

Climate Security as Governmentality: From Precaution to Preparedness

Angela Oels

Introduction

From the early 2000s onwards, climate change has increasingly been articulated as a security issue. The UN Security Council had climate change on its agenda in 2007 and 2011. The UN secretary-general produced a report to the UN General Assembly in 2009 entitled *Climate Change and Its Possible Security Implications*. What is the meaning of this security turn in climate discourse? To what extent does it differ from previous discourse – enough to call it a discursive shift? Is the new wording related to new practices of securing in the face of climate change or does the debate remain at the level of rhetoric? Scholars have employed a range of theoretical approaches to tackle these questions: discourse analysis, the Copenhagen School and neo-Marxist poststructuralism. The overall finding of these approaches is that the security rhetoric does not seem to be linked to any new governmental action on the ground.

Researchers have utilized the framework of the Copenhagen School to argue that despite the scale of the dramatic securitizing moves in the field of climate change, this has not yet enabled a political state of exception – or in fact any significant action to combat climate change (Trombetta 2008). From a neo-Marxist poststructuralist point of view, Swyngedouw (2010) has argued that what he calls the ‘climate apocalypse’ is just the opium of the people, distracting them from the fact that the structural causes of climate change remain untackled. From a discourse analytical perspective, Detraz and Betsill (2009) have developed a more nuanced argument. They show that what appears to be a discursive shift is better understood as a continuity of an environmental security discourse which defines security in line with human security. Detraz and Betsill welcome such continuity because they argue that the environmental security discourse is conducive to enabling effective action to address climate change, while what they call environmental conflict discourse is not. However, this effective action could not be traced at the time of completion for their research. So overall, existing research remains sceptical about the relevance of security discourses for the politics of climate change. If we trust the existing research, climate security may sound a loud alarm, but its impact on policy making has thus far been negligible.

In contrast to the existing research outlined, this chapter presents the findings of Foucauldian studies of climate security which argue that there is evidence of a change in international climate policy (Methmann and Rothe 2012; Oels 2012; Oels 2013). The security turn in climate politics is neither a continuity nor is it without effect. I show that there has been a shift from a configuration that I call ‘tolerable levels of climate change’, characteristic of the 1990s and early 2000s, to ‘climate apocalypse’, which is the most recent configuration. While ‘tolerable levels of climate change’ is based on an apparatus of risk management that seeks to keep greenhouse gas concentrations in the atmosphere at ‘safe’ levels, climate apocalypse insists on the fundamental unpredictability of climate change and proposes resilience in the face of sudden disruptions.

I introduce the concept of governmentality as a framework for the analysis of ‘security’. I suggest that Foucault’s work enables us to distinguish between at least four modes of securing, each linked to a technology of power: sovereign power, discipline, liberal biopower and advanced liberal government. Each of these four technologies of power draws on characteristic techniques – for example, sovereign power draws on the law to ban undesirable actions, discipline employs surveillance to induce desired behaviour and liberal biopower draws on statistics to target governmental interventions to at-risk groups. Foucault, however, emphasized that these technologies of power continue to coexist. The latest technologies of power like liberal biopower and advanced liberal government draw on elements of sovereign power and discipline and reconfigure them to serve their purposes. A topological governmentality analysis (Collier 2009) must therefore study the coexistence and redeployments of elements of all four technologies of power in current problematizations of climate security.

I begin the chapter by introducing the work of other researchers on climate security in order to highlight the limitations of the theoretical frameworks chosen and the arguments made. Next, I introduce Foucault’s concept of governmentality as the framework for analysis. In the main part of the chapter, I present the Foucauldian argument that climate security marks a discursive shift from a conceptualization of climate change as controllable to the idea of ‘climate apocalypse’. I present evidence for new practices of resilience which are facilitated in the name of preparedness for ‘climate apocalypse’. Section five returns to the work of other authors and discusses their approaches in light of the Foucauldian-inspired studies. By doing so, I seek to highlight the added value of the governmentality approach to climate security. The conclusion summarizes what can be gained from studying security as governmentality – on a theoretical level and for the empirical case of climate security.

Other Approaches to Climate Security

Scholars have made a number of attempts in the literature to analyse the political implications of producing climate change as a security issue. The main research inter-

est is to ask first, whether it is possible to find evidence of a discursive shift and second, to assess if this shift has enabled or is likely to enable tougher climate policy. *On one hand*, those following the Copenhagen School (Buzan, Wæver and de Wilde 1998) have asked whether the securitization of climate change has been successful (i.e. accepted by a relevant audience) and if it is therefore capable of enabling extraordinary policy measures (Strippel 2002; Brauch 2009). In his application of the Copenhagen framework written more than a year before the failure of the Copenhagen summit, Brauch claims that the articulation of climate change as a security issue is used 'to legitimate extraordinary and costly measures that require a progressive increase in energy efficiency and a decarbonisation of the energy system by increasing renewable energy sources' and to justify the 'allocation of significant public funds' (2009: 71). While demands for such action have certainly been made in the name of climate security, there is no evidence whatsoever of this action on the ground. Despite this, a successful securitization of climate change could also be used to enable repressive measures to uphold global order (for example responsibility to protect interventions after a climate-induced disaster) rather than to curb climate change. However, thus far no applications of the Copenhagen framework follow this line of investigation.

On the other hand, academics following the post-politics discussion have applied their framework to the issue of climate change. Eric Swyngedouw argues that the way climate change has been articulated as 'climate apocalypse' in public discourse is marked by populism that evacuates 'the political' from climate change debates. The climate apocalypse is constructed as 'a universal humanitarian threat' that turns 'us' into 'universal victims', glossing over social differences and conflicts of interests (2010: 221). The threat of climate change is constructed as an aberration from an otherwise unproblematic capitalist system: 'CO₂ stands here as the classic example of a fetishized and externalized foe that requires dealing with if sustainable climate futures are to be attained' (2010: 222). From Swyngedouw's perspective, the primary function of the securitization of climate change is 'to make sure that nothing really changes' (2010: 222). To hide the fact that what is being secured is the capitalist system, '[a]n extraordinary techno-managerial apparatus is under way ... with a view to producing a socio-ecological fix to make sure nothing really changes' (2010: 222). An example of such a fix is the replacement of fossil fuels with nuclear energy. The Copenhagen School and the post-politics perspectives criticize the securitization of climate change as a mode of preempting political debate by moving an issue 'beyond politics' and therefore beyond questioning. While the Copenhagen School has advanced the hypothesis that drastic climate policy might be enabled as a result of the securitization of climate change, those following the post-politics debate claim that the climate apocalypse serves to make sure that nothing really changes.

