

## Securing the environment: from defense to resilience

Chris Methmann, Angela Oels

### Angaben zur Veröffentlichung / Publication details:

Methmann, Chris, and Angela Oels. 2015. "Securing the environment: from defense to resilience." In *Transformations of security studies: dialogues, diversity and discipline*, edited by Gabi Schlag, Julian Junk, and Christopher Daase, 142-55. London: Routledge. <https://doi.org/10.4324/9781315707839-11>.



# Securing the environment

## From defense to resilience

*Chris Methmann and Angela Oels*

### **Introduction**

The story of environmental security has often been told as one of progress and emancipation, with a happy end in store. In this chapter, we offer a new and different reading of environmental security, based on Foucault's concept of governmentality. In a genealogical reading, we show that the meaning of the 'environment' and the practices of securing it have changed over time. We demonstrate that far from simply leading to emancipation or progress, each and every mode of securing has its own more or less undesirable policy implications, including the most recent form, resilience.

As outlined in the introduction to this edited volume, the end of the Cold War created the conceptual space to 'redefine security' in a globalizing world (Ullman 1983). At around the same time, environmental activists and concerned scientists decided to intensify the debate about environmental problems by arguing that the environment itself was a security issue. They claimed that environmental change would trigger unprecedented waves of migration or cause conflicts over scarce resources (Myers and Kent 1995; Tuchman Mathews 1989).<sup>1</sup> The securitization of the environment was an effort to mobilize public support for environmental policies. This started the scientific debate spinning, but it turned out that claims concerning environmental conflict could not be easily empirically substantiated (Barnett 2000). On a normative level, some began to suspect that couching environmental issues in the language of national security could actually do more harm than good (Deudny 1990). Therefore, an increasing number of scholars began to reconsider environmental security. This coincided with the emergence of the concept of human security. Now it was claimed that all harmful effects of securitizing the environment could be circumvented once the environment was produced as a threat to human security. However, for quite a while, no one was interested in hearing about the human security implications of environmental change and it remained an abstract and academic debate with little if any political impact (Floyd 2008). This lasted until the mid-2000s, when climate change made it to the top of the policy agenda. Disguised as climate security, the human security agenda featured prominently in UN Security Council sessions in 2007 and 2011. What a career: from (indefensible) claims about environmental conflicts to the

high politics of climate security, the history of environmental security reads like a success story, both in terms of political influence and a 'consequentialist' evaluation of security (Floyd 2007). Today, many advocate climate security as a safe and effective means of pushing for more ambitious climate change mitigation and adaptation policies (Brauch 2009).

In this chapter, we question whether climate security discourse is really desirable. First, we argue that what has been called a broadening of security still implies an essentialized concept of security. The genealogy of environmental security shows that securitizing the environment can imply a range of very different practices enforced by diverse actors. In this sense, we show how the broadening of security has transformed its very meaning. Drawing on a Foucauldian notion of security, we trace three corresponding modes of how the environment has been rendered governable that have emerged over the last three decades and still co-exist today: environmental conflict, environmental security and resilience. We discuss the underlying conceptions of environment and security of each of these discourses as well as the political implications that flow from them. This allows us to cast doubt on the thesis of environmental security as an increasingly emancipatory and therefore 'innocent' discourse. Although today's debates about climate security are far from centered on military or national conceptions of security, the policies associated with them are equally undesirable. We argue that policies related to climate security render affected populations responsible for their own survival in a world where climate change wreaks havoc. Yet before we embark on our genealogical journey to this argumentative destination, we briefly introduce our theoretical vessel, sailing under the flag of Michel Foucault.

For traditional security analysts, security refers to the narrow field of high politics. This conception is invoked when the existence of the nation-state is at stake (e.g. Walt 1991). But even constructivist accounts of security, such as the Copenhagen School, often rely on an essentialized notion of security (Stritzel 2007). Foucault's concept of governmentality, by contrast, allows us to distinguish between different modes of securing, each of which is linked to characteristic practices.<sup>2</sup> From a Foucauldian perspective, security – understood as governmentality – is organized as a dispersed web of institutions, practices and agencies, all of which problematize certain referent objects as endangered and legitimize action upon these referent objects in the name of their security (Dean 2010: 29). The Foucauldian notion of security has been usefully employed by a range of different approaches, among them the Paris school, the biopolitics literature and the governmentality approach to security (Aradau and van Munster 2011; Balzacq 2010; Dillon and Reid 2009). In the following genealogical analysis of environmental security, we trace how the relationship between environment and security is problematized and hence how the modes of governing the environment as a security issue have changed over time. We distinguish between three modes of securing, each of which is linked to a particular governmentality. First, what Foucault calls sovereign power<sup>3</sup> is the use of violence (or the law backed by sovereign violence) for

the protection and defense of an environment understood in terms of scarce environmental resources. Secondly, what Foucault calls biopower is the use of statistics in order to identify risk groups whom governmental interventions will then target. In the case of the environment, biopower or so-called 'green governmentality' calculates 'safe' levels of emissions in order to stabilize the human-earth-system at an equilibrium (Oels 2005). The third mode is what Dillon has termed 'governing through contingency', or seeking to utilize life's ability to adapt and evolve in the face of environmental change (Dillon 2007); in our case, seeking to make social and natural systems resilient to external shocks caused by a terroristic environment.

