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The Security Dimension of Climate Change

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6 September 2007

While global climate change has been in the spotlight in recent times, much of the focus has been centered on highlighting the direct environmental impact of the phenomenon. To garner a greater degree of governmental interest and political will, there may be a need to go beyond this “first-order” emphasis and to pay more attention to the security implications of these environmental effects.

IN RECENT MONTHS, much effort has been made by individuals, advocacy networks and transnational organizations to raise global awareness about the perils of climate change. Much of this focus, however, has been to emphasize on the first-order impact of climate change: that is the direct repercussions of climate change on the environment. Some examples of first-order effects are environmental consequences such as retreating glaciers, rising sea levels and greater weather extremes, among others.

Now, in order to increase the level of international political will and secure more governmental “buy-ins”, the “first-order” approach may not be enough. More emphasis, indeed, should also be paid to the *indirect second-order consequences*: how these physical changes might then translate into serious security implications that would ineluctably affect individual states. Climate change is more than just a question of environmental degradation; it is also about security dynamics and this nexus should be given greater weight.

Climate change refers to the artificial warming of the earth as a result of excessive emission of greenhouse gases induced by man-made activities. While scientists are unsure about the extent and speed of shifts in climate, the overwhelming consensus is that the phenomenon is real and undeniable. Indeed, a report released by the Intergovernmental Panel on Climate Change (IPCC) this year concludes that “the warming of the climate system is unequivocal” and that much of this can be attributed to increases in human-induced greenhouse gas concentrations.

Second-Order Implications: The Security Dimension

The warming of the earth is likely to bring about various physical repercussions to the environment. But more than just these physical manifestations of climate change, they also inexorably give rise to secondary-order problems that may well have security implications.

For a start, climate change has the potential to generate more humanitarian crises. Climate change is likely to induce a greater frequency and intensity of natural disasters such as flooding and hurricanes, and these extreme weather events can result in mass mortality and grave subsistence complications for the affected community. If the situation is severe enough, this can concomitantly lead to mass

displacement of refugees that may well destabilize the affected area and its surrounding neighbours. Incidentally, Singapore's experience has shown that it is not immune to the problem of refugee influx from its locality and it is not unthinkable that regional humanitarian exigencies sparked by climatic events can set off similar scenarios.

Climate change also has the potential to fundamentally modify the distribution landscape of natural resources such as agricultural produce, fresh water and arable land. When that happens, competition for resource shortfalls may become exacerbating factors in provoking civil strife and conflicts. The violence in Darfur, for instance, other than being attributed to ethnic tensions, has also been linked to land resource problems caused by the abnormal drying of Darfur's lands. While climate change is unlikely to be the primary driving force behind any specific conflict, it may nonetheless create the precipitating conditions in which conflict is more likely.

Many health experts have also noted the growing nexus between climate change and the emergence and spread of diseases. In particular, the rise in global average temperatures has been identified as one of the primary reasons behind the extending ranges and seasons of various tropical disease-carriers, thereby pushing the geographical boundaries of these diseases into areas that were previously too cold to survive. The West Nile virus, for example, had never been detected in North America until some eight years ago. In addition, dengue fever and the Lyme disease are noted to be heading northwards while malaria is occurring at much higher elevations than ever recorded before. Taken together, all these signs indicate the far-reaching effect that climate change has on the diffusion of diseases and this implication should not be lost on today's national security planners who are increasingly worried about the impact of disease threats on states.

Recognition as a Security Issue

Encouragingly enough, recognition of climate change as a security problem has already started to seep into the corridors of power. In April this year, the UN Security Council addressed the issue of global warming for the first time, warning about its potential to be a "conflict catalyst". And in the United States, a bill calling for the elevation of climate change to a national security concern was proposed, with the ultimate objective of getting an unprecedented "national intelligence estimate" on climate change to be carried out. The US military (via the Center for Naval Analyses) also published a recent study which explicitly stated that climate change "presents significant national security challenges to the US" and is a "threat multiplier for volatile regions". Meanwhile, during the 6th Shangri-La Dialogue, Prime Minister Lee Hsien Loong's view is unequivocal: not only is climate change a potential damper to progress in Asia, it is also a "serious long term threat to the security of the region, and the world".

What the Skeptics Say

Like most major issues worth debating today, the securitization of climate change will invite its fair share of detractors. In particular, skeptics point out that the broadening of security's agenda to encompass global warming is akin to opening the conceptual flood-gates to the extent that the idea of "security" is prosaic and analytically weak.

Now, adroitly argued as the cynics' reasoning is, they fail to see that climate change -- as an indirect trigger of conflict, strife, instability and disease emergence -- can result in loss of lives, involvement of security forces, or socio-economic consequences that are as just as comparable (if not even more) to conventional inter-state type of threats. This is why climate change should never be brushed aside as something which is incompatible to security analysis. Indeed, to circumscribe the notion of security within its orthodox boundaries may well be to impose unhealthy limitations on the analyst to examine implications beyond the conventional understanding. If that is the case, it is possible to counter-argue that the skeptics' approach is conceptually parochial.

The Final Word

To conclude, climate change remains one of the most pressing problems confronting states today. Unless more sustained, substantive and concerted efforts are taken by the majority of the states to curb the emission of greenhouse gases, artificial warming of the earth is unlikely to abate. But as we have argued, climate change has an undeniable security dimension to it. Paying more emphasis to this facet may well boost efforts to raise the political will and governmental interest needed to fight the global warming battle.

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