From a discourse analytical perspective, the meaning of security can actually vary and different discourses of security are linked to different practices and policy implications. Nicole Detraz and Michele Betsill (2009) have analysed the articulation

of climate change as a security issue in international policy venues from a discourse analytical perspective. Detraz and Betsill distinguish between two discourses: the *environmental conflict* discourse is said to concern itself with the national security of the state in the face of potential conflicts over scarce resources (2009: 305). The *environmental security* discourse, on the other hand, is said to focus on the human security of the population in the broadest sense of the term (2009: 306). In their findings, the authors claim that the politics of climate change have historically been informed by the *environmental security* discourse. They recognize that the problematization of conflicts as a result of climate change is a new development, and was most apparent at the 2007 UN Security Council session. However, Detraz and Betsill refuse to speak of a discursive shift because the problematization of conflicts as a result of climate change is said to be embedded in an *environmental security* discourse. As a result, they find that no policy changes can be traced. Detraz and Betsill argue that *national security* discourses are counterproductive in solving the problem of climate change, while *human security* discourses are conducive. This analysis demonstrates that different security discourses are linked to different policy implications. This distinction between different discourses significantly advances the academic debate on the securitization of climate change. However, while this analysis is a good starting point, I have at least two major problems with it. First, I question Detraz and Betsill's somewhat stereotypical assumption that the *environmental security* discourse is conducive to solving the problem of climate change while the *environmental conflict* discourse is judged as counterproductive. By contrast, I would like to demonstrate in this chapter that human security is also capable of legitimizing and mobilizing violence like international military interventions. Second, I disagree with Detraz and Betsill that no policy shifts can be traced. I argue that we must look for them in different places (for example, the field of professionals of (in)security) than those suggested by Detraz and Betsill. Moreover, some of these shifts are so recent that Detraz and Betsill could not map them.

While some have claimed that the securitization of climate change – if successful – might facilitate extraordinary measures to curb greenhouse gas emissions (Brauch 2009), I demonstrate that the enabled measures are neither exceptional nor geared towards halting global warming. It is exactly because climate change *will not* be prevented or slowed that security experts and politicians prepare themselves for upholding 'global order and world peace' in the face of climate-induced disruptions. I demonstrate in the following that the construction of climate change as *threat multiplier* has enabled *routine* measures of enhancing resilience to disruptions that could potentially result from the secondary impacts of climate change, such as disasters, migration and violent conflict.

Governmentality Studies: From a Categorical to a Topological Analysis

In his 1978 governmentality lectures, Foucault uses *security* as synonym for liberal biopower. According to this reading, security is a technology of power used to render

certain subject-objects governable. Michel Foucault's governmentality lectures (2007) offer two inroads to the study of security. First, a categorical analysis allows us to distinguish between different forms of exercising power. Second, a topological analysis investigates how elements of the categorical ideal types are reconfigured and recombined in particular instances of rendering an object-subject governable. The following sections introduce each approach in turn.

Categorical Analysis: Modes of Power

The work of Michel Foucault (2007) has highlighted that government is not simply an activity undertaken by an individual actor called 'the' government. Instead government is better understood as:

any more or less calculated and rational activity, undertaken by a multiplicity of authorities and agencies, employing a variety of techniques and forms of knowledge, that seeks to shape conduct by working through our desires, aspirations, interests and beliefs, for definite but shifting ends and with a diverse set of relatively unpredictable consequences, effects and outcomes. (Dean 2003: 11)

Government does not act upon 'given' subjects or objects 'out there'. Instead, it has to make the subject-objects of government knowable and thinkable before techniques for acting upon them can be conceived and established. These subject-objects are constituted in the act of their regulation, and the very categories of thinking about subject-objects are created in these acts of government (for the creation of the category 'lesbian' in practices of border control see Luibhéid 2002). This close link between knowledge and power, between thinking and the ability to act on something informed Foucault's governmentality lectures. In his 1977–8 lectures at the Collège de France entitled *Security, Territory, Population*, Foucault develops the concept of governmentality as an analytical framework for studying the configuration of power in the modern era. Leading scholars generally define the concept of governmentality 'as a political rationality that shapes the "conditions of possibility" for thinking and acting in a certain way' (Collier 2009: 96). A governmentality analysis demonstrates how problems are 'made thinkable and practicable [as] knowable and administrable domain[s]' (Rose, O'Malley and Valverde 2006: 86, in Collier 2009).

The value of Foucault's work on governmentality lies in the distinction he offered between at least three modes of exercising power in government. In Foucault's 1978 lectures, the term *governmentality* designates the historic era of biopower, namely 'the institutions, procedures, analyses and reflections, calculations, and tactics that allow the exercise of this ... power that has the population as its target, political economy as its major form of knowledge, and apparatuses of security as its essential technical instrument' (Foucault 2007: 108). Foucault distinguishes between biopower and other 'diagrams' of power, namely sovereign power and discipline. Following Collier, I call these modes of exercising power 'technologies of power' (2009: 97). To

my understanding, these are ideal types which cannot be observed as such in the real world. Foucault offered them to distinguish certain historic eras and to pin down ‘what is general about a new class of governmental forms across a range of cases’ (Collier 2009: 99). The identification of these historic eras with their characteristic form for the exercise of governmental power helps orientate the researcher as to which technologies of power might be most influential in contemporary government (Collier 2009: 97). Foucault has linked each historic era to characteristic knowledge systems and practices, both of which create (or fail to create) certain visibilities and certain subject-objects (Dean 2003). Sovereign power uses the law to rationalize the exercise of power and sanctions noncompliance with violence. Disciplinary power draws on surveillance and control in order to mobilize desired identities and behaviour patterns. Liberal biopower’s key aim is to foster and optimize the life of the population to enhance its productivity. Liberal biopower uses statistics about the population to identify risk groups towards which costly interventions are targeted. Since Foucault’s death in 1984, Niklas Rose has added advanced liberal government as a more recent form of risk management. Advanced liberal government often goes hand in hand with Michael Dillon’s (2007) risk management through contingency. This is a governmental form of power that seeks to enhance life’s capacity for adaptive emergence in the face of sudden and unpredictable shocks (Dean 2003; Dillon 2007). Table 11.1 offers an overview of these four ‘technologies of power’ in the form of ideal types abstracted by Foucault (and others) from certain historic eras.

