

## THE ENVIRONMENT AND GLOBAL SECURITY

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### Summary

This essay provides an overview of attempts - in both academic and practical circles - to link the environment with security, focusing particularly on questions of environmental change. It outlines the multiple ways in which this linkage can be made analytically, before exploring some of the possible practical implications of establishing the environment as a security issue.

### 1. Introduction

In April 2007, the United Nations Security Council held a debate on the possible implications of climate change. This was certainly not the first indication within international society that there might be a relationship between the environment and security, but it was the first time the Security Council had discussed environmental change as an issue relevant to its ambit of maintaining international peace and security. It also demonstrated how far the environment-security linkage had developed from the earliest suggestions that there might be genuinely global processes of environmental change in need of being addressed.

This debate took place in the context of growing scientific evidence about the causes

and likely effects of global climate change. Earlier in the year, the leading international scientific body on climate change - the IPCC - had concluded that it was 'very likely' that humans had caused global climate change, and that it was 'likely' to lead to temperature increases of between 1.8C and 4C by the end of the century; a rise in sea levels of between 28-43 centimeters; an increase in extreme weather events; and extensive biodiversity loss, among other possible effects. This followed the 2006 publication of the Stern Report in the United Kingdom, an attempt to measure the possible costs of (manifestations of) climate change for the global economy. The report concluded that if unaddressed, climate change could lead to a loss of 20% of global GDP. Significantly, the report drew parallels to the economic effects of the Great Depression and the World Wars. With severe weather events such as the Indian Ocean tsunami of 2004, Hurricane Katrina of 2005, European heat-waves in 2003 and 2006 and an ongoing and devastating drought in Australia also drawing public attention to climate change and its possible effects, the time for discussion of the issue at the highest echelons of global politics seemed to have come.

This brief overview of the context of the UNSC's debate on the security implications of climate change illustrates a core point at the heart of this survey of approaches to the environment and security: attempts to link the two are rarely simple exercises in analytical boundary-drawing. Rather, these attempts are more frequently founded on concerns about the implications of environmental change and belief that the elevation of such issues to the realm of security will equate to an increase in political priority more consistent with resolving environmental problems. That environmental change is a serious problem is clear, but that it can and should be viewed as a security issue is not self-evident for two reasons. First, traditional (and dominant) approaches to security in the academic and policy world are concerned largely with external, military threats to the territory and sovereignty of the nation-state. For such traditionalists, regardless of the implications for loss (or quality) of life, issues such as climate change fit uneasily with what security is - and should be - about. Second, the idea that placing issues such as environmental change in the realm of security will equate to better environmental policy is based on assumptions about the benefits of prioritization that have been contested by analysts concerned about the militarization of the environment and by security theorists concerned about the association of environmental change with a form of 'panic politics' inconsistent with open, deliberative political processes. There are limitations in these attempts to de-couple the environment and security, but the debate of which they are a part ultimately points to the need to come to terms with the complexity of the relationship between environment and security. This relationship ultimately depends on political, intellectual and in some cases ethical choices about how the environment itself is defined and whose security is under consideration.

This essay begins by briefly tracing the emergence and establishment of environmental change on the international agenda before outlining and categorizing key attempts to relate the environment with security in both the academic and policy worlds. It concludes with an assessment of some of the key dilemmas associated with linking the environment and security and a suggestion of what the future environment-security agenda might look like. A key clarifying point to note here is that while many academic and political approaches to the environment-security relationship predominantly focus on environmental *change* (processes of degradation of the biosphere), many others

focus on the question of access to and contestation over natural resources: often although crucially not necessarily problems of environmental change. As such, while this chapter primarily addresses the relationship between environmental change and security, it also notes attempts to relate the environment and security through questions of access to natural resources, and therefore generally refers to environment and security or 'environmental security'.