### **Redefining security: the rise of environmental conflict in security studies**

The end of the Cold War led large military establishments to wonder what their new role could be in a post-Cold War world. As a result, the conceptual space emerged to widen and deepen the meaning of security. There were frequent attempts to 'redefine security', i.e. to bring new issues into the realm of security (Ullman 1983). Environmental activists and concerned scientists, such as Jessica Tuchman Mathews and Norman Myers, contributed to the greening of the national security agenda (Mathews 1989; Myers 1989). They painted an apocalyptic picture of environmental degradation, predicting wars and migration triggered by environmental change. These were the early days of what we term an environmental conflict discourse. As a result of these and other efforts, global economic and environmental issues started to appear on the security agenda.

Scientists sought to corroborate the environmental conflict thesis. The Toronto Group, led by Thomas Homer-Dixon, studied the relationship between environmental degradation and actual conflict (Homer-Dixon 1999). The group concluded that resource scarcity could indeed lead to conflicts. However, there was no direct or even deterministic causality between the two, and a number of variables intervened in each case. Others were less cautious and claimed, for example, that conflicts would necessarily emerge as fresh water supplies dried up (Gleick 1989). Myers and Kent (1995) published a still-influential study predicting that climate change alone would uproot more than 200 million refugees by 2050. In 1993, the ideas of the Toronto Group became known to a wider public through an article in *Scientific American* (Homer-Dixon et al. 1993). The breakthrough for this discourse came with the essay 'The coming anarchy' published by well-known travel-writer Robert Kaplan in the *Atlantic Monthly* in 1994. United States President Bill Clinton confessed that he 'was so gripped by many things that were in that article and by the more academic treatment of the same subject by Professor Homer-Dixon' (cited in Betsy Hartmann 2006). Homer-Dixon briefed Vice-President Al Gore and military officers several times throughout the 1990s – a harbinger of Gore's later engagement in the climate security discourse.

***The environment as resource***

In this discourse, conflict is thought to emerge through competition over depleting resources. Obviously, therefore, the environment is understood first of all as a resource for human life. This marks a clear departure from the 1970s and the early 1980s where the environment was still understood in terms of its ‘components’, e.g. water, air, soil, forests, etc. (Hajer 1995). Yet when sustainable development became the dominant discourse in environmental politics at the end of the 1980s, the environment was established as a ‘resource’ for human (economic) activities (Escobar 1996). This is mirrored in the environmental conflict literature. It assumes that ‘growing scarcities of renewable resources can contribute to social instability and civil strife’ (Homer-Dixon et al. 1993), linking human behavior to the availability of resources in a neo-Malthusian fashion (Hartmann 2006). As a result, a depleted environment necessarily becomes a national security issue. *Conflict is thus likely to emerge where resources are becoming most scarce: in developing countries.* The world appears bifurcated: affluence vs. decline, North vs. South (Dalby 1996). This also holds true in the writings of Homer-Dixon who – in a more academic tone – suggests that environmental conflict will mostly occur in developing countries (Homer-Dixon 1991: 79). The bifurcation of the globe thus perfectly supports the emerging geopolitical vision that replaced competition between superpowers in the 1990s: that of ‘tame’ zones of economic globalization surrounded by ‘wild’ zones of mass poverty, political upheaval and violence (Tuathail and Luke 1994), the latter becoming a source of security threats for Northern homelands.

***Sovereign security***

It comes as no surprise that this discourse represents a modified version of traditional notions of national security, mobilizing defense as a strategy of securing. This discourse clearly resembles the notion of sovereign power in Foucault. Today, however, sovereign power has been governmentalized. This means that in the era of biopower, which is about fostering life, killing life can only be justified under certain circumstances. Only when the survival of the human species is at stake can sovereign power be legitimized in a liberal society, for example in the form of humanitarian interventions (Dillon and Reid 2009). Thus, the bifurcation of the world into ‘tame’ and ‘wild’ zones creates spaces for legitimate sovereign interventions. However, military interventions are just one possibility for the exercise of sovereign power. Governmentalized sovereignty, for example, also functions through the assignment of citizenship, binding individuals to a particular territory and restricting their mobility. Fences and border-controls keep ‘dangerous life’ out. Finally, sovereign power also appears in the form of exceptions to the rule of law, such as the temporary suspension of basic liberties. The environmental discourses, especially those around climate change, often compare the fight against climate change to US mobilization efforts during the Second World War, when

presidential decree obliged all car manufacturers to produce war supplies instead of cars. In sum, the environmental conflict discourse, by couching security in national terms, reflects a neo-Malthusian conception of the environment as scarce resource that enables sovereign forms of power.