Topological Analysis: Redeployments of Techniques of Different Governmentalities

Newer scholarship on Foucault’s governmentality lectures proposes a “topological” analysis of power that examines how existing techniques and technologies of power are re-deployed and recombined in diverse assemblies of biopolitical government’ (Collier 2009: 79; on a similar note Adey and Anderson 2012). Foucault himself has said of the relationship between sovereign power, discipline and biopolitics that ‘there is not a series of successive elements, the appearance of the new causing the earlier ones to disappear... [W]hat above all changes is the dominant characteristic, or more exactly, the system of correlation between’ them (2007: 8). This means that the focus of analysis should be on how the knowledge systems and practices characteristic of sovereignty and discipline are reconfigured and possibly redeployed in the era of liberal biopower. Sovereignty and discipline are ‘governmentalized’; they are reconfigured and transformed by liberal biopower. In a liberal regime of biopower, which aims to foster the welfare of the population, it is tricky to exercise the *sovereign* right to kill. According to Foucault, killing can only be legitimate in liberal biopower when it is deemed necessary for the survival of the population or more specifically, a designated subgroup of the population. To legitimize the killing of others, they must first be

Table 11.1 *Reading 'securitization' with Foucault's concept of governmentality*

Technology of power	Sovereign power	Disciplinary power	Biopower I: Probability-based risk management	Biopower II: Risk management through contingency
Referent object of security	The nation-state	The individual body	The population as living entity (man-as-species)	International circulation of goods, services and people, especially emergent life
Mechanism of securing	Inclusion/exclusion	Normation	Normalization Distinguishing good and bad circulation, maximizing good circulation, keeping bad circulation at a tolerable level	Enhancing life's capacity for adaptive emergence, enhancing resilience and capacity to regenerate
Practices	-Rights and duties of government and subjects enshrined in law -Punishment for those that violate the law	-Normation: define an ideal as norm -stigmatize those deviating from the norm as abnormal -provide incentives to return to the norm	-Normalization: identify the statistical average as 'normal' -identify risk groups that deviate most from the norm -target measures/treatment on risk groups -state insurance	-build resilient communities -create markets: make risks transferable by speculating about futures in financial markets -private insurance -scenario planning -responsibilize subjects -preparedness
Subjects produced	Criminals	Abnormals Victims or villains	Risk groups	Adaptive life Responsible subjects

dehumanized in a racist sense. In liberal biopower 'the imperative to kill is acceptable only if it results not in a victory over political adversaries, but in the elimination of the biological threat to and the improvement of the species or race' (Foucault 2003: 256). The law that had such a prominent role in sovereign power is still in use in liberal biopower, but its function has changed away from punishment towards the betterment and education of life.

Under a regime of liberal biopower, security discourses have led to a proliferation of technologies of *discipline* into all areas of life (Lentzos and Rose 2009: 234). The liberal regime of biopower has reconceptualized discipline as a precondition and driving force of liberty in a 'free' market economy based on circulation (Lentzos and Rose 2009: 234). Lentzos and Rose identify important differences between traditional and contemporary forms of discipline: first, they argue that discipline today is not so much about securing an enclosed space as it is about securing circulation. Second, the authors argue that a 'plurality of agencies and forces' is involved in the act of securing, not just the state. Third, discipline gathers observations to identify patterns and regularities rather than fixed preconceived norms (2009: 234–5).

Advanced liberal government has facilitated the latest redeployment of elements of sovereign power, discipline and biopower. Advanced liberal government as a technology of power requires 'free subjects'. As Dean explains, 'in order to act freely, the subject must first be shaped, guided and moulded into one capable of responsibly exercising that freedom through systems of domination' (2003: 165). In that sense, '[t]his is a subject whose freedom is a condition of subjection' and vice versa (2003: 165). Advanced liberal government addresses the subjects of government as 'capable' and 'responsible' for their own risks (2003: 166). Security is achieved by stimulating insecurity in individuals, so that they will be mobilized to participate in their own securing (Lentzos and Rose 2009: 235). Communities are required to anticipate threats, take precautions and prepare for the unexpected (Lentzos and Rose 2009: 235). In these arrangements, the state is no longer seen as the ultimate guarantor of security and it is no longer taken for granted that the national territory is the 'natural' spatial reference point (Lentzos and Rose 2009: 233). Instead, advanced liberal government governs through 'community', targeting certain subgroups of the population in order to mobilize them to enter into partnership with state agencies, professionals and service providers, to become both objects and subjects of their government at the same time (Dean 2003: 170). A topological analysis has to examine specific problematizations of subject-objects, and which elements of sovereign power, discipline, biopower and advanced liberal government are correlated to render these subject-objects governable.

Collier has remarked that trying to fit descriptions of the workings of 'neoliberalism' into the framework provided by advanced liberal government has often obscured more than it has clarified (2009: 100). Instead, neoliberalism should be understood and studied as 'a form of thinking, a kind of reflection that aims to critique and remediate

existing *mentalities* and practices of government that have become uncertain or problematic' (2009: 100). This implies not focussing too much on the 'conditions of possibility' of thinking and acting implied by certain texts, but instead engaging more with how interventions like those of neoliberal thinkers try to reconfigure and overcome the currently dominant 'conditions of possibility'. Their texts should be studied as responses to historically situated problems which they are trying to overcome with their 'specific activity of thought' (2009: 100). Rather than remain at the descriptive level of passive discourses, a focus on thought can trace and 'understand the processes of recombination and reproblematicization through which contemporary government ... is being refigured' (2009: 100). This also helps to mark how existing 'conditions of the possible' may be overcome by new strategies of 'thinking'. The following section illustrates what a topological analysis of climate security might look like and highlights the added value of adopting such an analytical framework.

