

9 From 'Securitization' of Climate Change to 'Climatization' of the Security Field: Comparing Three Theoretical Perspectives

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9.1 Introduction¹

Since 2003, climate change has been articulated as a threat to national, international, and human security in scientific publications and political declarations. What does the articulation of climate change as a security issue mean in terms of policy implications? How is climate change being rendered governable as a security issue and what are the consequences of this? In this chapter, three theoretical perspectives are introduced that shed light on this question: the Copenhagen School, the human security perspective, and the Paris School. These three schools all offer theoretical perspectives on the question of what it means (or should mean) to render something governable as a security issue and whether or not this is desirable. As well as being those most discussed in the literature, these three schools also cover the full spectrum of positions on the issue: against securitization, for securitization, and neutral (it depends).

First, the Copenhagen School warns that the successful 'securitization' of climate change could legitimize a political state of exception, in which drastic mitigation measures are adopted using undemocratic procedures. While decisive action on climate change is considered desirable, the political price paid for such emergency action is seen as too high. However, empirical analysis shows that there is no evidence of undemocratic procedures and of extraordinary measures in the case of climate change. According to the Copenhagen School, the securitization of climate change has failed and we should not be worried.

The second perspective claims that the counterproductive effects of the securitization of climate

change as spelled out by the Copenhagen School can be avoided once security is redefined in terms of human security. From this perspective, when climate change is constructed as a threat to human security, sustainable development emerges at the top of the policy agenda. Not only does sustainable development tackle pre-existing vulnerabilities, but it also enhances adaptive capacity to the impacts of climate change, actively reducing the likelihood of mass migration and violent conflict. However, empirical analysis shows that since 9/11, human security has more often than not been redefined in terms of homeland security of the global North. As a result, human security concerns in the global South are becoming policy-relevant only to the extent that they are strategically relevant for Northern homeland security.

Finally, the Paris School argues that the failed securitization of climate change is better understood as the successful 'climatization' of the security field. According to the Paris School, the articulation of climate change as a security issue signifies that professionals of (in)security (i.e. intelligence, military, police, defence ministries) are producing climate change as a legitimate threat in their everyday practices. This means that traditional practices of the security field are being applied to the issue of climate change – for example, scenario planning studies, early warning systems etc. At the same time, the security field is expanding to include climate change professionals with their practices of risk management, climate modelling etc., thereby transforming the security field and its practices. 'Climatization' of the security field means that existing security practices are applied to the issue of climate change and that new practices from the field of climate policy are introduced into the security field. While these transformations are still in their infancy and empirically hard to detect, this chapter argues that defence, migration, and development policy are being transformed in order to secure global circu-

1 The author is grateful to Chris Methmann, Hans Günter Brauch and two anonymous reviewers for very helpful comments on an earlier version of this chapter and to Logan Penniket for careful editing of the final manuscript.

lation from disruptions caused by disasters induced by climate change.

The review of each analytical perspective is concluded with an assessment of the strengths and weaknesses of the respective approach. In doing so, the author attempts to convince the reader that the Paris School offers the most interesting analytical perspective for understanding the policy implications relating to the production of climate change as a security issue. The chapter begins with a review of how climate change emerged as a security issue in science and politics (9.2), prior to the theoretical analysis (9.3).

9.2 Emergence of Climate Change as a Security Issue

In this section, key scientific and political documents are introduced which have been influential in establishing climate change as a security issue of one kind or another. By the late 1980s, climate change was already being discussed in the alarmist language of security, leading to the declaration of the *UN Framework Convention on Climate Change* (UNFCCC) in 1992. However, the security implications of climate change disappeared from the agenda until 2003. This chapter focuses on the current production of climate change as a security issue from 2003 until the present. It highlights the fact that there are various and competing readings of security prevalent in the debate, ranging from national security via international security to human security. The demarcation line drawn between ‘science’ and ‘politics’ in the following discussion is artificial: there are close linkages and co-productions. For structural clarity, the following section distinguishes between scientific and semi-scientific knowledge production on the one hand (9.2.1) and political declarations at the international level on the other (9.2.2). The chapter then turns to theoretical reflections on these developments and their (normative) evaluation (9.3).

9.2.1 The Scientific Debate

Currently, very little empirical research has been completed on the security implications of climate change. The limited amount available is often inconclusive or contradicts other studies. Environmental organizations were among the first to produce climate change as a security issue in order to mobilize action for mitigation. Later on, defence and environment ministries as well as the military sector itself joined the chorus.

The *Intergovernmental Panel on Climate Change* (IPCC), the institution charged with producing consensus knowledge on climate change for policymakers, will address the security implications of climate change in its fifth assessment report due in 2014.

Environmental organizations argued early on that the impacts of climate change could trigger mass migration. Concern over millions of ‘climate refugees’ as a security threat has been mobilized from 1988 onwards by environmental non-governmental organizations like the Worldwatch Institute, the Climate Institute, and the Earth Policy Institute (all based in Washington DC), the New Economics Foundation in London, and Australia’s Friends of the Earth (McNamara/Gibson 2009: 477-478). They sought to establish climate change as a threat to *human* and *national security*. Most recently, Greenpeace Germany commissioned a study on ‘climate refugees’ (Jakobeit/Methmann 2007). Why were environmentalists the first to actively attempt to ‘securitize’ climate change? McNamara and Gibson explain:

The geopolitical context was reluctance from the United States, Australia and other governments to accept that climate change was a problem; hence depictions of entire countries disappearing beneath sea level rise performed a particular function, contributing to a counter-discourse problematising inaction by western governments on climate change (McNamara/Gibson 2009: 479).

In academia, the debate on ‘environmental refugees’ was fuelled by Norman Myers. Myers described ‘environmental refugees’ as people who have been forced to flee their homelands because their livelihood has been destroyed by environmental degradation – and conceived overpopulation as a major factor in this degradation (Myers 1995: 18–19). Thomas Homer-Dixon cautiously put forward the idea that population growth together with other factors could degrade renewable resources like fresh water, soil, and forests, and that this resource scarcity could trigger mass migration and violent civil wars (Homer-Dixon 1994, 1999). It was, however, Robert Kaplan’s alarmist *The coming anarchy* (1994) that made these ideas popular and strongly influenced US President Clinton’s policy-making on environmental security. With increasing attention being paid to climate change in the early 2000s, the environmental conflict hypothesis became extended to climate change – in the absence of new research findings specifically on its nexus with conflict.

Climate change has been established as a security issue in studies commissioned by governments, especially by their environment, defence, and foreign af-

fairs ministries. For example, the US Pentagon commissioned a Scenario Planning study by Schwartz and Randall (2003) which was leaked to the press in 2004. In this study, Schwartz and Randall developed a worst-case scenario of abrupt climate change (a drop in temperature of 5°F in North America and Europe) and imagined the resulting resource scarcity, mass migration, and violent conflict, and even the breakdown of civilization as such. Climate change is presented as a threat to 'national' and 'international security'. This worst-case scenario was popularized, for example in Emmerich's film: *The Day after Tomorrow*.

Both the German and UK governments also commissioned influential studies on climate change as a security issue. The UK government commissioned the *Stern Report* on climate change as a threat to economic security, arguing that preventing climate change pays off (Stern 2007). The German environment and development ministries jointly commissioned the 2007 report by the German Advisory Council on Global Change (WBGU), *Climate Change as a Security Risk* (WBGU 2008). The WBGU report explores the linkage between climate change and violent conflict and offers policy recommendations for climate change mitigation and adaptation policy, security policy, development policy, migration policy and early warning/ disaster management. The WBGU explicitly rejects a *human security* framing for its report (WBGU 2008: 20–21) and instead addresses *human vulnerability* to climate change impacts. For example, issues like water security, food security, livelihood security (and the need for migration) and security from climate change induced disasters are at the heart of the report, even when not presented explicitly in a human security framing. Policymakers are advised by the WBGU to tackle the causes of climate change, to use development assistance to reduce vulnerability in affected countries, and to strengthen institutions that could aid in conflict prevention and resolution. This report was also published in English and has been highly influential in the international debate.

Substantial input into the debate on climate change as a security issue has come from the security sector primarily in the US and the UK. In this sector, security is usually narrowly defined as 'national security'. The report by the Center for Naval Analysis (CNA 2007), a consultancy that was formed out of the US Navy, provides a good example of such a study. The CNA Report *National security and the threat of climate change* discusses possible civil and international wars fuelled by the impacts of climate change for each world region, from Africa to the Arc-

tic. In their policy recommendations, the generals and admirals argue that mitigating climate change should be a policy priority. They also focus on a partial restructuring of forces, in order to enhance preparedness for interventions in states where climate change has overwhelmed national capacities, potentially leading to humanitarian disasters and breeding terrorism.