### ***Environmental conflict and the Northern security agenda***

The environmental conflict discourse has gained considerable influence despite the fact that there is no empirical evidence to substantiate the claim that environmental change will lead to actual conflict or migration (Barnett 2000; Gleditsch 1998; Jakobeit and Methmann 2012; Suhrke 1994). Whether or not this is true, this debate highlights the fact that questions of political economy and political ecology are excluded from the environmental conflict equation (Harvey 1996; Peluso and Watts 2001). As Dalby points out, the apocalyptic picture painted by Kaplan's 'The coming anarchy' neglects the many (commercial, financial and political) connections between North and South, between the 'tamed' and 'wild' zones of the globe (Dalby 1996). In this sense, sovereign power detaches the causes of environmental conflicts from their social and economic context. As Jon Barnett puts it, the environmental conflict literature is 'theoretically rather than empirically driven, and is both a product and legitimation of the Northern security agenda' (Barnett 2000: 171). Finally, the environmental conflict discourse revives colonial and racist stereotypes (Baldwin 2012). It reinvigorates the colonial idea of the non-European populations not being able to handle their own affairs or use their resources rationally (Hartmann 2006). Given this plethora of criticism, it comes as no surprise that this discourse has lost traction in both academic and political debates and has been complemented, if not frequently replaced, by the notion of environmental security.<sup>4</sup>

### **Environmental security and the production of victims**

In the 1990s environmental change was redefined as a threat to human security. The shift from environmental conflict to human security was facilitated by two developments: First, this was a decade of 'humanitarian' military interventions with, and without (as in the case of the Kosovo), the backing of the UN Security Council (Chandler 2012a). A second important influence was the political campaigning for a redefinition of security in terms of human security. The motivation behind this was the hope of freeing up substantial resources for development, which at the time were used for defense. In 1994 the UNDP (1994) published a report entitled *New Dimensions of Human Security*. This report redefined security from the security of *states* to that of *people*. Human security successfully became the dominant discourse in development policy and was influential within the UN system, though often without the explicit use of the term (Chandler 2012a). Since the environment is one of the seven components of this concept, environmental change was soon re-conceptualized as a threat to human security (Barnett 2001; Dalby 2002). However, the concern with conflict did not disappear. Instead, it was

redeployed within the larger discursive framework of human security and used to justify the need for humanitarian interventions and increased efforts in development policy (see also Chapter 7 by Geis and Wagner on human rights protection as legitimate reason for military interventions by democratic states).

### *The environment as a coupled human–ecological system*

With the emergence of human security, the ‘environment’ in environmental security changed. It was no longer understood simply in terms of resources for human societies. The environment became part of a coupled human–ecological system. Characterizing our geological age as the anthropocene emphasizes that, for the first time in the history of the planet, human societies have become a significant driver of large-scale geo-physical change (Crutzen 2002). As a result, we have to understand men and nature as a joint ‘earth system’, with the associated scientific discipline of ‘earth system sciences’ (Lövbrand et al. 2009). This system is understood to have a stable natural equilibrium that can be scientifically determined. The task of ecosystem managers then, is to preserve the equilibrium by restricting the extraction of resources from a system. Combined with advances in computer modeling, this allows the scope and scale of global environmental change to be predicted. Climate science, and therefore also climate politics, depend on a ‘vast machine’ of scientific calculations and measurements (Edwards 2010).

### *Liberal–biopolitical security*

Securing the environment understood in such a way implies the preservation of the natural equilibrium of ecosystems by determining ‘safe’ emission or extraction levels. This corresponds to the human security approach that frames environmental security as an attempt at ‘peacefully reducing human vulnerability to human-induced environmental degradation by addressing the root causes of environmental degradation and human insecurity’ (Barnett 2001: 129). According to the crucial concept of vulnerability (Methmann and Oels 2013), environmental change does not deterministically lead to security concerns. Whether this occurs depends on the vulnerability of human livelihoods. Vulnerability is shaped by a broad range of social, economic and political factors. Accordingly, the aim of vulnerability research is to build models and predictions about the vulnerability of certain portions of the global population. Costly political interventions can then be targeted at the most vulnerable in order to protect them (O’Brien 2004).