Shifting Topologies of Climate Security: From Tolerable Levels of Climate Change to Climate Apocalypse

This section explores the topologies of power at work in climate security, drawing on existing Foucauldian studies of climate security (Methmann and Rothe 2012; Oels 2012, 2013). As the perception of climate change has shifted over the past twenty years, so too have the modes of 'securing' in the face of a changing climate. How have the practices of securing changed as a result of (or contributing to) the shifting problematizations of climate change? Based on the Foucauldian work on climate security, I argue that there has been a shift from a configuration that I term 'tolerable levels of climate change', characteristic of the 1990s and early 2000s, to 'climate apocalypse', the most recent configuration. While 'tolerable levels of climate change' is based on an apparatus of risk management that seeks to keep atmospheric greenhouse gas concentrations at 'safe' levels, 'climate apocalypse' insists on the fundamental unpredictability of climate change and proposes resilience in the face of sudden disruptions. The topology of power characteristic of each configuration is introduced in turn. The main focus of analysis will be to highlight how techniques of various technologies of power are redeployed by a regime of liberal biopower and/or advanced liberal government.

Tolerable Levels of Climate Change

In the early 1990s, climate change was defined as a problem of defining 'safe' levels of greenhouse gas concentrations in the atmosphere. The idea was that greenhouse gas emissions and global warming were not problems as such. The problem was if greenhouse gas concentrations in the atmosphere reached a critical threshold where 'dangerous' levels of climate change would occur. These were levels where ecosystems

or the economy would fail to adapt and would therefore break down (UNFCCC 1995, Article 2). Article 2 of the United Nations Framework Convention on Climate Change (UNFCCC) signed in 1992 defines the aim of the convention as the ‘stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system’ (UNFCCC 1995, Article 2). Comprehensive monitoring systems were set up to survey the earth system. Computer modelling was used to develop scenarios of future emission trends and their likely impact on the global climate system (Edwards 2010).

Overall, constructing the climate as in need of securing facilitates a large range of state interventions on its behalf (Luke 1999: 122). The idea of the climate regime in these early days was clearly that climate change was a knowable and therefore controllable phenomenon (Oels 2012). In the field of greenhouse gas emissions, there are clear biopolitical attempts aimed at ‘organising circulation, eliminating its dangerous elements, making a division between good and bad circulation, and maximising the good circulation by diminishing the bad’ (Foucault 2007: 18). We can see how a certain level of greenhouse gas emissions is considered unproblematic. Only the ‘excess’ emissions which threaten to destabilize the system are to be addressed and reduced to a ‘tolerable’ level, in line with economic cost-benefit analysis. Not until the 2009 Copenhagen climate summit did politicians declare that dangerous climate change could be prevented if the increase in global average temperature remained below two degrees Celsius compared to preindustrial levels. The Copenhagen Accord explicitly makes reference to the Intergovernmental Panel on Climate Change (IPCC) as an authority on whose work this target was supposedly based. However, the IPCC has never officially defined any ‘safe’ levels of climate change as huge uncertainties remain in climate science.

This biopolitical regime of keeping climate change at ‘safe’ levels is based on a proliferation of disciplinary elements. Under such a regime, the entire planet is subject to large-scale technological surveillance systems. The ‘eco-knowledge’ (Luke 1999) gained from these systems is used to subject the planet to techno-scientific management. Luke has pointedly argued that ‘[e]nvironments are spaces under police supervision, expert management or technocratic control; hence, by taking environmentalistic agendas into the heart of state policy, one finds the ultimate meaning of the police state fulfilled’ (1999: 149). In the case of climate policy, the IPCC has played a key role in defining baselines and facilitating norms for the measurement and reporting of data for national reports on emissions and greenhouse gas sinks (Beck 2009).

Other phenomena also monitored by disciplinary systems of surveillance and modelled in global computer models were the possible impacts of climate change in industrialized and developing countries. Vulnerability mapping was undertaken as a precondition for focussing possible governmental interventions on risk groups (Methmann and Oels forthcoming). Scientists identified ‘climate hotspots’ in which climate impacts might cause major disruptions and trigger uncontrolled mass migration and

conflict (German Advisory Council on Global Change 2007). These projections have led to calls for a legal refugee status for populations displaced by the impacts of climate change (Conisbee and Simms 2003; Docherty and Giannini 2009; Biermann and Boas 2010). Here, the law would be used as a means of enabling (and possibly responsabilizing) foreign governments to go out and 'save' populations not of their own nationality.

With the signing of the Kyoto Protocol in 1997, advanced liberal elements joined the biopolitical management of the global climate. The Kyoto Protocol used the form of a contract between its member states to agree upon targets and timetables for emission reductions. Self-reporting on target fulfilment at regular intervals was employed to monitor performance. These are clearly technologies of agency and technologies of performance, which create member states as 'free' agents in the realm of climate policy while at the same time disciplining their freedom along the path of emission reductions (Oels 2005). However, these emission reductions were to be achieved in the most cost-effective way by allowing project-based emissions trading. From 2005 onwards, when the Kyoto Protocol entered into force, certified emission reductions could be traded between industrialized countries (joint implementation) and also between industrialized and developing countries (clean development mechanism). Here, the creation of a market to trade certified emission reductions was employed as a technology of governing, disciplining market participants into a sophisticated bureaucracy of verification and certification prior to realizing market sales (Bäckstrand and Lövbrand 2006).