## **2. Environmental Change on the Global Political Agenda**

It is difficult in a short space to do justice to the development of environmental change as a global political issue, especially in coming to terms with the ebb and flow of international attention and the different forms or dimensions of environmental change (from population growth to ozone depletion and climate change) that have generated global concerns. But providing some context to this development is important, not least as (growing) concern about the possible effects of environmental change is still invoked as the key reason for linking environmental with security. The dynamics of global attention to environmental change are also reflected in key dynamics of environment-security debates in the academic world.

Environmental change emerged on the global political agenda in the 1960s and 1970s. This might be referred to as the 'agenda-setting' period. The 1962 publication of Rachel Carson's *Silent Spring* - a study of the deleterious effects of pesticide use on crops in the United States - drew attention to problems of pollution that was central to environmental concerns during this period. In the late 1960s and early 1970s, concerns about pollution related to nuclear testing also saw the burgeoning environmental movement merge with some of the concerns of the developing peace movement. Greenpeace, for example, arose almost directly from this peace movement (and in particular the *Campaign for Nuclear Disarmament*) and its early activities were directed towards nuclear testing. Questions of population growth also loomed large in early discussions of environmental change (or more accurately environmental capacity). Paul Ehrlich's 1968 book, *The Population Bomb*, and the 1972 Club of Rome report, *The Limits to Growth*, invoked Malthusian concerns about the carrying capacity of the planet.

These concerns with pollution and population fed into the first major international conference on environmental change: the United Nations Conference on the Human Environment (UNCHE, Stockholm 1972). Politically the period after Stockholm was characterized by something of a lull in global political activity on environmental change, in part because of the Cold War and in part because Stockholm had become mired in a North-South debate about environment versus development. Nevertheless, the UNCHE had established environmental issues on the global agenda. This period witnessed the establishment of a range of pollution and conservation-oriented non-governmental organizations (including WWF in 1961, Friends of the Earth in 1969 and Greenpeace in 1971), while many governments established ministerial portfolios for Environmental Protection in this period (including the USA in 1970; Canada in 1971, and the United Kingdom in 1972).

The 1980s and early 1990s saw the consolidation of the environment on the global

agenda. In part this was the result of increasing (scientific) awareness of global environmental problems such as climate change and the growth of public concern on the back of a series of environmental disasters (for example the 1986 Chernobyl nuclear explosion and the 1989 Exxon Valdez oil spill). But the opening up of space to discuss global issues afforded by the waning and then end of the Cold War was also significant. Proclamations of a “New World Order,” however hubristic, reflected the level of hope associated with the end of superpower conflict and the possibilities for focusing on hitherto neglected international issues such as poverty, human rights and environmental change.

It was in the late 1980s that environmental issues surged back into global consciousness. In 1987, the Montreal Protocol on Substances that Deplete the Ozone Layer was signed, a successful international agreement leading to the eradication of chloro-fluoro carbons (CFCs) that had been found to have created a hole in the ozone layer. That same year the report of the World Commission on Environment and Development (the Brundtland report) attempted to point the way forward from the environment versus development divide of Stockholm in championing the concept of sustainable development. In 1988 and 1989 international outcry over Amazonian deforestation led to a major change in Brazilian environmental policy, with the parallel plight of the forest’s inhabitants providing a powerful metaphor for the state of the global environment and the imperative of sustainable development. This pressure encouraged the Brazilian government to lobby for hosting rights for the 1992 UN Conference on Environment and Development (which became popularly known as the Rio Earth Summit): undoubtedly the highpoint of global environmental attention.

The late 1980s and early 1990s was therefore a period of hope for responding to environmental change. This was manifested in the success of the Montreal Protocol, the level of international attention evident at UNCED and the optimism (linked to the concept of sustainable development) for simultaneously advancing concerns related to environmental change and economic inequality. To a significant degree, the late 1990s and 2000s saw the world begin to confront some of the complexities of addressing global environmental change and implementing the commitments of UNCED. This was particularly associated with attempts to respond to the issue that came to dominate international attention in this period: global climate change.