It was not until 2006/2007 that peer-reviewed science entered knowledge production concerning climate change as a security issue. There are two strands in the academic debate: the first asks if and under which conditions climate change could trigger violent conflict in affected regions, while the second investigates the impacts of climate change as a threat to human security. In 2007, the first special issue of a peer-reviewed journal covered the link between climate change and violent conflict (*Political Geography* 26/2007). Contributions to this special issue focused on the difficulties of establishing valid causal linkages between modelled climate change/environmental degradation and future decisions of people about cooperation, migration, or violent conflict (Nordas/Gleditsch 2007). Since then, the scientific debate has intensified and become more differentiated. Burke, Miguel, Satyanath et al. (2009) claim a statistical correlation between historical climate variability (rise in temperature) in African countries and the number of civil wars. Halvard Buhaug (2010) refutes Burke's hypothesis: he tested 11 models for a statistical correlation between short-term climate variability data and civil wars in Africa and concluded that climate variables were not statistically significant (see chap. 2 by Buhaug/Theisen). Supporters of Burke counter that Buhaug did not test the most likely correlation between climate variability and conflict outlined by Miguel, Satyanath and Sergenti (2004).² Nevertheless, scientists like Schellnhuber and Pielke warn that the climate signal is still weak compared to other social factors but that in the future, the destruction of livelihood systems by climatic shocks may well lead to violent conflict.³ Based on this review, it is argued that the scientific debate on the link between climate variability and conflict remains open and inconclusive.

2 Marc Levy: "On the Beat: Climate-security linkages lost in translation" (2010); at: <<http://newsecuritybeat.blogspot.com/2010/09/on-beat-climate-security-linkages-lost.html>> (15 November 2010).

3 Quirin Schiermeier: "Climate Change Not Linked to African Wars", *Naturenews*, 6 September 2010; at: <<http://www.nature.com/news/2010/100906/full/news.2010.451.html>> (17 October 2010).

The current most influential strand of academic literature assesses climate change as a threat to *human security*. Human security is defined as “a variable condition where people and communities have the capacity to manage stresses to their needs, rights, and values” (Barnett/Matthew/O’Brien 2010: 18). Those working from a human security perspective do not deny that environmental stress could be a contributing factor to violent conflict under certain conditions (Barnett/Adger 2007). However, they emphasize that a much wider variety of responses is possible, ranging from conflict to cooperation (Barnett/Matthew/O’Brien 2010: 13–14). People’s capacity to cope with environmental stress – i.e. the state of their human security – is a key factor structuring behavioural options. From a political ecology perspective, coping capacity is a matter of access to resources which are distributed unequally by economic, political, and cultural institutions (Barnett/Matthew/O’Brien 2010: 13–14). The claim made by this literature is that sustainable development is the only legitimate answer to the security implications of climate change, firstly because it tackles pre-existing vulnerabilities, and secondly because it enhances adaptive capacity: “Thus building the capacity to adapt to climate change can help prevent or resolve climate-related conflicts and insecurity” (Brown/Hammill/McLeman 2007: 1150).

The assessment reports of the *Intergovernmental Panel on Climate Change* (IPCC) have investigated human vulnerability to climate change impacts, especially Working Group II (Adger 2006). The term ‘human security’ has been avoided in past assessments but the type of analysis is often implicitly guided by a human security perspective (which Detraz and Betsill label environmental security framing, see Detraz/Betsill 2009: 309–310). In its *Fourth Assessment Report* (AR4), Working Group II discussed the concept of *human security* only once in chapter 9 on Africa, citing Karen O’Brien’s work (IPCC WGII 2007: 456). However, the concepts of food security (IPCC WG II 2007: 297) and water security (IPCC WG II 2007: 516) are widely used by Working Group II. A change in terminology is expected in the future. In the forthcoming Fifth Assessment Report (2014), the IPCC Working Group II dedicates an entire chapter (chapter 12) to the human security implications of climate change. One of the ten subheadings of this chapter is supposed to address ‘conflict’ and another ‘migration and population displacement’, according to the current government approved outline.⁴ Four other chapters of Working Group II are likely to make explicit

reference to the security implications of climate change (chapters 3, 9, 13, and 19).⁵

It is concluded that in the realm of knowledge production, the various claims about climate change as a likely cause of violent conflict remain highly contested. Peer reviewed science has entered into the debate rather late. The IPCC has used the term human vulnerability to assess the impacts of climate change on human well-being, avoiding the explicit use of the term human security in its Fourth Assessment Report. However, chapter 12 of Working Group II of the Fifth Assessment Report by the IPCC that is due by 2014 will explicitly discuss climate change as a threat to human security.

9.2.2 The Political Debate

Concern about the security implications of climate change entered the political agenda in the absence of scientific consensus on this issue. The governments of Germany and the United Kingdom commissioned their own scientific studies on climate change as a security issue (WBGU 2008; Stern 2007) in order to support their case for strong adaptation and mitigation action in international climate negotiations. The security implications of climate change were put on the agenda of the UN Security Council by the UK in 2007, and on the UN General Assembly agenda by the small island states (and others) in 2009 (see chap. 33 by Kurtz). The UN Secretary-General’s 2009 report *Climate Change and its Possible Security Implications* builds on available research findings and is considered the most authoritative political declaration on the issue. This author argues that a reading of security in line with (though rarely explicitly referencing) human security is prevalent in the political debate in Europe and at the United Nations, and that a national security reading is prevalent in the US.

The security implications of climate change were put on the international political agenda by Germany and the United Kingdom. Germany used its EU Presidency in spring 2007 to mobilize EU concern about climate change as an issue of *international security* (Council of the European Union 2007: 11). In March

4 IPCC, “Fifth Assessment Report (AR5) Authors and Review Editors”, at: <http://www.ipcc.ch/pdf/ar5/ar5_authors_review_editors_updated.pdf>.

5 Neil Adger, University of East Anglia in Norwich, UK at a conference on Climate change and Security in Trondheim, 21–24 July 2010; at: <<http://climasecurity.files.wordpress.com/2010/06/neil-adger.pdf>>.

2008, as a result of the German Presidency Conclusions, EU commissioner Benita Ferrero-Waldner and EU High Representative Javier Solana presented a report on *Climate change and international security* (Council of the European Union 2008a). This report addresses climate change as a "threat multiplier which exacerbates existing trends, tensions and instability" (Council of the European Union 2008a: 2), thereby adopting the terminology proposed by the *German Advisory Council on Global Change* (WBGU). The so-called Solana Report considers international security as closely linked to the EU's own (national) security as well as to the 'human security' of people in developing countries (Council of the European Union 2008a: 2). The Solana Report calls for action in three fields. First, it proposes enhancing the monitoring and early warning of mass migration and violent conflict especially in regions of 'state fragility' (Council of the European Union 2008a: 7). Second, it calls for European leadership to foster a post-Kyoto treaty on mitigation and adaptation, in order to make the 2°C target internationally binding. Particular attention is paid to "environmentally-triggered additional migratory stress" (Council of the European Union 2008a: 8). Third, cooperation and capacity-building with third party countries is suggested in the fields of mitigation, adaptation, and crisis management. Despite great efforts by France to make alterations to the EU Security Strategy in the face of climate change security implications, the regular review of the EU Security Strategy in December 2008 reached no agreement for change (Council of the European Union 2008b: 5-6).

In the US, the environment was rendered governable as a *national security* issue under the Clinton administration, while the Bush administration did its best to reverse this development. In his efforts to appeal to a US audience, former US Vice-President Al Gore has repeatedly depicted climate change as an existential threat to Western civilization that leaves humanity the choice between "life and death".⁶ The Kyoto Protocol was signed by Clinton in 1997 but was never ratified by the Senate or the House of Representatives. In 1993, the Clinton Administration - with Al Gore as Vice-President - created the Office of Deputy Under-Secretary of Defense for Environmental Security (ODUSD-ES) within the Department of Defense (Floyd 2007a: 345). The environment was also

integrated into the *US National Security Strategy* (US NSS) of 1994/1995 (Floyd 2007a: 345). Policies undertaken focused on the compliance of the US military with existing environmental law. However, these policies only lasted a few years. In 2005, the Bush Jr. Administration deleted the phrase "environmental security" from the US NSS, cut funding for the programme where possible, and replaced the environmental security directive from 1996 with a new directive that "exempts many military activities from existing environmental legislation" (Floyd 2007a: 347). The Bush administration officially withdrew support from the Kyoto Protocol in 2001. Nevertheless, the Pentagon commissioned a scenario planning study by Schwartz and Randall (2003) which assessed climate change as a threat to national and international security. The Obama administration has committed itself to the 2°C target at the Copenhagen (2009) and Cancún (2010) climate negotiations. Even today, US-based NGOs remain convinced that articulating climate change as a threat to *national security* is the only way to convince politicians that action on climate change is a necessity.