Climate Apocalypse

From 2003 onwards, sources other than the IPCC began to sound the alarm about runaway climate change. Climate change was considered capable of marking the end of civilization (Schwartz and Randall 2003), triggering millions of climate refugees (Christian Aid 2007) and possibly climate wars (Welzer 2012). The idea of linking climate change and variability to violent conflicts goes back to an earlier debate about environmental security in the 1990s, often using identical methodologies and arguments, now updated with regard to climate change (El-Hinnawi 1985; Homer-Dixon 1994, 1999; Myers and Kent 1995). The 2007 IPCC Report was criticized for presenting overly conservative scenarios which do not reflect the more recent published research (Mabey et al. 2011: 19). In particular, the IPCC was charged with not paying enough attention to tipping elements in the global climate system, such as the instability of the West Antarctic ice sheet (Lenton et al. 2008). Moreover, the inadequacy of the nonbinding mitigation pledges made by countries in Copenhagen 2009 was a cause of concern. According to scientific calculations, even if all these reduction targets were met, this would still result in a greater than 50 per cent chance that warming would exceed three to four degrees Celsius (Rogelj et al. 2010). The new scenario is then a world where a rise in global average temperature by three to four degrees

Celsius is likely and an increase of five to seven degrees Celsius is possible (Mabey et al. 2011). The proponents of the climate security discourse argue that '[w]ith such warming, there is little uncertainty over whether extreme impacts will occur, only when they will happen, and to what extent they will affect specific locales' (Mabey et al. 2011: 43).

Not only active climate securitizers, but also concerned scientists have questioned how realistic it is to define 'safe' levels of climate change because of the remaining uncertainties in modelling carbon cycle dynamics and in quantifying climate sensitivity (Boykoff, Frame and Randalls 2010: 53). As a result, the climate is no longer understood as a system that can be kept in a stable equilibrium. Instead, it is now described more along the lines of a complex adaptive system with multiple equilibria. This system is acknowledged to be nonlinear, as well as inherently unpredictable and radically uncertain. Climate change is part of 'an environment that, operating through uncertainty and surprise, has itself become terroristic' (Duffield 2011: 763). The UN secretary-general reacted with his report *Climate Change and Its Possible Security Implications* in 2009, while the UN Security Council discussed climate change in open sessions in 2007 and 2011.

Here, the problem of climate change becomes one of securing global (capital) circulation from disruptions caused by the unpredictable, yet apparently unavoidable impacts of climate change (Oels 2013). Instead of avoiding the possible consequences of climate change, the new emphasis is on preparing for these contingencies, surfing them, surviving them and making sure that they are dealt with appropriately to prevent them from turning into large-scale disasters. The UN secretary-general's report emphasizes the importance of sustainable development as a key strategy for 'building resilience to physical and economic shocks' (UN GA 2009: 4). The report frames the issue of climate change as a threat to human security without explicitly using the term – it instead uses 'human vulnerability' (UN GA 2009: 2). The report recommends conflict prevention, disaster preparedness and capacity building for disaster risk reduction as ways of preparing for the increasing number of extreme weather events (UN GA 2009: 27). These are demonstrably elements of a politics of preparedness (Collier and Lakoff 2008; Aradau and Van Munster 2011). The new buzzword to be found in all recent reports on climate change is *resilience* (Methmann and Rothe 2012; Methmann and Oels forthcoming).

The concept of resilience originates from ecology and has been defined by Holling as 'a measure of the ability of these systems to absorb changes of state variables, driving variables, and parameters, and still persist' (1973: 17). Applied to climate change, resilience must be built into important social systems called 'critical infrastructure' (Lundborg and Vaughan-Williams 2011). At the individual level, resilience implies capacity building for self-reliance. Resilience can be fostered by diversifying livelihoods and by enhancing the capacity for adaptive emergence (Dillon 2008). The emphasis on empowerment and self-reliance implicit in resilience means that

Western interventions in severely affected regions are likely to take the form of helping the poor to help themselves (Chandler 2012). According to Duffield, there has been a remarkable shift in development policy. While in the past Western interventions sought to raise absolute wealth levels in developing countries, this goal has now been dropped. Instead, the main target of development policy is to make the poor fit for survival in an ever-changing world of 'unavoidable' disruptions (Duffield 2008). The subject is responsabilized to prepare for the next crisis (Methmann and Rothe 2012; Methmann and Oels forthcoming). In line with advanced liberalism, it is addressed as a subject capable of responding and coping on its own. However, the subjects created by this mode of securing are not as empowered as one might think. The resilient subject is one '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). In this context, migration induced by climate change is reconceptualized as an appropriate strategy of adaptation which 'in many cases will be an extremely effective way to build long-term resilience' (Foresight 2011: 7). However, when interviewed, ambassadors of small Pacific island nations strongly resist the idea of relocation: 'ambassadors envision a future as self-determining nation-states, and thus, strongly resist media/policy discourses that legitimise their possible future displacement en masse' (McNamara and Gibson 2009: 481). The inherent depoliticization of the causes of the need for dislocation disempowers political action and the political voice of affected populations (Farbotko 2005; Farbotko and Lazrus 2011).

However, not all subjects can be governed in a liberal way. Some may resist or simply fail to adapt in ways foreseen by government and instead do so in more radical spontaneous ways, sometimes drawing on nonliberal strategies of coping (Duffield 2007 offers the example of the global drug trade). This form of 'adaptive self-reliance' (Duffield 2010) 'constantly exceeds and resists neoliberal governmental techniques of preparedness' (Grove forthcoming: 17). These resistant subjects are then targeted – for example by sustainable development and resilience programming – 'to produce a docile population that will not threaten the vital circulations of liberal order' (Grove forthcoming: 17). A disciplinary system monitors when the vulnerable are on the brink of becoming dangerous to global circulation, for example by engaging in uncontrolled mass migration which can be spotted in satellite pictures. Acts of 'adaptive self-reliance' may be countered with military violence if necessary. However, such use of violence is then not framed as overriding the sovereignty of affected states. Instead, the intervening forces are represented as working hand in hand with the government which is 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 2012: 225)

We can recognize here how disciplinary monitoring of vulnerable populations and sovereign violence to cope with radical adaptation are reframed and reconfigured in the light of risk management through contingency as acts of empowerment. Here, sovereign violence can be employed fully in line with human security, if not actually carried out in its name (Duffield and Waddel 2006).

