Northern Darfur – where exponential population growth and related environmental stress have created the conditions for conflicts to be triggered and sustained by political, tribal or ethnic differences – can be considered a tragic example of the social breakdown that can result from ecological collapse. (UNEP 2007:95)

Atlantic Monthly journalist Stephan Faris similarly argues that the real fault lines in Darfur are between "settled farmers and nomadic herders fighting over failing lands." And he attributes the failure of those lands primarily to climate change-induced reductions in rainfall. "With countries across the region and around the world suffering similar pressures, some see Darfur as a canary in the coal mine, a foretaste of climate-driven political chaos" (Faris 2007)

  The Darfur climate confict narrative has spread speedily and widely. Even U.N. Secretary General Ban Ki Moon embraced it in a June 2007 *Washington Post* op-ed. In addition to letting the Sudanese government off the hook, the narrative ignores basic elements of Sudanese political economy that helped create and sustain the conflict. These include gross inequalities in wealth and power between the elite in the capital and the rural population; government agricultural policies that favor large mechanized farms and irrigation schemes over rain-fed, small farmer agriculture, causing both political grievances and land degradation; forced migration, such as the 1990s removal of Nuba farmers from their lands into so-called "peace villages" where they became a source of captive labor for mechanized farms; and what Alex de Waal calls "militarized tribalism" (de Waal 2007). The recent discovery of a vast underground aquifer underneath Northern Darfur is not likely to diffuse the crisis, but rather to heighten it if the government controls the water for its own interests (Polgreen 2007).

  The Darfur narrative draws strength from the continuing uncritical acceptance of the degradation narrative and the associated concept of environmental refugees. On a more subconscious level, it also draws strength from stereotypes of Africans being more naturally prone to violence and savagery. Darfur is just the start, commentators warn us, the rest of Africa could soon follow suit. But the threat is not only without, it also lies within. The next section looks at how narratives about Katrina's climate refugees link negative images of Africans and African-Americans.

II. "The Coming Anarchy" Meets New Orleans

  When Hurricane Katrina struck New Orleans in late August 2005, I, like many other Americans, sat glued in front of the TV set, watching with horror the scenes of flooding streets, flattened homes and floating corpses. If these were intended to pull on my heart strings – which they did – another set of images was designed to have the opposite effect. These were the pictures of young black men out of control, shattering glass and looting stores, and later running amok at the Superdome. I remember thinking then how similar these visuals and associated commentary were to American TV coverage of African urban warfare.

Others have noted the same parallel. Alex de Waal writes how Robert Kaplan's influential article, "The Coming Anarchy," which portrays West African young men as postmodern barbarians in a region rendered hopeless by overpopulation and environmental degradation, served along with "the imagery of black youth rampaging through a shattered tropical city" as "rich sources of metaphor for New Orleans" (de Waal 2006:7) *The Army Times* newspaper wrote on September 2, 2005 that "combat operations are now underway on the streets…This place is going to look like little Somalia…We're going to go out and take the city back" (cited in Rodríguez and Dynes 2006:3).

Later, when the waters settled, critiques emerged of the mob and looting stories. Many people 'looting' were actually in a desperate search for necessities like clean water, food, and diapers. Moreover, there was much less violence at the Superdome than previously reported, and the New Orleans murder rate stayed stable during the week after Katrina. The disaster and displacement were real enough, but the violent anarchy was a spectacle, an illusion, created by the media. As Rodríguez and Dynes (2006:6) note, "While it is common for rumors of looting and all kinds of anti-social behavior to emerge in most major disasters, the volume and persistence of such rumors on TV in Katrina was unparalleled." One particularly effective TV strategy was to show the same footage of looting over and over again, and to begin news segments about Katrina with unproven rumors of violent crime.

Another repeated image of Katrina also stands out: Katrina as a swirling mass of clouds on a weather map with Al Gore or another commentator standing in front, warning us that climate change threatens us with ever more Katrinas (Oprah 2006). While many scientists agree that the rise in sea temperatures could cause more damaging storms, there is of yet no scientific consensus that global warming caused Katrina. Nevertheless, poor black people displaced from New Orleans are increasingly being depicted as 'climate refugees.'

In the aftermath of Katrina, environmentalist Lester Brown, now director of the Earth Policy Institute, stated that the estimated 250,000 Katrina evacuees were 'climate refuges': "The first massive movement of climate refugees has been that of people away from the Gulf Coast of the United States" (Brown 2006). The progressive magazine *In These Times* recently carried a story linking Katrina's exiles with displaced Bangladeshis and Tuvaluans: "Driven from home, history and culture by a warming planet, they also share unofficial status as climate refugees – a category that no international treaties recognize or protect" (Allen 2007).

Even if one could definitively prove that Katrina was caused by climate change, would it make sense to speak of those internally displaced by the hurricane as 'climate refugees'? The extent of the human disaster in New Orleans has much more to do with race, class, and government incompetence than with the strength of Katrina's winds. It is outside the scope of this paper to describe why Katrina was an unnatural disaster -- others have done that well (e.g., see Pastor et al 2006). Suffice it to say that from an explanatory point of view, 'climate refugees' does nothing to illuminate why people were forced to flee in the first place and why many of them have not been able to move back to their homes. In fact, the term obscures the role of powerful actors like the Army Corps of Engineers, who despite ample warning, did not maintain the levees. But we are not likely to hear the term 'Army Corps of Engineers refugees.'