The United Kingdom used its presidency of the UN Security Council in April 2007 to put the security implications of climate change on the agenda of a session that was open to all member states. The UK was supported in this effort by all Western industrialized states and by some small island states. At the session on 17 April 2007, the majority of speakers from developing countries strongly objected to having a discussion about climate change in the UN Security Council. Instead, they argued that climate change was an issue of sustainable development that should be discussed under the *UN Framework Convention on Climate Change* (UNFCCC) or in the UN General Assembly (UN Security Council 2007a, b). This was also the official position of the G77 group. Nevertheless, 80 per cent of the speakers agreed that climate change is likely to have strong human security implications for people in developing countries. Half of the speakers (27 out of 55 represented governments) linked climate change to the threat of violent conflict, but most did so in the context of a broader "environmental security" framing in line with human security (only four used an environmental conflict perspective) (Detraz/Betsill 2009: 311). The debate focused less on the question of whether climate change could trigger violent conflict than on whether the exclusive setting of the UN Security Council was a suitable arena for discussion about the security implications of climate change.

6 Al Gore: "Nobel Lecture", 10 December 2007 in: The Nobel Foundation; at: <http://nobelprize.org/nobel_prizes/peace/laureates/2007/gore-lecture_en.html> (3 October 2010).

The UN General Assembly (UNGA) discussed climate change and security on two occasions, on 22 May 2008 and on 14 April 2011.⁷ In 2009, the small island states, with the support of most industrialized countries, put the climate change and security nexus on the agenda of the UN General Assembly. They requested a report by the UN Secretary-General on *Climate Change and its Possible Security Implications*, which was presented by Ban Ki-moon on 11 September 2009 (UNGA 2009). Like its predecessors, the report defines climate change as “a ‘threat multiplier’, exacerbating threats caused by persistent poverty, weak institutions for resource management and conflict resolution, fault lines and a history of mistrust between communities and nations, and inadequate access to information or resources” (UNGA 2009: 2). The report defines security in terms of human vulnerability to climate change – fully in line with *human security*, but without explicitly using the term. It states in the introduction “The principal focus in the present report is on the security of individuals and communities. It ...is consistent with the suggestion of the *Human Development Report 1994*” that, for ordinary people, “security symbolized protection from the threat of disease, hunger, unemployment, crime, social conflict, political repression and environmental hazards” (UNGA 2009: 4–5).

The report also acknowledges that most states consider *human vulnerability* and *national security* as interdependent (UNGA 2009: 1,5). The issues raised in the report range from threats to human development to threats to human lives lost as a result of intra- or inter-state violence. Mitigation of and adaptation to climate change are acknowledged as essential, but the main part of the report is dedicated to action in four other policy areas. First, “climate-proving economic development” is recommended as a strategy of sustainable development in order to enhance resilience and grow adaptive capacity (UN GA 2009: 25). It is argued that “the best way to reduce [developing countries’] vulnerability is to help to lift them out of poverty” (UNGA 2009: 28). Second, in the face of a rising number of expected extreme weather events, building capacity for disaster risk reduction and disaster preparedness is recommended (UNGA 2009: 27). Third, in the field of migration policy, a new legal

framework to protect persons displaced by climate change is called for (UNGA 2009: 15–20). The UN is advised to engage in planned resettlements and to think about solutions for those becoming stateless as a result of rising sea levels. Fourth, in the fields of defence and development policy, capacity building for conflict prevention is proposed. The ‘weak’ states of Africa are considered a particular security threat, as their institutional capacities could be overwhelmed by extreme weather events and resulting mass migration (UNGA 2009: 18). This reading of human vulnerability is clearly concerned about the homeland security of Northern industrialized countries.

The author concludes that the UK, Germany, and the small island states have successfully put the security implications of climate change on the international political agenda. The UN Secretary-General’s report on *Climate Change and its Possible Security Implications* is the most authoritative political statement to date. It combines the two strands of the academic debate: it defines climate change as a threat to *international security* and *human vulnerability* in developing countries, but also dedicates long parts of the report to the risk of violent conflict in regions of state fragility, and recommends conflict prevention.

9.3 Theoretical Perspectives on Climate Change as a Security Issue

Climate change is now a security issue, politics and science tell us. How is climate change being produced as a security issue and what are the policy implications of this development? Three theoretical perspectives have been chosen to shed light on this question. *First*, the *Copenhagen School* warns of the dangers to democracy which are implied in the successful ‘securitization’ of an issue. The analytical framework suggested by the Copenhagen School discusses whether climate change has been successfully securitized, triggering extraordinary measures (9.3.1). The *human security* perspective argues that once security is redefined as human security, the ‘securitization’ of an issue propels sustainable development policies to the top of the policy agenda (9.3.2). The section sketches the human security approach to climate change and analyses to what extent human security has played a role in the ‘securitization’ of climate change and which policies have been facilitated as a result. *Finally*, the *Paris School* argues that the ‘securitization’ of an issue is neither good nor bad per se – it depends on the policy

⁷ The debate on climate change and human security occurred in the UNGA (Brauch 2009a, 2011) on 22 May 2008 and also on 14 April 2011; see at: <<http://www.un.org/News/Press/docs//2011/ga11072.doc.htm>> (7 June 2011).

implications which need to be assessed. For the Paris School, the failed 'securitization' of climate change is better understood as the 'climatization' of the security field (9.3.3). This section introduces the Foucaultian account of security used by the Paris School and investigates whether there is evidence for a transformation of security practices resulting from the production of climate change as a security issue by the professionals of (in)security. In particular, possible changes in defence policy, migration policy, and development assistance are discussed which could be linked to the 'climatization' of the security field. It will be concluded that the Foucaultian framework proposed by the Paris School is the most capable of offering a comprehensive assessment of the policy implications of climate change as a security issue, which are neither all bad nor all good.

9.3.1 Failed Securitization of Climate Change: Absence of Extraordinary Measures

The term 'securitization' was coined by Ole Wæver to criticize a form of policymaking in which extraordinary measures and undemocratic procedures are enabled in the name of 'security'. Bill McSweeney (1996) introduced the term 'Copenhagen School' to refer to the work of Buzan, Wæver and others (Buzan 1991, 2004; Buzan/Wæver/de Wilde 1998; Buzan/Wæver 2003; Wæver 1995, 1999, 2000). This section introduces the framework of analysis and assesses empirically the extent to which climate change can be considered successfully securitized according to the Copenhagen School.

Security is redefined by the Copenhagen School as a performative speech act that carries out an action by speaking the word 'security' (Wæver 1995: 55): "By uttering 'security', a state-representative moves a particular development into a specific area, and thereby claims a special right to use whatever means are necessary to block it." To study whether an issue has been securitized, the researcher is advised to investigate two things: firstly, elite speech acts need to be identified that define an issue as an "existential threat to a designated referent object" and thereby "justif[y] the use of extraordinary measures to handle" it (Buzan/Wæver/de Wilde 1998: 21). Secondly, a relevant audience has to be identified that shows "signs of [...] acceptance" of these speech acts (Buzan/Wæver/de Wilde 1998: 25). It is not required that exceptional measures are actually adopted for an issue to count as securitized; it just has to appear possible (Buzan/Wæver/de Wilde 1998: 25). Security is said to carry

with it "a history and a set of connotations that it cannot escape" (Wæver 1995: 47). These connotations include thinking about an issue in terms of threat-defence, attributing responsibility to the state (Wæver 1995: 47), and legitimizing exceptional forms of politics (Wæver 1995: 55). This logic does not necessarily imply the use of force or military means: "it is a coincidence that military means have traditionally been the *ultimo ratio*" (Wæver 1995: 53). Bail-out packages for failing banks which involve huge sums of taxpayers' money and which are pushed through parliament without due process are a prime example of this. The successful securitization of an issue and the use of extraordinary measures are considered as a failure to deal with the issue by means of normal politics (Wæver 1995: 29). The Copenhagen School admits that strategies of securitization may be instrumental in mobilizing support and resources for an issue under certain circumstances (Buzan/Wæver/de Wilde 1998: 29). However, the Copenhagen School is highly critical of processes of securitization and recommends strategies of desecuritization in order to bring issues back to 'normal' politics and democratic procedure.