The Added Value of a Topological Governmentality Analysis Compared to Other Approaches

In the previous sections, I suggested a new and different reading of climate security drawing on a governmentality analysis. In contrast to Betsill and Detraz, I demonstrated that there actually has been a discursive shift in international climate policy. This shift is clearly linked to a reconceptualization of climate change. In the 1990s and early 2000s, climate change was conceptualized as a knowable and manageable phenomenon that could be kept at ‘safe’ levels. From the early 2000s onwards, however, climate change emerges as a largely uncontrollable phenomenon capable of causing major disruptions and which is therefore more along the lines of ‘environmental terror’ (Duffield 2011). I have shown that, linked to this reconceptualization of climate change as ‘climate apocalypse’, a new set of practices of building resilience to survive the climate apocalypse is emerging. Betsill and Detraz’s discourse analysis was inherently limited by the fact that they contrasted ‘environmental conflict’ (based on national security) discourse with ‘environmental security’ discourse (based on human security). Betsill and Detraz are right that the notion of human security is – at least implicitly – dominant in official documents on climate security, while national security is placed in the background (Oels 2013). This is even true of documents published after 2008, when their analysis ended. However, the authors fail to recognize what is new: the apocalyptic conception of climate change and the emerging response in the form of resilience. Resilience is fully in line with – if not implied by – the concept of human security. However, as shown earlier, neither resilience nor human security are in themselves necessarily conducive towards effective action to tackle the causes of climate change. In fact, a governmentality approach allows an informed critique of human security as just another configuration of power which, in the case of resilience, may even facilitate military interventions – in the name of empowerment and self-help. Human security as such is neither benign nor malign – it is the way that such concepts are actually redeployed in a larger configuration of technologies of power that matters for the effects they facilitate.

The governmentality approach has also enabled the development of a more nuanced argument along the lines of Swyngedouw, who declared that ‘climate apocalypse’ served to ensure that nothing really changes. I have shown that there has been a shift: a shift towards even *less* action than before. Of course, at a fundamental level Swyngedouw is right: the capitalist system and its fossil-fuel-based economic

growth are left completely unquestioned in climate security discourses. In fact, as I have argued elsewhere (Oels 2005), what is secured is still capitalist circulation and capital reproduction – in this case from climatic disruptions. However, on the level of practices of government, there have been changes in *how* capitalism is secured. The practices of securing in the face of a changing climate have shifted and the new focus is clearly on preparedness for unpredictable disruptive climate change impacts (Methmann and Rothe 2012). Preventing climate contingencies by engaging in mitigation action has taken a back seat. A configuration of mostly advanced liberal elements is calling on affected populations to become resilient to climate-change-induced disasters, for example by diversifying their livelihoods or by migrating. Interestingly, the more dramatic conceptualization of ‘climate apocalypse’ marks a retreat of Western interventionism. There is evidence for a post-interventionist paradigm (Chandler 2012) in dealing with potentially catastrophic climate change impacts. I have offered the example of displacement induced by climate change. While the ‘tolerable levels of climate change’ configuration of power is concerned with creating a legal status for those displaced by climate-change-induced disasters and organizing resettlement in advance, ‘climate apocalypse’ responsabilizes the affected populations to do the right thing to survive – by either migrating in time or building shelters. It is this shift towards a ‘do it yourself’ response to ‘climate apocalypse’ which is remarkable.

Returning to the Copenhagen School, the real scandal is actually *too little* intervention in the face of ‘climate apocalypse’, not too much. The focus of the Copenhagen School is too limited in the case of climate security: it is only interested in finding out if a political state of exception might be enabled by security discourses, and whether an issue is thereby removed from ‘normal’ politics into a depoliticized sphere of high politics. In this case, the Copenhagen School can congratulate ‘climate apocalypse’ for operating in the realm of ‘normal’ democratic politics. However, as the governmentality approach has shown, ‘climate apocalypse’ is also a highly depoliticizing affair. The configuration of power termed ‘climate apocalypse’ tends to naturalize climate change as an unfortunate but unavoidable problem and focuses attention on preparedness for the impacts of climate change (Methmann and Oels forthcoming). A vision of reality is enacted as future perfect (Bigo 2008), in which small island states are submerged and weather-related extreme events like floods, droughts and heat waves have become endemic (McNamara and Gibson 2009). It is the acceptance of this vision of the future which is implied by ‘climate apocalypse’.

Conclusion

In this chapter, I have argued that climate security actually signifies a shift in the technologies of power that render climate change governable. Contrary to existing discourse analytical work, I have demonstrated that the discourses of ‘climate apoc-

alypse' enable a new set of practices for fostering resilience. These practices are mostly in line with advanced liberal techniques of government. However, they also draw on disciplinary monitoring of the environment and of vulnerable populations. Moreover, they could draw on sovereign violence when liberal government fails to prevent disruptions to global (capital) circulation. Following Chandler (2012), I have argued that sovereign violence can indeed be exercised in the name of human security.

On a theoretical level, I have demonstrated that we need an analytical framework of security that is sensitive to the shifting modes of power enabled in its name. It is not enough to distinguish between essentialized notions of security like 'national security' and 'human security' and then conclude that one is good and the other bad. Instead, security is best studied as a configuration of different technologies of power and their characteristic techniques. It is the correlation of these various technologies that must be studied – a correlation that varies across time and place. Moreover, techniques can be redeployed and serve different purposes under different technologies of power. This requires a constant reassessment of the actual policy implications of the specific configurations of power exercised in the name of security.

Even if climate change is not 'securitized' in the form of a state of exception, 'climate apocalypse' has facilitated scandalous levels of depoliticization of the structural causes of climate change. If used as an approach for studying competing forms of 'thinking' (Collier 2009), a governmentality analysis also offers a great framework for highlighting what is hidden by the current dominant 'conditions of possibility' for thinking and acting. The many acts of resistance and the many existing attempts to transgress dominant 'conditions of possibility' for thinking and acting have often been missing from the picture. Elsewhere, we have discussed the naturalization of these 'conditions of possibility' for thinking and acting as depoliticization (Methmann and Oels forthcoming). For climate security, I have presented the case of small Pacific island populations which strongly object to proposals that they be resettled, while dominant forms of government seek to render them governable as 'climate refugees' and to 'save' them. A governmentality analysis enables us to demonstrate that the very partition of the sensible (Rancière 2004) is the primary locus of resistance. In their research on why ambassadors from small Pacific island states reject the 'climate refugee' category, McNamara and Gibson found that: 'Pacific ambassadors argued that before their people are inundated out of their homes ... industrialised countries must act to contain and reduce greenhouse gases' (2009: 482). However, this demand to tackle the causes of climate change is easily brushed aside as long as climate change remains constructed as an uncontrollable phenomenon, where even ambitious emission reductions will not necessarily translate directly into lower sea levels and a lower number of extreme events. Here, the discursive struggle for a new partition of the sensible has to begin with the very conceptualization of climate change itself.