This resonates with Foucault’s notion of biopolitics. Biopolitics is related to the emergence of statistics and demography, which allowed governmental authorities to understand the population as a living organism in need of constant management and optimization (Rose 2001). Governing security means targeting those risk groups that deviate statistically from the norm and directing governmental interventions towards them. Biopolitics is a subtle and liberal form of management that intervenes indirectly to achieve desired results. It seeks to influence the choices made by people using education programs, financial incentives and the

like. However, not all subjects and objects are amenable to being rendered governable in a liberal way. In the end, all liberal forms of government are backed by the threat of force. Governmentalized sovereignty enables liberal interventionism for risk groups or exceptional cases that have been found to 'fail' liberal government (Dillon 1995). Repressive measures can be enacted upon failing states as well as failing individuals. This means that sovereign power is not replaced by biopolitics, but is reconfigured as the force necessary to deal with (constructed) existential threats to the survival of the population.

### *'Saving' the victims*

Compared to the environmental conflict literature, the emergence of environmental security has been welcomed by many since it focuses on the social, economic and political context of environmental changes. Instead of seeing environmental change as a deterministic driver of threats which needs to be countered with sovereign power, environmental security suggests a broader palette of political options. Human environmental security is believed to rule out the promotion of military means, and to instead foster emancipation, development and environmental protection (Floyd 2010).

However, in light of our analysis, we take a more skeptical stance. In the case of human trafficking, Claudia Aradau (2004) has highlighted how the 'politics of pity' endorsed by human security feeds into a politics of risk prevention and precaution. Translated to our case this means: the point of Northern intervention is not primarily to 'save' the affected populations, but to prevent them from disrupting global circulation at large. In the case of development policy, Duffield and Waddell (2006) have shown convincingly that the human security of Southern populations is only taken into consideration to the extent that it contributes to Northern homeland security. This is said to be particularly true since the attacks of 11 September 2001. The vulnerable are framed as being constantly on the brink of becoming dangerous to Northern security. In this sense, human security can in fact be understood as enabling sovereign power, by paving the way for the 'security-development complex' (Duffield and Waddell 2006). What is more, even if emergency is not invoked in the name of humanity, those deemed to be vulnerable to environmental change are often rendered as helpless and passive victims in need of Western care and intervention. The debate on climate-induced migration is one example of this (Oels 2013). At best, environmental security renders those affected by environmental change as mere objects of global governance. At worst, it produces them as a 'back door' security threat.

### **Climate security: making people fit for survival in times of apocalyptic change**

The renaissance of global warming at the beginning of the twenty-first century again reconfigured the discourse on security and the environment. A number of events that were associated with climate change revitalized the environmental

security debate that had slowed down in previous years, among them: Hurricane Katrina in 2004, the publication of the 2006 *Stern Review* and the 2007 IPCC *Fourth Assessment Report*, and release of the films *The Day after Tomorrow* (2004) and Al Gore's *An Inconvenient Truth* (2006) (on visual representations of security see Chapter 11 by Schlag in this volume). Global warming was becoming popular again, and so was the concern with its security implications, particularly in the global South. Climate change no longer ranked alongside other environmental problems. Instead, it began to be understood as an overarching danger, often painted with bold, apocalyptic strokes (Methmann and Rothe 2012; Swyngedouw 2010). In a similar move, the environmental security discourse was condensed into 'climate security'.

Climate change entered the realm of high politics. The United Kingdom put climate change on the UN Security Council agenda in 2007. In 2009, UN Secretary General Ban Ki-Moon was asked to prepare a report on 'Climate change and its possible security implications' to the UN General Assembly, in which he framed climate change as a 'threat multiplier' of other pre-existing vulnerabilities (UN Secretary General 2009). In 2011, Germany used its UN Security Council presidency to pass a Presidential Statement officially recognizing climate change as a security issue, especially for the existence of small island states but also in terms of food security (UN Security Council 2011). Since then, climate change has been included in many national security strategies. Brzoska (2012) found references in two-thirds of the 24 countries he surveyed, usually couched in the language of human security requiring improved capacity building for disaster response. It featured as an issue of national security in just four cases (Finland, Russia, UK, US).

Climate security amalgamates previous strands of the environmental security discourse (Dalby 2013). For example, the 2003 Pentagon scenario planning study projects nothing less than global war and the end of civilization as potential outcomes of unmitigated climate change, thereby mobilizing the environmental conflict discourse. The Security Council debate in 2007 was characterized by the environmental conflict and human security discourses, in which the human security discourse has been dominant (Detraz and Betsill 2009; Oels 2012). Climate security, in this sense, is evidence of the success of the human security discourse in capturing the environmental debate. This is reflected in the rather strong consensus in the academic literature that climate change will not immediately trigger conflicts (Gleditsch et al. 2007).