It is worth considering whether the term 'climate refugees' would be used for Katrina's victims if they were majority white. There is an implicit connection between the racialized images of looting and anarchy seen on our TV screens and Al Gore's weather map. We are being taught to fear not so much global warming as the dark people it will set loose, on the move, whether from across the seas or within the borders of our own nation. This fear helps lay the ground for the militarization of global warming.

III. High Politics—or Low Politics?

The beat is on. Climate refugees, climate conflict, even climate terrorists – we are likely to witness escalating rhetoric about these dangerous threats in the coming months and years, despite the absence of credible evidence. The urgent task at hand is to examine why, how and by whom they are being strategically deployed.

It is one of the oldest games in town to dress up issues as security threats in order to garner funding, media attention and political support. For example, I heard recently from a NGO lobbyist in Washington, D.C. that environmental groups are linking climate change to national security in order to persuade conservative members of Congress to pass legislation limiting carbon emissions. I would not be surprised if population lobbying organizations start to employ similar tactics to convince conservatives to support international family planning assistance.[6] Those who pursue such strategies often claim they are simply being pragmatic and have the best of intentions. Whatever their motivations, their appeals to security and use of fear often have negative consequences, intended or not.

There are a number of stages before a rhetorical appeal to security actually leads to an issue getting "securitized", that is, becoming an actual object of security agencies and policies (Buzan et al 1998). But rhetorical appeals can perform another vital function by buttressing and expanding already existing security agendas and undermining the role of civilian institutions seeking solutions. How might 'climate refugees' and 'climate conflict' do this?   The following suggestions are necessarily speculative, but I believe they warrant close monitoring:

Immigration enforcement. The threat of climate refugees could be strategically deployed by anti-immigrant groups and government agencies to build public support for further crackdowns on 'illegal' immigrants in both the U.S. and Western Europe. In the U.S. anti-immigrant groups already appeal to environmental arguments – e.g. immigrants are the cause of urban sprawl and the destruction of pristine landscapes – to draw liberals into their fold. In January 2007, Kellogg, Brown and Root (KBR), a Halliburton subsidiary, won a contract from the federal government to augment existing ICE (Immigration and Customs Enforcement) detention and removal facilities "in the event of an emergency influx of immigrants into the U.S." The contract allows for "migrant detention support" to other government agencies during an immigration emergency "as well as the development of a plan to react to a national emergency, such as a natural disaster" (Halliburton 2006). This contract has generated considerable controversy, including accusations that the government is building concentration camps. Although the concentration camp theory is (hopefully) far-fetched, there is the potential that these facilities could be used for internally displaced Americans, such as those affected by Hurricane Katrina (Vlahos 2006).

Military Motives: There are a number of ways in which climate refugee/conflict discourses could prove useful to the military. For one, they could provide a rationale for greater integration of military agencies in both immigration enforcement and the management of natural disasters. Blurring the line between civilian and military institutions, the U.S. Northern Command and the Department of Homeland Security are currently working to develop a Common Operational Picture framework that links information and data systems for a coordinated response to catastrophic events (Kievit and Elliot 2007). The interoperability of data systems has come under fire by civil libertarians. (Hayes and Tassé 2007).

Secondly, these narratives could be used to justify continued funding of expensive military surveillance satellites and naval remote sensing since the data generated by these technologies can purportedly have a dual use, supporting military intelligence and operations as well as civilian work on climate change. In the 1990s, the Pentagon and CIA deployed concerns about environmental conflict in a similar manner to justify the maintenance of expensive surveillance systems (Hartmann 2003). The narratives could also justify the development of grandiose and potentially dangerous schemes to regulate the climate. The 2003 Pentagon study, for example, recommends that the DoD "explore geo-engineering options that control the climate" (Schwartz and Randall 2003:22). There is a long history of the militarization of weather and climate control in the U.S., and some of the current schemes being discussed are frightening indeed (Fleming 2007).

Thirdly, a focus on climate change could facilitate the military's strengthening of relationships with environmental scientists. In the 1990s, the controversial MEDEA project allowed a select group of environmental scientists to have access to classified intelligence data on the environment, and in addition environmental scientists worked with both U.S. and British intelligence agencies on early warning systems to identify potential areas of environmental conflict (Hartmann 2003). The recent

report on *National Security and the Threat of Climate Change* states in its recommendations that "Critical security-relevant knowledge about climate change has come from the partnership between environmental scientists and the defense and intelligence communities. That partnership, vibrant in the 1990s, should be revived" (CNA 2007:47).

Fourthly, perceived threats of climate conflict give the U.S. military additional justification for overseas interventions, especially in Africa. The Bush administration recently established a new regional military command for Africa, AFRICOM, and is increasing military assistance and arms and equipment sales to African nations that are oil-rich and/or strategically important in the "war on terror". Direct interventions are also not out of the question. In September of this year, a U.S. C-130 military transport plane dropped food aid to Malian soldiers fighting Tuareg rebels (Berrigan 2007).