The UN Framework Convention on Climate Change (UNFCCC) had been established at UNCED in 1992 but it was the third conference of the parties in 1997 that produced an international agreement on the reduction of greenhouse gas emissions. This agreement, which became known as the Kyoto Protocol, committed developed states to an average reduction of 5.2% in emissions from 1990 levels by 2008-2012. But while the agreement itself had been controversial enough to negotiate, subsequent years saw arguments rage about the way in which emissions could be calculated, the transfer of technology and resources to the developing world and the increasing patterns of emissions associated with industrialization in the developing world, for example. And throughout this period, the waters were muddied by several conservative think-tanks and multinational corporations linked to fossil fuel production sponsoring academic research which cast doubt on the reality of climate change or its relationship to human activity. When US President George W. Bush revoked Bill Clinton’s signature to the

Kyoto Protocol in 2001 - citing its likely negative impact on the US economy and the absence of developing state commitments - the climate change regime was left without the world's largest emitters. Subsequent developments such as the entry into force of the protocol in 2005 and the so-called Bali roadmap agreement of 2007 raise some hope for effective global action, but core political challenges associated with the implementation of international action remain.

There is no question that climate change and environmental change generally remain global political issues. Indeed over the last decade public opinion polls throughout the world suggest serious global concerns about climate change, for example, and public belief in the need for political action to address it. Environmental change has found its way onto the global political agenda. But the contemporary context is one in which agenda-setting and the elaboration of principles for cooperation must confront the imperative of political action. And in the case of global climate change, it is one in which even those state leaders with the political will to address the problem must act in the face of differentiated historical responsibility, differentiated economic capacity to act, differentiated vulnerabilities to manifestations of change and different domestic constituencies' interests. Any action also, of course, must take place in the face of uncertainty about what exactly the implications of a complex, multidimensional problem such as global climate change will be. This complexity, as noted, is reflected in contemporary debates about the relationship between the environment and security.

### **3. Approaches to Environment and Security**

Approaches to the relationship between the environment and security need to be viewed in the context of changing dynamics in global (environmental) politics. In the midst of the Cold War and during the agenda-setting period for environmental change, early suggestions of a relationship between the environment and security pointed to some of the inconsistencies between national security concerns and the preservation of the environment. In the 1970s authors such as Richard Falk (1971) and Lester Brown (1977) laid the foundation for later attempts to explicitly redefine security in the context of environmental change, even if operating at a broad level of abstraction and focusing as much on the opportunity costs of Cold War military expenditure. With the waning and end of Cold War tensions and the highpoint of environmental awareness in the late 1980s and early 1990s, there were a range of attempts to suggest that environmental change should be viewed as a security problem. A number of analysts suggested that environmental issues *were* security issues, either because they might precipitate violent conflict or because they posed such a serious challenge to long-term human survival that they should be part of a broader redefinition of security which focused on threats to individuals. Moreover, in the current period of uncertainty over how to respond to problems of environmental change, literature on environment and security has pointed to the dilemmas associated with the politics of redefining security; the (problematic) assumptions underpinning attempts to relate the environment and security; and the complex nature of the relationship between environmental change, resource use and conflict.

Of course, like all categorizations, this neat account of the relationship between global environmental politics and the environment-security debates in the academic world

glosses over areas of divergence within these periods or continuities over time. Some analysts in the early 1990s, most prominently Daniel Deudney (1990), pointed to the dangers of securitizing environmental problems, while some contemporary analysts continue to suggest that environmental problems are simply so important that they must be viewed as security issues. Yet these periods do broadly capture key axes of debate about the environment-security relationship in academic circles, and key forms of argumentation linking the environment and security. This section is divided between academic approaches that link the environment with security through survival before discussing those approaches that link the environment with security through conflict. The essay then discusses how political actors have attempted to draw a relationship between the environment and security.