### ***Terroristic environments***

The underlying notion of the environment, however, changes with the advent of climate change. The scientific construction of climate change increasingly recognizes the global climate system as a non-linear entity with tipping points that could lead to the collapse of the Gulf Stream or the death of the Amazonian rainforests (Lenton et al. 2008). As a result, climate change is increasingly considered to be radically uncertain and unpredictable (Methmann and Rothe 2012, on the epistemology of the unknown see Chapter 5 by Burgess in this volume). In the

words of Mike Duffield (2011: 763), climate change has turned into ‘environmental terror’, ‘an environment that, operating through uncertainty and surprise, has itself become terroristic.’

The relationship between human and ecological systems is reconfigured in terms of complex systems science (Holling 1973). In his ground-breaking paper, ‘Resilience and the stability of ecological systems’, C.S. Holling distanced ecology from the notion that ‘there exists a “balance of nature” to which life will return eventually if left to self-repair’ (Walker and Cooper 2011: 145). Instead, ecological systems were redefined as complex adaptive systems that contained multiple equilibria. The resilience of ecosystems, then, is not defined in terms of returning to an initial state after external stress, but as ‘a measure of the ability of these systems to absorb changes of state variables, driving variables, and parameters, and still persist’ (Holling 1973: 17). This is the notion of the environment that surfaces in the discourse about apocalyptic climate change and security.

### *From security to resilience*

Complex adaptive systems require a very different strategy of securing than one based on preservation. Rather than stabilizing a certain status quo, ‘a management approach based on resilience would emphasize the need to keep options open’ and ‘to devise systems that can absorb and accommodate future events in whatever unexpected form they may take’ (Holling 1973: 21).

If uncertainty prevails, if we cannot predict, prevent or preempt a shock, then we have to invest in the ‘preparedness’ of those potentially affected by the threat (Collier and Lakoff 2008). Fostering resilience is a strategy of preparing for environmental terror – a ‘paradigm of prudence’ (Diprose et al. 2008). Security governance must thus invest in the resilience of social systems like ‘critical infrastructure’ (Lundborg and Vaughan-Williams 2011). In this sense, security does not seek to tame contingencies but governs ‘through contingency’, creating adaptive and resilient life that is able to sustain and transform itself in the face even of dramatic environmental change (Dillon 2007). What is more, ‘[I]f life that is exposed to environmental uncertainty can properly develop the desirable attributes of foresight, enterprise, and self-reliance’ (Duffield 2011: 758).

Resilience perfectly dovetails into neo-liberal modes of thought (Reid 2012). As the term implies, resilient life does not need to be saved, and is rendered as self-reliant and responsible. Northern interventions are therefore much more limited in scope: They are about helping the affected populations help themselves. This also implies new roles for those doing the securing, since no conceptual distinction is made between the empowering practices of the domestic state and those of international interveners, as both are constructed as pursuing the same tasks of dispersing the power or agency to secure, rather than as acting as securing actors per se (Chandler 2012a: 224). Thriving on this emancipatory note in

human security, resilience is now promoted as a key means of reducing human vulnerability.<sup>5</sup>

### *The diffusion of responsibility*

The changed nature of the environmental security paradigm that emerges with the climate security discourse has a number of political implications, some of which persist today and are transforming previous forms of securing the environment. First of all, the resilience paradigm results in an individualization of the problem. Notably, the global political economy that produces vulnerability in developing countries in the first place is left out of the picture and ‘naturalized’:

The view that climate change, rather than underdevelopment, is responsible for poverty, results in an outlook that tends to blame local survival strategies, such as cutting down trees to make some money from selling charcoal.

(Chandler 2012b: 128)

The subject of resilience is a:

politically debased subject which accepts the disastrousness of the world it lives in as a condition for partaking of that world and which accepts the necessity of the injunction to change itself in correspondence with the threats and dangers now presupposed as endemic.

(Reid 2012: 75)

There is no longer any discussion of the fact that Northern fossil fuel-based lifestyles are responsible for climate change. Instead, the debate focuses on how Southern populations can survive in a world where apparently unavoidable climate change wreaks havoc.

Secondly, and as a result, the resilience paradigm lowers Northern expectations. The aim is no longer to raise absolute wealth levels or to fight poverty. Instead, development policy focuses only on increasing the self-reliance of the poor and ensuring that they are resilient to shocks (Chandler 2012a; Duffield 2011). This approach complements increased skepticism concerning the ability of official development assistance to foster development.