It is against this background that one must view the escalating rhetoric about climate conflict in Africa. *National Security and the Threat of Climate Change* emphasizes how resource scarcity, environmental degradation and climate change are likely to trigger violent conflict on the continent. According to its recommendations,

> Some of the nations predicted to be most affected by climate change are those with the least capacity to adapt or cope. This is especially true in Africa, which is becoming an increasingly important source of U.S. oil and gas imports. Already suffering tension and stress resulting from weak governance and thin margins of survival due to food and water shortages, Africa would be yet further challenged by climate change. The proposal by DoD to establish a new Africa Command reflects Africa's emerging strategic importance to the U.S., and with humanitarian catastrophes already occurring, a worsening of conditions could prompt further U.S. military engagement. As a result, the U.S. should focus on enhancing the capacity of weak African governments to better cope with societal needs and to resist the overtures of well-funded extremists to provide schools, hospitals, health care and food (CNA 2007:47).

There is an echo here of the Clinton administration's doctrine of 'preventive defense' developed in response to the disastrous U.S. intervention in Somalia and ongoing problems in countries like Sudan. The aim of preventive defense was to understand the underlying causes of conflict and instability, develop early warning systems to forecast potential crises, and to take action before costly military interventions were required. Homer-Dixon's model was incorporated into environmental components of the doctrine, and preventive defense proponents also viewed environment security as a tool to build bridges not only with environmental scientists, but humanitarian and development NGOs (Hartmann 2003).

These ideas are now back in vogue with many of the same actors involved, though the rhetoric has shifted from environmental conflict to climate change. Recently, the Woodrow Wilson Center's Environmental Change and Security Project sponsored a training workshop for military officials on population, environment and security with support from the U.S. Army War College's Center for Strategic Leadership (CSL). In a summary of the workshop, CSL's Kent Butts and Arthur Bradshaw (2007) note that Department of Defense Directive (DoD) 3000.05 supports a return to the preventive defense strategy of the 1990s.

This directive states that "stability operations" shall be given equal priority to combat operations. "Stability operations" involve establishing order through "advancing U.S. interests and values."

> The immediate goal often is to provide the local populace with security, restore essential services, and meet humanitarian needs. The long-term goal is to help develop indigenous capacity for securing essential services, a viable market economy, rule of law, democratic institutions, and a robust civil society (DoD 2005:2).

To this end, the U.S. military should mainly work through "indigenous, foreign, or U.S. civilian officials" or "military-civilian teams" which shall be open to representatives of International Organizations, NGOs, and the private sector (3).[7]

The workshop at the Woodrow Wilson Center focused on AFRICOM where stability operations are central to the mission of securing U.S. strategic interests. It highlighted the destabilizing role of climate change in the African region. "Countries essential to U.S. strategic objectives and regional stability are put at risk by resource scarcity and other destabilizing issues

that will be exacerbated by changes in climate" (Butts and Bradshaw 2007:3). Climate change in general was presented as a major threat and there was a briefing on the report *National Security and the Threat of Climate Change*. According to Butts and Bradshaw, the relationship between climate change and conflict is also the subject of a forthcoming study by the National Intelligence Council.

These developments bear further scrutiny especially in regards to increased U.S. military engagement in Africa. One can imagine a scenario where climate conflict narratives bolster direct military intervention and indirect "stability operations" that effectively involve environmental scientists, NGOs, academics and other civilian actors in counter-insurgency with a humanitarian face.

It is important to bear these cautions in mind as climate change rightfully becomes a more urgent subject of national and international policy. How we define the threats posed by climate change will help shape how we frame responses. Promoting racialized fears of those who are most vulnerable to global warming strengthens the hands of anti-immigration and national security interests and undermines civilian efforts to find practical and democratic solutions.

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[1] See Karim (1997) for an analysis of the role of primary stereotypes.

[2] For example, Blaikie and Brookfield 1987.

[3] While doing PhD research on environment and security in 1997, I was told by someone who was present during the process that the figure was essentially conjured up by clustering groups of refugees and immigrants on the basis of already dubious statistics.

[4] Relocated to urban areas, for example, Homer-Dixon's destructive peasants become a 'youth bulge' of young men who are easily mobilized for violence and terrorism. 'Youth bulge' theories and images figure prominently in the current U.S. 'war on terror'. They naturalize political conflict in the Middle East by attributing it to the population pressure of too many young Muslim men on scarce environmental and economic resources. Youth bulge theories also reinforce sociobiological views of young men as inherently more prone to aggression and violence (Hartmann and Hendrixson 2005).

[5] For a critique of his model, see Hartmann (2001).

[6] See Cincotta et al (2003) for an example of this phenomenon.

[7] Butts and Bradshaw (2007) note that in a similar vein, the "combating terrorism community" is developing a new approach of "addressing the Underlying Conditions (UC) that terrorists seek to exploit" (2).

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