What are the findings of those who have investigated the 'securitization' of climate change from the perspective of the Copenhagen School? Is there evidence of securitizing moves by elite speakers, and if so, in which years? An initial finding is that the articulation of climate change as existential threat is nothing new. In the formation phase of the climate regime from 1985 to 1992, climate change was also described as an existential threat by heads of government and in newspaper reporting in several industrialized countries, among them Germany and the UK (Carvalho/Burgess 2005: 1466-1467). In 1990, for example, these 'securitizing moves' facilitated the ambitious German target of reducing carbon dioxide emissions by 25 per cent by the year 2000 (Weingart/Engels/Pansegrau 2000: 272). The dramatic language of existential threat is said to have returned from 2003 to 2009 (Brauch 2009; Oels 2009a). However, the majority of those who articulate climate change as a security issue do not call for extraordinary measures but instead emphasize the importance of the 'normal' political process of international negotiations under the UN Framework Convention on Climate Change (Oels 2009a). It is only a few people, like former US Vice-President Al Gore, who actually call for "the urgency and resolve that has previously been seen only when nations mobilized for war"⁸.

There are actually a number of different security discourses being mobilized by the elite speakers, with

potentially different policy implications (Detraz/Betsill 2009). While US speakers, delegates from the small island states, and speakers from the military establishment are clearly concerned about the *national* security implications of climate change, developing countries and the IPCC, as well as UN resolutions, analyse human vulnerability to climate change and address climate change as an issue of sustainable development and more recently as a human security issue (see section 9.2). The Copenhagen School does not, however, distinguish between these different discourses – it is assumed that good intentions are not necessarily linked to desirable results (Trombetta 2011: 140). The Copenhagen framework is blind to the fact that the articulation of climate change as an issue of human security could have different policy implications from the articulation of climate change as an issue of national security.

Were these speech acts accepted by a relevant audience? Existing studies have found it difficult to identify what constitutes a ‘relevant’ audience. Oels (2009a) suggested that the community of international states might be a relevant audience, and proposed looking at the debates in the UN Security Council and the UN General Assembly. The findings of this analysis are divided: while developing countries clearly opposed the treatment of climate change in the UN Security Council, there was widespread consensus on discussion of climate change and security in the UN General Assembly (UNGA 2009). The report by the UN Secretary-General on *Climate Change and its Possible Security Implications* uses the language of human vulnerability, but makes it very clear that for most countries, human vulnerability and national security are interdependent concerns (UNGA 2009: 1; see section 9.2.2). In conclusion, there seems to be audience acceptance amongst international states that human vulnerability to climate change impacts – especially in developing countries – requires political action. Secondly, Brauch (2009) has suggested studying international opinion polls to see whether climate change is considered to be a ‘serious’ threat and if the figures supporting this have been going up or down. Comparative national opinion polls from 2005 to 2007 show that public concern about climate change is huge and increased over that period of time. However, Oels (2009a) argues that this does

not necessarily imply that people would find extraordinary measures the appropriate means of addressing the problem of climate change. Third, Oels (2009a) suggested reviewing national media representations of climate change and searching for securitizing language. In the absence of media analyses of securitizing language after 2003, there were only early hints of securitizing language in the German and British newspapers around 1990 and in British newspapers from 2003 onwards (Carvalho/Burgess 2005: 1466–1467, Weingart/Engels/Pansegrau 2000: 272). A more recent study addresses the discursive construction of ‘climate refugees’ as a security issue in the media and its policy implications, using case studies of media representations of small island people and of Hurricane Katrina victims (Oels/Carvalho 2011).

Finally, does evidence exist of extraordinary measures in the field of climate policy? Julia Trombetta has suggested that in foreign policy it is possible that “the securitization of climate change would result in confrontational politics, with states adopting politics to protect their territory against sea-level rising and immigration; with the Security Council adopting resolutions to impose emission targets, and even military action against polluting factories; and surveillance systems to monitor individual emissions” (Trombetta 2008: 599). There is no evidence of such measures in foreign policy. In the environmental sector, Hans Günter Brauch has suggested that the successful securitization of climate policy would “legitimate extraordinary and costly measures that require a progressive increase in energy efficiency and a decarbonization of the energy system by increasing renewable energy sources but without creating serious food security challenges” and this would mobilize “significant public funds” (Brauch 2009: 71). For Brauch, successful securitization depended on the outcome of the Copenhagen COP-15 negotiations under the UN Framework Convention on Climate Change (Brauch 2009: 102). With the stalemate at the Copenhagen negotiations and the weak Cancun Agreements, all observers agree that the securitization of climate change has failed (Oels 2009a; Brauch/Oswald Spring 2011; Oswald Spring/Brauch 2011).

Oels (2009a) has argued that the political momentum for climate change in 2007 was lost when the Bali negotiations under the UNFCCC postponed decision-making to Copenhagen. Between Bali and Copenhagen, the financial crisis became a major policy priority and the climate negotiations never regained the same priority that they had in 2007. Despite the election of a new US President with strong climate

8 Gore, Al, 2007: “Nobel Lecture”, 10 December 2007 in Oslo, *The Nobel Foundation*; at: <http://nobelprize.org/nobel_prizes/peace/laureates/2007/gore-lecture_en.html> (3 October 2010).

policy ambitions, Obama's failure to get his climate legislation through the House of Representatives and the Senate in time for Copenhagen was the breaking point for a binding agreement in Copenhagen. When compared with 9/11 in 2001 or the financial crisis of 2008–2009, it is obvious that no emergency measures concerning climate change have been taken. The terrorist attacks in 2001 and the financial crisis of 2008–2009 were responded to with frequent exceptional 'crisis talks' by heads of government, followed by determined legislation passed in (undemocratically) short time with little consultation. In both cases, fundamental rights were violated by these new laws. In contrast, the issue of climate change was tackled by existing forums (G-8, UN General Assembly, UN Security Council), and almost all requests for policymaking were directed to the negotiations under the UN Framework Convention on Climate Change.

What are the strengths and weaknesses of analysing the 'securitization' of climate change drawing on the Copenhagen School's framework? *First*, regarding the production of climate change as a security issue, limiting analysis to speech acts is a significant constraint. By doing so, the Copenhagen School has in the past excluded visual representations and security practices (Stritzel 2007; McDonald 2008). The Paris School and revised versions of securitization theory include such practices in their analysis (Hansen 2010; see chap. 14 by Rørbæk). *Second*, it is both a strength and a weakness of the Copenhagen School that it puts forward a framework of analysis that fixes the meaning of security to just one option (existential threat) and the policy response to one option (extraordinary measures). Strippel has suggested that the Copenhagen School is "constructivist in regard to social relations, but more objectivist in regard to security" (Strippel 2002: 109–110). The Copenhagen School contributes to a further marginalization of alternative security discourses by binding the meaning of security to exceptionality (McDonald 2008: 579). However, "the meaning of security is not an ontological given, but changes across time" (Floyd 2007a: 333). Because it has fixed the meaning of security, the Copenhagen School is incapable of distinguishing between competing security discourses and their *very different* policy implications (Detraz/Betsill 2009). Moreover, the Copenhagen School is blind to the transformations in the logic of security and in the practices of security which occur when the environment becomes the referent object (Trombetta 2011: 136). *Third*, regarding policy implications, a strength is that we know whether or not security discourses are legitimizing a

political state of exception. In the case of climate change, the Copenhagen School reassures us that the construction of climate change as a security issue has not yet passed the critical threshold of exceptionality.

Does this mean that the articulation of climate change as a security issue has not had any consequences for policymaking? Didier Bigo (2007) has claimed that narrowing the meaning of security to exceptionality means that only the tip of the iceberg of securitization processes is rendered visible. All other policy implications which could be linked to the articulation and the practices of security remain invisible and unrevealed. Trombetta insists that the securitization of the environment must be considered 'successful' in such cases where it "brought about measures and policies that probably would not otherwise have been undertaken" – not only in cases where exceptional measures were enabled (Trombetta 2011: 136). Trombetta argues that the politicization of the environment has in many cases been achieved *through* its securitization (Trombetta 2011: 142). Floyd insists that the securitization of the environment can trigger positive environmental outcomes (Floyd 2007a: 342), while desecuritization can be negative in cases where the issue simply disappears from the policy agenda altogether (Floyd 2007a: 343, 347). Trombetta suggests that in the environmental sector, the logic of security is often transformed into something more along the lines of risk management, for example using the precautionary principle and the concept of resilience (Trombetta 2011: 135, 142). In the case of the European Union, Julia Trombetta has claimed that the climate security discourse has facilitated the development of a common energy policy: "The plan committed member states to raising the European share of renewable energy to 20 per cent, increasing energy efficiency, completing the internal market for electricity and gas, and the development of a common external energy policy" (Trombetta 2008: 598). The driving force for these developments was – according to Trombetta – the merging of the concern for energy security (to secure energy supply) with concerns about climate security (to secure climate stability). The original Copenhagen framework is blind to such observations below the threshold of exceptionality.