Acknowledgements

I would like to thank editors Harriet Bulkeley and Johannes Stripple for their very helpful comments on an earlier draft and for their encouragement and support throughout this project. Moreover, Chris Methmann deserves special thanks for commenting on various drafts of this chapter. Finally, the language of this chapter has been improved significantly by Logan Penniket's careful editing.

References

- Adey, P. and B. Anderson (2012). Anticipating Emergencies: Technologies of Preparedness and the Matter of Security. *Security Dialogue* **43**(2), 99–117.
- Aradau, C. and R. V. Munster (2011). *Politics of Catastrophe: Genealogies of the Unknown*. London, New York: Routledge.
- Beck, S. (2009). *Das Klimaexperiment und der IPCC: Schnittstellen zwischen Wissenschaft und Politik in den internationalen Beziehungen*. Marburg: Metropolis-Verlag.
- Biermann, F. and I. Boas (2010). Preparing for a Warmer World. Towards a Global Governance System to Protect Climate Refugees. *Global Environmental Politics* **10**(1), 60–88.
- Bigo, D. (2008). Globalized (In)Security: The Field and the Ban-Opticon. In *Terror, Insecurity and Liberty: Illiberal Practices of Liberal Regimes after 9/11*, ed. D. Bigo and A. Tsoukala. London, New York: Routledge, 10–48.
- Boykoff, M. T., D. Frame and S. Randalls (2010). Discursive Stability Meets Climate Instability: A Critical Exploration of the Concept of 'Climate Stabilization' in Contemporary Climate Policy. *Global Environmental Change* **20**(1), 53–64.
- Brauch, H. G. (2009). Securitizing Global Environmental Change. In *Facing Global Environmental Change: Environmental, Human, Energy, Food, Health and Water Security Concepts*. Hexagon Series on Human and Environmental Security and Peace 4, ed. H. G. Brauch, U. O. Spring, J. Grin, C. Mesjasz, P. Kameri-Mbote, N. Chadha Behera, B. Chourou and H. Krummenacher. Berlin: Springer, 65–104.
- Buzan, B., O. Waever and J. de Wilde (1998). *Security: A New Framework for Analysis*. Boulder, CO: Lynne Rienner.
- Bäckstrand, K. and E. Lövbrand (2006). Planting Trees to Mitigate Climate Change: Contested Discourses of Ecological Modernization, Green Governmentality and Civic Environmentalism. *Global Environmental Politics* **6**(1), 50–75.
- Chandler, D. (2012). Resilience and Human Security: The Post-Interventionist Paradigm. *Security Dialogue* **43**(3), 213–29.
- Christian Aid (2007). *Human Tide. The Real Migration Crisis*. London et al.: Christian Aid.
- Collier, S. J. (2009). Topologies of Power. *Theory, Culture & Society*, **26**(6), 78–108.
- Collier, S. J. and A. Lakoff (2008). Distributed Preparedness: The Spatial Logic of Domestic Security in the United States. *Environment and Planning D* **26**(1), 7–28.
- Conisbee, M. and A. Simms (2003). *Environmental Refugees: The Case for Recognition*. London: New Economics Foundation.
- Dean, M. (2003). *Governmentality. Power and Rule in Modern Society*, first edition. London, Thousand Oaks, CA, New Delhi: SAGE.
- Detraz, N. and M. M. Betsill (2009). Climate Change and Environmental Security: For Whom the Discourse Shifts. *International Studies Perspectives*, **10**(3), 303–20.
- Dillon, M. (2007). Governing through Contingency: The Security of Biopolitical Governance. *Political Geography* **26**(1), 41–7.
- Dillon, M. (2008). Underwriting Security. *Security Dialogue* **39**(2–3), 309–32.

- Docherty, B. and T. Giannini (2009). Confronting a Rising Tide: A Proposal for a Convention on Climate Change Refugees. *Harvard Environmental Law Review* **33**(2), 349–403.
- Duffield, M. (2007). *Development, Security and Unending War: Governing the World of Peoples*. Cambridge: Polity Press.
- Duffield, M. (2008). Global Civil War: The Non-Insured, International Containment and Post-Interventionary Society. *Journal of Refugee Studies* **21**(2), 145–65.
- Duffield, M. (2010). The Liberal Way of Development and the Development-Security Impasse: Exploring the Global Life-Chance Divide. *Security Dialogue* **41**(1), 53–76.
- Duffield, M. (2011). Total War as Environmental Terror: Linking Liberalism, Resilience, and the Bunker. *South Atlantic Quarterly* **110**(3), 757–69.
- Duffield, M. and N. Waddell (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.
- El-Hinnawi, E. (1985). *Environmental Refugees*. Nairobi: UNEP.
- Farbotko, C. (2005). Tuvalu and Climate Change: Constructions of Environmental Displacement in the *Sydney Morning Herald*. *Geografiska Annaler: Series B, Human Geography* **87**(4), 279–93.
- Farbotko, C. and H. Lazrus (2011). The First Climate Refugees? Contesting Global Narratives of Climate Change in Tuvalu. *Global Environmental Change* **22**(1), 382–90.
- Foresight (2011). *Migration and Global Environmental Change*. London: The Government Office for Science.
- Foucault, M. (1978). *The History of Sexuality. An Introduction. Vol. I*. New York: Vintage.
- Foucault, M. (2003). *Society Must be Defended. Lectures at the Collège de France 1975–76*. New York: Picador.
- Foucault, M. (2007). *Security, Territory, Population. Lectures at the Collège de France 1977–78*. New York: Picador.
- German Advisory Council on Global Change (2007). *World in Transition: Climate Change as a Security Risk*. London: Earthscan.
- Grove, K. (forthcoming). Biopolitics. In *Critical Environmental Politics*, ed. C. Death. London: Routledge Intervention Series.
- Holling, C. S. (1973). Resilience and Stability of Ecological Systems. *Annual Review of Ecology and Systematics* **4**, 1–23.
- Homer-Dixon, T. (1994). Environmental Scarcities and Violent Conflict: Evidence from Cases. *International Security* **19**(1), 5–40.
- Homer-Dixon, T. (1999). *Environment, Scarcity and Violence*. Princeton, NJ: Princeton University Press.
- Lenton, T. M., H. Held, E. Kriegler, J. W. Hall, W. Lucht, S. Rahmstorf and H. J. Schellnhuber (2008). Tipping Elements in the Earth's Climate System. *Proceedings of the National Academy of Sciences (PNAS)* **105**(6), 1786–93.
- Lentzos, F. and N. Rose (2009). Governing Insecurity: Contingency Planning, Protection, Resilience. *Economy and Society* **38**(2), 230–54.
- Luibhéid, E. (2002). *Entry Denied: Controlling Sexuality at the Border*. Minneapolis; London: University of Minnesota Press.
- Luke, T. W. (1999). Environmentalism as Green Governmentality. In *Discourses of the Environment*, ed. E. Darier. Oxford, Malden: Blackwell, 121–51.
- Lundborg, T. and N. Vaughan-Williams (2011). Resilience, Critical Infrastructure, and Molecular Security: The Excess of 'Life' in Biopolitics. *International Political Sociology*, **5**(4), 367–83.