Thirdly, it is important to acknowledge that this version of security, like the previous ones, is not innocent when it comes to the use of violence. Its focus on resilience does not imply that there will no longer be military interventions. Those who fail to comply with advanced liberal government, those who fail to adapt to climate change in preconceived ways, may be tackled with military violence if considered necessary. Such use of violence is then however not framed as overriding the sovereignty of affected states. Instead, the intervening forces are represented as working hand in hand with the government conceptualized as in need of support.

It does mean, however, that even when military intervention takes place, it is discursively framed as an act of facilitating, empowering or capacity-building the vulnerable subjects on the ground (Chandler 2012a: 225). In this sense, climate security develops the emancipatory notion contained in human security, but at the same time integrates it into a neo-liberal scheme that focuses on making people fit for survival in times of apocalyptic change.

## Conclusion

In this chapter, we have sought to challenge the dominant narrative of environmental security as one of progress and emancipation. Through our genealogy of environmental security, we have revealed three different but interrelated discourses. First, environmental conflict sees the environment as a resource and links it, through a neo-Malthusian logic, to the traditional toolkit of sovereign security. Second, environmental security is tied to the notion of human security. Understanding the environment as a coupled human–ecological system, it argues for targeted biopolitical interventions into particularly vulnerable populations. Finally, climate security doubts that such targeted governance will be possible at all, as future environmental change is deemed radically uncertain and complex. Instead of a top-down governance of affected populations, it seeks to foster the resilience of Southern (and to some extent Northern) populations to make them fit for survival in times of an apocalyptic climate change. All three, however, do not rule out the use of force and military interventions, as the vulnerable are always on the brink of becoming dangerous.

Concluding our analysis, we think that the Foucauldian approach to security adopted here is able to overcome two pitfalls. First, it safeguards against a state-focused (see Chapter 1 by Glaser in this volume) or essentialized notion of security which is implied in the notion of broadening the security agenda. We have identified that not only the reference object of security – here the environment – can adopt different shapes, but that this also results in a transformation of what it means to secure. Whereas other, even constructivist, approaches such as the Copenhagen School take security for granted, Foucault allows us to distinguish between three different modes of securing. Second, the Foucauldian approach has advantages from a normative point of view, as it allows us to empirically extract the broader policy implications embodied in the conceptions of both ‘environment’ and ‘security’ for those affected by the policies. In this sense, Foucault allows us to recognize the story of environmental security for what it is: not a success story with a happy ending in store, but a never-ending disaster movie.

## Notes

- 1 For environmental conflicts see Homer-Dixon (1991); for environmental migration see El-Hinnawi (1985).
- 2 For a comparison of different approaches to security see Oels (2012).
- 3 In contrast to Realist notions of power as repressive (see Chapter 6 by Glaser and Masala in this volume), Foucault conceptualizes power as productive. For Foucault, power

works through discourse(s). Discourses constitute certain subject positions, they enable certain modes of making sense of the world and they encourage certain practices. As a result, they are in a quite material sense productive of ‘reality’. At the same time, they disable or make more difficult other subject positions, practices and realities.

- 4 A case in point for this shift is the dominance of environmental security in recent UN Security Council debates on climate change and security, see Detraz and Betsill (2009).
- 5 An example of this is WRI (2008).