The Copenhagen School reveals that the 'securitization' of climate change has failed: the articulation of climate change as a security issue in numerous elite speech acts has not (yet) passed the critical threshold of exceptionality. The Copenhagen School can also reassure us that we should not be worried. Criticism

raised against the Copenhagen School points to the possibility that a transformation in the logic of security could trigger positive outcomes for the environment and for people. The following section explores whether a new reading of security in terms of *human security* can actually facilitate desirable policy outcomes.

9.3.2 Climate change as a Threat to Human Security: An Agenda for Sustainable Development

A second perspective frames climate change as a threat to *human security*. Human security is clearly a normative approach as it is concerned with what security ought to be. The human security perspective is first and foremost “a policymaking agenda” that originated from the policymaking world, not a theoretical framework of analysis (Floyd 2007b: 38).

It was the United Nations Development Programme that introduced the term human security in its Human Development Report (1994). The human security approach takes the individual lives of people as the referent object of security, not the political order of states. The aim is “to highlight persisting insecurities of individuals or groups of individuals” (Floyd 2007b: 39). The UNDP argued in 1994 that human security should include both “freedom from fear” (mainly safety from violent threats) and “freedom from want” (i.e. poverty, disease, climate change). The UNDP envisioned a broad concept of human security that covered threats to economic security, food security, health security, environmental security, personal security, community security, and political security. The influential Commission on Human Security further specified the meaning of human security. It argued that “[t]he focus must broaden from the state to the security of people – to human security” (Commission on Human Security 2003). However, the exact meaning of human security remains contested.

In essence, “those who work within the human security tradition perform securitizing moves themselves” (Floyd 2007b: 42). It is hoped that framing environmental problems as security issues will contribute to “making them more important than other politicised issues” (Barnett 2001: 136). Articulating climate change as a security issue is an instrumental attempt to turn climate change into a policy priority. It is hoped that the counterproductive effects of securitization as defined by the Copenhagen School can be avoided once the meaning of security is reclaimed as human security.

The human security perspective reveals the manner in which a national security perspective fails to address the root causes of environmental problems (Floyd 2007a: 342). The human security perspective emphasizes that “the sovereign state is one of the main causes of insecurity: it is part of the problem rather than the solution” (Jones 1995: 310). Daniel Deudney (1990) has argued that traditional notions of national security are totally inappropriate and counterproductive when it comes to securing the environment. The national security perspective is “reactive” in that it is about “using the troops to prevent disruption to social order after ‘nature’ has done her worst” (Dalby 2009: 135). Followers of human security believe that their voice in the environmental security debate can transform the meaning and the practices associated with security: “Environmental security, wittingly or not, contests the legitimacy of the realist conception of security by pointing to the contradictions of security as the defence of territory and resistance to change” (Barnett 2001: 137).

As a suitable alternative to readings of environmental security as national security, Jon Barnett (2001), Simon Dalby (2009), and others (Barnett/Matthew/O’Brien 2010) suggest reframing security as *human security*. In the global environmental change research community, human security is defined as

something that is achieved when and where individuals and communities have the options necessary to end, mitigate or adapt to threats to their human, environmental and social rights; have the capacity and freedom to exercise these options; and actively participate in pursuing these options (GECHS 1999).

The human security perspective claims that economic, political, and cultural processes structure people’s access to resources and hence their capacity to respond to climate change. When the impacts of climate change strike, the current state of people’s human security determines their capacity to respond, adapt, and cope. At the same time, the impacts of climate change erode human security as climate change reconfigures access to and destroys resources. For example, farmers and others who depend on natural resources are particularly vulnerable to climate change, yet their fate is mediated by governmental institutions which may offer emergency shelters and compensate losses from natural disasters. Dalby (2009) has suggested that working towards peace in the face of climate change requires first, drastically decarbonizing the developed economies, and second, preparing for the climate-induced disruptions that cannot be avoided, by means of conflict prevention and sustainable develop-

ment. It is claimed that human security offers a form of securitization without the “counterproductive outcomes that come from securitization by the state; indeed it points to a role for the state in mitigating the drivers of environmental change and in facilitating responses to minimize insecurities” (Barnett/Matthew/O'Brien 2010: 20).

Simon Dalby has claimed that not only should the meaning of “security” be reconsidered, but also the meaning of “environment”. Dalby draws on Paul Crutzen's idea of a new geological era called the ‘Anthropocene’ in which the activities of humans have become key drivers of changes in the biosphere. Dalby argues that the emergent Earth Systems science has demonstrated how it does not make sense to think of the environment as something external to humans. Instead, humans and nature are mutually constituted by politics, and closely linked in an interconnected system characterized by emergence, contingency, and change (Dalby 2009: 147, 170). Securing the environment is therefore no longer about preserving or stabilizing the status quo (Dalby 2009: 168). Instead, it is about enhancing the system's capacity for adaptive emergence, its resilience to disruptions, and its capacity to regenerate (Dalby 2009: 168).

Has the human security perspective been influential in framing the way climate change is perceived? The concept of human security has achieved widespread acceptance in international policy discourse over the last two decades (McCormack 2010: 39). The UN General Assembly hosted its first systematic discussion on human security on 22 May 2008. At this meeting, “many countries listed as major threats to HS [human security] environmental degradation, climate change, natural disasters and forced migration” (Brauch 2011: 4). On 8 March 2010, the UN Secretary-General presented his first report on Human Security, in which he listed “climate change and the increase in the frequency and intensity of climate-related hazard events” as one of five priorities of the UN (Brauch 2011: 4). On 14 April 2011, the UN General Assembly hosted an informal thematic debate on human security in which climate change featured once more (Brauch 2011). The EU has mentioned the human security implications of climate change in its Solana Report 2008. At the level of national governments, only Greece has recognised climate change officially as a challenge for human security.⁹

As was argued above (9.2.1, 9.2.2), a human vulnerability perspective is dominant in the realm of climate science and climate policy. In climate science, the IPCC as the advisory body for policymakers is committed to a human security perspective on climate change in its *Fifth Assessment Report (AR5)* due by 2014. The IPCC will address the human security implications of climate change in chapter 12 of Working Group II, according to the government approved outline of the AR5. In the realm of international politics, the UN Secretary-General's 2009 Report on *Climate Change and its Possible Security Implications* defines security in terms of “the security of individuals and communities” (UNGA 2009: 4), much in line with a human security perspective. The report explicitly cites the *Human Development Report 1994*, which was essential in the debate on human security (UNGA 2009: 5). However, at the same time it acknowledges that for most states, national security and human vulnerability are two sides of the same coin. While an explicit framing of climate change as an issue of human security has emerged rather recently, there is a long tradition in international science and politics of focusing on human vulnerability to climate change impacts. Such a focus on human vulnerability is clearly in line with a discourse framed in terms of human security (labelled environmental security by Detraz and Betsill), as Detraz and Betsill demonstrate in their discourse analysis of climate change science and politics (Detraz/Betsill 2009).

Has (human) security framing propelled the issue of climate change to the top of the policy agenda as intended by those making securitizing moves? Or is it too early to ask this question since explicit framing of climate change in terms of human security has begun emerging rather recently? For many years, global climate governance was depoliticized and technocratic, allowing a broad range of actors to become part of the negotiation process with a rather low level of commitment (Methmann 2009). The last milestones of global climate governance were the adoption of the UN Framework Convention on Climate Change in 1992 and the Kyoto Protocol in 1997. From 2007 to 2009, a process of politicization of climate change occurred which was certainly helped if not facilitated through its securitization in those years (Trombetta 2011: 142). In the years 2007–2009, climate change and its possible security implications were certainly at the top of the policy agendas of the European Union, G8/G20, the UN Security Council and the UN General Assembly. Has this politicization facilitated decisive mitigation and adaptation action on climate change?

9 “Greece assumes the Chairmanship of the Human Security Network May 2007-2008”; at: <http://www.mfa.gr/www.mfa.gr/Articles/en-US/ts18052007_KL2115.htm>.