### **3.1 Environment, Security and Survival**

In the earliest suggestions that environmental issues should be thought of as security issues, the argument most commonly made was that the capacity for environmental change (especially climate change) to radically undermine the sustainability of life on the planet warranted its consideration as a security issue. In simple terms, the intuitively appealing if unsophisticated logic was that security meant nothing if it did not extend to include issues as fundamental as the conditions of life. Authors such as Jessica Tuchman Mathews (1989), Norman Myers (1989) and Arthur Westing (1986) all pointed to then hardening science on the state of the global environment to suggest the need to recognize and act upon the threat posed to human life by environmental change.

While lacking conceptual sophistication about security or the processes through which environmental issues come to be positioned as security issues politically, this approach was based on a recognition of the political power and importance of 'security'. Indeed it could be suggested that recognition of the mobilizing capacity of security pronouncements and policy underpinned this claim of a link between security and the environment. In this sense the concern was as much normative as analytical, based on a belief that environmental issues should be given as much political attention as more traditional concerns of interstate war or military preparedness. While often implying a more human than state-centered understanding of security, Myers and Mathews, for example, ultimately defined the environmental threat in terms of implications for the state (in both cases, the United States). This is suggestive of an attempt to speak to, and reorient the priorities of, state policy-makers.

The cost of this emphasis on the need to include environmental issues on state security agendas however - aside from the lack of clarity about how environmental issues would fit alongside traditional security concerns - was the opportunity missed to more radically interrogate the core question of whose security should be protected or advanced. Indeed these attempts to 'redefine' security actually said relatively little about the concept of security itself. Instead, they simply pointed to a broader range of dynamics that could threaten the state. Such an approach was an important part of a broader attempt to decouple security from the exclusive concern with the threat and use of force. Arguably, however, it enabled some states to attach new issues to their security agenda without radically altering their emphasis on the preservation of sovereignty and the advancement of the national interest. A number of more recent analyses linking the environment to

survival have focused more explicitly on this question, suggesting that environmental change is one (necessarily crucial) component of a human-centered understanding of security.

The Global Environmental Change and Human Security (GECHS) project, for example, aims to situate environmental changes within the larger socioeconomic and political contexts that cause them, and which shape the capacity of communities to cope with and respond to change. Our research focuses on the way diverse social processes such as globalization, poverty, disease, and conflict, combine with global environmental change to affect human security (GECHS 2008).

Such approaches have addressed the question of 'whose security is at stake' more specifically, and have attempted to reposition states as a means for the end of individual survival and wellbeing. As will be discussed below, such an approach has coalesced more closely with the agenda of international institutions, not least the UN Development Programme.

These approaches - whether emphasizing the threat to the state or to individuals - ultimately approach environmental change as a threat in and of itself, particularly defined in terms of the survival of (human) life. Subsequent approaches to the environment-security relationship in the academic world, however, focused on the environment as a threat to the extent that it was capable of precipitating (or at least triggering) violent conflict.

### **3.2 Environment, Security and Violent Conflict**

If the suggestion that the linkage between environment and security on the basis of implications for survival had intuitive appeal, it did not achieve widespread support politically. Nor was it widely supported within the academic disciplines of International Relations or Security Studies.

While some of this literature certainly supported an even more fundamental redefinition of security, other strands sought to reassert the central concern of security with the state and the study of the threat and use of force. For these theorists, adding new issues to the security agenda risked diluting the agenda without adding any significant new insights for political practice.

In this context, it is relatively unsurprising that a research program began to develop around the question of the relationship between the environment and violent conflict. While the environment-survival literature had given some attention to the possibility of conflict through processes of environmental change - often defined in terms of possible threats to stability or increased competition over resources - a range of analysts sought to illustrate more specifically the environment-conflict relationship.

It is useful for our purposes to distinguish between approaches that focus on *environmental change* as a cause of conflict and those that focus on *resource use/access*. Paradoxically, as some critics of this literature have argued, much environment-conflict literature actually has little to say about environmental change.

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