- Mabey, N., J. Gullede, B. Finel and K. Silverthorne (2011). *Degrees of Risk: Defining a Risk Management Framework for Climate Security*. London: Third Generation Environmentalism Inc. (E3).
- McNamara, K. E. and C. Gibson (2009). 'We do not want to leave our land': Pacific Ambassadors at the United Nations Resist the Category of 'Climate Refugees'. *Geoforum* **40**(3), 475–83.
- Methmann, C. and D. Rothe (2012). Politics for the Day after Tomorrow: The Logic of Apocalypse in Global Climate Politics. *Security Dialogue* **43**(4), 323–44.
- Methmann, C. and A. Oels (forthcoming). Securing the Environment: From Defence to Resilience. In *Dialogues on Security: Theoretical, Methodological, and Empirical Advances and Challenges*, ed. C. Daase, G. Schlag and J. Junk. London: Routledge.
- Myers, N. and J. Kent (1995). *Environmental Exodus. An Emergent Crisis in the Global Arena*. Washington: Climate Institute.
- Oels, A. (2005). Rendering Climate Change Governable. From Biopower to Advanced Liberal Government. *Journal of Environmental Policy and Planning* **7**(3), 185–207.
- Oels, A. (2012). Comparing Three Theoretical Perspectives on Climate Change as a Security Issue: From the 'Securitisation' of Climate Change to the 'Climatisation' of the Security Field. In *Climate Change, Human Security and Violent Conflict: Challenges for Societal Stability*, ed. J. Scheffran, M. Brzoska, H.-G. Brauch, P. M. Link and J. Schilling. Berlin: Springer, 185–206.
- Oels, A. (2013). Rendering Climate Change Governable by Risk: From Probability to Contingency. *Geoforum* **45**(March 2013), 17–29.
- Rancière, J. (2004). Who is the Subject of the Rights of Man? *The South Atlantic Quarterly* **103**(2–3), 297–310.
- Reid, J. (2012). The Disastrous and Politically Debased Subject of Resilience. *Development Dialogue* **58**, 67–80.
- Rogelj, J., J. Nabel, C. Chen, W. Hare, K. Markmann, M. Meinshausen, M. Schaeffer, K. Macey and N. Höhne (2010). Copenhagen Accord Pledges Are Paltry. *Nature* **464**, 1126–8.
- Rose, N. (2001). The Politics of Life Itself. *Theory, Culture & Society* **18**(6), 1–30.
- Rose, N., P. O'Malley and M. Valverde (2006). Governmentality. *Annual Review of Law and Social Sciences* **2**, 83–104.
- Schwartz, A. D. and P. S. Randall (2003). *An Abrupt Climate Change Scenario and Its Implications for United States National Security*. Washington, DC: Environmental Media Services.
- United Nations Security Council (UNSC) (2007a). Minutes 5663rd meeting, Tuesday, 17 April 2007, New York, S/PV.5663.
- United Nations Security Council (UNSC) (2007b). Minutes 5663rd meeting, Tuesday, 17 April 2007, 3 p.m., New York, S/PV.5663 (Resumption 1).
- United Nations Security Council (UNSC) (2011a). Minutes 6587th Meeting, Wednesday, 20 July 2011, 10 a.m., New York, S/PV.6587.
- United Nations Security Council (UNSC) (2011b). Minutes 6587th Meeting, Wednesday, 20 July 2011, 3 p.m., New York, S/PV.6587 (Resumption 1).
- UN GA [United Nations, General Assembly] (2009). *Climate Change and its Possible Security Implications: Report of the Secretary-General, A/64/350*. New York: UN.
- Stripple, J. (2002). Climate as a Security Issue. In *Human Security and the Environment: International comparisons*, ed. E. Page and M. Redclift. Cheltenham: Edward Elgar, 105–27.
- Swyngedouw, E. (2010). Apocalypse Forever? Post-Political Populism and the Spectre of Climate Change. *Theory, Culture & Society* **27**(2–3), 213–32.

- Trombetta, J. (2008). Environmental Security and Climate Change: Analysing the Discourse. *Cambridge Review of International Affairs* **21**(4), 585–602.
- United Nations Framework Convention on Climate Change (UNFCCC) (1995). Geneva: United Nations.
- United Nations General Assembly (UNGA) (2009). *Climate Change and Its Possible Security Implications. Report of the Secretary-General. A/64/350*. New York: United Nations.
- Welzer, H. (2012). *Climate Wars: What People Will be Killed for in the 21st Century*. New York: John Wiley & Sons.