Not yet, as the failure to officially adopt the *Copenhagen Accord* (COP 15 in December 2009) shows, and as the officially adopted weak *Cancún Agreements* (COP 16 in December 2010) illustrate. The *Cancún Agreements* officially integrated the main points of the *Copenhagen Accord* into the UNFCCC by having them adopted by all member states. Since Copenhagen, the US and the EU have used all their diplomatic power to coerce developing countries into signing the *Copenhagen Accord*, for example by threatening to withdraw or cut development assistance. As a result, 180 countries have since signed on to the *Copenhagen Accord*. In the *Cancún Agreements*, the goal of limiting average global warming to below 2°C above pre-industrial levels was officially adopted by all member states. This is to be achieved by voluntary mitigation pledges which developed countries committed to at their own discretion when signing on to the Copenhagen Accord. Developing countries on the other hand agreed to self-defined mitigation actions. Some improved standards for *measurement, reporting, and verification* (MRV) of mitigation actions, and support for developing countries, were adopted in Cancún. Developed countries collectively committed in Copenhagen and Cancún to mobilizing up to US\$ 30 billion in 2010–2012 and US\$ 100 billion a year by 2020 in order to support mitigation and adaptation measures in developing countries. In addition, a Green Climate Fund was established, the Cancún Adaptation Framework was set up, action to *reduce emissions from deforestation* (REDD+) was taken, and in Cancún a Technology Mechanism was established. New legally binding emission reduction targets for a second commitment period of the Kyoto Protocol were, however, missing. In sum, the politicization of climate change might have been facilitated through its securitization. However, the outcomes of the politicization process remain far below the expectations of the human security community.

So what are the strengths and weaknesses of the human security perspective on climate change? One strength of the human security perspective is that it has a lot to say about what the meaning of ‘security’ and ‘environment’ should be and how securing civilization from climate change could be achieved. It is assumed that decisive action on climate change will be triggered by the climate security discourse, most likely the drastic decarbonization of the economy. However, for critics, the human security perspective remains naive and unrealistic wishful thinking (Schweller 1999). With regard to climate change, its

politicization was certainly helped by the human security framing of the issue. However, there is little evidence so far that focussing on human vulnerability to climate change has facilitated substantial mitigation action on climate change and/or sustainable development.

A major weakness of the human security perspective is that it fails to take into account that the articulation of climate change as a (human) security issue might trigger a whole range of other policies which were not intended by the proponents of this discourse. Rita Floyd argues that broadening security in the direction of human security has not always had positive consequences – it has been counterproductive in some instances (Floyd 2007b). In the field of climate policy, McNamara and Gibson (2009: 480) demonstrate that the securitization of ‘climate refugees’ by environmental organizations has directed policy attention away from mitigation and towards migration and border control. Another weakness of the human security perspective is that it does not pay sufficient attention to how the meaning of human security has changed over time. In the process of ‘mainstreaming’ (i.e. its widespread usage in the realm of politics), human security has become reinterpreted. Duffield and Waddell (2006) have offered an insightful genealogy (i.e. historic discourse analysis) of human security from a Foucaultian perspective. Despite the fact that Duffield and Waddell’s argument is put forward within a theoretical framework more in line with the Paris School (9.3.3), it is used here to indicate the blind spots of the human security perspective.

When it was originally conceived, the concept of human security sought to balance concerns about development with concerns about security. As Duffield and Waddell (2006: 5) show in their historical analysis, the *development* pole was concerned with “improving the resilience of global populations through better coordination and biopolitical regulation”. The concept of human security was used to facilitate sustainable development in line with the UNDP’s *Human Development Report* in the 1990s. In the realm of *security*, the main concern was to secure global circulation from disruption (Duffield/Waddell 2006: 10). In the 1990s, security concerns shifted from inter-state wars to intra-state violent conflicts. These so-called “new (civil) wars” became conceptualized as “development in reverse” (Collier 2000: ix). Because it enhances resilience, sustainable development became conceptualized as a “bulwark” against organized violence (Duffield/Waddell 2006: 6). It is on this note that develop-

ment and security were conceptualized as two sides of the same coin.

The meaning of human security has changed over time, with an important rupture after 9/11 (Duffield/Waddell 2006). Duffield and Waddell argue that after 9/11, the balance between *development* and *security* in the concept of human security tipped towards *security*. As a result, concern with global circulation is now dominant, "the security of 'homeland' populations has moved centre-stage" (Duffield/Waddell 2006: 19). Southern populations' human security is only relevant to the extent that it contributes to Northern 'homeland' security (Duffield/Waddell 2006: 12). In the realm of *development*, this means that development funding is concentrated on "regions and sub-populations deemed critical in relation to the dangers and uncertainties of global interdependence" (Duffield/Waddell 2006: 11). In the realm of *security*, this means that so-called 'weak' or 'failing' states become conceptualized as a threat to global circulation and 'homeland' security. In the name of human security, military interventions which override national sovereignty are considered justified where 'failing' states (and violent conflicts between competing groups of the population) pose a risk to global circulation.

Tara McCormack argues that the concept of human security has in both the past and present been abused to legitimize military interventions in sovereign states in the name of the human security of the population (McCormack 2010: 36–40). The 2001 report by the International Commission on Intervention and State Sovereignty *The Responsibility to Protect* "moves the earlier juridically based idea of 'humanitarian intervention' as requiring authorization under the UN charter, onto the terrain of moral duty" (Duffield/Waddell 2006: 8). Human security therefore clearly has the potential to legitimize extraordinary measures such as military interventions in sovereign states. As a result, the outcomes of securitizing moves in the name of human security can be just as violent, short-term-oriented, and undemocratic as those criticized by the Copenhagen School.

This suggests that assessment of the policy implications of framing climate change as a (human) security issue must not be limited to environmental politics – instead, it should trace policy impacts in a variety of sectors such as defence, migration, and development. It is these unintended side effects of the climate security discourse that must be investigated in order to reveal the policy implications of the 'securitization' of climate change. The Paris School offers a suitable framework for investigating changing policies

and practices in the sectors of defence, migration, and development.

9.3.3 Climatization of Security: Securing Global Circulation from Disruptions Caused by Climate-induced Disasters

The claim to be substantiated in the following section is that climate change as a (human) security issue facilitates a 'climatization' of the security field. The security field is a Bourdieuan, socially constructed space, the boundaries of which are constantly being renegotiated among its legitimate members and would-be members (Bigo 2008a). The security field is therefore not limited to the military, police, and intelligence, but also includes securitized sectors like migration and development – and more recently climate change itself. 'Climatization' of the security field means that existing security practices are applied to the issue of climate change and that new practices from the field of climate policy are introduced into the security field. Overall, a restructuring of the security field as a result of its 'climatization' may be expected. The empirical section assesses the defence sector, the migration sector, and the development sector in search of evidence for the claim that climate change is being produced as a (human) security issue by professionals of (in)security. Secondly, it will be explored whether there is evidence of transforming or of new security practices resulting from the recognition of climate change as a legitimate threat to (human) security. For reasons of space and clarity, no analysis of the underlying governmentalities (i.e. rationalities of government) will be offered, which inform security practices in each sector (see Oels 2012).

This section starts with an introduction to the Paris School (9.3.3.1). In the empirical section, the 'climatization' of the defence sector, the migration sector, and the development sector (9.3.3.3) will be assessed, and the practices enabled in the name of human security will be explored. It is claimed that climate change as an issue of human security is mainly about securing global circulation from disruptions caused by climate change induced disasters.

9.3.3.1 The Paris School

The Paris School, represented primarily by the writing of Didier Bigo, investigates the everyday practices of "professionals of (in)security" and studies the ways in which subjects and objects are produced as security problems as a result of these practices (Bigo 2008b: 12). The label 'Paris School' was coined by Ole Wæver

because most of the contributing authors were based in Paris, with the exception of Huysmans (Bigo/Guild 2005; Huysmans 2000, 2006; Tsoukala 2004; Bonelli 2005; Hanon 2000). The Paris School draws on Foucault's governmentality lectures where security is conceptualized as a security dispositif (Foucault 2007). Foucault draws on the term *security dispositif* to emphasize that elements as heterogeneous as architectures, discourses, legal texts, institutions, technological devices, and the daily practices of actors are linked by a complex web of relationships and taken together, render a social problem governable as a security issue (Foucault 1982: 194). Security dispositifs are dynamic, the relationships between the elements can change over time, and new elements may link up. The term *discourse* refers to "a specific ensemble of ideas, concepts, and categorizations that are produced, reproduced, and transformed in a particular set of practices and through which meaning is given to physical and social realities" (Hajer 1997: 44). The problematization of security renders a social field governable in a certain way. The following analysis focuses on technologies of security, the practices that actors engage in to produce knowledge about and to manage an object as a security problem or risk.