## References

- Aradau, C. (2004) ‘The Perverse Politics of Four-Letter Words: Risk and Pity in the Securitisation of Human Trafficking’, *Millennium – Journal of International Studies*, 33 (2): 251–77.
- Aradau, C and van Munster, R. (2011) *Politics of Catastrophe: Genealogies of the Unknown*, London: Routledge.
- Baldwin, A. (2012) ‘Orientalising Environmental Citizenship: Climate Change, Migration and the Potentiality of Race’, *Citizenship Studies*, 16 (5–6): 625–40.
- Balzacq, T. (2010) ‘A Theory of Securitization: Origins, Core Assumptions, and Variants’, in T. Balzacq (ed.) *Securitization Theory: How Security Problems Emerge and Dissolve*, London: Routledge: 1–31.
- Barnett, J. (2000) ‘Destabilizing the Environment-Conflict Thesis’, *Review of International Studies*, 26 (2): 271–88.
- (2001) *The Meaning of Environmental Security: Ecological Politics and Policy in the New Security Era*, New York: Zed Books.
- Brauch, H.-G. (2009) *Facing Global Environmental Change: Environmental, Human, Energy, Food, Health and Water Security Concepts*, Berlin: Springer.
- Brzoska, M. (2012) ‘Climate Change as a Driver of Security Policy’, in J. Scheffran, M. Brzoska, H.G. Brauch, P.M. Link and J. Schilling (eds) *Climate Change, Human Security and Violent Conflict: Challenges for Societal Stability*, Berlin: Springer, 165–84.
- Collier, S.J. and Lakoff, A. (2008) ‘Distributed Preparedness: The Spatial Logic of Domestic Security in the United States’, *Environment and Planning D: Society and Space*, 26 (1): 7–28.
- Chandler, D. (2012a) ‘Resilience and Human Security: The Post-Interventionist Paradigm’, *Security Dialogue*, 43 (3): 213–29.
- Chandler, D. (2012b) ‘Development as Freedom? From Colonialism to Countering Climate Change’, in J.S. Sørensen and F. Söderbaum (eds) *The End of the Development-Security Nexus? The Rise of Global Disaster Management*, *Development Dialogue*, 58: 115–129.
- Crutzen, P.J. (2002) ‘Geology of Mankind’, *Nature*, 415 (6867): 23.
- Dalby, S. (1996) ‘The Environment as Geopolitical Threat: Reading Robert Kaplan’s “Coming Anarchy”’, *Ecumene*, 3 (4): 472–96.
- (2002) *Environmental Security*, Minneapolis: University of Minnesota Press.
- (2013) ‘Security,’ in C. Death (ed.) *Critical Environmental Politics*, London: Routledge.
- Dean, M. (2010) *Governmentality: Power and Rule in Modern Society*, London: SAGE.
- Detraz, N. and Betsill, M.M. (2009) ‘Climate Change and Environmental Security: For Whom the Discourse Shifts’, *International Studies Perspectives*, 10 (3): 303–20.
- Deudny, D. (1990) ‘The Case against Linking Environmental Degradation and National Security’, *Millennium – Journal of International Studies*, 19 (3): 461–76.
- Dillon, M. (1995) ‘Sovereignty and Governmentality: From the Problem of the “New World Order” to the Ethical Problematic of the World Order’, *Alternatives: Global, Local, Political*, 20 (3): 323–68.

- (2007) 'Governing through Contingency: The Security of Biopolitical Governance', *Political Geography*, 26 (1): 41–7.
- Dillon, M. and Reid, J. (2009) *The Liberal Way of War: Killing to Make Life Live*, London: Routledge.
- Diprose, R. et al. (2008) 'Governing the Future: The Paradigm of Prudence in Political Technologies of Risk Management', *Security Dialogue*, 39 (2–3): 267–88.
- Duffield, M. (2011) 'Total War as Environmental Terror: Linking Liberalism, Resilience, and the Bunker', *South Atlantic Quarterly*, 110 (3): 757–69.
- Duffield, M. and Waddell, N. (2006) 'Securing Humans in a Dangerous World', *International Politics*, 43 (1): 1–23.
- Edwards, P.N. (2010) *A Vast Machine: Computer Models, Climate Data, and the Politics of Global*, Cambridge (MA): MIT Press.
- Escobar, A. (1996) 'Constructing Nature: Elements for a Post-Structuralist Political Ecology', *Futures*, 28 (4): 325–44.
- El-Hinnawi, E. (1985) *Environmental Refugees*, Nairobi: UNEP.
- Floyd, R. (2007) 'Towards a Consequentialist Evaluation of Security: Bringing Together the Copenhagen and the Welsh Schools of Security Studies', *Review of International Studies*, 33 (2): 327–50.
- (2008) 'The Environmental Security Debate and its Significance for Climate Change', *The International Spectator*, 43 (3): 51–65.
- (2010) *Security and the Environment: Securitisation Theory and US Environmental Security Policy*, Cambridge: Cambridge University Press.
- Gleditsch, N.P. (1998) 'Armed Conflict and the Environment: A Critique of the Literature', *Journal of Peace Research*, 35 (3): 381–400.
- Gleditsch, N.P., Nordas, R. and Salehyan, I. (2007) *Climate Change and Conflict: The Migration Link*, New York: International Peace Academy.
- Gleick, P.H. (1989) 'The Implications of Global Climatic Changes for International Security', *Climatic Change*, 15 (1–2): 309–25.
- Hajer, M.A. (1995) *The Politics of Environmental Discourse: Ecological Modernization and the Policy Process*, Oxford: Oxford University Press.
- Hartmann, B. (2006) 'Liberal Ends, Illiberal Means: National Security, "Environmental Conflict" and the Making of the Cairo Consensus', *Indian Journal of Gender Studies*, 13 (2): 195–227.
- Harvey, D. (1996) *Justice, Nature, and the Geography of Difference*, Cambridge: Blackwell Publishers.
- Holling, C.S. (1973) 'Resilience and Stability of Ecological Systems', *Annual Review of Ecology, Evolution, and Systematics*, 4: 1–23.
- Homer-Dixon, T.F. (1991) 'On the Threshold: Environmental Changes as Causes of Acute Conflict', *International Security*, 16 (2): 76–116.
- (1999) *Environment, Scarcity, and Violence*, Princeton: Princeton University Press.
- Homer-Dixon, T.F., Boutwell, J.H. and Rathjens, G.W. (1993) 'Environmental Change and Violent Conflict', *Scientific American*, February: 38–45.
- Jakobeit, C. and Methmann, C. (2012) "'Climate Refugees" as a Dawning Catastrophe? A Critique of the Dominant Quest for Numbers', in J. Scheffran et al. (eds) *Climate Change, Human Security and Violent Conflict*, Berlin: Springer: 301–14.
- Kaplan, R.D. (1994) 'The Coming Anarchy', *The Atlantic Monthly*, 273 (2): 44–76.
- Lenton, T.M. et al. (2008) 'Tipping Elements in the Earth's Climate System', *Proceedings of the National Academy of Sciences (PNAS)*, 105 (6): 1786–93.