The Paris School argues that the production of issues by the transnational and transversal security field is neither good nor bad per se - it depends on the policy implications. Most analysts in the Paris School focus on simply revealing the practices and policy implications of specific security dispositifs, and in doing so highlight unintended and problematic developments. The following analysis remains in this tradition. Others go one step further and offer an explicitly consequentialist assessment of the policy implications. In the case of HIV/AIDS, Stefan Elbe (2009) has suggested that the positive impact of international policy attention and upscaled financial resources for HIV education, testing, and treatment considerably outweigh the negative consequences of the securitization of HIV/AIDS, for example the stigmatization (or even exclusion from the labour market and from travel) of risk groups.

9.3.3.2 Rendering the Risk of Climate Change Governable: Mitigation, Adaptation, and Disaster Management

Three policy fields have emerged to address the risks of climate change: mitigation, adaptation, and managing disasters induced by climate change. The risk construction of climate change has shifted significantly over the last 25 years (Oels 2012). Reducing green-

house gas emissions in order to slow down and halt global warming (*mitigation*) has been the main focus of climate policy from its very inception (Oels 2005). When the IPCC announced in 2001 that climate change was already happening and could not be stopped (though it could be influenced in intensity), *adaptation* to projected impacts of climate change emerged as a complementary policy field (Oels 2012). Since 2003, science and politics have addressed climate change as a security issue, with a peak of attention in 2007. Several policy documents have defined climate change as a 'threat multiplier' that exacerbates existing vulnerabilities and tensions (9.2.2).

The discussion dealing with climate change as a security issue is a small, but growing part of the larger field of climate change policy in which *mitigation* and *adaptation* still dominate policymaking. For the Paris School, the articulation of climate change as a security issue indicates that the transnational field of professionals of (in)security (i.e. police, military, intelligence, etc.) has recognized the primary and secondary impacts of unmediated climate change as a legitimate threat. As a result, the security field has become 'climatized' and new security practices have evolved. The following analysis is limited to the risk perception of climate change as a security issue (for mitigation and adaptation, Oels 2012).

9.3.3.3 'Climatization' of Security: Defence, Migration, Development

Which reading of security do the professionals of (in)security perform in the case of climate change? Science and politics have focused on human vulnerability to climate change impacts in the past, a reading that is very much in line with human security (Detraz/Betsill 2009). The possible threat of violent conflict as a result of climate change has been only one among many concerns (Detraz/Betsill 2009). More recently, the term human security is officially emerging in the language of the IPCC, the EU and the UN General Assembly (9.2.2). Mark Duffield and Nicholas Waddell have suggested reading "human security as a relation of governance" (Duffield/Waddell 2006: 2). They conceptualize human security as a biopolitical security dispositif, concerned with the population as referent object of security: "Security in this context relates to improving the collective resilience of a given population against the contingent and uncertain nature of existence" (Duffield/Waddell 2006: 4). In their reading, human security is about securing global circulation from disruptions and informs "how international institutions and actors categorize, separate

and act upon Southern populations" (Duffield/Waddell 2006: 2).

Once human security is conceptualized as a form of biopolitical governance, we can explore the intended and unintended policy implications of viewing *climate change as a (human) security issue* in a field constituted by the professionals of security. The following empirical section assesses the defence, migration, and development sectors in search of evidence for the claim that climate change is being produced as a (human) security issue by professionals of (in)security. Secondly, the section explores whether evidence exists of transforming or new security practices as a result of the recognition of climate change as a legitimate threat to (human) security.

To what extent is climate change being produced as a (human) security issue by the defence sector and how is the defence sector restructuring as a result? There is clear evidence that climate change has been recognized as a legitimate threat by the defence community in Northern industrialized states. Climate change is acknowledged as a threat in two-thirds of the 24 national security strategies reviewed by Michael Brzoska. In the majority of cases, climate change is defined as an issue of *human security* (Brzoska 2010: 6–7). Only four countries (the United States, Russia, Finland and the United Kingdom) conceptualize climate change as a major threat that could trigger violent conflict and have *national security* implications (Brzoska 2010: 8). The main threats recognized are disasters induced by climate change that could spark humanitarian crises, large-scale migration, and violent conflict. To counter these secondary impacts of climate change, the national security strategies recommend building more *disaster management* capacity (Brzoska 2010: 6–7). At the level of policy implementation, that is, in defence planning documents, capacity building for *disaster management* is again the main means of preparing for climate change (Brzoska 2010: 10). The growing importance of disaster management is underlined by the 2011 special report on *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation* which is being prepared by the IPCC. The Special Report was proposed jointly by the UN International Strategy for Disaster Reduction (UN/ISDR) and the Government of Norway.

The emerging science makes it very clear that it is impossible to predict future climate-related disasters. However, it is possible to identify regions which are more threatened by climate change than others, so-called 'climate change hot spots'. Indicators previ-

ously used to identify populations which are particularly 'vulnerable' to climate change could now be used to monitor when the 'vulnerable' might become 'dangerous', for example by migrating in large numbers (Oels 2009b). The study commissioned by the Pentagon suggests using the same indexing and ranking systems developed to prioritize those most in need of support to mark dangerous "migration hot spots" and "conflict hot spots" (Schwartz/Randall 2003: 2). It is by such moves that the human security of populations displaced by climate change is translated into a problem of *national security* for 'homeland' populations in industrialized states (Duffield/Waddell 2006: 19).

Hartmann identifies a potential role for the military *before* and *after* a climate-induced disaster strikes. The use of Northern military to intervene in Southern sovereign states is facilitated by the concepts of 'human security' and 'failed state' (Hartmann 2010). There are two types of possible interventions:

First, as a preventive measure, civilian-military stability interventions might be enabled in 'weak' or 'failing states' which have been identified as 'climate change hot spots'. Civilian-military stability operations could help to establish infrastructure that reduces disaster risk and enhances disaster management capacity. Hartmann has argued for the case of the US that 'stability' operations carried out in 'military-civilian teams' are now given equal priority to combat operations by the Department of Defense (Hartmann 2010: 240). These operations could be extended to 'climate change hot spots'.

Second, military responsibility-to-protect interventions might be enabled in states which fail to offer sufficient levels of protection to their population *after* a climate-induced disaster strikes, most likely in Africa (Hartmann 2010: 241). These could be states whose coping capacity is overwhelmed by climate-induced disasters and migration flows. The motivation behind responsibility-to-protect interventions is clearly guided by concern with security: to secure global circulation from disruption. For the EU, Wagner (2008) argues that security actors have long demanded additional satellite surveillance and transport capacities and that these demands are now made in the name of climate change. Thus, in the future, the military might be involved in stability operations and/or responsibility-to-protect interventions in the name of the 'human security' of Southern populations affected by climate-induced disasters (McCormack 2010: 36–40).

In the field of *migration*, 'climatization' contributes to the already ongoing process of 'securitization' of migration. Environmentalists draw on a racist dis-

course to stir up fear of ‘millions of climate refugees’ – for the ‘good’ cause of mobilizing for emission reductions. According to this discourse, ‘we’ in the industrialized countries “if not literally flooded, will most certainly be flooded by the ‘climate refugees’” (Kolmannskog 2008: 9). According to migration experts, it is highly unlikely that the poor populations of the South would have the resources to migrate over long distances to the industrialized countries. This option is reserved for the privileged few. The poor will only be able to migrate short distances if at all, for example to neighbouring countries. It is the affected countries and their neighbouring countries that will be most in need of support to regulate migration flows and to assist affected populations. The Northern concern about ‘millions of climate refugees’ is mainly driven by the fear that uncontrolled migration flows of a large scale could destabilize the political order of affected countries and possibly give rise to violence between migrating groups and receiving communities. The breakdown of a state monopoly on violence could cause severe disruption to global circulation, directly affecting the resource supplies of the economies of Northern industrialized states. Securing global circulation is a major goal informing how climate change-induced migrants are rendered governable.

National governments are concerned to clarify the status of climate change-induced migrants as either ‘refugees’ or ‘internally displaced persons’ in order to include or exclude them from their legal order. Humanitarian organizations, the *International Organization for Migration* (IOM), and the *UN High Commissioner for Refugees* (UNHCR) address climate change-induced migrants as bodies whose lives need to be saved by humanitarian assistance (food, water, shelter, and health care). Funding to afford such humanitarian assistance is often closely linked to the legal status of ‘refugee’ or ‘internally displaced person’. A focus on the legal status of climate change-induced migrants has the potential to enable and legitimize more border controls, designed to create a distinction between deserving ‘climate change-induced refugees’ and undeserving, illegalized ‘others’. However, the quest for refugee status for climate change-induced migrants led by some academics and NGOs is yet to have much policy resonance (chap. 15 by Biermann/Boas; chap. 16 by Jakobeit/Methmann).

Instead, the Cancún Adaptation Framework (2010) officially recognizes the problem of climate change-induced migration for the first time, and includes a provision that could channel adaptation funding to climate change-induced migrants. Most

likely, these funds will be used for adaptation measures in ‘climate change hot spots’. These measures could enhance the resilience and coping capacity of the local population, and reduce the need for migration. Given that reliable climate predictions are not available, the new security practices focus on enhancing people’s adaptive capacity (in terms of social capital) and their resilience to current weather variability. It is also possible to use these funds to resettle people who live in ‘climate change hot spots’ to safer regions in the same country. Migration is considered a legitimate adaptation option if not a right of affected populations by migration and development NGOs and human security activists. To date, no political decisions have been taken regarding how the scarce funding is to be distributed between affected regions. Adaptation measures and adaptation funding are clearly measures from the field of climate policy. In the process of the ‘climatization’ of the security field, these practices are introduced, in this case in the migration sector. Adaptation funding will play a significant role in future decision-making on migration management and resettlement. A similar process can be observed in the development sector.

The ‘climatization’ of the *development* sector is marked by the introduction of adaptation as a new goal of development policy. The bulk of the practices enabled by the ‘climatization’ of development policy are about enhancing people’s coping capacity and resilience through disaster planning and adaptation measures. Rather than reducing poverty levels per se, development policy is currently focused on enhancing resilience and self-reliance, i.e. the capacity to adapt to any kind of disruption. This is in line with a neo-liberal governmentality which regards those governed responsible for their own fate (Duffield 2007). As a result, the division of the world’s populations into the ‘insured’ (enjoying social protection by the state) and the ‘uninsured’ might be reinforced rather than overcome (Duffield 2007).

Given the highly variable and in many places negligible reach and impact of development aid (for example, the lack of aid in urban poor areas), many of those most vulnerable to climate change will remain unprepared and unable to cope. The amount of funding provided by industrialized countries to developing countries for adaptation projects so far remains symbolic compared with the estimates of adaptation needs. By June 2009, the total sum of US\$ 352.5 million had been raised for adaptation projects in the form of voluntary pledges by industrialized countries, and US\$ 1.38 billion in co-financing (GEF 2009a; GEF

2009b). However, in the Copenhagen Accord (2009) and Cancún Agreements (2010), developed countries promised to raise US\$ 30 billion from 2010 to 2012 and to 'mobilize' US\$ 100 billion a year by 2020 for *mitigation and* adaptation measures in developing countries (UNFCCC 2009: 3). If such sums were actually raised "it would represent a radical reallocation of the global aid budget, which was \$103 billion in 2006" (Brown/Hammill/McLeman 2007: 1152).

The construction of millions of 'climate refugees' as a threat to human security and to the 'homeland' security of Northern states in particular could also facilitate a militarization of development assistance. Some of the transformations the 'climatization' of development aid might trigger can be inferred from the 'war on terror'. As a result of this war, military expenditure accounts for a growing percentage of the development assistance budget: 22 per cent alone in the US (Hartmann 2010: 240). Moreover, development assistance has been shifted to those countries of strategic importance for fighting terrorism (Duffield/Waddell 2006: 1). Early indications suggest that a similar strategic reorientation of development spending might be facilitated to reduce the risk of conflict in so-called 'climate change hot spots'. Indicators used to identify populations which are particularly 'vulnerable' to climate change could guide the redistribution of development aid. Unfortunately for those in other regions, development assistance might in the future be prioritized towards 'climate change hot spots'. This may be aimed at preventing migration and violent conflict in affected regions, and protecting global circulation of resources, goods and people from disruptions.

9.3.3.4 Concluding Section

What are the strengths and weaknesses of analysing the climate change and security nexus from the perspective of the Paris School?

- First, this school does not fix the meaning of security. Rather than studying whether one particular understanding of security is prevalent (exceptionalism), the heterogeneous network of security practices and discourses is investigated. The distribution of discursive elements can be mapped and changes can be observed over time. In the case of climate change, it was possible to show that the predominant understanding of security employed in political discourse was a human security reading which aimed at securing global circulation from disruptions.

- *Second*, the Paris School directs attention away from 'extraordinary measures' and towards the routine practices of (non-elite) professionals of security, and analyses how their practices produce security discourses (and are incited by them). This renders visible all those policy transformations which remain below the threshold of exceptionality. The articulation of climate change as a security issue is caused by and incites transformations in the practices of security. It was argued that the recognition of primary and secondary climate change impacts as a legitimate threat by the transnational security field is an indication of the 'climatization' of the security field.
- *Third*, to understand the policy implications of climate change as a security issue, not (only) must *climate* policy in a narrower sense (mitigation) be studied, but also changing security practices in defence, migration, and development. For the *defence* sector, it was shown that new flexible military response capacities are being developed in the North, so that the political order of overwhelmed Southern states can be re-established after climate change-induced disaster. For the *migration* sector, it was argued that adaptation funding will be used in the future to resettle people and/or to reduce the need for climate change-induced migration. For the *development* sector, it was shown that aid is currently being restructured towards adaptation to climate change – as a result, climate change hot spots might attract more resources than other states.

It is concluded that what the Copenhagen School has studied as the failed 'securitization' of climate change is reconceptualized by the Paris School as the 'climatization' of the security field. Climate change is rendered governable as an issue of human security. The reading of human security applied here is to secure global circulation of resources, goods and people from disruptions caused by disasters induced by climate change.

9.4 Conclusion

Climate change has been referred to as a security issue by science and politics, particularly from 2007 to 2009. There is some evidence that a reading of climate change along the lines of human security has emerged. While the term 'human security' was not always explicitly used in the past, this is clearly changing recently. In the fifth IPCC Assessment Report, sched-

uled for 2014, IPCC Working Group II will dedicate an entire chapter to the human security implications of climate change. The EU and the UN have framed climate change as a ‘threat multiplier’ that may exacerbate existing vulnerabilities and tensions. This means that climate change alone is unlikely to trigger violent conflict, but may increase its likelihood in combination with other factors. According to this reading, sustainable development, adaptation policy, and disaster management are suitable means of addressing human vulnerability to climate change.

In this chapter, three theoretical approaches were discussed regarding the meaning and policy implications of climate change as a security issue. First, the Copenhagen School was introduced, which is interested merely in assessing whether the articulation of climate change as a security problem has passed a critical threshold of exceptionality. Given the general agreement in the literature that there is so far no evidence of ‘extraordinary measures’ or a state of exception, the Copenhagen School has little of interest to say about the meaning of climate change as a security issue. Future research from the Copenhagen School’s perspective could explore why ‘securitizing moves’ on climate change ‘failed’ to result in ‘extraordinary means’. Moreover, an extended reading of securitization as suggested by Trombetta (2011: 142) could be used to analyse in greater detail the policy implications of ‘politicization’ through securitization.

Second, the chapter introduced a normative perspective that seeks to mobilize policy attention and resources for the problem of climate change by addressing it as a human security issue. Despite the fact that a human security framing of climate change is emerging in science and politics, this has not yet led to ambitious and legally binding emission reductions. It may be too early to tell. In the discussion of strengths and weaknesses, it was argued that the human security perspective seems to be blind to the fact that in the process of mainstreaming human security, its meaning has shifted. The balance between development and security within this concept has clearly shifted towards the security side. As a result, securing global circulation from disruption is taking primacy over enhancing the coping capacity of local populations. In the future, responsibility-to-protect interventions might even be enabled in the name of human security where developing countries are overwhelmed by the impacts of climate change-induced disasters. So a human security perspective is not necessarily non-violent and unproblematic.

Third, the Paris School was introduced. The Paris School investigates the failed securitization of climate change as a ‘climatization’ of the security field. From this perspective, it is possible to see that the everyday practices of professionals in the transnational security field are producing climate change-induced disasters as a legitimate threat. It was argued that one strength of the Paris School is that it studies policy transformations below the threshold of exceptionality. As a result, it was possible to observe transforming security practices in the sectors of defence, migration, and development. It was demonstrated that practices of disaster management are emerging in the defence sector while practices of adaptation are featured in migration and development policy. It was asserted that climate change is rendered governable as an issue of human security and that what is to be secured from disruption is global (economic) circulation. The Paris School appears to offer the most promising research strategy for understanding the policy implications of climate change as a security issue. It is here that further research should be encouraged. The implications of the ‘climatization’ of the security field should be investigated in much more detail and over longer periods of time (diachronically) for the defence, migration, and development sectors. The figure of the ‘climate refugee’ deserves particular research attention, as it is mobilized by several different and sometimes competing climate security discourses.

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