- Lövbrand, E., Stripple, J. and Wiman, B. (2009) 'Earth System Governmentality: Reflections on Science in the Anthropocene', *Global Environmental Change*, 19 (1): 7–13.
- Lundborg, T. and Vaughan-Williams, N. (2011) 'Resilience, Critical Infrastructure, and Molecular Security: The Excess of "Life" in Biopolitics', *International Political Sociology*, 5 (4): 367–83.
- Mathews, J.T. (1989) 'Redefining Security', *Foreign Affairs*, 68 (2): 162–77.
- Methmann, C. and Rothe, D. (2012) 'Politics for the Day after Tomorrow: The Logic of Apocalypse in Global Climate Politics', *Security Dialogue*, 43 (4): 323–44.
- Methmann, C. and Oels, A. (2013) 'Vulnerability', in C. Death (ed.) *Critical Environmental Politics*, London: Routledge: 277–86.
- Myers, N. (1989) 'Environment and Security', *Foreign Policy*, 74 (Spring): 23–41.
- Myers, N. and Kent, J. (1995) *Environmental Exodus: An Emergent Crisis in the Global Arena*, Washington: Climate Institute.
- O'Brien, K. et al. (2004) 'Mapping Vulnerability to Multiple Stressors: Climate Change and Globalization in India', *Global Environmental Change*, 14 (4): 303–13.
- Oels, A. (2005) 'Rendering Climate Change Governable: From Biopower to Advanced Liberal Government', *Journal of Environmental Policy and Planning*, 7 (3): 185–207.
- (2012) 'From "Securitization" of Climate Change to "Climatization" of the Security Field: Comparing three Theoretical Perspectives', in J. Scheffran et al. (eds) *Climate Change, Human Security and Violent Conflict*, Berlin: Springer: 185–206.
- (2013) 'Rendering Climate Change Governable by Risk: From Probability to Contingency', *Geoforum*, 45 (March): 17–29.
- Peluso, N.L. and Watts, M. (2001) *Violent Environments*, Ithaca: Cornell University Press.
- Reid, J. (2012) 'The Disastrous and Politically Debased Subject of Resilience', *Development Dialogue*, 58: 67–80.
- Rose, N. (2001) 'The Politics of Life Itself', *Theory, Culture & Society*, 18 (6): 1–30.
- Stritzel, H. (2007) 'Towards a Theory of Securitization: Copenhagen and Beyond', *European Journal of International Relations*, 13 (3): 357–83.
- Suhrke, A. (1994) 'Environmental Degradation and Population Flows', *Journal of International Affairs*, 47 (2): 473–96.
- Swyngedouw, E. (2010) 'Apocalypse Forever? Post-Political Populism and the Spectre of Climate Change', *Theory, Culture & Society*, 27 (2–3): 213–32.
- Tuathail, G.Ó. and Luke, T.W. (1994) 'Present at the (Dis)integration: Deterritorialization and Reterritorialization in the New Wor(l)d Order', *Annals of the Association of American Geographers*, 84 (3): 381–98.
- Ullman, R.H. (1983) 'Redefining Security', *International Security*, 8 (1): 129–53.
- UNDP (1994) *Human Development Report: New Dimensions of Human Security*, New York: United Nations.
- UN Security Council (2011) '6587th meeting', July 20, Part 1.
- UN Secretary General (2009) *Climate Change and its Possible Security Implications*, New York: United Nations.
- Walker, J. and Cooper, M. (2011) 'Genealogies of Resilience from Systems Ecology to the Political Economy of Crisis Adaptation', *Security Dialogue*, 42 (2): 143–60.
- Walt, S.M. (1991) 'The Renaissance of Security Studies', *International Studies Quarterly*, 35 (2): 211–39.
- WRI (2008) *Roots of Resilience: Growing the Wealth of the Poor*, Washington: WRI.